

**2014**

***H1 & H2 Economics***

***JC2 Prelim Exams***

Some JCs & answers missing.

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**ANDERSON JUNIOR COLLEGE**

**JC2 PRELIMINARY EXAMINATION 2014  
Higher 1**

**ECONOMICS**

**8819/01**

**Paper 1**

**16 September 2014**

Additional Materials: Answer paper

**3 hours**

**READ THESE INSTRUCTIONS FIRST**

Write your name, PDG and index number in the spaces provided on all the work you hand in.

Write in dark blue or black ink.

You may use a soft pencil for any diagrams, graphs or rough working.

Do not use staples, paper clips, highlighters, glue or correction fluid.

**Section A**

Answer **all** questions. Begin your answer to **each question** on a fresh sheet of writing paper.

**Section B**

Answer **one** question. Begin your answer to **Section B** on a fresh sheet of writing paper.

At the end of the examination, **fasten your answers to each question separately.**

**Fasten this cover page in front of your answers to Question 1.**

Indicate in the table below the **question number** of the question in **Section B** you have attempted.

The number of marks is given in brackets [ ] at the end of each question or part question.

Name \_\_\_\_\_ ( )

PDG \_\_\_\_\_/13

Section A	Marks Awarded
1	/ 30
2	/ 30
Section B 3 / 4*	/ 25
<small>* Delete accordingly</small>	
<b>Total Marks</b>	/ 85

This document consists of **8** printed pages and **2** blank pages.

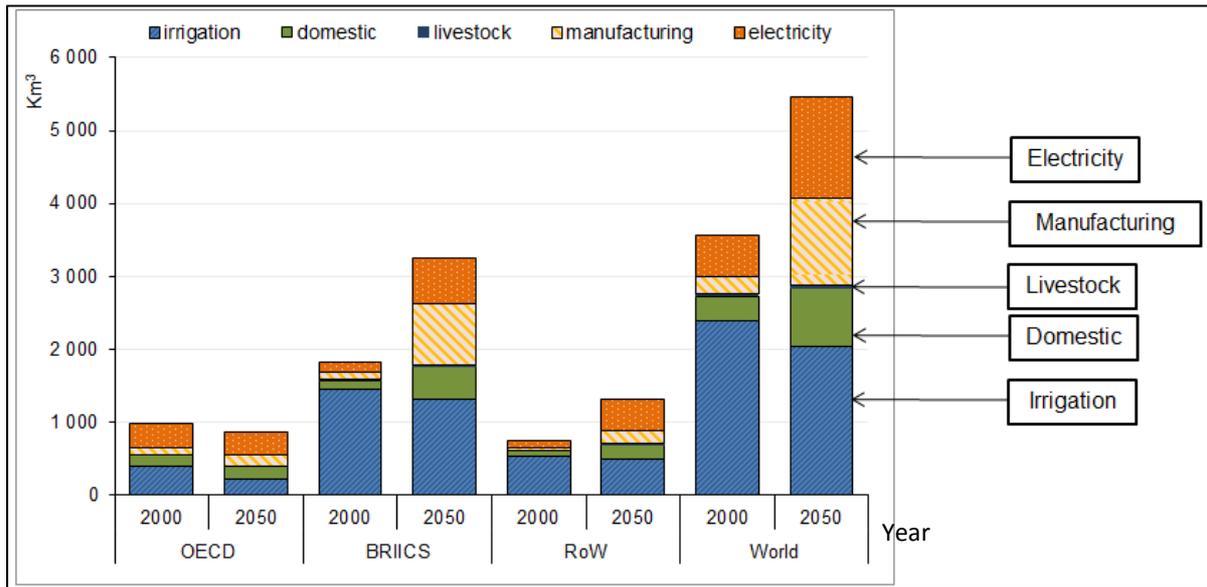
**[Turn over]**

Section A

Answer all questions in this section.

Question 1 Water Scarcity

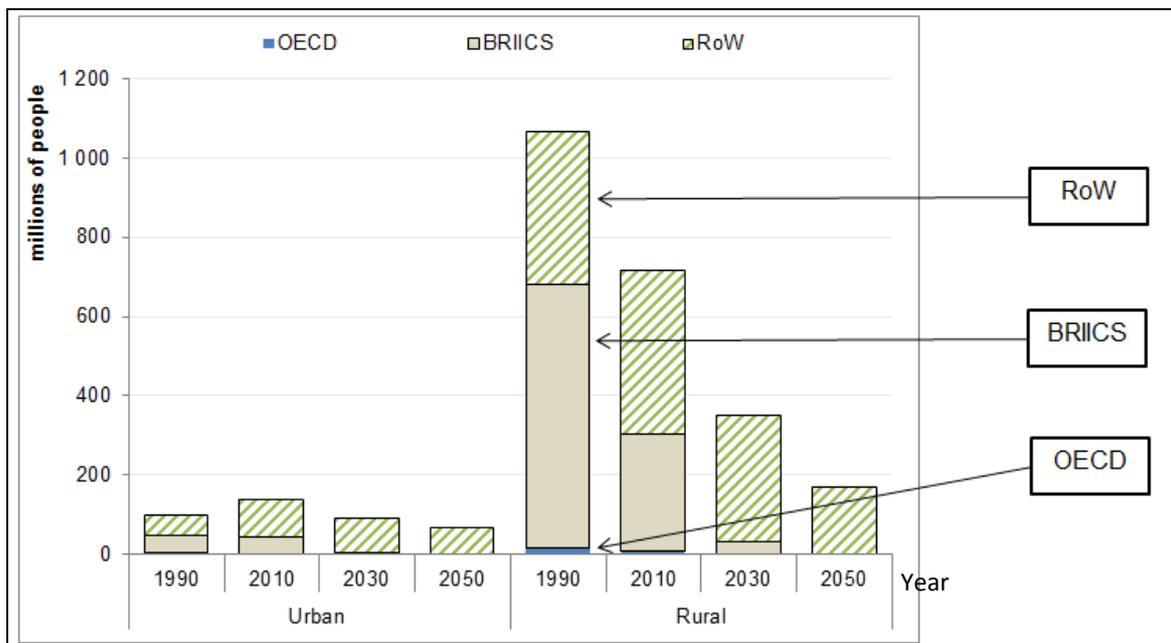
Figure 1: Global water consumption, year 2000 to 2050 by components



\*BRIICS: Brazil, Russia, India, Indonesia, China, South Africa  
RoW: Rest of World (excludes OECD and BRIICS)

Source: *The Environmental Outlook Baseline*, accessed 25 August 2014

Figure 2: People living in areas of water scarcity, by level of scarcity, year 2005 to 2050



Source: *OECD Environmental Outlook to 2050*, accessed 25 August 2014

**Extract 1: Water scarcity and possible consequences**

Water scarcity is an increasing threat in many countries and regions, as water pollution and overuse reduce available sources, while populations grow and competition between different uses increases. Global water withdrawals from the environment doubled between 1960 and 2000. In particular, groundwater extraction has risen from 100-150 km<sup>3</sup> to 950-1000 km<sup>3</sup> per annum since the 1950s. Groundwater is water located beneath the earth's surface. Extracted groundwater undergoes processing and becomes what is known as potable water, which is water that is safe enough to be consumed by humans. Water use is projected to increase at a much higher pace in developing countries, where agriculture is by far the main user, resulting in a global share of agriculture water use of about 70%.

Adapted from: OECD, *Managing Water for All*, 2009

**Extract 2: Water is underpriced – the idea that we are not paying the true cost for water**

In the water business, there are frequent complaints that “water is too cheap”. That is, the consumer does not pay enough for water. In the developed world we have access to clean safe drinking water and sanitation.

With respect to water, there is a case to be made to adjust water pricing. If the over-extraction of groundwater leads to an impact on fisheries, habitats or tourism downstream, should the price reflect this? Who pays for this? The Polluter Pays Principle is often applied in environmental policy and economics. If an upstream city takes water out of a river, affecting cities downstream, there is a case to be made for adjusting the price of extraction to act as a disincentive to over-extraction or to reflect the real costs.

Adapted from: Paul O’Callaghan, *Water pricing is not the roadblock to innovation*, 23 August 2013

**Extract 3: The Dutch groundwater tax**

The Dutch groundwater tax applies to the extraction of groundwater by water works or by other entities (industry, agriculture) and aims to protect the scarce groundwater resource in the Netherlands. The policy is also aimed at raising revenue for fiscal reform. However, there were some complaints about the tax during the decision-making process, in particular from water-intensive industries such as beer and soft-drink producers and dairies. This is despite the fact that groundwater tax remains a minor element of the total water bill for these firms.

Adapted from: ECOTEC, *Study on the economic and environmental implications of the use of environmental taxes and charges in the EU and its member states*, April 2001

**Extract 4: Water conservation tax in Singapore**

To encourage water conservation and price water based on its scarcity value, the Water Conservation Tax (WCT) was introduced in 1991. The WCT is imposed as a percentage of the total water consumption to reinforce the message that potable water is precious from the very first drop, something which the consumers are unaware of. The WCT is pegged to a rate such that the total price of potable water would be equivalent to the cost of producing the next drop of potable water from the next available sources which are more expensive (i.e., from desalination and NEWater).

Adapted from: Singapore Public Utility Board, accessed 26 August 2014

**Extract 5: Water rights trading**

Water rights trading are where rights to extract groundwater are traded from one person to another. The transferred rights are usually set out in a new extraction licence. We are encouraging trading because it allows us to allocate our water resources in a way that meets demand and supports the environment without the extraction of additional water.

Adapted from: Environment Agency, *Managing water abstraction*, May 2013

**Extract 6: The concept of virtual water**

Virtual water describes the water used to produce products that are traded in international markets. The virtual water concept supports the argument that water-scarce countries can save their scarce water resources by relying more on import of food. As these countries are water-scarce, the opportunity cost of producing agricultural products, which require a lot of water, is high. On the other hand, the opportunity cost of producing manufactured goods, which require less water, is low.

However, the idea is not perfect. The concept implicitly assumes that the potable water which is released by reducing a high water use activity would necessarily be available for use in a less water-intensive activity.

Adapted from: *Wikipedia*, accessed 5 July 2014

**Questions**

- (a) Using Figure 1,
- (i) compare the global water consumption in 2000 with the projected trend in 2050 for OECD and BRIICS countries. [1]
  - (ii) explain two main components which account for the difference stated above. [4]
- (b) Explain the likely impact of a tax on groundwater on the market for potable water. [2]
- (c)
- (i) With reference to the data, explain what is meant by water is 'underpriced'. [1]
  - (ii) Using a diagram, explain why the Dutch government intervened in the market for the extraction of groundwater. [4]
  - (iii) Explain how the tax on extraction of groundwater corrects the problem stated in (c)(ii). [2]
  - (iv) Explain how the tax on consumption of potable water in Extract 4 corrects the problem of imperfect information. [2]
- (d) With reference to the data, to what extent is the trading of water rights effective in achieving an efficient allocation of resources? [6]
- (e) Extract 6 suggests that water-scarce countries should rely more on import of agricultural products. Assess if moving to a world pattern of trade that is based upon this concept can reduce the problem of scarcity. [8]

**[Total: 30]**

**Question 2****Creeping Protectionism****Extract 7: The protectionism that wasn't**

"When it comes to international trade, actually it's not the Great Depression, it's worse." So said Paul Krugman in 2009. Global markets were certainly rattled by the financial crisis. Trade plummeted, credit seized up, investors became nervous and consumers tightened their belts.

Economists like Mr Krugman were worried that the world was repeating the mistakes of the 1930s. As the world entered the Great Depression of the 30s, countries stopped trading. Import barriers were imposed by the dozens. Governments were under the impression that protectionist measures would save domestic jobs. But the doom-mongers might be proved wrong. The fear of the return was not realised, at least in part because the world has learnt from that dreadful decade the lesson that protectionism makes a bad situation worse.

Adapted from: *The Economist*, 10 September 2013

**Extract 8: Beyond tariffs and quotas**

Perhaps the biggest surprise is that the world has not hurtled into tit-for-tat protectionism after the financial crisis. New protectionist measures have appeared but they are remarkably mild. New protectionism is concentrated in sectors that have long been protected: textiles, clothing, footwear, iron, steel, consumer electronics and agriculture.

There is also something else at work. Global market integration has imposed spontaneous disciplines on governments and businesses. They realise that up-front protectionism raises business costs, invites retaliation, and excludes them from the benefits of globalisation and damages wealth and welfare at home. This applies particularly to global supply chains. Production of manufactured goods is increasingly organised through global chains, with goods processed in multiple countries.

However there is one caveat. The World Trade Organisation (WTO) focuses on established and commonly understood trade instruments covered by WTO disciplines, especially import and export tariffs, quotas and licences. There is now a range of non-traditional protectionist instruments creeping in: industrial policies such as subsidies to domestic firms in the guise of short term remedies for particular problems, public-procurement or "buy-national" restrictions and standards protectionism such as health and safety requirements. Hidden protectionism and industrial policy may boost specific industries or exports, but that does a country no good if other policies stifle private enterprise and cause underinvestment in human and physical capital. Brazil and India have been held back because their governments funnelled state resources to preferred sectors and constituencies instead of boosting their economies' underlying potential, slowing down their growth.

Adapted from: ECIPE, *Trade, globalisation and emerging protectionism since the crisis*, 2010; ECIPE, *The crisis and the global economy*, 2011; and *The Economist*, 12 October 2013

**Extract 9: Singapore productivity and innovation drive**

The restructuring drive began in earnest in 2010, acting on the recommendations of the Economic Strategies Committee. It said Singapore must raise productivity and reduce the foreign worker inflow – moves aimed at fundamentally changing the way the economy grows, to prepare for the future challenges of an ageing population, an environment that may be more protectionist and to ensure its growth is more sustainable and inclusive.

The measures taken by the government includes: Productivity and Innovation Credit (PIC), funds for research and development (R&D), collaborative industry projects, workforce and training support and technology adoption programme.

R&D is an important activity in a knowledge-based economy like Singapore because through R&D, new knowledge and new economic opportunities are developed. New growth sectors are being developed in areas such as water technology, biomedical sciences and clean technologies. Singapore has an advantage in promoting science and technology and R&D given that there is a strong intellectual property rights framework.

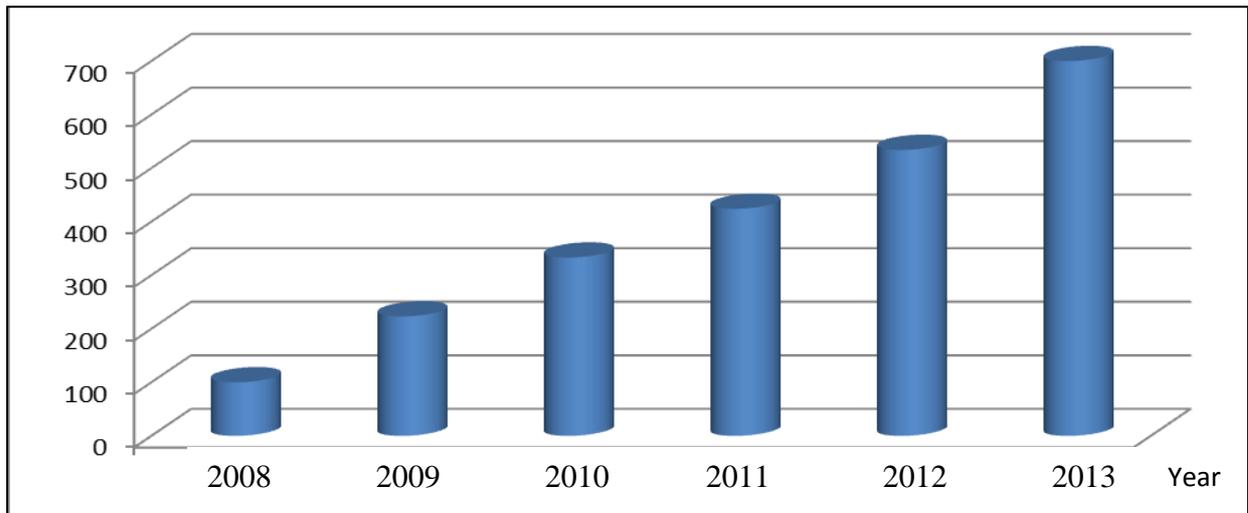
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**Figure 3: World Gross Domestic Product (GDP) (2007 – 3<sup>rd</sup> Quarter 2013)**



Source: *The Economist*, accessed 8 August 2014

**Figure 4: Increase in number of potentially trade-restrictive measures for the period 2008 to 2013**



Adapted from: European Commission, *Tenth report on potentially trade-restrictive measures*, September 2013

**Questions**

- (a) (i) With reference to Figure 3, summarise the trend in world GDP for the period 2007 to 2013. [2]
- (ii) To what extent does the data in Figure 3 account for the change in potentially-trade restrictive measures in Figure 4? [6]
- (b) Explain how the shift from traditional protectionist measures to subsidies, as suggested in Extract 8, can impact businesses and governments in the globalised economy. [6]
- (c) Discuss whether “protectionism makes a bad situation worse” (Extract 7). [8]
- (d) In the light of creeping protectionism, discuss the extent to which supply-side policies on productivity and innovation can maintain high employment in Singapore. [8]

**[Total 30]**

**Section B**

Answer **one** question from this section.

- 3 (a) Explain, with the help of examples, the concepts of price elasticity of demand and price elasticity of supply. [10]
- (b) Examine the relevance of elasticity concepts for the Singapore government's policies to correct market failure. [15]
- 4 Some economists have argued that inflation in many advanced and emerging economies has remained remarkably subdued despite soaring globalisation.
- (a) Explain the domestic and external effects of inflation. [10]
- (b) Globalisation is inflationary. Discuss. [15]

**End of Paper**



**ANDERSON JUNIOR COLLEGE  
JC2 PRELIMINARY EXAMINATION 2014**

**ECONOMICS**

**9732/01**

Paper 1

**16 September 2014**

Additional Materials: Answer paper

**2 hours 15 minutes**

**READ THESE INSTRUCTIONS FIRST**

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**Fasten this cover page in front of your answers to Question 1.**

The number of marks is given in brackets [ ] at the end of each question or part question.

Name \_\_\_\_\_ ( )

PDG \_\_\_\_\_/13

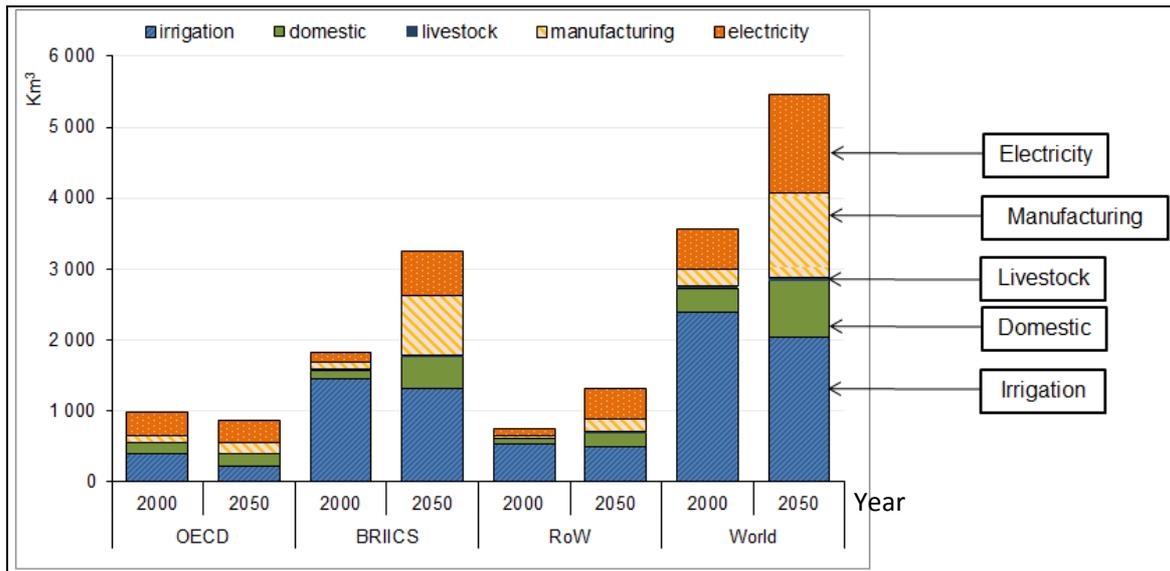
Case Study Question No.	Marks
<b>1</b>	/ 30
<b>2</b>	/ 30
<b>Sub-total</b>	/ 60

Answer all questions.

Question 1

Water Scarcity

Figure 1: Global water consumption, year 2000 to 2050 by components

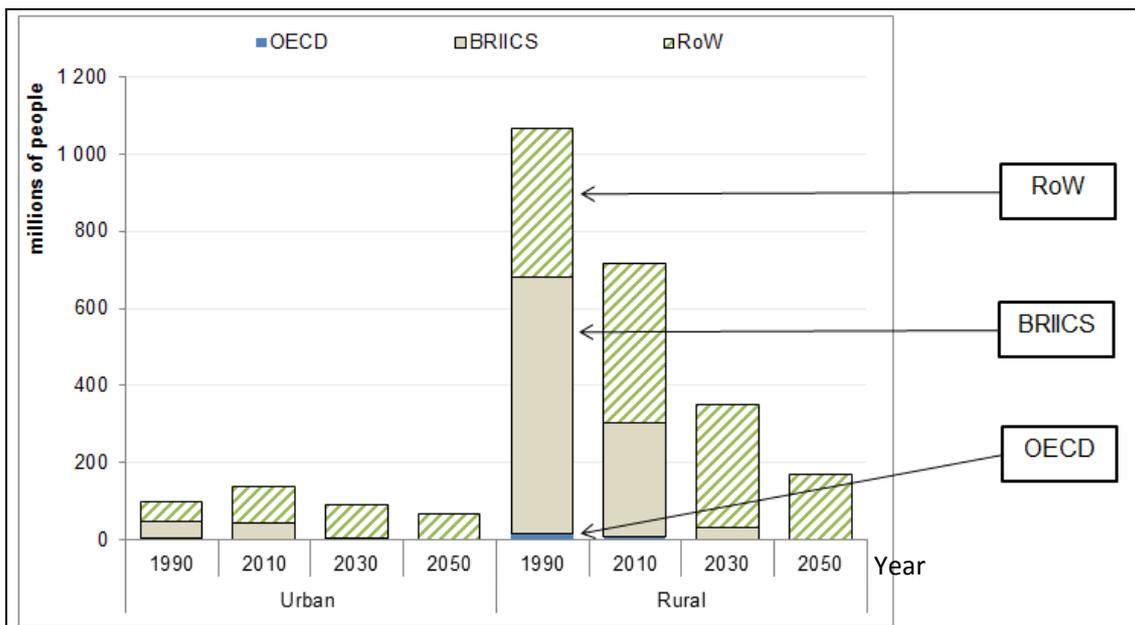


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Source: *The Environmental Outlook Baseline*, accessed 25 August 2014

Figure 2: People living in areas of water scarcity, by level of scarcity, year 2005 to 2050



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### **Extract 1: Water scarcity and possible consequences**

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Adapted from: *Wikipedia*, accessed 5 July 2014

### Questions

- (a) Using Figure 1,
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  - (ii) identify two main components which account for the difference stated above. [2]
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- (c) With the aid of diagrams,
- (i) explain why the Dutch government intervened in the market for extraction of groundwater. [4]
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**[Total: 30]**

**Question 2**

**Creeping Protectionism**

**Extract 7: The protectionism that wasn't**

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However there is one caveat. The World Trade Organisation (WTO) focuses on established and commonly understood trade instruments covered by WTO disciplines, especially import and export tariffs, quotas and licenses. There is now a range of non-traditional protectionist instruments creeping in: industrial policies such as subsidies to domestic firms in the guise of short term remedies for particular problems, public-procurement or "buy-national" restrictions and standards protectionism such as health and safety requirements. Hidden protectionism and industrial policy may boost specific industries or exports, but that does a country no good if other policies stifle private enterprise and cause underinvestment in human and physical capital. Brazil and India have been held back because their governments funnelled state resources to preferred sectors and constituencies instead of boosting their economies' underlying potential, slowing down their growth.

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The restructuring drive began in earnest in 2010, acting on the recommendations of the Economic Strategies Committee. It said Singapore must raise productivity and reduce the foreign worker inflow – moves aimed at fundamentally changing the way the economy grows, to prepare for the future challenges of an ageing population, an environment that may be more protectionist and to ensure its growth is more sustainable and inclusive.

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R&D is an important activity in a knowledge-based economy like Singapore because through R&D, new knowledge and new economic opportunities are developed. New growth sectors are being developed in areas such as water technology, biomedical sciences and clean technologies. Singapore has an advantage in promoting science and technology and R&D given that there is a strong intellectual property rights framework.

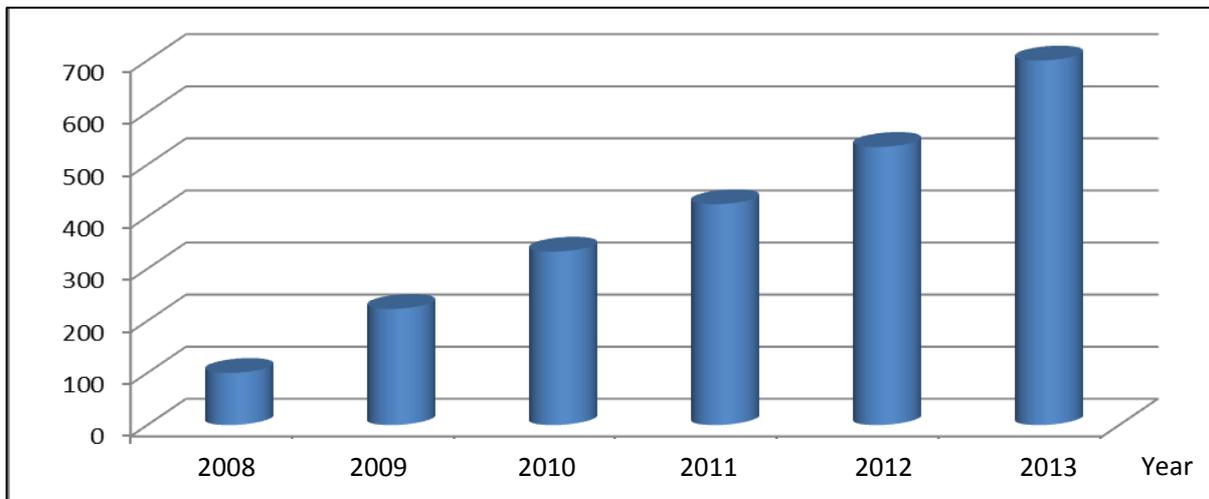
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**Figure 3: World Gross Domestic Product (GDP)  
(2007 – 3<sup>rd</sup> Quarter 2013)**



Source: *The Economist*, accessed 8 August 2014

**Figure 4: Increase in number of potentially trade-restrictive measures for the period 2008 to 2013**



Adapted from: European Commission, *Tenth report on potentially trade-restrictive measures*, September 2013

**Questions**

- (a) (i) With reference to Figure 3, summarise the trend in world GDP for the period 2007 to 2013. [2]
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- (d) In the light of creeping protectionism, discuss the extent to which supply-side policies on productivity and innovation can maintain high employment and growth in Singapore. [10]

**[Total: 30]**

**End of Paper**



ANDERSON JUNIOR COLLEGE

JC2 PRELIMINARY EXAMINATION 2014  
Higher 2

**ECONOMICS**

**9732/02**

**Paper 2**

**02 September 2014**

Additional Materials:      Answer Paper

**2 hours 15 minutes**

**READ THESE INSTRUCTIONS FIRST**

Write your name, PDG and index number in the spaces provided on all the work you hand in.

Write in dark blue or black pen on both sides of the paper.

You may use a soft pencil for any diagrams, graphs or rough working.

Do not use staples, paper clips, highlighters, glue or correction fluid.

Answer **three** questions in total, of which **one** must be from Section A, **one** from Section B and **one** from **either** Section A or Section B. Begin your answer to **each question** on a fresh sheet of writing paper.

At the end of the examination, fasten your answers to each question separately.

Fasten this **cover page** in front of the first question attempted.

Indicate in the table below the **question numbers** of the **three** questions you have attempted.

The number of marks is given in brackets [ ] at the end of each question or part question.

Name: \_\_\_\_\_ (      )

PDG: \_\_\_\_/13

Question Number	Marks Awarded
	/25
	/25
	/25
<b>Total Marks</b>	<b>/75</b>

This document consists of **2** printed pages, including this cover page.

**[Turn over]**

Answer **three** questions in total.

**Section A**

**One or two** of your three chosen questions must be from this section.

1. From McDonald's burgers in the United States to sugar in Bolivia and chillies in Indonesia, food prices across the globe are soaring. A 'perfect storm' of bad weather, rapid growth in emerging economies and low interest rates has sent prices for a broad range of farm and non-farm commodities climbing, often at double-digit rates.  
Source: The Straits Times, February 7, 2011
  - (a) Account for the sharp rise in the price of food. [10]
  - (b) Discuss whether an increase in the price of food always benefits the producers at the expense of consumers. [15]
2. Economic policies often result in inequity and inefficient allocation of resources. Discuss the view that government intervention results in inefficiency and inequity. [25]
3. Explain what is meant by productive efficiency, allocative efficiency and dynamic efficiency and discuss the extent to which the openness of an economy makes a firm more efficient. [25]

**Section B**

**One or two** of your three chosen questions must be from this section.

4. An already sluggish global recovery shows signs of further weakness, mainly because of continuing financial problems in Europe and slower-than-expected growth in emerging economies.  
Source: International Monetary Fund, Survey Magazine, July 16, 2012  
Discuss the relative importance of the size of the multiplier, the interest elasticity of demand for investment and the crowding-out effect, in influencing governments' macroeconomic policy decisions to promote investment. [25]
5. "Social spending has consistently taken the biggest portion of the government's budget, almost doubling between 2006 and 2012. The biggest share in this sector has always gone to education, followed by national development."  
Source: The Straits Times, February 22, 2013
  - (a) Using the concept of circular flow of income, explain how an increase in government expenditure can lead to a multiple increase in national income. [10]
  - (b) Discuss whether the Singapore government should change its current economic policies to achieve a higher standard of living. [15]
6.
  - (a) Explain the possible links between exchange rate and interest rate. [8]
  - (b) Discuss the view that external stability should be a country's main macroeconomic goal. [17]

**End of Paper**

ANGLO-CHINESE JUNIOR COLLEGE  
2014 JC2 PRELIMINARY EXAMINATIONS



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**ECONOMICS**

**8819/01**

**Higher 1**

27 August 2014

Paper 1

3 hours

Additional materials: Answer paper

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**READ THESE INSTRUCTIONS FIRST**

Write your index number and name on all the work you hand in.  
Write in dark blue or black pen on both sides of the paper.  
You may use a soft pencil for any diagrams, graphs or rough working.  
Do not use staples, paper clips, highlighters, glue or correction fluid / tape.

**Section A**

Answer **both** questions.  
Begin each Case Study Question on a **fresh** sheet of paper.

**Section B**

Answer **one** question.  
Begin Essay question on a **fresh** sheet of paper.

The number of marks is given in brackets [ ] at the end of each question or part question.

At the end of the examination, arrange your answers in order.

Fasten your answers for Section A and Section B **separately** using the cover sheets provided.

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This document consists of **8** printed pages.  
Please check that your question paper is complete.

## Section A

Answer **all** questions.

## Question 1

## The market for coal in China and US

Table 1: Total Coal Exports and Imports (thousand tons)

		2008	2009	2010	2011	2012
China	Exports	63,384	25,235	27,181	27,546	15,184
	Imports	44,467	138,890	179,870	200,722	318,466
United States	Exports	83,478	60,404	83,179	108,229	126,720
	Imports	37,811	22,985	20,567	14,505	10,294

Source: US Energy Information Administration

Table 2: GDP Growth Rates (annual % change at constant prices in local currency)

	2008	2009	2010	2011	2012
China	9.6	9.2	10.4	9.3	7.7
United States	0.0	-2.8	2.5	1.8	2.8

Source: World Bank

**Extract 1: China overtakes Japan as world's top coal importer**

China overtook Japan as the world's top coal importer for the first time in decades last year, partly driven by robust Chinese demand. China, also the world's biggest coal producer and consumer, imported 200.7 million tonnes of the fuel in 2011.

China is likely to keep its top position in 2012 as rising costs and competition from foreign coal have created pressure for imports. China's coal consumption is expected to remain robust as new coal-fired power generation comes on-stream and demand from the cement industry, the second-largest driver of thermal coal consumption, is also seen rising as the government makes a strong push to urbanise.

A Reuters poll last month, however, showed that the country's coal imports are expected to grow at a slower pace in 2012, as domestic appetite moderates and home production rises.

Source: Reuters, 26 January 2012

**Extract 2: US coal industry losing steam**

This year's outlook is grim for the US coal industry, which after two years of rising profits has begun closing mines, signalling a new wave of production cutbacks and, possibly, another round of industry consolidation.

The two biggest threats facing US coal companies are the low price of domestic natural gas, which is making thermal coal a less-attractive fuel for their utility-customers, and the shaky economic picture in Europe, which is dampening exports of metallurgical coal.

Demand among European steelmakers has fallen, pushing down the benchmark price for the highest grades of coal by nearly 30% over the past year. Also dampening prices is tougher federal emissions rules for US utilities, resulting in more planned closures of coal-fired energy generating plants.

In a recent report, BP PLC, known previously as British Petroleum, forecasts that coal usage globally will grow through 2020, mostly driven by China, before levelling off. By 2030, coal will account for 27.7% of world energy consumption, ahead of oil at 27.2% and natural gas at 25.9%, and far outpacing renewables at 6.3%.

Source: Wall Street Journal, 24 January 2012

### **Extract 3: US switches to clean energy alternatives**

America is shovelling coal to the side-lines. Utilities are aggressively ditching coal in favour of natural gas which has become cheaper. Natural gas has other advantages over coal. It produces far fewer emissions of toxic chemicals and gases that contribute to climate change, key attributes as tougher environmental rules go into effect.

Patriot Coal, a mining company, closed a mine in Kentucky, idled several others, and has cut 1,000 jobs. Coal has also enjoyed strong political support because of the jobs it provides in mining and transportation. That helped coal thrive even as environmental concerns over mining practices and air quality grew.

A revolution has been under way in the natural gas industry. Drillers figured how to tap enormous deposits of previously inaccessible reserves. As the price of natural gas plummeted, coal became a less-favoured source of energy.

A pair of clean air rules enacted by the Environmental Protection Agency (EPA) over the past year tighten limits on power-plant emissions of sulfur dioxide and nitrogen dioxide, and place new limits on mercury, a poison found in coal. This will force between 32 and 68 of the dirtiest and oldest coal plants in the country to close over the next three years as the rules go into effect, according to a survey of power plant operators conducted late last year.

Source: The Huffington Post, 6 December 2012

### **Extract 4: Green protectionism vs. growth**

Some rich countries are imposing carbon limitations and threatening to curb imports from poor countries. This will cripple their own economies and harm the poor without doing much about emissions. Various governments want such green protectionism, including taxes on carbon-intensive imports, or on all imports from countries that do not cut emissions, especially the main targets, China and India.

The European Union wants to cut emissions by 20 percent by 2020, while proposed US legislation aims for 80 percent by 2050. But large emitters of greenhouse gases such as India and China are more worried about growth and tackling poverty.

Carbon restrictions on trade, however, will do little to reduce emissions. Taxing carbon-intensive imports from China, for example, will have a negligible impact because the vast majority of its emissions-laden exports go to other developing countries.

Carbon barriers on trade make even less sense when one considers the nature of global production today. Rich countries “import” around one-third of their carbon dioxide (CO<sub>2</sub>) emissions (the amount of CO<sub>2</sub> released in making imported goods), often from developing countries. The production of a single item often involves trading components between many different countries. Complex supply chains have brought cheaper and better goods and high-paying jobs to rich countries, and infrastructure, new jobs and higher incomes to developing countries. Over a quarter of all global trade in manufacturing is now in intermediate components, not final products. Rich countries cannot restrict imports without damaging their own production and growth.

Source: The Korea Times, 16 April 2010

### Questions

- (a) Compare the trends in imports of coal into the US and China from 2008 to 2012. [2]
- (b) Explain the relationship between GDP and imports of coal in China. [2]
- (c) Using a supply and demand diagram, explain the likely effect of the changes stated in Extract 3 on the total revenue of natural gas producers. [4]
- (d) China is both the top producer and importer of coal in the world.
- (i) Explain whether the case of a country exporting and importing within the same commodity group contradicts the Theory of Comparative Advantage. [4]
- (ii) Using the information available, what conclusion can be drawn about the price elasticity of demand for coal in China compared to that in the US? [4]
- (e) Discuss the effects of the US government’s regulations on coal production on the standard of living in the country. [6]
- (f) Discuss the effectiveness of the policy of carbon limitations by developed countries for reducing emissions by developing countries. [8]

**[Total: 30]**

**Question 2****The key to ASEAN centrality****Extract 5: ASEAN Economic Community to bring opportunities and challenges**

The ASEAN Economic Community (AEC) marks the commitment of the ASEAN leaders to building and promoting a single market, a highly competitive economic region tempered with equitable development, and a region fully integrated into the global economy.

Genuine ASEAN economic integration would deliver huge gains, not least from deeper integration into global supply chains. When the AEC is formed, countries could sell goods to the other ASEAN markets in ways that are similar to selling in home markets, because of simplified trade procedures and new procedures for certifying the origins of products.

Despite the avowed goal of increasing trade among ASEAN economies, trade disputes still take place. In addition, ASEAN's trade performance seems lacklustre compared to other regional trading blocs such as the European Union and the North American Free Trade Association with an intra-trade level of 67.3 percent and 48.7 percent respectively.

Countries like the Philippines may also lose an even bigger chunk of their skilled labour force to neighbours in ASEAN, where workers get paid better when the region's economic integration goes on full swing at end 2015.

Sources: Global Times, 21 April 2014; Inquirer.net, 4 May 2014

**Extract 6: Singapore's role in ASEAN**

In a rising Asia, there is a bigger role that Singapore can play, including providing leadership and exporting technological and infrastructural services. During a panel discussion on the outlook for Singapore and other members of ASEAN in the next 50 years, academics noted that economic opportunities are coming to fruition because of regional integration.

However, most countries in the region are under-investing when it comes to infrastructure. Infrastructure should be the most important priority, especially as urbanisation accelerates. It can also lead to job creation and unlock more opportunities. This is where Singapore can offer leadership and export its technological and infrastructural services to other countries in the region.

In addition, Singapore could become more influential as a possible services centre in the region. Indeed, as ASEAN gets more and more integrated, services in the form of logistics, administrative and accounting are some areas that will rise in demand. Being the third largest economy in ASEAN, Singapore can play a more active role in these areas.

Source: Today, 20 July 2013

**Extract 7: Report card on ASEAN economic integration**

South-east Asia is an area of extreme economic diversity. The gap in living standards between the richest and poorest countries is huge. But this is only one dimension. Singapore is a services-based economy; Brunei is oil-based; Malaysia and Thailand are fast industrialisers; Thailand and Vietnam are big agricultural exporters; Indonesia and the Philippines are net food importers; and Cambodia, Laos and Myanmar are still agrarian societies.

Government economic policies also vary widely. Singapore is a free port in which the total value of trade is equal to 400 per cent of gross domestic product. At the other extreme, Myanmar has only recently started to open up its borders. The value of trade in the latter is equal to only 31 per cent of GDP. Then there are huge gaps in the quality of regulation, institutions and the business climate.

Nevertheless, there are also increasingly important elements of convergence across ASEAN. Integration with the global economy stands out: Since the 1980s, all ASEAN countries have liberalised trade and foreign direct investment. Average import-weighted tariffs are around 5 per cent for most ASEAN countries and all except Indonesia, Philippines, Laos and Myanmar have trade-to-GDP ratios of about 100 per cent or higher. ASEAN has also become a regional production hub for parts and components in global manufacturing supply chains. This has knitted ASEAN and North-east Asia - including China - together in ever-tighter trade and production linkages.

Most ASEAN countries need fresh structural reforms not only to cope better with external shocks, but also to take advantage of emerging trends in global supply chains. As China becomes more expensive, multinationals are also looking for new investment destinations. If South Asia, India in particular, opens up more to global markets, labour intensive and export-oriented manufacturing will migrate there.

Creating a single market will have significant positive effects. That is the logic of the ASEAN Economic Community (AEC). Unfortunately, ASEAN leaders' AEC vision is weakened by a strong aversion for a diminished national sovereignty for the sake of deeper economic integration. National strategies clash with ASEAN's internal goals. Nevertheless, the bulk of intra-regional tariffs have been abolished. Partial progress has been achieved on simplifying and harmonising customs procedures, cross-border infrastructure projects, and opening up ASEAN skies to low-cost airlines.

Source: The Straits Times, 8 May 2014

**Table 3: Total Trade in Goods** (current US\$ in millions)

		2008	2009	2010	2011
<b>Malaysia</b>	Exports	140,470	156,891	198,801	228,086
	Imports	114,213	123,330	164,733	187,473
<b>Philippines</b>	Exports	41,255	38,335	51,432	48,042
	Imports	47,418	45,534	58,229	63,709
<b>Singapore</b>	Exports	229,627	269,832	351,867	409,449
	Imports	200,029	245,784	310,791	365,718

Source: [www.asean.org](http://www.asean.org)

**Table 4: GDP Growth Rates** (annual % change at constant prices in local currency)

	2008	2009	2010	2011
<b>Malaysia</b>	4.8	- 1.5	7.2	5.1
<b>Philippines</b>	4.2	1.2	7.6	3.9
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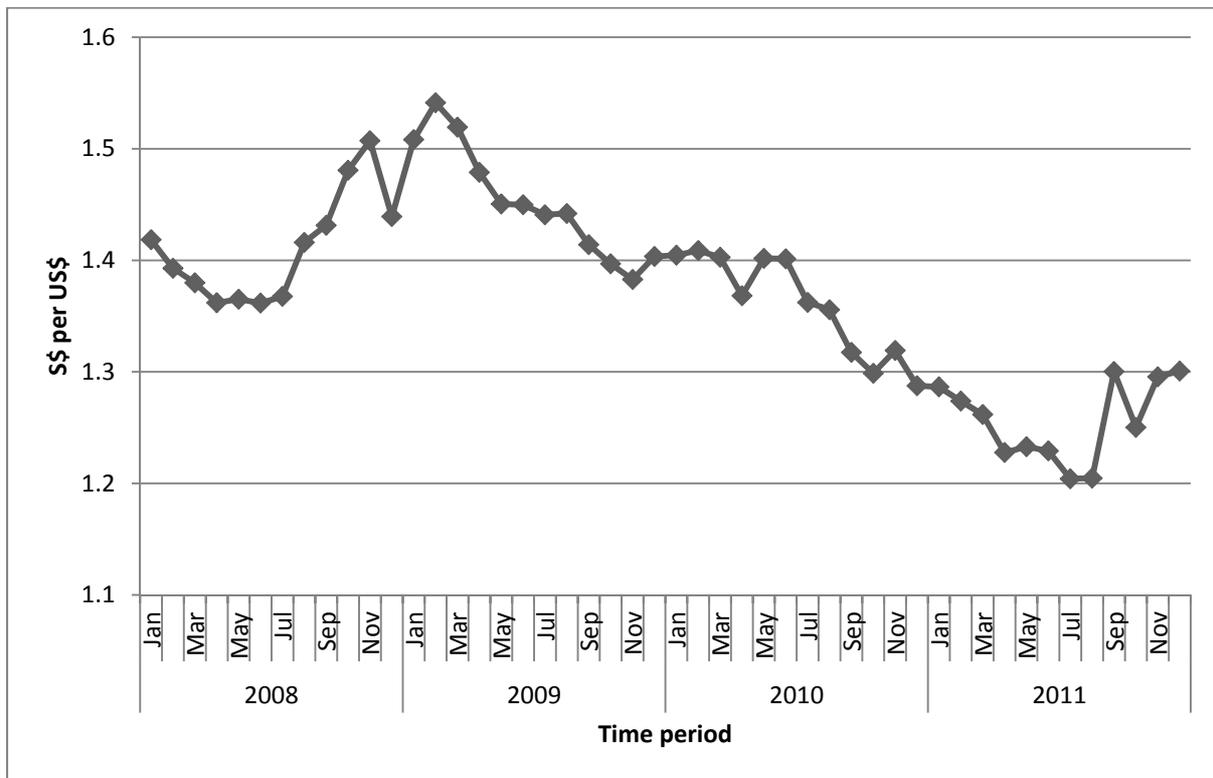
Source: World Bank

Table 5: Selected Macroeconomic Indicators of Singapore (%)

	2008	2009	2010	2011
Unemployment rate	3.2	4.3	3.1	2.9
Inflation rate	6.5	0.6	2.8	5.3

Source: World Bank

Figure 1: Monthly Value of S\$ per US\$ (2008-2011)



Source: Monetary Authority of Singapore

**Questions**

- (a) (i) Compare the change in Malaysia's balance of trade in goods with that of Singapore between 2008 and 2011. [2]
- (ii) How far does the balance of trade in goods of these two countries support their growth rates shown in Table 4? [4]
- (b) With reference to the data, account for the observed change in the value of S\$ from March 2009 to March 2011. [2]
- (c) Extract 6 suggests that infrastructural development should be made a priority in the Asian region.
- (i) Using AD-AS analysis, explain the macroeconomic impact of government spending on infrastructure. [4]
- (ii) Evaluate the appropriateness of this suggestion for countries which are agricultural exporters in ASEAN such as Thailand and Vietnam. [4]
- (d) Comment on whether economic integration would improve 'the gap in living standards between the richest and poorest countries' in ASEAN. [6]
- (e) Consider the view that the benefits brought by the ASEAN Economic Community (AEC) in creating 'a single market' are likely to outweigh its costs for Singapore. [8]

**[Total: 30]**

**Section B**

Answer **one** question from this section.

Begin this section on a **fresh** sheet of paper.

- 3 The Singapore government announced that there will be a greater focus on quality and affordable pre-school education to ensure that every child has a strong start. To this end, the Ministry of Education will provide more support to children with financial difficulties, and continue to refine kindergarten curriculum resources.

Source: <http://www.channelnewsasia.com/news/singapore/nation-of-opportunity/1112098.html>, accessed 18 July 2014

- (a) Explain the factors that result in high fees for private pre-school education in Singapore. [10]
- (b) Discuss the view that government provision of free pre-school education will lead to efficient allocation of resources. [15]
- 4 (a) Explain the possible causes of rising inflation rates in some countries. [10]
- (b) Discuss whether low inflation should always be the main macroeconomic objective of the Singapore government. [15]

ANGLO-CHINESE JUNIOR COLLEGE  
2014 JC2 PRELIMINARY EXAMINATIONS



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**ECONOMICS**

**9732/01**

**Higher 2**

27 August 2014

Paper 1

2 hours 15 minutes

Additional materials: Answer paper

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**READ THESE INSTRUCTIONS FIRST**

Write your index number and name on all the work you hand in.  
Write in dark blue or black pen on both sides of the paper.  
You may use a soft pencil for any diagrams, graphs or rough working.  
Do not use staples, paper clips, highlighters, glue or correction fluid/tape.

Answer **all** questions.  
Begin each question on a **fresh** sheet of paper.

The number of marks is given in brackets [ ] at the end of each question or part question.

At the end of the examination, arrange your answers in order.

Fasten your answers for Question 1 and Question 2 **separately** using the cover sheets provided.

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This document consists of **7** printed pages and **1** blank page.  
Please check that your question paper is complete.

Answer all questions

## Question 1

## The market for coal in China and US

Table 1: Total Coal Exports and Imports (thousand tons)

		2008	2009	2010	2011	2012
China	Exports	63,384	25,235	27,181	27,546	15,184
	Imports	44,467	138,890	179,870	200,722	318,466
United States	Exports	83,478	60,404	83,179	108,229	126,720
	Imports	37,811	22,985	20,567	14,505	10,294

Source: US Energy Information Administration

Table 2: GDP Growth Rates (annual % change at constant prices in local currency)

	2008	2009	2010	2011	2012
China	9.6	9.2	10.4	9.3	7.7
United States	0.0	- 2.8	2.5	1.8	2.8

Source: World Bank

Table 3: Company Data (2011)

	Glencore	Xstrata
Revenue (billion dollars)	144.9	33.9
Profits (billion dollars)	4.07	5.78
Employees	55,000	38,000

Source: BBC

## Extract 1: China overtakes Japan as world's top coal importer

China overtook Japan as the world's top coal importer for the first time in decades last year, partly driven by robust Chinese demand. China, also the world's biggest coal producer and consumer, imported 200.7 million tonnes of the fuel in 2011.

China is likely to keep its top position in 2012 as rising costs and competition from foreign coal have created pressure for imports. China's coal consumption is expected to remain robust as new coal-fired power generation comes on-stream and demand from the cement industry, the second-largest driver of thermal coal consumption, is also seen rising as the government makes a strong push to urbanise. A Reuters poll last month, however, showed the country's coal imports are expected to grow at a slower pace in 2012, as domestic appetite moderates and home production rises.

Source: Reuters, 26 January 2012

**Extract 2: Glencore and Xstrata merger**

Analysts have been poring over the mathematics of the recently announced proposed all-share merger between Glencore and Xstrata, trying to work out which side has the better of the deal. The alliance would extend Xstrata's lead as the world's biggest thermal-coal miner, giving it more than one-tenth of the market, and make it the global number-three in copper. Half of Glencore's business is in buying and selling commodities. With all Xstrata's output at its disposal, it would be better able to blend coal and ores to customers' specific requirements.

Size can cause problems with officials as well as create advantages. It is possible that the world's antitrust authorities may not like the look of a merger that unites a dominant commodity trader and a leading miner of lead and zinc as well as coal and copper. The merger's logic may be hard to dispute but Xstrata's shareholders are unhappy. They believe that in the attempt to create a mining behemoth they are being short-changed, as Xstrata brings better assets, a stronger balance-sheet and rosier prospects for growth. A couple of large institutional investors have threatened to block a deal that they believe favours Glencore.

The proposed \$77 billion merger between miner Xstrata and commodities trading giant Glencore has been plagued with difficulties and delay. Xstrata CEO Mick Davis was originally slated to become the head of the combined company, only to see the terms of the deal changed to put Glencore chief Ivan Glasenberg on top after a six-month transition. As the tenor of the deal has changed, so have Davis' feelings about it. He worries that the company that he built would not be managed the right way in its new incarnation, and that he would not be able to build an effective bridge between the companies in only six months due to the fundamental differences in culture.

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Source: The Huffington Post, 6 December 2012

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Some rich countries are imposing carbon limitations and threatening to curb imports from poor countries. This will cripple their own economies and harm the poor without doing much about emissions. Various governments want such green protectionism, including taxes on carbon-intensive imports, or on all imports from countries that do not cut emissions, especially the main targets, China and India.

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**[Total: 30]**

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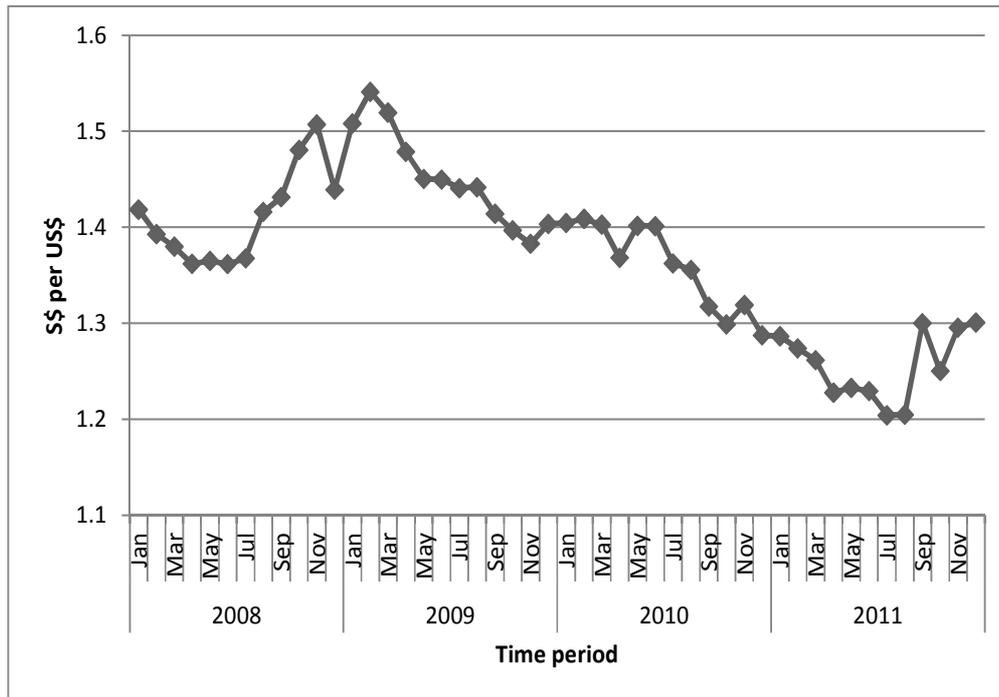
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Source: Monetary Authority of Singapore

**Questions**

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- (b) With reference to the data, account for the observed change in the value of S\$ from March 2009 to March 2011. [2]
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- (e) In view of ASEAN's economic integration plans, discuss whether monetary policy remains the most appropriate policy for Singapore to achieve its domestic macroeconomic aims. [10]

**[Total: 30]**

**Question 1**

**The market for coal in China and US**

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<b>Revenue</b> (billion dollars)	144.9	33.9
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### **Extract 3: US switches to clean energy alternatives**

America is shovelling coal to the side-lines. Utilities are aggressively ditching coal in favour of natural gas which has become cheaper as supplies grow. Natural gas has other advantages over coal. It produces far fewer emissions of toxic chemicals and gases that contribute to climate change, key attributes as tougher environmental rules go into effect.

A pair of clean air rules enacted by the Environmental Protection Agency (EPA) over the past year tighten the limits on power-plant emissions of sulfur dioxide and nitrogen dioxide, and place new limits on mercury, a poison found in coal. This will force between 32 and 68 of the dirtiest and oldest coal plants in the country to close over the next three years as the rules go into effect, according to a survey of power plant operators conducted late last year. Once the guidelines go into effect, no coal plants will be built unless utilities can develop a cost-effective way to capture carbon dioxide, analysts say. That technology has been slow to develop and is very expensive.

Source: The Huffington Post, 6 December 2012

### **Extract 4: Green protectionism vs. growth**

Some rich countries are imposing carbon limitations and threatening to curb imports from poor countries. This will cripple their own economies and harm the poor without doing much about emissions. Various governments want such green protectionism, including taxes on carbon-intensive imports, or on all imports from countries that do not cut emissions, especially the main targets, China and India.

The European Union wants to cut emissions by 20 percent by 2020, while proposed US legislation aims for 80 percent by 2050. But large emitters of greenhouse gases such as India and China are more worried about growth and tackling poverty.

Carbon restrictions on trade, however, will do little to reduce emissions. Taxing carbon-intensive imports from China, for example, will have a negligible impact because the vast majority of its emissions-laden exports go to other developing countries.

Carbon barriers on trade make even less sense when one considers the nature of global production today. Rich countries "import" around one-third of their carbon dioxide (CO<sub>2</sub>) emissions (the amount of CO<sub>2</sub> released in making imported goods), often from developing countries. The production of a single item often involves trading components between many different countries. Complex supply chains have brought cheaper and better goods and high-paying jobs to rich countries, and infrastructure, new jobs and higher incomes to developing countries. Over a quarter of all global trade in manufacturing is now in intermediate components, not final products. Rich countries cannot restrict imports without damaging their own production and growth.

Source: The Korea Times, 16 April 2010

**Questions****(a) Compare the trends in imports of coal into the US and China from 2008 to 2012. [2]**

*Imports of coal into US were generally decreasing while imports of coal into China were generally rising. [1m]*

*The extent of changes in China's imports was larger than that in the US, i.e. 700% rise in the case of China as opposed to 70% fall in the case of the US. [1m]*

*(Note: As there are no similarities, students are to give 2 differences to be awarded 2 marks.)*

*Other answers accepted:*

*Imports of coal into China are consistently higher than the imports of coal into the US. [1m]*

*Note: Comparison should be made across the time period 2008-2012. Answers that compare a sharp spike in imports of coal into China from 2008-2009 are not accepted.*

**(b) Explain the relationship between GDP and imports of coal in China. [2]**

*Higher GDP → greater purchasing power → higher C → higher production of local goods and services → higher demand for imports of coal for use in production [2m]*

*OR: Higher GDP → greater purchasing power → higher energy consumption (heating, cooling, etc) → higher demand for coal imports [2m]*

*OR: Higher imports of coal → more energy/resources to fuel local production of goods and services → higher output → higher GDP [2m]*

*Note: If students use "GDP growth" instead of "GDP", max 1 mark if economic reasoning is correct.*

**(c) China is both the top producer and importer of coal in the world.****(i) Explain whether the case of a country exporting and importing within the same commodity group contradicts the Theory of Comparative Advantage. [4]**

*The Theory of Comparative Advantage states that a country should specialise in the production of a good if it can produce it at a lower opportunity cost than its trading partner. Difference in opportunity costs arises from the different factor endowments each country has. Hence if China has a comparative advantage in the production of coal, it should specialise in producing coal for domestic consumption and export, while importing another good that her trading partner can produce at a lower opportunity cost. [2m]*

*However, a country may choose to export and import within the same commodity group for various reasons. [2m for any acceptable reason]*

- to increase the level of competition in the domestic market. With competition, there will be lower prices and greater variety, which will benefit consumers.*
- to obtain different varieties of a product but of a similar quality/grade*
- to obtain different varieties and of different quality/grade*

*Other acceptable answers:*

- The country is experiencing increasing opportunity costs as level of production rises.*
- The country is in the process of losing its comparative advantage as shown by falling exports and rising imports of the good. However, such structural changes take time resulting in the good being both imported and exported.*

**(ii) Using the information available, what conclusion can be drawn about the price elasticity of demand for coal in China compared to that in the US? [4]**

The demand for coal is generally price inelastic, as coal is an input for generation of energy, which is a necessity. The demand for coal in China is likely to be more price inelastic as compared to the demand for coal in the US.

According to Extract 1, China is the world's largest consumer and producer of coal. With a growing economy, the demand for energy in China is increasing at a faster rate than that in the US. As coal is the main source of energy in China, the demand for coal in China is relatively more price inelastic.

According to Extract 3, natural gas is a substitute for coal in the US. As the supply of natural gas in the US has increased, the availability of natural gas in US is greater than that in China. Hence the demand for coal in the US is relatively less price inelastic than that in China, with the availability of close substitutes.

1 mark – stating PED for coal in China compared to that in the US (only if reasoning is given)

3 marks – providing 2 reasons to support

2 marks – providing 1 reason to support

**(d) Evaluate whether the merger between Xstrata and Glencore is a sound strategy for both firms. [8]**

**Introduction:**

- Define merger: A merger is an agreement between two or more firms to combine their assets into a single firm.
- Companies merge in order to obtain higher profits, through increasing revenue (bigger market share and stronger market power) and reducing costs (benefits of EOS).
- The merger between Xstrata and Glencore is an example of a vertical merger as Xstrata is a miner of commodities while Glencore deals with commodities trade.
- Whether the merger is a sound strategy for both firms depends on the extent to which each firm gains from the deal.

**Thesis: The merger is a sound strategy for both firms**

- **The vertical merger reduces costs for Glencore:** With the merger, Glencore can obtain supplies of commodities at lower cost. Extract 2 states that the merger would allow Glencore to tap on all of Xstrata's mining output. With lower cost of production, Glencore could earn higher profits. The merger also provides Glencore with a constant source of supplies of commodities such as lead, zinc, coal and copper.
- **The vertical merger increases Glencore's revenue:** Extract 2 also states that Glencore would be better able to blend coal and ores to customers' specific requirements with the merger. The merger allows Glencore to customise its products according to customers' needs. This could make the demand for the firm's products more price inelastic as there are not many firms who are able to do customisation. Hence, Glencore could charge higher prices and earn higher revenue.
- **The vertical merger provides Xstrata with a steady source of revenue:** The merger allows Xstrata to sell its mined commodities to Glencore, providing Xstrata with a steady source of revenue. Table 3 shows that Glencore has a higher revenue than Xstrata, suggesting that it is likely to have a larger consumer base. Extract 2 also mentions that by merging, Xstrata could extend its lead as the world biggest thermal-coal miner and third largest in copper mining.
- **The combined firm can reap marketing economies of scale:** The merger would increase the output of the combined firm, allowing it to experience internal economies of scale. The firm will be able to lower its average cost of production, as its advertising and marketing costs are spread over a larger output.
- **The combined firm has potential to grow more quickly:** Large firms with a large market power are likely to expand more quickly. Extract 2 mentions that the world's antitrust

authorities may feel threatened by the merger as each firm is already very strong. Glencore is a dominant commodity trader while Xstrata is a leading miner of lead, zinc, coal and copper. With the merger, the combined firm is likely to gain larger market dominance and thus earn higher revenue and higher profits.

**Anti-thesis: The merger may not be a sound strategy**

**The merger benefits Glencore more than Xstrata**

- According to Extract 2, Xstrata has better assets, a stronger balance-sheet and rosier prospects for growth. With the merger, Glencore's assets will seem to increase as the combined entity has more assets.
- Table 2 also shows that Xstrata has higher profits of \$5.78 billion while Glencore only has a profit level of \$4.07 billion. Hence Xstrata seems to be the stronger firm in the merger and Glencore would benefit more by merging.
- Xstrata may not benefit as much if Glencore still has other suppliers of the commodities that it trades. Xstrata may also be restricted in providing supplies to other firms, hence affecting its revenue, especially if it is required to sell commodities to Glencore at lower prices.
- Extract 2 also tells us that some large institutional investor have threatened to block the merger as they believes it favours Glencore more.

**The merger could lead to diseconomies of scale**

- Changes to the deal of the merger could affect employees' morale. Extract 2 mentions that there was a change in the decision on who to become the CEO of the merged firm after 6 months. These could lead to a lack of confidence for the employees in the combined firm.
- Poor integration of the firms as a result of differences in corporate culture and management conflicts could also affect employees. Due to differences in culture of firms, which is a concern of Xstrata's CEO Mick Davis, mentioned in Extract 2, employees would have to adapt to new leadership and a new culture, which could affect their morale and productivity.
- The merger may also attract anti-trust investigations by government authorities resulting in additional regulations on the combined firm.

**Conclusion: (students need to take a stand and provide reasoning)**

While it may be true that Glencore seems to benefit more as Xstrata is the stronger firm, the combined entity is likely to result in a stronger market dominance for both firms. The merger will likely bring about more benefits to the combined entity, if the transition is well-managed and cultural differences between the firms are resolved.

Level	Descriptors	Marks
L3	<ul style="list-style-type: none"> <li>• Well developed and balanced answer with good use of economic analysis and clear reference to data</li> <li>• Answer clearly explains benefits of merger from the perspective of both firms</li> <li>• Answer addresses revenue and cost benefits (larger market share + EOS gained)</li> <li>• Reasoned conclusion made</li> </ul>	5-6
L2	<ul style="list-style-type: none"> <li>• Undeveloped answer with some economic analysis used in explanation, with limited reference to data.</li> <li>• One-sided answer, considering only the benefits OR disadvantages of merger</li> <li>• Answer consider only the benefits and disadvantages of the merger to both firms, without looking at the perspective of each firm</li> <li>• Answer only address either revenue or cost benefits</li> </ul>	3- 4
L1	<ul style="list-style-type: none"> <li>• Descriptive answer with no economic analysis and framework to support.</li> </ul>	1-2
E2	<ul style="list-style-type: none"> <li>• Well-reasoned judgement considering the impact of the merger on both firms, addressing both revenue and costs.</li> </ul>	2
E1	<ul style="list-style-type: none"> <li>• Some attempt to make judgement but is not well supported</li> </ul>	1

(e) Discuss the view in Extract 4 that by imposing carbon limitations on the imports

from developing countries, developed countries 'will cripple their own economies and harm the poor without doing much about emissions'. [10]

**Introduction (Briefly explain how/why the government has imposed carbon limitations on the imports from developing countries)**

- *Developed countries impose carbon limitations on imports from developing countries with the objective of reducing carbon emissions resulting from the production of these imports in developing countries. The production of imported goods is a form of a negative externality due to the external cost to society, as carbon emissions contribute to the greenhouses effect and global warming.*
- *Carbon limitations can be imposed by curbing imports from countries that do not cut emissions, as mentioned in Extract 4. This could be in the form of higher import taxes, tariffs or quotas on these imports.*
- *However, these measures might not succeed in achieving the objective of reducing carbon emissions and might also harm both the developing countries and developed countries.*

**Thesis: Imposing carbon limitations harms the economies of developed countries and developing countries but are not effective in reducing emissions**

**Argument: Imposing carbon limitations harms the economies of developed countries and developing countries**

- *Carbon taxes on imports from developing countries are essentially trade protectionism measures, which harms both economies. By implementing tariffs, this increases the price of imports and reduces the quantity of imports.*
- *This might lead to increasing prices from domestic producers due to less foreign competition. Furthermore, the domestic producers might not have comparative advantage in producing the goods compared to foreign producers thus the additional tariffs and quotas might be protecting inefficient domestic producers.*
- *Moreover, the developing countries might also respond by imposing trade tariffs on the exports of the developed countries in a tit-for-tat move.*
- *Extract 4 also mentions that more than 25% of global trade in manufacturing is in intermediate components, not final products. By imposing carbon limitations, rich countries are affected too as they are part of the supply chain and may incur higher cost of inputs.*
- *When taxes are imposed → cost of production increases → developing countries may pass on the higher cost of production to developed countries → sell inputs to developed countries at higher prices, while not reducing the amount of carbon emissions*
- *Furthermore, such carbon protectionist measures would slow down economic growth for these developing countries, resulting in lower domestic investments in the economy.*

**Argument: Imposing carbon limitations are not effective in reducing emissions**

- *Developing countries such as China & India can continue to export to other developing countries especially countries that are experiencing high economic growth due to growing middle class and increasing domestic consumption, as mentioned in Extract 4.*
  - *However, developed countries still form the bulk of the trade with developing countries*
- *The governments in developed countries may also have difficulty in estimating how much to tax as it is difficult to value the external cost, especially because the carbon emissions are emitted in other countries. Tax rates that are too high or too low would not be effective in reducing carbon emissions to the optimum level.*
- *Fall in imports bought by developed countries may lead to higher production of carbon-intensive goods in developed countries to make up for the fall in imports, leading to higher carbon emissions in developed countries.*

- The developing countries are not yet ready for emissions-reduction solutions as their focus is on the country's economic growth. If imposing carbon limitations results in slower economic growth for these developing countries, it is more unlikely that these developing countries will be willing to invest in the development of clean technology or alternative fuels.

**Anti-Thesis: Imposing carbon limitations is still necessary as it helps to reduce the level of carbon emissions, although its effectiveness may be limited**

- The production of imported goods is a form of negative externality that contributes to global warming and climate change. The production of goods in developing countries requires the burning of fuels for energy, resulting in carbon emissions. This is an external cost to society, as carbon emissions contributes to the greenhouse effect and global warming.
- Taxes on carbon intensive imports would raise the price of these goods and lower the quantity demanded for them
- The negative externalities from the production of these goods would be internalised and production of carbon intensive goods would be brought down to the socially optimal level
- The tax imposed could incentivise carbon-intensive producers to reduce emissions, leading to greater social welfare.
- The additional revenue collected from these carbon taxes can then be used by governments to develop clean energy or even providing subsidies to producers from developing countries to have more carbon-efficient production methods, resulting in lower carbon emissions.

**Conclusion/synthesis:**

- Carbon emissions and its impact on climate change are global issues that require a joint effort by all the large economies in the world in order to be solved
- To effectively reduce carbon emissions, developed countries can intervene to help developing countries with more carbon-efficient production methods, or by supporting natural gas/alternative energy industries in developing countries.

<b>Level</b>	<b>Descriptors</b>	<b>Marks</b>
L3	<ul style="list-style-type: none"> <li>• Well developed and balanced answer considering the impact of imposing carbon limitations on developed countries, and its effectiveness in reducing carbon emissions</li> <li>• Good use of economic analysis and reference to data</li> </ul>	7-8
L2	<ul style="list-style-type: none"> <li>• Balanced but undeveloped answer with some economic analysis used in explanation, with limited reference to data. OR One-sided answer</li> <li>• Theoretical answer listing strengths and limitations of taxes</li> </ul>	4-6
L1	<ul style="list-style-type: none"> <li>• Descriptive answer with no economic analysis and framework to support.</li> </ul>	1-3
E2	<ul style="list-style-type: none"> <li>• Well-reasoned judgement recognising that reducing carbon emissions on a global scale requires cooperation between all countries</li> </ul>	2
E1	<ul style="list-style-type: none"> <li>• Some attempt to make judgement but is not well supported</li> </ul>	1

Suggested Answers to 9732 H2 Paper 1 Case Study 2  
(The key to ASEAN centrality)

(a)	(i)	<b>Compare the change in Malaysia's balance of trade in goods with that of Singapore between 2008 and 2011.</b>	[2]
		<ul style="list-style-type: none"> <li>Both countries experienced a trade surplus between 2005 and 2011.</li> <li>However, while Malaysia showed a steady increase in trade surplus, Singapore's trade surplus decreased in 2009.</li> </ul>	
	(ii)	<b>How far does the balance of trade in goods of these two countries support their growth rates shown in Table 5?</b>	[4]
		<p><b>Thesis:</b></p> <ul style="list-style-type: none"> <li>Positive growth rates experienced by both countries can be supported by their trade surplus, since an <math>\uparrow</math> in <math>(X-M)</math> will <math>\uparrow</math> AD and NY.</li> </ul> <p><b>Anti-thesis:</b></p> <ul style="list-style-type: none"> <li>However, despite experiencing trade surplus in 2009, both countries still experienced a fall in growth rates. Even with an increase in trade surplus for Malaysia in 2009, it does not lead to an increase in growth rates.</li> </ul> <p><b>Overall stand:</b></p> <ul style="list-style-type: none"> <li>Balance of trade is able to support the countries' growth rates to a large extent. However, as growth can be contributed by other components apart from trade performance, we need more data to fully account for the countries' growth rates. <b>OR</b></li> <li>Balance of trade is able to support the countries' growth rates to a large extent. However, as 2009 was a recession year, poor performance in other non-trade sectors could have contributed to the negative growth rates despite both countries' trade surplus.</li> </ul>	
(b)		<b>With reference to the data, account for the observed change in the value of S\$ from March 2009 to March 2011.</b>	[2]
		<ul style="list-style-type: none"> <li>From March 2009 to March 2011, S\$ is appreciating in terms of US\$.</li> <li>This could be due to the MAS's gradual and modest appreciation policy in response to the sharp increase in inflation rate from 0.6% to 5.3% as shown in Table 5.</li> </ul> <p>Note: Students could also argue that the appreciation is caused by an increase in demand for Singapore's exports (Table 4), hence causing an increase in demand for Singapore dollar.</p>	
(c)		<b>Using AD-AS analysis, explain why 'infrastructure should be the most important priority' for ASEAN.</b>	[4]

	<ul style="list-style-type: none"> <li>• Key point 1 (Increased AD): Investing in infrastructure would <math>\uparrow</math> AD and hence <math>\uparrow</math> national income as well as employment             <ul style="list-style-type: none"> <li>◦ <math>\uparrow</math> in I would <math>\uparrow</math> AD, raising national income in the short run. In addition, employment is created (Extract 6), particularly in industries that are involved in the planning and building of infrastructure (e.g. construction industries)</li> </ul> <p><u>OR</u></p> <li>◦ With urbanisation on the rise within ASEAN (Extract 6), <math>\uparrow</math> in I is necessary to support the development of cities, especially in terms of developing good transport systems and housing <math>\rightarrow</math> jobs created (Extract 6), particularly in industries that are involved in the planning and building of such infrastructure (e.g. construction industries) <math>\rightarrow</math> raise household income and hence <math>\uparrow</math> C and AD, thus bringing about increase in economic growth in the short run</li> </li></ul> <p><u>OR</u></p> <li>◦ <math>\uparrow</math> in I would also attract FDI that are looking for alternative investment destinations (Extract 7). As the infrastructure helps in reducing overall start-up cost for these foreign firms, the <math>\uparrow</math> in FDI would <math>\uparrow</math> AD and drive greater economic growth and employment in the long term.</li> <ul style="list-style-type: none"> <li>• Key point 2 (Increased LRAS): Investing in infrastructure would <math>\uparrow</math> LRAS and hence <math>\uparrow</math> productive capacity             <ul style="list-style-type: none"> <li>◦ In the long run, the building of infrastructure would increase the country's productive capacity and this is represented by an <math>\uparrow</math> in LRAS.</li> </ul> </li> </ul>	
(d)	<p><b>Consider the view that the benefits brought by the ASEAN Economic Community (AEC) in creating 'a single market' are likely to outweigh its costs for Singapore.</b></p>	[8]
	<p><b>Introduction:</b></p> <ul style="list-style-type: none"> <li>• Explain what it means by creating 'a single market' – removal of most (if not all) pre-existing trade barriers as well as allowing greater cross-border movements of factors of production (e.g. labour)</li> <li>• Briefly explain its purpose – to enhance economic integration within and outside ASEAN, to promote equitable development across all ASEAN countries (Extract 5 and 7)</li> <li>• Briefly explain Singapore's role – exporting technological and infrastructural services to other ASEAN countries (Extract 6)</li> </ul> <p><b>Thesis 1:</b> Singapore economy could benefit in terms of trade</p> <ul style="list-style-type: none"> <li>• With the simplification of trade procedures and removal of trade barriers (Extract 5 and 7), Singapore can now export a greater volume of goods and services than before <math>\rightarrow</math> <math>\uparrow</math> X revenue, growth and employment <math>\rightarrow</math> in addition, exporting to new ASEAN economies helps in diversifying Singapore's trading partners <math>\rightarrow</math> this increases resilience of the economy against fluctuations in external demand from the US and European countries. The steady growth rates of Malaysia and Philippines Table 5 indicates the potential of market in these countries for Singapore.</li> <li>• With the <math>\uparrow</math> in ASEAN countries' demand for infrastructural investment, Singapore can tap on this opportunity to export services such as logistics and accounting services (Extract 6) in which Singapore already has significant comparative advantage</li> </ul>	

**Thesis 2:** Singapore's consumers can also benefit in terms of variety and pricing

- Greater consumer choices → foodstuffs that cannot be produced locally (due to lack of factor endowments) can now be easily imported → ↑ consumer welfare
- ↓ in prices due to either greater competition between domestic firms and foreign exporters or firms choosing to produce in countries with lower cost of production e.g. India and Vietnam → ↑ consumer surplus

**Anti-thesis 1:** Nevertheless, the off-shoring of domestic firms could negatively impact Singapore's economy

- Although firms' cost of production is lowered by off-shoring to other countries with lower wage costs, it may lead to unemployment and capital outflow → impact is even more significant if these firms choose to relocate and withdraw all FDI and operations from Singapore

**Anti-thesis 2:** Singapore may also face greater competition especially in terms of FDI

- Other ASEAN countries are able to offer lower costs of production especially in terms of wages → this could reduce Singapore's FDI competitiveness

**Anti-thesis 3:** In addition, greater labour inflow into Singapore may lead to problems such as unemployment and worsening of SOL

- Skilled labour from countries such as the Philippines can now enter Singapore and compete with the local labour force (Extract 5) → if job creation is not able to keep up with the increase in supply, downward pressure on wages of skilled labour could be exerted
- Also, the increase in labour size could pose problems such as overcrowding in public places → worsen SOL

**Overall stand:** Whether benefits outweigh costs is dependent on the role played by the Singapore government

- With reference to anti-thesis 2: the government could provide infrastructure or continue to offer a stable political and economic climate so as to maintain her FDI competitiveness → also, the type of FDI Singapore attracts is inherently different from that of low wage countries (capital and knowledge intensive vs. labour intensive)
- With reference to anti-thesis 3: the government has already put in place foreign labour controls to better manage possible influx of skilled labour

Note: It would not be possible to bring in all possible thesis and anti-thesis arguments, students need to select which they can develop with most support and elaboration. This applies to next question too.

	Level Descriptors	Marks
L3	<ul style="list-style-type: none"> <li>• Two-sided and developed answer on both costs and benefits</li> </ul>	5-6

		<ul style="list-style-type: none"> <li>• Clear and explained reasoning on why benefits may outweigh costs or the reverse</li> <li>• Well-supported with data</li> </ul>	
	<b>L2</b>	<ul style="list-style-type: none"> <li>• One-sided and developed answer without reasoning why benefits may outweigh costs or the reverse</li> <li>• Two-sided but undeveloped answer</li> <li>• Very limited support with data</li> </ul>	<b>3-4</b>
	<b>L1</b>	<ul style="list-style-type: none"> <li>• For a superficial or irrelevant answer</li> </ul>	<b>1-2</b>
	<b>E2</b>	<ul style="list-style-type: none"> <li>• Reasoned judgement</li> </ul>	<b>2</b>
	<b>E1</b>	<ul style="list-style-type: none"> <li>• Unreasoned judgement</li> </ul>	<b>1</b>
<b>(e)</b>	<p><b>In view of ASEAN's economic integration plans, discuss whether monetary policy remains the most appropriate policy for Singapore to achieve its domestic macroeconomic aims.</b></p>		<b>[10]</b>
	<p><b>Introduction:</b></p> <ul style="list-style-type: none"> <li>• ASEAN offers some trade and growth opportunities for Singapore but one the greatest challenges is Singapore's higher costs.</li> <li>• Singapore has distinct comparative advantage in skills, technology and wide spectrum of financial and business services.</li> <li>• For trade-dependent Singapore, achieving domestic macroeconomic aims goes hand in hand with the aim of achieving healthy trade and balance of payments positions.</li> </ul> <p><b>Thesis:</b> Singapore's monetary policy of 'modest and gradual appreciation' is very appropriate for achieving price stability, remains one of the prerequisites for Singapore's macroeconomic performance, especially in the context of lower-cost ASEAN region.</p> <ul style="list-style-type: none"> <li>• Modest and gradual appreciation of Sing dollar for most years, except for 2009 when the economy experienced recession. This exchange rate policy helps curb imported inflation in Singapore as Singapore is import-dependent →keeping domestic costs more stable →price stability fosters price competitiveness and conducive environment for production and investment →ability to generate AD for full employment, economic growth and healthy balance of payments.</li> <li>• With greater ASEAN integration, price stability becomes even more important because to be able to export to these countries and for domestic businesses to compete with goods and services from them, price is a very important basis in competition. Evidence – Table 3 – inflation rate rising over the years especially from 2010 to 2011</li> </ul> <p><b>Anti-thesis 1:</b> Singapore's export competitiveness is potentially harmed by the appreciation-centred exchange rate policy</p> <ul style="list-style-type: none"> <li>• Trade-off of export competitiveness from exchange rate appreciation -price of exports will be higher in terms of foreign currencies, leading to possible fall in export earnings. This is especially so Singapore's services industries as their businesses do not have high import content and yet their export prices are inflated by the exchange rate appreciation.</li> <li>• With greater openness of markets within ASEAN and costs being generally lower in the member countries, this can pose further threat to Singapore's attractiveness as location for FDI.</li> </ul> <p><b>Anti-thesis 2:</b> Monetary policy is never meant to be the sole approach for attainment of domestic macroeconomic aims. Also, the policy in recent times has been considered to be no longer appropriate for Singapore economy due</p>		

to the increasing importance of services in the country's exports.

- The need for other policies such as supply side measures on continuous improving labour skills and technological capacity so that Singapore can continue to compete for markets and FDI
- Fiscal policy is a very important policy, both as a counter-cyclical approach to achieve full employment (deficit during recession of 2009 and surplus in other normal times) and a supply-centric policy through the types of taxes and spending in the budget.

**Overall stand:**

- While the government (MAS) currently holds the belief that the appreciation-centred monetary policy remains to be a relevant economic policy for Singapore to achieve price stability and hence the path to other macroeconomic aims, this policy has been raised as no longer appropriate due to changing production composition of Singapore economy.
- What remains important for Singapore economy is the ongoing need to sharpen competitiveness in skills and technology because these are the areas of edge that Singapore needs to sustain in order to compete better in the context of more open and integrated ASEAN.

<b>L3</b>	Developed answer on the need to reconsider exchange rate policy and offering an alternative policy approach	<b>7-8</b>
<b>L2</b>	<ul style="list-style-type: none"> <li>• Undeveloped or theoretical answer on the need to reconsider the policy options</li> <li>• Developed answer but solely evaluating exchange rate policy without consideration of Singapore's context</li> </ul>	<b>4-6</b>
<b>L1</b>	<ul style="list-style-type: none"> <li>• Superficial answer</li> </ul>	<b>1-3</b>
<b>E2</b>	Some judgement on the appropriateness of the exchange rate policy	<b>2</b>
<b>E1</b>	Unreasoned judgement	<b>1</b>

ANGLO-CHINESE JUNIOR COLLEGE  
2014 JC2 PRELIMINARY EXAMINATIONS



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**ECONOMICS**

**9732/02**

**Higher 2**

3 September 2014

Paper 2: Essay Questions

2 hours 15 minutes

Additional materials: Answer paper

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**READ THESE INSTRUCTIONS FIRST**

Write your index number and name on all the work you hand in.  
Write in dark blue or black pen on both sides of the paper.  
You may use a soft pencil for any diagrams, graphs or rough working.  
Do not use staples, paper clips, highlighters, glue or correction fluid/tape.

Answer **three** questions in total, of which **one** must be from Section A, **one** from Section B and **one** from **either** Section A or Section B.

Begin each question on a **fresh** sheet of paper.

The number of marks is given in brackets [ ] at the end of each question or part question.

At the end of the examination, arrange your answers in sequence of the question number.

Fasten your answers using the cover sheet provided.

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This document consists of **3** printed pages and **1** blank page.  
Please check that your question paper is complete.

Answer **three** questions in total.

**Section A**

**One or two** of your three chosen questions must be from this section.

- 1 In Singapore, generous government funds are allocated both for the training of low-skilled workers and for university education, but university students are expected to bear a fair share of the cost of their education.
  - (a) Explain how the market economy allocates resources in the area of education. **[10]**
  - (b) Discuss the view that unlike low-skilled workers who are highly subsidised for training, university students should pay for the full cost of their education. **[15]**
  
- 2 While the US struggles with sluggish economic recovery, retail food prices are expected to rise by 2.5%-3.5% this year, up from 1.4% in 2013. Much of the rise comes from higher meat and dairy prices. In California, the biggest US producer of agricultural products, about 95% of the state is suffering from drought conditions.

Source: Wall Street Journal, 18 March 2014

  - (a) Explain the combined effect of food cost increases and sluggish economic recovery on the expenditure by US consumers on grocery items such as meat and dairy products. **[10]**
  - (b) Discuss the policy options that governments may adopt to stabilise food prices. **[15]**
  
- 3 Pharmaceutical firms protect the intellectual property (IP) rights on their drugs and sue those who try to manufacture and sell patented drugs cheaply. Yet, some of these patent owners rebrand their patented drugs and sell them at lower prices in developing countries.

Assess the economic justifications for the above actions adopted by pharmaceutical firms. **[25]**

### Section B

One or two of your three chosen questions must be from this section.

- 4 Household final consumption expenditure in 2013 as a proportion of the country's GDP was 38% for Singapore and 69% for USA.

Source: <http://data.worldbank.org/indicator>, accessed 25 July 2014

Discuss whether raising consumption is the best approach for sustaining economic growth. [25]

- 5 The problem of jobless youth (15-24 years of age) shows no sign of abating. The global youth unemployment rate was estimated at 13% in 2013, with many countries across the world reporting their youth unemployment rate to be more than twice their national unemployment rate.

(a) Explain why youth unemployment is of concern to governments. [10]

(b) Discuss whether the openness of an economy is a significant determinant in the choice of policies to deal with youth unemployment. [15]

- 6 "One reason for the decline in traditional protectionism is that countries hit by recession are able to let their exchange rates fall."

Source: The Economist, 12 October 2013

(a) Explain why a country might get into balance of payments deficit due to a recession in another part of the world. [10]

(b) Assess the view that in correcting balance of payments deficit, letting the exchange rate fall is a more appropriate policy than adopting traditional protectionism. [15]

- Q1. In Singapore, generous government funds are allocated both for the training of low-skilled workers and for university education, but university students are expected to bear a fair share of the cost of their education.
- a) Explain how the market economy allocates resources in the area of education. [10]  
 b) Discuss the view that unlike low-skilled workers who are highly subsidised for training, university students should pay the full cost of their education. [15]

**Answer requirements:**

- (a)
- Key features about how resources are allocated in market economy: no/minimal government intervention, pursuit of self-interest, price signals as basis of signalling and rationing.
  - How forces of demand and supply work in resource allocation (what, how & for whom ).
- (b)
- Using the concept of positive externality to justify why both the training of low-skilled workers and university education deserve government subsidy (case of Merit Good).
  - Explaining the case for university students to pay full fee (significant private benefits, income inequality).
  - Considering the immediate and long-term external benefits of university education to that of training for low-skilled workers as support why partial subsidy is justifiable for the former.

- a) Explain how the market economy allocates resources in the area of education.

**Introduction**

- Explain market economy:
  - ⇒ Pursuit of self-interest in economic decisions: profit maximisation by firms and utility/satisfaction by households.
  - ⇒ Markets operate with little or no government intervention.
  - ⇒ Resources are allocated through the price mechanism/ forces of demand and supply.

In a market economy, all schools are privately owned and operated and hence production decisions are primarily profit-driven. In consumption decisions, families send their children to schools or studies of choice based on private benefits.

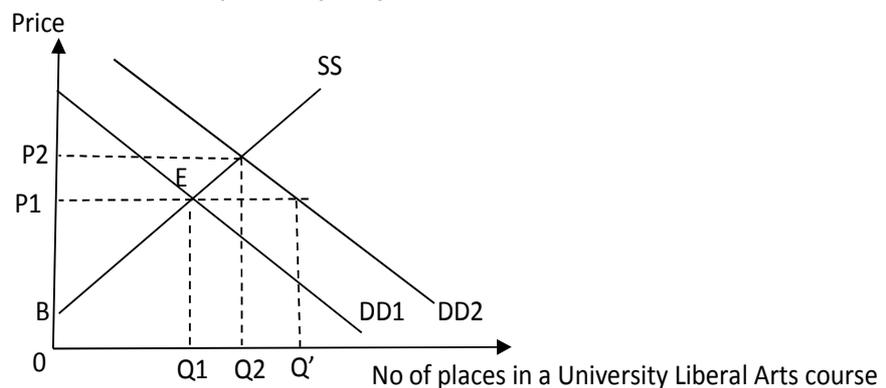
**Body**

Main part of answer to explain how without government intervention in the market, the allocation of resources for education, be it university education, elementary or pre-school education, will be through the forces of demand and supply.

**Prices as a signalling device**

Consumers indicate to the producers what goods they want to be produced through their strength of demand, indicated by the prices they are willingness and ability to pay at respective prices.

Supposing that is a greater demand for university education. Consumers indicate this increase in demand through their willingness and ability to pay a higher price for such courses. Explain the effect on level of output using diagram below.



- Demand – the willingness and ability to purchase a good at a given price. Supply – the willingness and ability to sell a good at a given price. At price  $P_e$ , the consumers' quantity demanded at  $Q_e$ . When consumers' demand for Liberal Arts course increases → shift of demand curve to the right from  $DD_1$  to  $DD_2$  → shortage of  $Q_1Q'$  Liberal Arts at initial price  $P_1$ . Consumers bid for higher price in order to be able to consume more of this good.
- Universities, with the aim to maximise profit, then use this price signal (i.e. consumers' willingness to pay higher price) to decide on the kind of school (e.g. university faculty or course) to set up, and allocate their resources to the setting up of this school. Seeing that at the current market fee, there is a shortage in the market for Liberal Arts course and that consumers are willing to bid to higher price for such Liberal Arts course, producers will increase the building and setting up of more universities/ more places for more Liberal Arts students.
- Attracted by the prospect of profits, more universities will offer Liberal Arts courses → more resources into industry. Hence resources are moved from where they are less needed to areas where they are more needed.

**Price as a rationing device**

- The market price acts a **rationing device** to equate demand with supply for schools or types of education. Prices serve to **ration scarce resources** when demand in a market outstrips supply.
- In the market economy, due to self-interest i.e. profit-motive of the school operators, resources are allocated according to consumers' willingness and ability to pay. The higher the consumer's income, the higher the price he is willing and able to pay → more resources are allocated to schools in which parents are willing to pay higher price. Since those who can a higher price are most likely to be of higher income group, more resources are allocated to the high-end schools whose parents have the ability to pay for the resources. Likewise, more funds will be allocated to the more popular university courses in which students are willing and able to pay higher fees. Very often, students who attend these universities are from the higher income group.

**Price influence on how to produce**

Since there is freedom to entry into the education industry, there is competition between producers in the education industry. Hence education firms will all strive to set up and run their schools at the lowest possible unit cost, in order to be able to charge the most competitive price.

**Note:** Students may use any examples of education institutions in answer, e.g. pre-schools, culinary-training courses, etc.

Knowledge, Understanding, Application and Analysis		
L3	<b>Higher L3</b>	9-10
	<ul style="list-style-type: none"> <li>• Conceptually accurate explanation of how market economy and price mechanism address the fundamental economic questions (what, how &amp; for whom).</li> <li>• Education industry used as context in explanation.</li> </ul>	
L2	<b>Lower L3</b>	7-8
	<ul style="list-style-type: none"> <li>• Offers both breadth and conceptual clarity in explaining role of price signal as a signal and rationing device – capturing motives and role of price signals</li> <li>• Examples in education mainly stated.</li> </ul>	
L2	<ul style="list-style-type: none"> <li>• Undeveloped explanation of the working of price mechanism.</li> <li>• Some reference to the movements of resources.</li> </ul>	5-6
L1	<b>Higher L1</b>	3-4
	Explains demand-supply concepts but with conceptual inaccuracies and failing to recognize their role in resource allocation.	
	<b>Lower L1</b>	1-2
	Many irrelevant parts/ major conceptual errors.	

- b) Discuss the view that unlike low-skilled workers who are highly subsidised for training, university students should pay the full cost of their education.

### Introduction

- Both training and university education are merit goods
  - Goods deemed by society to be socially desirable and considered by the government to be under-consumed without its intervention.
  - Both have high positive externality and therefore need government intervention, mainly in the form of subsidies, not only to make them affordable but also to increase the number of university graduates and trained workers to reach social efficiency level.
- However, some people are of the view that for various reasons, university education should not be highly subsidised like that of that of training for low-skilled workers. This essay looks at this discussion.

### Why need for subsidy on merit goods

- The concept of positive externality
  - Both university education and training have high external benefit (benefits on others and the economy). Training improves productivity and skills thereby improving rate of growth and international competitiveness. Education is found to yield additional indirect benefits to growth for example by stimulating physical capital investments and technological development and adoption across many different industries (creating the potential for gains in dynamic efficiency).
  - With the existence of positive externality, the social benefit of education is larger than its private benefit. Since the workers and students and their parents only consider own private benefits, training and university education will be under-consumed without government intervention, leading to welfare loss.
  - Hence need for government intervention in education and training to achieve social efficiency. Ideally, government subsidy should be equal to the value of the positive externality.
- Imperfect knowledge
  - Insufficient information to recognise the future returns from undertaking a training. The low-skilled workers are generally less educated and lacks information on what they can gain from acquiring more skills.
  - Many young people are myopic when making university and degree course decisions. Or they may be averse to taking on debts even though it might be in their long-term financial interest to do so. Hence there's a need for the government to adopt a "paternalistic" view on what is best for the lower-skilled workers and younger people.

### **Thesis 1: University students should pay full cost of their education as unlike low-skilled workers' training as the extent of private benefit is much larger compared to that for training.**

- Larger extent of private benefit from university education compared to training of low skilled workers

Both training and university education have private benefit in terms of higher earnings, more employable and less susceptible to being unemployed. But the private benefit of university education is much higher than the private benefit of low-skilled workers' training. Because the future earnings and standard of living to be enjoyed would be much higher compared to the private benefits from training of low-skilled workers.

If we consider the full social cost of each, the external benefit of university education can be smaller in proportion compared to that of training of low-skilled workers or arguably, the case for primary school education because people who are literate and numerate are able to learn new skills a lot quicker and be more productive for the economy. Likewise, training for lower lower skilled worker increases labour productivity → reduces firm's labour cost hence production cost.

Unlike low-skilled workers who go for training for very practical reasons, many university students take up courses such as Liberal Arts and Humanities subjects for personal satisfaction and fulfilment. Such courses do not add as much to the social benefit to the society as training courses for lower skilled workers.

**Anti-thesis: University education's external benefit is much higher in the long-run**

- In gaining university education, the training received from university education makes the graduates to be more productive, flexible, creative, enterprising and efficient and provide significant benefits to society as a whole (e.g. in engineering, architectural, business and financial management). University education train students to acquire skills that enable them to be evaluative and able to have foresight and work much longer hours than the lower-educated trained workers. University education contributes towards efficient democratic institutions, human rights, political stability and towards the generation of new ideas that can benefit the whole country both in the short run and in the long run.
- Such non-market external benefit of university education is possibly much higher than the external benefit of training lower-skilled workers and primary education put together → hence providing much higher social benefit to the society in the long run. Therefore, it is only fair therefore that they should be subsidised at an early stage in their lives as they will pay it all back in kind throughout their productive lives
- Higher income of graduates → higher income bracket → higher income tax rates → higher government tax revenues in the long run → can be used to fund other socially beneficial government spending programmes
- Hence, the argument that university students should pay full fee without government subsidy is valid only if the social benefit of university education is entirely private in nature, i.e. if external benefit is absent. However, one cannot deny that university education has vast external benefit.

**Thesis 2: University education widens income inequality**

- University education is likely to benefit the higher income households more as they are more aware of the long-term private benefit of university education → one of the reasons why there are more students from higher and middle income groups in the university. Large subsidy on university will make the fiscal system regressive (benefiting the higher income more).
- Also, university graduates earn more than those who do not go to university → widens income gap.

**Anti-thesis: University education is also a very important way to improve the economic and social mobility of low income population.**

- The lack of subsidies in education can worsen inequality. Without government subsidy, children of low income families can be deprived of university education, and they remain less qualified than the richer children who can afford university education.
- University education is an important way to provide economic and social mobility, hence a generous subsidy is needed for them, at least with means testing criterion.
- Higher subsidies may be provided for lower-income students, to be determined through means testing. This will ensure that all students will have a fair opportunity to university education and allows for social mobility → hence narrow income gap.

**Thesis: Paying full cost of university education can lead to Improvements in allocation of resources in higher education**

- Students paying for their university education will encourage them to be more selective in the courses they choose and will stimulate an improvement in teaching quality of universities in order to attract students to study their preferred courses in their universities. Tuition fees make parents and students to be more mindful about economic value of the choice of university courses.

- With students paying full fees, government funds can instead be used to expand university facilities, teaching as well as to maintain and expand high level scientific research → research findings contribute to international competitiveness of economy through development of high-knowledge sectors.

**Antithesis:** Impact on supply of university graduates with degrees that are essential but considered less rewarding in job prospects or earnings.

- It is feared science and engineering - among the most expensive courses to run because of equipment costs and specialist staff – will see a fall in demand → threatening long term damage to the country's manufacturing competitiveness.

### Synthesis

- Given that the extent of private benefit of university education is much higher in significance compared to that of training courses for low-skilled workers, it seems fair that undergraduates are made to bear the cost of their university education.
- Government subsidy on the high cost of university education that benefits the handful of students with academic qualification for further studies could cause a strain of their resources, particularly in debt-ridden countries such as the UK. The funds could be used to finance other education sectors such as primary and pre-school education whose benefits are much more broad-based.
- However, one must realise the external benefit of university education in developing the country's future - socially, politically and economically. Hence, subsidising university education is justifiable, just like training for low-skilled workers.
- Moreover, for equality of access, there is a need for the government to support undergraduates either through subsidies or subsidised student loans, particularly for students from the lower income families.

Knowledge, Understanding, Application and Analysis		
L3	<ul style="list-style-type: none"> <li>• Conceptually accurate and well elaborated explanation in considering the extent of private benefit and external benefit of university education compared to training for low-skilled workers.</li> <li>• Making comparative note of the reason why the training of low-skilled workers receives large subsidy.</li> <li>• Good use of examples.</li> </ul>	9-11
L2	<ul style="list-style-type: none"> <li>• Comparative explanation of the private benefit and external benefit of university education and training for low-skilled workers but undeveloped.</li> </ul> <p><b>OR</b></p> <ul style="list-style-type: none"> <li>• Developed explanation of the social benefits (private benefit and external benefit) of university education to argue why government subsidy is justifiable, without comparing to training for low-skilled workers.</li> </ul>	6-8
L1	<p><b>Higher L1</b></p> <ul style="list-style-type: none"> <li>• Uses relevant economic concepts but with major conceptual errors.</li> <li>• Mainly descriptive attempt (without using economic concepts) in comparing the benefits of university education and training for low-skilled workers.</li> </ul> <p><b>Lower L1</b></p> <ul style="list-style-type: none"> <li>• Smattering of points but not answering the question</li> </ul>	3-5  1-2
L2	Evaluation based on a sound criterion and ending with a considered judgement. E.g. Considering the relative private and external benefits of university education in relation to training for low-skilled workers.	3-4
L1	Evaluation and judgement without-criterion/ substantiation E.g. Considering the pros and cons of undergraduates paying full university fees without connecting to the extent of external benefits.	1-2

- 2 While the US struggles with sluggish economic recovery, retail food prices are expected to rise by 2.5%-3.5% this year, up from 1.4% in 2013. Much of the rise comes from higher meat and dairy prices. In California, the biggest US producer of agricultural products, about 95% of the state is suffering from drought conditions.

Source: Wall Street Journal, 18 March 2014

- (a) Explain the combined effect of food cost increases and sluggish economic recovery on the expenditure by US consumers on grocery items such as meat and dairy products. [10]
- (b) Discuss the policy options that governments may adopt to stabilise food prices. [15]

Question requirements:

- a) Explain the shifts in DD and SS in the market for grocery (food) items, weigh the relative shifts in DD and SS, then recognise the indeterminate effect on consumer expenditure based on types (nature) of grocery items, differences in income levels, etc.
- b) Identify and explain the policy options which are suitable to stabilise food prices, before discussing them in terms of effectiveness, sustainability, etc. 'Stabilise' should not be seen as preventing increases only but more so to minimise the fluctuations in prices (frequency and more specifically, the magnitude).

**Suggested Answers for Q2(a)**

Explain the combined effect of food cost increases and sluggish economic recovery on the expenditure by US consumers on grocery items such as meat and dairy products. [10]

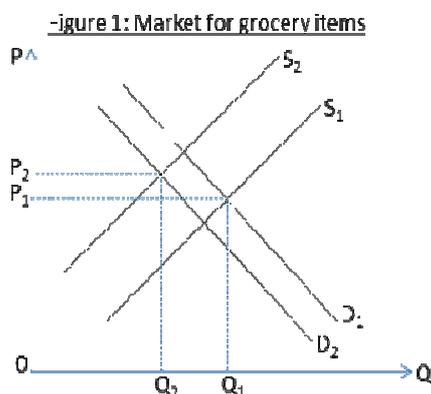
**NOTE to students:** While the complexity in the suggested answers is not expected, information and analysis in the table on page 3 will help offer different angles to the analysis.

**What is the issue?**

- 'sluggish economic recovery' → income falls or grows at a slower pace → demand for food falls
- 'higher meat and dairy prices', 'drought conditions' → food cost increases → supply of food falls

**How would 'food cost increases' and 'sluggish economic recovery' affect market for grocery items?**

- DD falls → DD curve shifts left from  $D_1$  to  $D_2$  → downward pressure on equilibrium P and Q
- SS falls → SS curve shifts left  $S_1$  to  $S_2$  → downward pressure on Q but upward pressure on P
- Final outcome: equilibrium Q will certainly fall but effect on P is indeterminate. A possible outcome in the diagram below shows that equilibrium P rises because the fall in SS is greater than the fall in DD



**How would changes in equilibrium P and Q affect US consumers' expenditure on grocery items?**

In general, grocery items (broad definition) are food items which are essential for basic survival. Therefore, it should likely have  $PED < 1$  and positive  $YED < 1$  (normal necessity).

However, the **PED values** of grocery items would vary across:

- 1) different items - those which are considered as essential and staple e.g. milk, cereals, meats, potatoes, are likely to have lower PED than say, grocery items such as candies, soft drinks, beer
- 2) different households – e.g. those with babies and young children would assign a much lower PED for milk formula as compared to those with older children or without children; or demand for meat would be perfectly price elastic for vegetarians or vegans but relatively price inelastic for households which are meat lovers
- 3) different income groups - lower-income groups are likely to spend a larger proportion of their income on grocery items and thus, their PED for these goods would be much lower than that for the higher-income group

Similarly, the **YED values** of grocery items would vary across:

- 4) different items – although essential and staple grocery items e.g. milk, cereals, meats, potatoes, are likely to have lower YED than say, candies, even the YED value for meats would vary depending on the type of cuts and whether it is fresh or frozen (luxury vs. necessity)
- 5) different households – e.g. those with babies would see their demand for milk formula to be positive income inelastic because the babies need milk regardless of changes in income levels
- 6) different income groups – while ready meals (e.g. mac and cheese) may be seen as a necessity for some households ( $+YED < 1$ ), these could be luxuries for the lower-income households who view home-cooked pasta as cheaper alternatives (or even other grocery items which are substantial enough to be considered their meals). In fact, households which suffer a fall in income (or loss of jobs) may now switch to grocery items which appear to be inferior/less superior, e.g. minced meat or frozen meat as opposed to fresh cuts or steaks.

**Examples of common grocery items in the US:**

Eggs & dairy e.g. milk, cheese	Fruits e.g. bananas, grapes, apples, oranges
Meats e.g. beef, poultry, ham	Vegetables e.g. potatoes, carrots, sprouts, salad
Hot dogs, meat patties, nuggets	Drinks e.g. juices, milk shakes, coffee, tea, beer
Bread/buns/rolls, cereal, pasta	Snacks e.g. chips, snack bars, chocolates, candies
Jam, butter, peanut butter	Ready meals & frozen pizza

The table below shows **SOME POSSIBLE OUTCOMES** of how US consumers' expenditure on grocery items would change as a result of 'food cost increases' and 'sluggish economic recovery':

PED \ YED	Groceries which are not necessities Demand is price elastic ( $PED > 1$ )		Groceries which are necessities Demand is price inelastic ( $PED < 1$ )	
	Specify the grocery items which are relevant to your examples/scenarios			
Normal luxury +ve YED > 1	Rise in food costs → P rises less than proportionate to the fall in Q → expenditure falls	Fall in income → more than proportionate fall in DD → large fall in Q → expenditure falls	Rise in food costs → P rises more than proportionate to the fall in Q → expenditure rises	Fall in income → more than proportionate fall in demand → large fall in Q → expenditure falls
	Consumer expenditure will <b>unambiguously fall. (Show diagram)</b>		<b>Uncertain</b> if consumer expenditure will rise or fall - depends on the extent of shifts in DD and SS. <b>(Show diagram)</b>	

YED \ PED	Groceries which are not necessities Demand is price elastic (PED>1)		Groceries which are necessities Demand is price inelastic (PED<1)	
	Specify the grocery items which are relevant to your examples/scenarios			
Normal necessity +ve YED < 1	Rise in food costs → P rises less than proportionate to the fall in Q → expenditure falls	Fall in income → less than proportionate fall in DD → small fall in Q → expenditure falls	Rise in food costs → P rises more than proportionate to the fall in Q → expenditure rises	Fall in income → less than proportionate fall in DD → small fall in Q → expenditure falls
	Consumer expenditure will <b>unambiguously fall. (Show diagram)</b>		<b>Uncertain</b> if consumer expenditure will rise or fall - depends on the extent of shifts in DD and SS. <b>(Show diagram)</b>	
Inferior good -ve YED	Rise in food costs → P rises more than proportionate to the fall in Q → expenditure falls	Rise in Y → fall in demand → fall in Q → expenditure falls		
	Consumer expenditure will <b>unambiguously fall. (Show diagram)</b>			

**Conclusion:** Regardless of the sign and value of the YED coefficients, as long as demand for groceries is price elastic, consumers' expenditure on groceries will fall due to the combined effect of higher food costs and fall in income. The outcomes are less definite when demand is relatively price inelastic.

*Note: Students are not required to cover all possible scenarios in the table above. As long as answers are able to present scenarios with different PED and YED values, and acknowledge that the final outcomes depend not only on the elasticity concepts but also magnitude of shifts in DD and SS, the answers should be able to move to Level 3.*

Level	Descriptors for Q2(a)	Marks
L3	<ul style="list-style-type: none"> <li>Developed analysis + well-illustrated with scenario/example:                             <ul style="list-style-type: none"> <li>considers combined effect of lower income + higher food costs on US consumers' expenditure on grocery items</li> <li>uses YED + PED to distinguish the impact on consumers' expenditure of different groups of consumers</li> </ul> </li> </ul>	9-10
	<ul style="list-style-type: none"> <li>Developed analysis (even without illustration) which is able to unpack the individual effects (of ↓DD and ↓SS).</li> <li>Able to show that of ↓DD will lead to a fall in consumer expenditure, <b>and</b> effect of ↓SS on consumer expenditure will depend on PED.</li> </ul>	7-8
L2	<ul style="list-style-type: none"> <li>Uses DD-SS analysis but:                             <ul style="list-style-type: none"> <li>considers only effect of <b>either</b> lower income <b>or</b> higher food costs</li> <li>attempts to consider the DD or SS effect on consumer expenditure</li> </ul> </li> </ul>	6
	<ul style="list-style-type: none"> <li>Uses DD-SS analysis but only considers effects on equilibrium P &amp; Q and <b>not</b> consumer expenditure. Answer over-generalises, not answering the question.</li> </ul>	5
L1	<ul style="list-style-type: none"> <li>Listing or mere description of points, with some conceptual inaccuracies</li> <li>No use of DD-SS framework or relevant economic concepts</li> </ul>	3-4
	<ul style="list-style-type: none"> <li>Many conceptual errors</li> <li>Irrelevant answers</li> </ul>	1-2

**Suggested Answers for Q2(b)**

**Discuss the policy options that governments may adopt to stabilise food prices. [15]**

**What is meant by 'to stabilise prices'?**

- To stabilise means to minimise fluctuations; it is not merely about reducing prices
- To stabilise prices is thus to minimise the increases in prices or the fall in prices, as well as to reduce the frequency in price changes (upward or downward)

**Why is there a need to stabilise prices?**

- In the context of this question, stabilising prices would more appropriately refer to minimising price increases in the retailing of grocery items
- Rising food costs would affect the livelihood and SOL of Americans. The impact of rising food costs is further exacerbated by the sluggish economic conditions, which means AD is falling or growing very slowly. This means that many Americans could be jobless or are struggling to keep their jobs.
- The main objective to stabilise prices is thus to prevent erosion of purchasing power which may lead to a more inequitable distribution of goods

**What are the policy options to stabilise prices? How do they work? How effective are they?**

Measure	How do they work?	How effective are they in stabilising prices?
Price ceiling	Set the maximum price (which is below market equilibrium) at which retailers are allowed to sell their good(s)	<ul style="list-style-type: none"> <li>✓ Prices are fixed and prevented from rising</li> <li>✓ Maintains affordability for consumer</li> <li>× Distorts market → shortage arises (some are deprived) → may lead to black market → consumers worse off?</li> <li>× Blanket policy is not feasible → problem arises as to which grocery items to set price ceiling on</li> <li>× What is the cost of enforcement? Any trade-offs?</li> </ul>
Subsidy to firms  Cash pay-outs or food vouchers to consumers	<ul style="list-style-type: none"> <li>• Subsidy to grocery firms/retailers → lower COP → keep prices from rising</li> <li>• Greater affordability → better able to cope with rising food costs</li> </ul>	<ul style="list-style-type: none"> <li>✓ Helps producers and consumers cope with rising costs</li> <li>✓ Prices can be kept (artificially) low</li> <li>× Producers may not pass on cost savings to consumers</li> <li>× How much to subsidise? Who to subsidise?</li> <li>× If intervention is in terms of cash pay-outs, difficult to ensure that it is spent (or saved) or if it is spent on necessities → consider the use of food vouchers?</li> <li>× Opportunity costs of subsidy and food vouchers? Can government budget finance this? Is it sustainable?</li> </ul>
Increase supply of agricultural products	<ul style="list-style-type: none"> <li>• Encourage/assist local distributors to supplement local supply with imports</li> <li>• Help local farmers outside of California to boost supply and help make up for shortfall in California</li> </ul>	<ul style="list-style-type: none"> <li>✓ Measures are more lasting and less costly</li> <li>✓ More directed at managing the problem of shortage rather than just helping producers and consumers cope</li> <li>× Resistance from local distributors to bring in imports as this will moderate price increases and thus profits. What incentive must the government give?</li> <li>× Opportunity costs of subsidy or other financial help to farmers? Can government finance this? Is it sustainable?</li> <li>× Measures to boost agricultural yield needs long gestational period. Is outcome guaranteed?</li> </ul>

**Conclusion:** In the selection of appropriate measures, the government has to consider the severity of the problem (how sharp the price increase is and how extensive a range of items are affected). While it is necessary to help consumers cope in the short-term, blanket measures should be avoided. Instead, they should cater to different needs of different income groups. Enforcement is also vital in cases when measures are legally binding and/or distort market forces, which could lead to greater inequity.

Level	Descriptors for Q2(b)	Marks
L3	<ul style="list-style-type: none"> <li>• Balanced and developed discussion on at least 2 appropriate policy options to stabilise prices                             <ul style="list-style-type: none"> <li>○ Clear analysis of how the measures could achieve the purpose</li> <li>○ Considers the inadequacies of the proposed measures</li> </ul> </li> </ul>	9-11
L2	<ul style="list-style-type: none"> <li>• <b>Developed but one-sided answer</b> <ul style="list-style-type: none"> <li>○ Considers at least 2 policy options but take on only a single perspective</li> <li>○ May be theoretical and not applied to the context of groceries</li> </ul> </li> <li><u>OR</u></li> <li>• <b>Balanced but undeveloped discussion</b> <ul style="list-style-type: none"> <li>○ Considers both perspectives or at least policy options</li> <li>○ May or may not be contextualised to groceries</li> </ul> </li> </ul>	6-8
L1	<ul style="list-style-type: none"> <li>• Listing or mere description of points</li> <li>• No use of DD-SS framework or relevant economic concepts</li> <li>• Some conceptual errors</li> </ul>	3-5
	<ul style="list-style-type: none"> <li>• Many conceptual errors</li> <li>• Irrelevant answers</li> </ul>	1-2
E2	<ul style="list-style-type: none"> <li>• Forms a reasoned judgement about policy options to stabilise prices, supported by criteria to assess effectiveness/appropriateness/suitability/sustainability of options.</li> </ul>	3-4
E1	<ul style="list-style-type: none"> <li>• No reasoned judgement to wrap up the balanced answer.</li> <li>• Not using any particular criterion to evaluate policy options.</li> </ul>	1-2

- Q3. Pharmaceutical firms protect the intellectual property (IP) on their drugs and sue those who try to manufacture and sell patented drugs cheaply. Some of them however rebrand their drugs and sell them at lower prices in developing countries

Assess the economic justifications for the above measures adopted by pharmaceutical firms. [25]

**Answer requirements:**

- IP right on a particular pharmaceutical drug is **patent** →(1) **monopoly power** for firm to recover significant **fixed costs** incurred in the research and make **supernormal profit**; (2) an **incentive for R & D** new drugs.
- Knowledge discovery in pharmaceutical R&D non-rival in usage (a characteristic of **public good**) → patent is needed to enforce excludability →why firms with patent rights take legal actions against companies that manufacture generics (same formulae as patented ones).
- Conceptual support for rebranding strategy by pharmaceutical companies with the patent rights: (1) **highly price elastic demand**; (2) **economies of scale** and possible **lower operating costs** in developing countries.
- Argument against measures: (1) excessive supernormal profit due to monopoly power; (2) unfair pricing for consumers in developed countries

Words in bold indicate economic concepts expected in answer.

**Introduction**

The pricing of Pharmaceutical drugs is a highly contentious issue because their consumption involves moral weights - society's interest in terms of health and lives.

- Medicinal drugs in general are produced by private firms although increasingly governments are seeing the need to co-invest in pharmaceutical research to enable more socially-sound pricing.
- The issue in question involves the protection of patent. Without patent protection, there can be missing market problem because pharmaceutical research discovery has the characteristic of public good. However, patent has also been a 'shield' used by pharmaceutical firms to make excessive monopoly profits.

**Thesis: The actions by the pharmaceutical firms are valid in consideration of the supporting economic reasons.**

**Argument 1:** The fight to protect their patents is justifiable because having invested huge amount of resources into the R & D, they need to enforce their monopoly rights

- Drug research and development is long drawn (several years sometimes) and expensive due to stringent testing and standards to be met before the drug can be marketed for public consumption →R&D investment is primarily fixed cost in nature However, the research knowledge (formulae) is non-rival in nature, which is a key characteristic of public good.
- Patent gives monopoly right to the firm that has successfully researched. With this monopoly right, consumers' demand becomes price inelastic →firm can charge higher price →make supernormal profit during the patent protection period. The potential of making supernormal profit acts as an incentive for private firms to go into pharmaceutical

research. Without patent → market failure in the form of missing market private firms will not go into such research and production → loss of society's interest in the form of sufferings and shorter life expectancy all over the world.

**Note to students:** For greater conceptual clarity, students are encouraged to draw a monopoly diagram illustrating supernormal profit.

- It can also be argued that the consumption of some pharmaceutical drugs for infectious diseases involves significant external benefit on others.
- Patent is therefore an incentive for firms to research and invent new drugs for treating illnesses and extend lives. It is therefore valid for these firms to sue others (governments/ firms) that produce generics before the expiry of patents.

**Argument 2:** Rebranding and selling patented drugs cheaper in low income countries is socially desirable as a pricing practice in view of low affordability & lower costs.

- Population in low income countries is plagued with coexistence of infectious diseases/ epidemics with low purchasing power → demand highly price elastic. They will not be able to pay patent-based pricing.
- Why costs of production for low income countries may be lower
  - Lower operating and marketing costs.
  - Greater economies of scale due to market expansion
  - Actual production cost of drugs is variable cost in nature, hence low marginal cost is low
- Also, by charging higher prices in developed countries and charging lower in low income countries, pharmaceutical firms are charging on more socially desirable basis.

**Anti-thesis:** However, the pharmaceutical firms have also been accused of charging excessively against society's interest.

**Argument 1:** Patent leads to excessive supernormal profits

Pharmaceutical firms are known to make excessive profit due to their monopoly power (price inelastic demand). The issue has been how to ensure that their pricing and profit margin are socially reasonable. A possible option has been for governments to co-invest in pharmaceutical research so that they can have a say in pricing.

**Argument 2:** High drug prices in developed countries a form of discriminatory pricing and is causing rising healthcare costs

- Although the practice of charging lower in low income countries cannot be conclusively identified as price discrimination because of the possible lower cost incurred in marketing in these countries, the significant gap in prices has been considered as unfair pricing for developed countries.
- With ageing population a big issue in developed countries, high drug prices contribute to rising healthcare expenditure and due to fiscal deficits their governments want to slash these costs.
- Drugs marketed in low income countries can be resold illegally at lower prices in developed countries.

**Synthesis:**

It can be argued that for fairer pricing overall, the economies of scale from market expansion in low income countries provides a basis for drugs to be sold cheaper in developed countries. Also, the continuing economic sluggishness and fiscal problems in developed countries have raised price elasticity of demand in these countries and this would call for pharmaceutical companies to lower prices in these countries. As a whole, pricing of drugs has to be socially reasonable in view of the nature of consumption, it is not a luxury but a need even for the high income consumers.

It is also appropriate for governments to co-invest in drug research for major illnesses as a way to ensure that the drugs can be reasonably priced.

	Descriptors	Marks
L3	<ul style="list-style-type: none"> <li>▪ <b>Conceptually supported with good links between concepts</b> in explaining the rationales for protection of patent rights and different prices between developed and developing countries.</li> <li>▪ Considering <b>both economic and welfare considerations</b> in discussion                             <ul style="list-style-type: none"> <li>○ Costly pharmaceutical R&amp;D but public good in nature</li> <li>○ Difference in price elasticity of demand between developed and developing countries</li> <li>○ Socially valid for charging lower in developing countries</li> <li>○ However, pharmaceutical companies are also making excessive profits in developed countries</li> </ul> </li> <li>▪ <b>Contexts of developing and developed countries</b> firmly used in discussion</li> </ul>	19-21
	<p><b>Sufficient use of economic concepts, accurately explained and balanced</b></p> <ul style="list-style-type: none"> <li>▪ Patent as necessary monopoly power for society's interest</li> <li>▪ Charging lower in low income countries due to much higher price elasticity of demand compared to that in developed countries.</li> </ul>	15-18
L2	<p>Conceptually accurate but <b>unbalanced or undeveloped</b></p> <ul style="list-style-type: none"> <li>▪ Issue of patent only, omitting issue of charging lower in developing countries</li> <li>▪ Using concepts but lacking in overall coherence, eg. arguing for patent as a way to deal with missing market issue but failing to see that it leads to excessive monopoly profits</li> <li>▪ Thesis or anti-thesis only</li> </ul>	12-14
	<ul style="list-style-type: none"> <li>▪ Demonstrates understanding of the welfare issues (illnesses &amp; lives, low income in developing countries) but arguments contain <b>superficial references to concepts</b> <b>OR</b></li> <li>▪ Answer as a whole is relevant and logical but <b>conceptual explanation contains inaccuracies</b></li> </ul>	10-11
L1	<b>Entirely descriptive</b> although reasoning is logical (without concepts)	5-9
	Most parts of answer <b>irrelevant</b> or <b>illogical</b> in reasoning	1-4
E2	Uses concepts in examining the case for and against the measures and ending with considered view. Eg. Role of government; need for firms to lower prices in developed countries in view of fiscal and growth problems	3-4
E1	Gives balanced view in assessing the measures but without considered judgement of the issues raised.	1-2

Q4.

Household final consumption expenditure in 2013 as a proportion of the country's GDP was 38% for Singapore and 69% for USA.

Source: <http://data.worldbank.org/indicator>, accessed 25 July 2014

Discuss whether raising consumption is the best approach for sustaining economic growth.

[25]

**Answer requirements:**

- Examine the strengths and limitations of consumption-led growth strategy.
- Offer other policies, such as export-led and supply-side policies, for overcoming the limitations of consumption-led growth.

**Introduction**

- Unpack conceptual terms in the question
  - Definition of consumption expenditure: expenditure on goods and services by households, inclusive of import content in the expenditure.
  - Components in consumption: autonomous consumption (rise in consumption due to non-income factors) and induced components (rise in consumption due to rising national income).
  - Sustained economic growth: the ability of a country to continue growing domestic production (real GDP); this ability requires country to continue having potential growth, which is expansion in productive capacity through having more resources or improvement in the productivity of resources. **Essential** to point out that to sustain economic growth a country has to grow both aggregate demand (AD) and productive capacity (LRAS).
- Growing through raising consumption refers to growth strategy that is domestic-led, possibly through continuous expansionary fiscal and monetary policies which encourage household spending. This approach can work for countries with large domestic population but there are limits in terms of sustaining the growth in the long term if there is lack of potential growth or economic problems such as rising household debt due to over-consumption and over-borrowing.
- Increasing emphasis on consumption as an approach to sustaining economic growth is indicated by the larger proportion of consumption to GDP.

**Body**

**Thesis: Raising consumption can contribute to sustaining economic growth**

**Argument 1:** An autonomous increase in consumption leads to economic growth

- Raising autonomous consumption, for example through low interest rate policy, could lead to an increase in national output and hence economic growth. An increase in autonomous consumption would increase aggregate expenditure causing magnified increase in national output through the **multiplier process**.
- Explain briefly the multiplier effect using Y-AE diagram. An increase in autonomous consumption will cause an initial increase in income by the same extent. This initial injection increases the income of the manufacturers of the consumption goods. This increase in income will induce further consumption while part of this increase in income is withdrawn from the circular flow in the form of saving, tax and imports. This induced consumption

will further increase the national output and hence income of another group of producers, which will once again induce consumption. Process continues to generate actual economic growth.

**Argument 2:** A rise in consumption could raise the marginal propensity to consumption (MPC) in the country, hence raising the effectiveness of domestic management policies for greater growth stability

- The size of multiplier depends on size of MPC.
- In order to raise consumption level in the country, government may need to implement policies that will raise the purchasing power of households so that households could consume. Government could raise the minimum wage, reduce tax and raise social security to encourage householders to consume more and save less. Such measures would raise the MPC while reducing the MPS and MPT. A larger MPC would mean that household would spend a larger proportion of the **increase** in income for consumption.
- Conversely, a smaller MPT and MPS would mean that household would save and be taxed a smaller proportion of the **increase** in income. This smaller MPS and MPT would mean that at each time the leakage out of the circular flow of income will be smaller.
- The larger multiplier will make the domestic policies more effective as a counter cyclical approach to reducing volatility in economic growth.
- Unlike countries such as Singapore and Ireland which depend on external demand to drive economic growth, the dependence on external demand would mean that government of these countries have to depend on supply-side policies to increase competitiveness of the export and attempt to reduce fluctuation of external demand, ensuring sustain EG.
- The effects of supply side policies may vary and may not effectively allow countries to achieve its aims. However, with the emphasis on consumption, the large MPC and APC would mean that government could use its demand management policies to effectively manage AD to achieve the aim of sustained EG.

**Argument 3:** Explain how raising consumption could reduce vulnerability of the economy to external shocks

- Raising consumption on domestic consumption could reduce vulnerability of the economy to external shocks such as the Global Recession in 2008-09. In Singapore, one of the approaches the government had taken then was to adopt the Jobs Credit Scheme in order to keep consumption demand stable and domestic economy going.
- Thus should there be an external shock, the impact on domestic growth would be reduced as the domestic consumption is able to support EG - the extent of fall in national income could be minimal due to the high APC in the country.

**Anti-Thesis:** However, consumption-led growth strategy is not be the best approach as not all countries have the ability to adopt this to sustain EG and for all countries, rising consumption cannot sustain EG because potential growth through investment and other supply-side improvements are needed as well.

**Argument 1:** Consumption-led growth is not appropriate for countries with small population

- To a certain extent, consumption-led growth is only appropriate for countries with large population. Countries like Singapore with small domestic market and open economy may find such approach unsuitable due to the small multiplier. The small multiplier would mean that an increase in consumption will not lead to substantial EG.
- Singapore has a smaller APC of 38% compared to countries like USA with an APC of 69%. This smaller APC indicates that Singapore has a small MPC compare to other countries.
- While Singapore could implement policies to increase the MPC, it is unlikely that Singapore could raise the MPC by a large extent due to import reliance and high savings (high MPM and MPS).

**Argument 2:** Effect of rising consumption on EG is limited by rising imports

Even if consumption-led growth is attractive to large economies, the extent of benefit on EG is limited by rising imports. Import expansion will also worsen the current account and balance of payments.

**Argument 3:** If consumption-led growth model is not accompanied by an increase in productive capacity, such approach could lead to demand-pull inflation.

- When there is little spare capacity, raising consumption will lead to demand-pull inflation → erosion of households' purchasing power of household & weakening of economic environment and sentiments for EG.

### Transition to suggestion of other economic policies

Raising consumption is not the best approach for sustaining economic growth. Certain conditions have to be met in order for such approach to be adopted. The conditions or criteria include the size of the multiplier and the availability of spare capacity. As mentioned earlier, such approach may not be suitable for a small and open economy like Singapore. But countries like China, USA and India maybe at a better position to adopt such strategy, but even then this is only for the short term because Inflation would likely arise as a result of using consumption to sustain EG. Supply-side policies are needed to grow productive capacity and tapping on growth of external demand to sustain EG.

**Supply-side Policies** - Explain how supply-side policies lead economic growth

- Training and skill upgrading would increase labour productivity → increasing productive capacity & greater stability of unit labour cost.
- More productive and skilled workforce could attract more investors into the country leading to an increase in AD. An increase in AD coupled with increase in AS would sustain EG.
- Infrastructural growth and high R&D strategies are other ways adopted in Singapore to expand both AD and AS in the long term.

### Synthesis

- There are various approaches towards achieving sustained EG in a country. While consumption-led EG is one such approach, it is not the best approach even for large economies because it is primarily demand-sided in effects on economy. While high

consumption has supported growth in years prior to the global recession, this has contributed to the debt problem which triggered the recession.

- Rather than focusing on only one approach to sustain EG, it is necessary to adopt a combination of approaches which improve both productive capacity and the expansion of external demand.
- Countries with large domestic market like China and USA are in a better position to adopt consumption-led growth than small countries like Singapore. China has been moving its emphasis to from an export-led to consumption-led growth because of its excessive reliance on external demand since it opened up the economy. This allows the country to reduce its vulnerability to external shocks while not completely cutting off the other possible growth avenue.
- Unlike China, it is very challenging for Singapore to shift her focus to its own domestic consumption due to the nature and characteristic of its country. Thus Singapore's growth strategy will have to remain export-led.

Level Descriptors for Essay Question 4		Marks
L3	<ul style="list-style-type: none"> <li>• Accurate, well-developed and balanced analysis which considers these:                             <ul style="list-style-type: none"> <li>○ Rising consumption and magnified expansion in equilibrium national income</li> <li>○ The possible expansion in size of multiplier and effect on the effectiveness of domestic management policies as counter-cyclical approach (growth stabilisation)</li> <li>○ Limitations of consumption-led growth strategy: size of domestic market, demand-pull inflation, size of imports</li> </ul> </li> <li>• Recognising the nuances that underpin the effectiveness of consumption-led growth, such as                             <ul style="list-style-type: none"> <li>○ Nature/ size of economy</li> <li>○ Importance of potential growth for growth sustainability (supply-side improvements)</li> </ul> </li> </ul>	15– 21
L2	<ul style="list-style-type: none"> <li>• Balanced but primarily undeveloped arguments</li> <li>• Developed analysis but one-sided</li> </ul>	10 – 14
L1	<ul style="list-style-type: none"> <li>• Answer is not addressing issue of sustaining economic growth</li> <li>• Major conceptual errors</li> </ul>	1 – 9
E2	Well-reasoned and supported judgement, using valid factors/criteria to assess whether <ul style="list-style-type: none"> <li>• Raising consumption can sustain growth</li> <li>• Consumption-led growth is best for sustaining growth</li> </ul>	3 – 4
E1	<ul style="list-style-type: none"> <li>• Lack of clarity in focus of evaluation</li> <li>• Making some judgement, but mainly not supported</li> </ul>	1 – 2

- 5 The problem of jobless youth (15-24 years of age) shows no sign of abating. The global youth unemployment rate was estimated at 13% in 2013, with many countries across the world reporting their youth unemployment rate to be more than twice their national unemployment rate.
- (a) Explain why youth unemployment is of concern to governments. [10]
- (b) Discuss whether the openness of an economy is a significant determinant in the choice of policies to deal with youth unemployment. [15]

*Question requirements:*

- a) *Explain what youth unemployment is and the harmful effects that may arise from it which is of concern to governments. Thoughtful answers should exhibit the knowledge that youth unemployment poses a bigger problem than general unemployment.*
- b) *Acknowledge that demand expansion is not the only cause of youth unemployment; there are other causes, e.g. market rigidities, misalignment between education and workforce, mismatch between supply and demand. As such, openness of an economy is not a significant determinant in policy choices. Other determinants are in fact more significant.*

#### **Suggested Answers for Q5(a)**

**Explain why youth unemployment is of concern to governments.**

**[10]**

Unemployment is undesirable at any age, but evidence shows that people who struggle to find work during their early years in the labour market will be at a serious disadvantage for the rest of their careers. Problems of youth unemployment affect more than the youth; it has a major impact on society as well as the economy. And although typically higher in developing countries, youth unemployment has become a problem for many countries around the world, including developed ones.

Youth unemployment is of concern to governments because of the many long-term, negative consequences for the individual and for their country:

- **Wastage or even loss of resources:** The youth are the young and productive in a country's labour force. To be unemployed means a significant portion of the country's productive capacity untapped. Some unemployed youth resort to finding employment in unrelated or unfulfilling tracks – resources are not allocated efficiently and thus welfare is not maximised. For some countries, high youth unemployment causes youth to leave the country in search of employment; this further shrinks the workforce. High youth unemployment has led to social unrest (e.g. Greece) and political revolutions.
- **Substantial economic costs:** As the effects of youth unemployment can persist for years (e.g. those who begin their careers without work are more likely to have lower wages and suffer joblessness again later in life) the economic loss can be substantial. This includes higher welfare payments as well as opportunity costs from missing out on training and experience accumulation that typically occurs with young workers.
- **Decreased earnings and widening income disparity:** There will be decreased earnings over their entire lifetime for those who are unemployed in youth. Because youth are not able to build up skills or experience during their first years in the workforce, unemployed youth see a decrease in lifetime earnings when compared to those who had steady work or those who were unemployed as an adult. The lower salary can persist for 20 years after the unemployed period before the individual begins earning competitively to their peers. While not earning money during unemployment, the youth could be contributing to a pattern of poverty for their generation. Widespread youth unemployment leads to a generation that is excluded socially and at a great risk for poverty. It also widens the gap between the rich and poor even further.

- **Wage scarring:** The deterioration of labour market prospects that results directly from an initial spell of unemployment is termed a 'scar'; it can come in the form of either higher unemployment or a lower subsequent wage or a combination of both.
  - After a period of unemployment, the temptation to take just any work can be strong – young people unemployed for a long time were channelled into “non-regular” jobs where pay was low and opportunities for training and career progression few. Employers seeking new recruits for quality jobs generally prefer fresh graduates (of school or university) over the unemployed, leaving a cohort of people with declining long-term job prospects and reductions in long-term wages: they become “youth left behind” (words used in an OECD report) and the cycle continues.
  - After long-term unemployment, youth are in danger of losing skills, connections to their industry, and desire to work long into the future. After a period of unemployment during a recession, the individual will find it difficult to find work once the economy improves because they have a large gap in their work history. Instead, employers will be more likely to hire those in the next generation who are just out of school.
- **Impact on family and SOL:** Increasingly, more unemployed youth are moving back in with their parents. This has been seen as both an effect and a cause of high youth unemployment. Youth in many countries now live with their parents into their late-twenties. In families, it is common that when one person becomes unemployed, other members of the family begin looking for or securing employment. This is called the added-worker effect. This can sometimes take the form of employment in the informal sector (the part of the economy which is not taxed, monitored by any form of government or included in the measurement of GDP) when necessary. Being unemployed for a long period of time (in youth) has also been correlated to decreased happiness, job satisfaction and other mental health issues (they feel that they are a failure and are of no importance to their communities).

Level	Descriptors for Q5(a)	Marks
L3	<ul style="list-style-type: none"> <li>• Developed explanation of specific problems arising from youth unemployment, with some links to other macroeconomic goals</li> </ul>	9-10
	<ul style="list-style-type: none"> <li>• Developed explanation of problems arising from youth unemployment with sound economic reasoning</li> </ul>	7-8
L2	<ul style="list-style-type: none"> <li>• <b>Developed explanation</b> of the problems arising from unemployment in general, but not specific to youth unemployment</li> </ul> <p><i>OR</i></p> <ul style="list-style-type: none"> <li>• <b>Undeveloped explanation</b> of specific problems arising from youth unemployment</li> </ul>	5-6
L1	<ul style="list-style-type: none"> <li>• Listing or mere description of points, with some conceptual inaccuracies</li> </ul>	3-4
	<ul style="list-style-type: none"> <li>• Many conceptual errors</li> </ul>	1-2
	<ul style="list-style-type: none"> <li>• Irrelevant answers</li> </ul>	

**Suggested Answers for Q5(b)**

**Discuss whether the openness of an economy is a significant determinant in the choice of policies to deal with youth unemployment. [15]**

**NOTE to students:** *The overly-detailed suggested answers are not expected in your Prelims answers but will prepare you in the area of youth unemployment for the eventual A-level exams. For the Prelims exam, good answers are those which can acknowledge the need for demand- and supply-side considerations in policy choices, i.e. openness of an economy is not a significant determinant in policy choices.*

**Introduction:** The main thrusts in dealing with youth unemployment are job creation through demand expansion and improving the employability of the country's youth through sound education and training policies. While most economies are open, the degree of openness varies and this has implication on the choice of policies for AD expansion.

**Thesis argument:** The openness of an economy can be a determinant in the choice of policies to deal with youth unemployment. This is because the extent of a country's openness can affect its choice of policies with respect to expansion of aggregate demand and the extent of the significance depends on the relative importance between domestic and external demand. Large, open economies have greater flexibility in tapping on domestic demand for demand expansion as opposed to small, open economies.

Underlying this premise is the widely-held view that youth unemployment is best corrected by boosting economic growth. There is some evidence that changes in economic performance have had a larger effect on youth unemployment than the overall unemployment rate, e.g. some countries reported that their youth unemployment rate in the few years after the 2008 recession has jumped to more than double their national average. The rationale is that when there is a general hiring freeze, the youth unemployment rate grows as more youth move from schools into the workforce.

- Based on the above premise, boosting economic growth is thus considered to be one quick way of reducing the rate of youth unemployment. For a small and open economy, the smallness of its small domestic demand means that it has to depend on external demand for economic growth. In this case, its choice of policies to reduce youth unemployment would be somehow determined (or limited) by the openness of its economy.
- For example, during times of global economic slowdown, the small and open economy would be one of the first to be hit by sluggish external demand and a fall in foreign direct investment. Consequently, employment prospects in the country would deteriorate, and the government, in its attempt to reduce unemployment rate, would try to employ demand-management policies to boost domestic demand. However, the choice of policies would be affected by the extent of the openness of the economy.
- This is because a small and open economy has a small AD which would limit the effectiveness of expansionary fiscal and monetary policies. As the economy is also reliant on imports due to its lack of resources, the country's small multiplier would further limit its choice of demand-management policies.

**Counter arguments:** However, the openness of an economy is not a significant determinant in the choice of policies to deal with youth unemployment. There are many causes behind the youth unemployment rate and sluggish economic performance is but only one. Therefore, correct identification of other causes of youth unemployment will help countries identify the factors which influence their choice of policies. In fact, because improving employability of youth usually requires education and training to be better aligned with the changing needs of industries and to remove barriers of taking up employment among the jobless, the approach to tackle youth unemployment is fundamentally similar for all countries irrespective of their degree of openness.

**The following are other factors (or other more significant factors) which will determine/influence the choice of policies to deal with youth unemployment:**

- Inflexible/rigid labour markets (e.g. high taxes on labour, high minimum wages, strict laws and regulations on firing people): Although labour markets are generally left to operate under forces of demand and supply, the fact is that rigidities exist which affect the efficient working of market forces. Relevant policies are those which would be able to work through or help to reduce the inflexibility of labour markets. Examples of where the inflexibility lies:
  - Older employees have more job experience and job security. This means that the newest employees (usually the youngest) are more likely to be let go than an older employee who has been there for a long time. Similarly, workers with temporary workers do not have as many rights as older workers who have permanent contracts.
  - Youth also have smaller social networks and less experience searching for work, making it a more difficult process where they are likely to find less success than older employees. Mobility is another factor in the youth unemployment rate. When the attachment to home is strong and when youth rely on parents for financial support, youth are often less mobile and less able to move locations to find a job than older workers who can move their entire family. The youth being supported financially by their parents are also able to wait longer before accepting a job, meaning that they remain unemployed for a longer period of time.
  - Example: One might think that the effect of 'scarring' might be blunted by the overall ageing of the population by increasing demand for labour. But Japan's youth joblessness, which surged after its financial crisis in the early 1990s, has stayed high despite a fast fall in the overall workforce. A large number of *hikikomori* (reclusive adolescents or adults who withdraw from social life) live with their parents, rarely leaving home and withdrawn from the workforce.

- Mismatch between the supply of youth employees and the demand for them:
  - The most obvious reason for the mismatch is poor basic education. In many advanced economies (whether growing or shrinking), the jobless rate for people with less than a secondary-school education is twice as high as for those with university degrees.
  - There is also a growing mismatch between skills of youth and the vacancies that employers want to fill. A lesson in point would be Germany, which places a lot of emphasis on high-quality vocational courses, apprenticeships and links with industry, and which also has a relatively low level of youth unemployment.
  - The number of graduates is growing much faster than the number of job opportunities relevant to their level of qualifications. Thus there is a strong mismatch between the supply of and the demand for graduates, contributing growing youth unemployment.
  - Some economists argue that there is no oversupply since graduate salaries are generally stable or rising. But others suggest that there may be too many of the 'wrong type' of graduates, hence the mismatch between supply of graduates and demand from employers. The World Bank makes mention of a 'frictional' labour market where there are 'relatively high rates of tertiary graduate unemployment along with relatively high vacancy rates, or it takes a long time for employers to fill up positions. This is often an indication of skills shortages among graduate students.
  - UNESCO said that 'the number of unemployed graduates is partly caused by economic imbalances. The financial crisis and economic downturns in recent years are certainly the reasons for the reduction in the number of jobs' (but they also acknowledge that supply-side factors also contributed to high numbers of unemployed graduates; this 'over-supply' is an issue but only in some fields)
- Lack of alignment between education and workforce:
  - A close relationship between education and work can effectively help to reduce youth unemployment. A case in point is Germany – its long tradition of high-quality vocational education and apprenticeships have helped the country reduce youth unemployment in recent years despite only modest economic growth. Countries with high youth unemployment are short of such links e.g. few high-school leavers in France have any real experience of work; universities in north Africa focus on preparing students to fill civil-service jobs despite companies' complaints about the shortage of technical skills.
  - Training gaps may explain why over the past five years youth unemployment in flexible economies like America and Britain has risen more than in previous recessions and stayed high. Britain, which has one of the world's most flexible labour markets, more than twice as many young Britons (11.5% of the labour force) are unemployed as young Germans (3.9%). Incidentally, Britain also has a long-standing prejudice against practical education - in 2009 only about 8% of English employers trained apprentices compared with up to four times that number in the best continental European countries.
- Education expectations by employers: Youth are expected to have more education to compete for jobs than was true for previous generations, a phenomenon referred to as academic inflation. Youth are expected to stay in formal schooling for longer periods of time.
  - Because employers use credentials to screen applicants, more youth are forced to remain in education to meet the requirements of employers. This means a delayed entry into the workforce. The increasing amount of time that youth spend getting an education causes an equivalent rise in the average age when full-time employment begins.
  - From another angle, increased education expectations may also be blamed for rising youth unemployment. This is because education may be preparing youth for jobs that perhaps no longer exist when these youth finally graduate. Thus, along with increased education expectations comes a decrease in job availability.
- Nature of employment contracts: Young people are more likely to have temporary forms of work such as internships, seasonal jobs, contract work, and graduate research assistantships. In fact, the rise in the phenomenon of internships and other temporary work for youth has a significant influence on youth unemployment rates (and thus should determine the choice of policies).
  - Because their jobs are temporary contracts, youth are often the first to be laid off when a company downsizes. If they are laid off, youth are typically not eligible for redundancy payments because they only worked with the company for a short period of time. Once this work ends, many find themselves unemployed and disadvantaged in the job search.

- Young people with take temporary internships and research assistant positions as a way to build their experience. Facing unemployment, they will also turn to unpaid work. The legitimacy of internships has begun to be questioned. The intent of an internship is to provide valuable work experience, typically to youth in or recently out of college. However, many interns have complained that they are simply performing basic grunt-work, rather than learning important knowledge and skills, which they can transfer when they eventually apply for permanent jobs.
- In many of the developed countries, it is estimated that 1/3 of under-24s who are working are disproportionately engaged in informal or temporary employment. In developing countries, about 1/5 are unpaid labourers or work in the informal sector. Although this is better than not working at all, it means nearly half of the world's youth are contributing to the labour market less effectively than they could be.
- *Creative destruction and disruptive innovation*: New technology is forcing firms to rethink their operations from the ground up. Companies are constantly redesigning work, e.g. separating routine tasks (which can be automated or contracted out) from skilled jobs. They are also constantly redesigning themselves by 'upsizing', 'downsizing' and 'contracting out'. As businesses go through a fast and aggressive period of creative destruction and/or disruptive innovation, the life expectancy of companies is declining. Retaining labour becomes more and more challenging, needless to say about the ability of firms to hire.
- *Attitude of the youth*: Some of these youths choose not to work. For example, some groups of Asian women may choose not to work for cultural reasons.

#### **Conclusion/synthesis:**

- The openness of an economy is a determinant but not a significant one in the context of youth unemployment because the real obstacles of the problem lie on the supply-side of the economy.
- Policies to deal with youth unemployment must be able to identify the causes of the problem at hand. As the issue of youth unemployment cannot be separated from larger questions about labour market and the task of promoting economic growth, the government cannot work alone. Whether or not chronic youth unemployment is fixable, there is enough evidence to suggest that it can be reduced through concerted efforts of government, business, education and young people themselves.
- In short, openness of an economy is not a significant determinant of the choice of policies in addressing youth unemployment because sluggish economy is not the most important cause of this jobless phenomenon. Even if it is, the issue of 'openness' will only affect countries which are small and open, not the large and open ones. To learn from countries which have reported some success in reducing youth unemployment, governments around the world should adopt long-term strategies to better align educational systems with labour market requirements, and also put in more efforts to promote entrepreneurship.

Level	Descriptors for Q5(b)	Marks
L3	<ul style="list-style-type: none"> <li>• <b>Balanced and developed discussion</b> <ul style="list-style-type: none"> <li>○ Understands that youth unemployment is not identical to general unemployment, and thus policy choices are not similar either</li> <li>○ ‘Openness’ may affect the choice of policies but only for demand management</li> <li>○ Shows clear understanding that the more significant approach for employability applies to all countries, regardless of the extent of openness</li> <li>○ Covers both demand- and supply-side considerations in policy choices</li> </ul> </li> </ul>	9-11
L2	<ul style="list-style-type: none"> <li>• <b>Developed but one-sided answer</b> <ul style="list-style-type: none"> <li>○ Considers only the ‘openness’ factor, i.e. significant or not significant, in relation to policy choice for demand expansion</li> <li>○ May be theoretical and not applied to the context of youth unemployment (i.e. talks about general unemployment)</li> </ul> </li> <li><u>OR</u></li> <li>• <b>Balanced but undeveloped discussion</b> <ul style="list-style-type: none"> <li>○ Acknowledges and argues that openness is not a significant determinant in the choice of policies to deal with youth unemployment</li> <li>○ Brings in other determinants which governments must consider when deciding on relevant policies to address youth unemployment</li> </ul> </li> </ul>	6-8
L1	<ul style="list-style-type: none"> <li>• Some conceptual errors</li> </ul>	3-5
	<ul style="list-style-type: none"> <li>• Many conceptual errors</li> <li>• Irrelevant answers</li> </ul>	1-2
E2	<ul style="list-style-type: none"> <li>• Whether or not ‘openness’ is a significant determinant is really not a question at all. Regardless of how open an economy is, the significant factors in determining the choice of policies are largely domestic/internal, e.g. extent of rigidity of labour, the closeness of alignment between education system and workforce requirements, etc.</li> </ul>	3-4
E1	<ul style="list-style-type: none"> <li>• Judgement not explained or supported with economic reasoning.</li> </ul>	1-2

6. "One reason for the decline in traditional protectionism is that countries hit by recession are able to let their exchange rates fall." The Economist, Oct 12, 2013
- (a) Explain why a country might get into balance of payment deficit due to a recession in another part of the world. [10]
- (b) Assess the view that in correcting balance of payment deficit, letting the exchange rate fall is a more appropriate policy than adopting traditional protectionism. [15]

**Answer requirements**

- (a) Briefly explain the types of balances and economic transactions in the balance of payments & what a balance of payments deficit means →briefly explain the characteristics of recession in terms of national income and unemployment →explain why the weakening of economic conditions in another part of the world can cause a country to run into balance of payments deficit. Emphasise that globalisation causes these causal effects to be both direct (with others with recession) and indirect (with others similarly affected by the recession).
- (b) Briefly explain how each policy works in correcting balance of payments deficit →use chosen criterion/criteria as basis of 'appropriateness' to compare the two policies in relation to the deficit correction. End with a considered response on whether depreciation is more appropriate than tariffs/non-tariff barriers.

- (a)
- The balance of payments (BOP) –definition & balances
    - The accounts record the transactions that place between the residents of a country and the rest of the world over a given period, usually one year. These transactions take the form of trade in goods and services and investment and portfolio (financial) capital movements.
    - Trade in goods and services recorded in current account while investment and portfolio capital movements recorded in capital account.
    - The BOP position is summation of current and capital accounts. If this overall balance is in surplus or a deficit, the balance of payments is said to be in disequilibrium.
  - BOP deficit
    - When the value of payments made to other countries, from imports, outflow of investment and financial capital, exceeds the earnings made from exports and inflows of investment and financial capital.
    - The deficit can originate from current account or capital account. A country can have a current account deficit and yet having overall surplus due to a surplus in the capital account that exceeds the current account deficit.
  - Recession in another part of the world
    - Recession is an economic condition when a country experiences a decline in Gross Domestic Product (GDP) over two consecutive quarters (six months). Define GDP.

- Recession is usually accompanied with rising unemployment rate and falling or negative rate of inflation.
- How recession in another part of the world causes a deficit BOP in another country
  - Likely to be a recession in a large economy, such as US or the Eurozone.
  - Falling GDP, rising unemployment →falling imports (imports directly related to national income) + falling investment and portfolio capital outflows to other countries →falling exports and investment & capital inflows for other countries
  - Globalisation has made countries' economies internationally interconnected. The effects of recession elsewhere on a country are both direct and indirect, eg. when US goes into a recession →imports less from Singapore and other countries →Singapore will see falling exports to US and to other countries which also suffer from the decline in exports to US.
  - The widespread effects of a recession in US are significantly caused by global supply chain in today's manufacturing and trade patterns. Most goods are now produced in different countries/ parts of the world before imported to a country – the reason why a recession in US would affect more than just the country it imports goods from.
  - Accompanying the global supply chains is the significance of foreign direct investment and portfolio capital flows. Hence when US suffers a recession, American firms will also be investing less or placing less funds in other countries, thus affecting their capital accounts.

(a)	Descriptors	Marks
L3	<ul style="list-style-type: none"> <li>▪ Causes cover <b>factors affecting both</b> current and capital account</li> <li>▪ Explanation with sound conceptual clarity</li> <li>▪ Clear linkage of factors to external recession in a different region/ part of the world (eg. recession in US/ EU on Asian or Emerging economies)</li> </ul>	9-10
	<ul style="list-style-type: none"> <li>▪ Conceptually accurate explanation covering mainly <b>current account only</b></li> <li>▪ Makes links to external recession although <b>elaboration may be lacking</b></li> </ul>	7-8
L2	<ul style="list-style-type: none"> <li>▪ Conceptually not sufficient, eg. key terms such as BOP deficit and recession used but not defined</li> <li>▪ Linkage to recession in another part of the world minimal/incidentally mentioned</li> </ul>	5-6
L1	<ul style="list-style-type: none"> <li>▪ Very skeletal answer</li> <li>▪ Many conceptual inaccuracies</li> </ul>	3-4
	<ul style="list-style-type: none"> <li>▪ Primarily irrelevant in most parts of answer</li> </ul>	1-2

(b)

**Introduction on both policies and notion of ‘appropriateness’**

- Letting the exchange rate fall (depreciation): Currency becomes cheaper in terms of foreign currencies → country’s goods and services become cheaper in foreign currencies & its imports more expensive in the domestic currency. A currency may depreciate when demand for it is falling due to declining exports and inflows of capital and FDI are falling due to weakening economic performance.
- Traditional protectionism refers to trade policy of reducing imports through tariffs and non-tariff barriers (NTBs) and raising exports through government subsidy schemes on export industries.
- In the correction of current account deficit, both are expenditure switching but while traditional protectionism is mainly raising aggregate demand (AD) by switching domestic expenditure from foreign goods to domestic goods, depreciation not only reduces imports but raising exports as well. Hence depreciation has a greater expansionary effect on AD through the expansion on export demand and even inflows of FDI.
- There are a few criteria that can be considered in the notion of appropriateness in question, such as the economic characteristics of a country, its economic conditions or with respect to efficiency considerations. [answer can select one or two for discussion]

**Thesis: Exchange rate depreciation can be considered more appropriate than traditional protectionism because it is caused by weakening economic fundamentals of a country and not a deliberate policy of reducing imports**

**Argument 1:** Depreciation is more appropriate because it offers greater expansionary effects on AD, needed when country is facing both BOP deficit and slowdown in economic growth

With growth slowdown, country needs to raise AD to close deflationary gap. Depreciation has broader effects, on both exports and FDI, than tariffs NTBs. With traditional protection, government can only switch domestic expenditure whereas with depreciation, foreign markets may be more receptive to country’s goods and services.

**Argument 2:** While depreciation helps to make domestic production more competitive at home or overseas, this happens through market forces and not deliberate protection of home market

Exchange rate depreciation is market-led, not the result of tampering of trade policy by the government. Other countries will be more receptive to weakening exchange rate than the use of tariffs and NTBs which are recognized as unfair trade practices. With depreciation it is harder for foreign governments to fault this expansionary policy.

**Anti-thesis:** However, depreciation becomes inappropriate when it has been caused by deliberate manipulation of the country’s central bank to achieve healthy trade position and economic growth

**Argument 1:** Prolonged depreciation can be considered a protectionist approach too as it would have involved continual central bank’s intervention to weaken currency. Depreciation should be just a short term market-led adjustment for country to improve BOP. It is not appropriate as a long term strategy because just like traditional protectionism,

domestic producers will grow reliant on depreciation for competitiveness. Depreciation cannot replace the need for restructuring measures to improve competitiveness such as upgrading of labour skills and technology.

**Argument 2:** Depreciation causes rising domestic inflation which will eventually weaken the country's trade position and economic condition

- Depreciation will cause rising cost-driven domestic inflation if country is import-reliant for food, raw materials and even industrial components. This import reliance will make it difficult for country to achieve the Marshall-Lerner condition (for sum of price elasticity of demand for import and export demand exceeds one).
- Rising domestic inflation due to depreciation poses similar welfare effects as tariffs and NTBs which will cause rising domestic business costs and cost of living due to higher import prices.
- Rising domestic inflation will weaken the effect of depreciation on correcting BOP deficit. For countries with highly price inelastic demand, the deficit may even worsen.

### **Synthesis**

- While both policies offer some potential for correcting BOP deficit, each has limitations and cannot be considered to be a sound way for dealing with chronic deficits which require structural supply-side measures for improving country's competitiveness for foreign demand and foreign investment.
- Being market-led, exchange rate depreciation can be considered more appropriate than the deliberate, and internationally seen as unfair, traditional protectionist trade policy against foreign goods. However, prolonged depreciation due to central bank's manipulation becomes a deliberate protectionist policy too and cannot be considered a more appropriate policy than tariffs and NTBs.

**Note to students:** An answer can bring together thesis and anti-thesis on a particular core idea, for example in arguing that depreciation is appropriate because it is market-determined the answer can then counter-argue that it is possible for a central bank to engineer a prolonged depreciation by continuous buying over of foreign currencies and selling its currency (case of China during the period of undervalued yuan). In this approach, the flow could be as follows:

- Depreciation is more appropriate because it is market-led without the deliberate measures of raising import prices or reducing import access in home market. However, a prolonged depreciation is also possible due to central bank's intervention, which can be considered a protectionist economic policy.
- Depreciation is more appropriate when a country is facing both the BOP deficit and growth slowdown. However, depreciation will inject imported inflation, which will also harm trade and economic growth, especially if country is import reliant.

	Descriptors	Marks
L3	<ul style="list-style-type: none"> <li>▪ <b>Compares both policies</b> in terms of how each comes about (market-led vs deliberate), extent of expansion on AD or efficiency effects</li> <li>▪ <b>Conceptually sound and elaborated explanation</b> using economic concepts/terms such as                             <ul style="list-style-type: none"> <li>○ Expenditure switching</li> <li>○ Price elasticity of demand/ Marshall-Lerner condition</li> </ul> </li> </ul>	9-11
L2	Conceptually accurate and elaborated but <b>non-comparative</b> : only explaining how both policies work on correcting deficit balance of payments and not attempting to consider whether and how depreciation is more appropriate than traditional protection	6-8
L1	<ul style="list-style-type: none"> <li>▪ <b>Primarily descriptive</b>, not using economic concepts/terms in reasoning</li> <li>▪ Very skeletal</li> <li>▪ <b>Major errors</b> although there is relevance to question</li> </ul>	3-5
	<ul style="list-style-type: none"> <li>▪ Most parts <b>irrelevant</b> to question</li> </ul>	1-2
E2	<p>Uses criterion/criteria for comparative evaluation and giving a considered judgment at closure.</p> <p>Example: Appreciation is more appropriate than traditional protectionism because it is market-led and economic fundamentals are weak but if the depreciation is engineered through continual central bank's intervention, it will have severe economic effects just such as traditional protectionism.</p>	3-4
E1	Random evaluation of the measures, without criterion/criteria. Leaves two sides of arguments suspended without considered judgement at the end.	1-2



CATHOLIC JUNIOR COLLEGE  
JC2 PRELIMINARY EXAMINATIONS  
In preparation for  
General Certificate of Education Advanced Level  
Higher 2

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**ECONOMICS**

**9732/01**

Paper 1

**25 Aug 2014**

**1300 - 1515**

Additional Materials : Writing Paper

**2 hours 15 min**

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**READ THESE INSTRUCTIONS FIRST**

Write your name, class and question number on **all** the work you hand in.

Write in dark blue or black pen on both sides of the paper.

You may use a soft pencil for any diagrams, graphs or rough working.

Do not use highlighters, glue or correction fluid.

**Begin each question on a new sheet of paper.**

**Section A**

Answer **ALL** questions.

**Section B**

Answer **THREE** questions in total.

At the end of the examination, **hand in ALL questions separately.**

The number of marks is given in brackets [ ] at the end of each question or part question.

**Section A**

Answer **ALL** questions in this section

**Extract 1: Challenges in Singapore's Healthcare Sector**

The first challenge is the combined impact of a growing and ageing population on our capacity needs. Our population grew 25% over ten years and will continue to grow over the next decade. Healthcare services will need to grow in tandem. Our population is also ageing rapidly. By 2030, 1 in 5 Singaporean residents will be aged 65 and above. This is a threefold increase to 960,000 elderly, from about 350,000 today. The ageing population will be a strong driver for healthcare demand, as the elderly require a higher intensity of medical care. Studies have shown that they are about 4 times more likely to be hospitalised than younger Singaporeans. They are also likely to stay longer once hospitalised. This will have tremendous impact on overall healthcare demand in future. Already, we are seeing signs of capacity constraints across the system – from high bed occupancy rates to long waiting times for appointments.

Second, the ageing population also requires changes to how we organise and deliver healthcare. In the past, care was focused on the hospitals. This was not wrong, as our population was younger then, and our diseases were more episodic in nature. With increasing life expectancy and more sedentary lifestyles, we are faced with a growing burden of chronic diseases. We have therefore been shifting our focus from episodic care in the acute hospitals, to keeping people healthy and managing their chronic conditions in the community, which is more effective and sustainable in the long-term.

Finally, we need to actively manage the rise in healthcare costs. Around the world, many governments are struggling to contain rising costs and Singapore too is not spared from the effects of global healthcare inflation. We thus need to constantly innovate to stay cost-effective in how we deliver care, to ensure that healthcare remains affordable for everyone.

Source: *Ministry of Health, Singapore, 2012.*

**Extract 2: Reviewing Singapore's approach to healthcare**

The idea of "co-payment" is where costs are subsidised only partially by the government, the rest being borne by consumers. This is considered sacrosanct in the Singapore health system. Just last month, the Ministry of Health emphasised that even as health-care policies evolve to prepare for the future and face new challenges, "what will not change is the emphasis on individual responsibility for one's own health and the principle of co-payment".

What do we want from co-payments? There are three considerations. First, we want to recover some of the cost of providing the service. Second, the Government is determined to avoid a situation in which patients take unfair advantage of the system. But this needs to square with a third consideration, which is to not deter medically necessary care.

**Preventive care**

In preventive services such as cancer screening and regular diabetic follow-ups, co-payments by consumers are less useful and perhaps even detrimental. In Singapore, less than 50 per cent of women undergo regular Pap smears and less than 40 per cent regular mammograms. This is a far cry from the 70 per cent to 80 per cent needed for effective national screening.

Co-payments by consumers are arguably not needed in these cases as the inherent behaviour is already avoidance, and the financial outlay just adds one more "reason" to defer care.

Screenings and good control of chronic conditions are intended to detect disease early and prevent complications respectively. These measures save both individuals and society money in the long term.

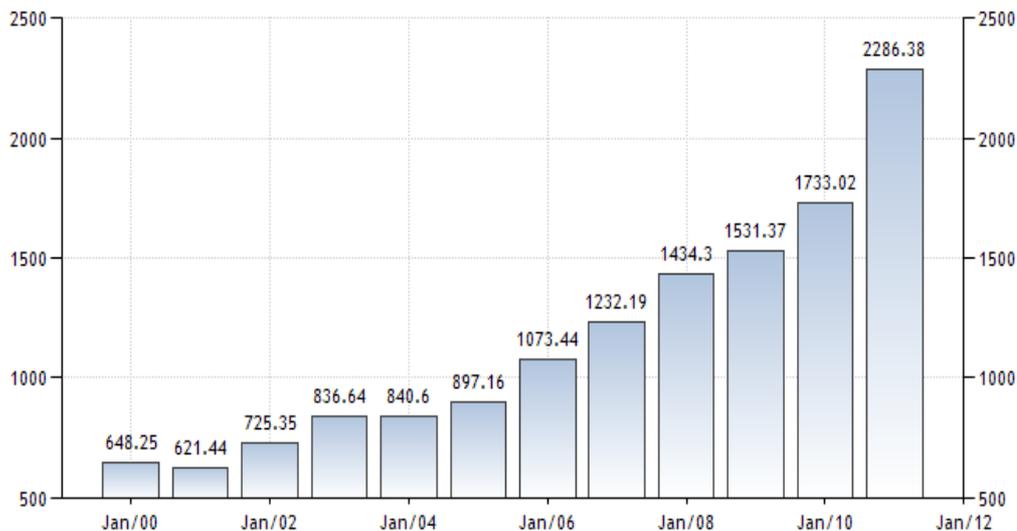
Long-term and palliative care

What about long-term care? Poorly utilised and poorly delivered long-term care services simply drive patients into hospitals with complications such as bed sores, lung infections and the like. Blunt imposition of co-payments is penny wise and pound foolish.

Finally, let us look at palliative care. Often, patients would have expended much of their life savings by the time they reach this stage and have little monies left. Co-payments may thus impede acceptance of palliative care services. Can a dying man over-consume palliative care services? Perhaps, but is it really so important to guard against moral hazard here, especially when the psycho-social aspects of end-of-life care are just as important as the medical elements?

Source: *The Straits Times*, 2013.

**Figure 1: Health expenditure per capita (US dollar) in Singapore**



Source: *World Bank*, 2012.

### Extract 3: The Pharmaceutical industry in Singapore

The pharmaceutical industry in Singapore is a growing one and one which has a considerable amount of Government backing. It is part of the pharmaceutical, biotechnology and healthcare cluster in Singapore. These three industries have been grouped together as they have synergies and address common issues of human healthcare. Of the three, pharmaceuticals is viewed as the strongest sector.

In the mid-1990s, the Singapore Government designated a 50 hectare site at Tuas, the industrial hub of the country, as a pharmaceutical and biotechnology zone, known as the Pharma Zone. The particular focus of the Zone is to tap the good growth potential of new pharmaceutical and biotechnology manufacturing companies. It has, to date, proved successful with an established cluster of leading foreign companies such as GlaxoSmithKline and Merck now dominating the industry here. They have multi-million dollar manufacturing facilities in Jurong Island and Tuas. The Singapore Government's approach has been to adopt a proactive policy in the pharmaceuticals industry. In this regard, it plans to integrate pharmaceuticals with drug discovery, healthcare and clinical testing.

A myriad of legislation governs pharmaceuticals in Singapore. The Medicines Act and the regulations that fall under it provide for the control of all aspects of dealings in medicinal and its related products, as well as CPMs (Chinese Proprietary Medicine). It provides for the licensing of all medicinal products to be sold, manufacturers, wholesalers and importers, so as to help the authorities to ensure the safety, efficacy and quality of medicinal products. It also deals with issues relating to advertisements of medicinal products and CPMs.

Source: *Law Gazette*, November 2000.

#### **Extract 4: Intellectual Property patents: The vehicle for innovation**

The pharmaceutical industry has consistently invested in science, knowing that the fruits of R&D can add years to life, and life to years. In 2011 alone, the industry invested €27.5 billion in R&D in Europe. The intellectual property system, notably patents, provides key incentives for taking on the risks of researching and developing new medicines. The rewards of this system are new and better medicines that benefit patients, scientific progress and society as a whole. As a consequence of a deeper understanding of the complexity of diseases, the potential of R&D has increased, but so has the difficulty and scale. Recent advances in science and technology have also contributed to the emergence of powerful new research tools, such as nanotechnology, pharmacogenomics, and combinatorial chemistry, which makes pharmaceutical innovation both more promising – and more challenging – than before.

The intellectual property system, and especially patents, is intended to give the investors who decide to take on such risks to develop new or improve existing drugs the possibility to recoup related costs, though without any certainty and only for a limited and legally defined period of time. Once recouped, the innovator can continue to break new ground, while the “old” medicine can be copied and continue to make a contribution to health and society.

Source: *European Federation of Pharmaceutical Industries and Associations*, 2014.

#### **Questions**

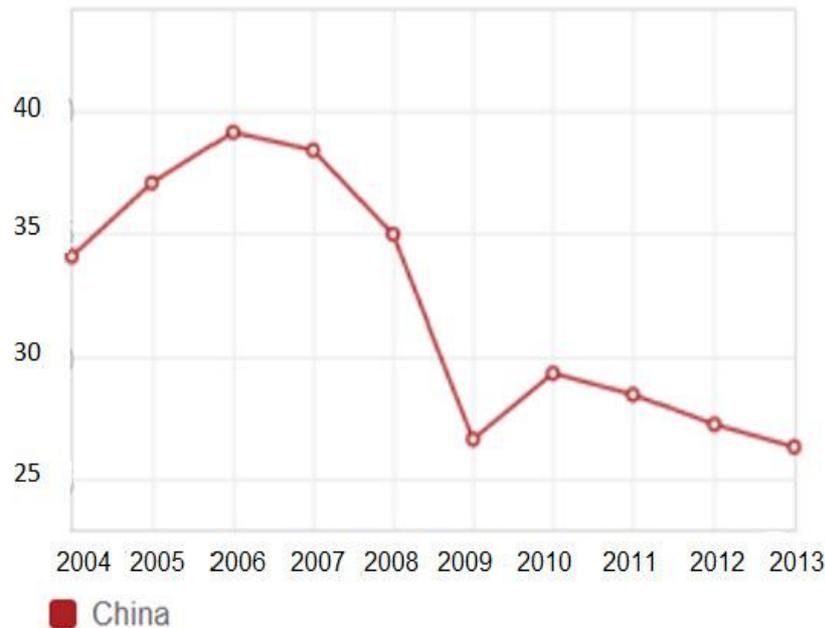
- (a) (i) Describe the trend in expenditure on healthcare services for Singapore from 2000 to 2011. [2]
- (ii) Account for the overall change in Singapore's **expenditure** on healthcare services. [2]
- (b) Describe the type of market structure the pharmaceutical industry is operating in. [2]
- (c) Assess whether the above identified market structure in the pharmaceutical industry is detrimental to society. [6]
- (d) (i) Explain the market failure in the market for healthcare. [4]
- (ii) Comment on whether subsidies in the healthcare industry are effective. [4]
- (e) Discuss the extent to which patents are more effective than subsidies in encouraging innovations in the pharmaceutical industry. [10]

[Total : 30]

## Question 2

## The Rise of the Global Village

Figure 2: Exports of goods and services (% of GDP)



Source: World Bank

**Extract 5: Globalisation: The Fear Factor**

In recent times, productivity growth in the tradable goods sector has caused a fall in the relative price of such goods, giving rise to increased trade throughout the world. This growth in trade activity has in turn, been one of the key drivers for economic growth. As such, it seems like the logical economic choice is for emerging Asia's firms to go global.

But there is an alternative view. As domestic markets in China, India and Indonesia become vast, why do their firms need to bother to compete abroad? After all, the argument goes, they can grow and achieve economies of scale at home. There is a parallel with America, where listed firms tend to be domestically focused, whereas in Europe home markets are often too small to offer growth opportunities. American firms are frequently far more profitable in their own backyard than in foreign fields; Procter & Gamble's American margins, for instance, are more than double its international ones.

However, Asian firms face global competition at home. Thanks to social media and the internet, they are now influenced by trends around the world. So in many industries, companies in emerging Asia face competition from global firms selling to customers whose tastes are more globally influenced than before. In the medium term, these firms will either have to give up or become more global themselves.

Trying to become a multinational is the hardest path to going global. It involves wrenching change, great risk, lots of scrutiny and the disposal of peripheral businesses in order to concentrate resources. How many Chinese firms are ready to take the leap and make big losses up front to build their business is open to debate. "There are very few Chinese companies that are willing to do this in an overseas market," says Mr Zhang at Haier. But, except for domestic businesses isolated from global competition, it is the right path in the long run, as Japan is rediscovering.

In most industries it is hard to stay competitive without being active worldwide. Insularity does not work. So the drive to create more multinationals in Asia and increase its global corporate clout is certain to continue.

Source: *The Economist*, 31 May 2014

**Extract 6: Perks of US-Singapore FTA 'extend beyond economics'**

Born out of a midnight golf game, the historic free trade pact between Singapore and the United States not only brought multiple benefits for both but was also the foundation for a new era in US trade policy. The US-Singapore Free Trade Agreement (FTA), which marks its 10th anniversary this year, has raised bilateral trade and made Singapore the largest recipient of US investment in the Asia-Pacific as of 2012, Prime Minister Lee Hsien Loong said on Tuesday. Total bilateral trade has risen 70 per cent in the same time to US\$67.9 billion.

But the perks extend beyond economics, Mr Lee told a reception held by the US Chamber of Commerce and US-ASEAN Business Council to mark the event. The landmark pact was one of the first high-standard FTAs and ushered in a new era for US trade policy towards Asia. Acting Deputy US Trade Representative Wendy Cutler said the FTA also broke new ground in areas such as labour, e-commerce and the environment, and helped shape regional debates on trade. Individual businesses have also profited. US lenders such as Citibank benefited from the Qualifying Full Bank licences granted under the FTA, which Singapore has not since offered to any other FTA partner, Mr Lee said. The FTA has raised Singapore's profile in the US and allows easier movement of people between the countries, said Mr T.C. Voon, executive vice-president of ST Engineering's US unit VT Systems.

Source: *The Straits Times*, 28 June 2014

**Extract 7: Exchange rate policy still relevant for Singapore**

Speaking at a dinner at the opening of an economic research institute yesterday, the managing director of Monetary Authority of Singapore (MAS), Mr Ravi Menon, said Singapore faces significant challenges in the new era of slow growth and rising global liquidity. "Externally, that could potentially set off asset market bubbles that could in turn have knock-on effects on consumer price stability and financial stability," he said.

At home, the economy is facing a "demographic cliff" of an ageing workforce, even as the economy undergoes a difficult restructuring period, he said at the Asian Bureau of Financial and Economic Research dinner. The combination of easy money and a tight labour market resulted in inflation rising to an average of 4.2 per cent between 2010 and last year.

Laying out a stout defence of the policy, Mr Menon noted that if the MAS did not allow the Singdollar to appreciate, headline inflation would have been about 2.5 percentage points higher than the 4.6 per cent rate last year.

He also pointed out that global oil prices have risen by an average of 16 per cent per year between 2010 and last year. But with a strong local currency, local petrol pump prices have increased by only 8 per cent over the period.

Source: *The Straits Times*, 22 May 2013

**Extract 8: Transforming our Economy**

The global outlook for 2014 is uncertain. The advanced economies are gradually recovering, while the emerging economies are slowing. However, the odds are against a sharp slowdown in the global economy.

The Ministry of Trade and Industry (MTI) hence expects the Singapore economy to grow by 2% to 4% in 2014.

A key prong in our restructuring strategy has been to provide firms with strong support for every investment that can improve productivity. For instance, we are seeing higher take-up rates for the existing Productivity and Innovation Credit (PIC) scheme. This scheme is due to expire in Year of Assessment (YA) 2015. There have been many calls for its extension. I have decided to extend the PIC scheme for another three years until YA2018. This extension will cost the Government a total of \$3.6 billion.

We are also undertaking a major review of our Continuing Education and Training (CET) system to support the up-skilling of our workers on a continuous basis and the transformation of our economy. As more funds will be needed for the expansion of our CET system, I will top up the Lifelong Learning Endowment Fund (LLEF) by \$500 million, bringing the total fund size to \$4.6 billion.

As mentioned earlier, change is happening on the ground. Even within our 'old economy' sectors, individual players are doing things quite differently. They show us that change is possible and how, if we scale up such changes across whole industries, we can achieve a major impact in overall productivity.

Source: *Singapore Budget Speech 2014*

### Questions

- (a) (i) Describe the trend in the exports of goods and services as a percentage of GDP for China. [2]
- (ii) Consider whether the above trend allows us to make a judgment on China's balance of trade. [3]
- (b) With reference to Extract 5, assess if Asian markets should embrace globalization. [6]
- (c) Explain two ways in which Free Trade Agreements have benefitted the Singapore Economy. [4]
- (d) Using economic analysis, explain how a "combination of easy money and a tight labour market" can lead to inflation. [5]
- (e) Discuss the view that "exchange rate policy is still relevant for Singapore". [10]

[Total: 30]

**Package for Prelim 2014 CSQ 1**

ai)	<b>Describe the trend in expenditure on healthcare services for Singapore from 2000 to 2011. [2]</b>
	<p><b><u>Suggested Answer:</u></b>                  Overall increasing trend [1m]                  From 2000 to 2006 health expenditure per capita increases at a slower rate as compared from 2007 to 2011 which increases at a faster rate. [1m]</p>
	<p><b><u>Examiners Comments:</u></b></p> <ul style="list-style-type: none"> <li>• All students are able to describe the trend as increasing trend and therefore able to score 1 mark.</li> <li>• Most students are also able to explain that from 2007 to 2011 health expenditure per capita increases at a faster rate as compare with before 2007</li> <li>• Some students state that there was a fall in 2001 which is not really a significant trough.</li> <li>• For 1 mark students still waste time giving the historical description of the data.</li> </ul>
aii)	<b>Account for the overall change in Singapore’s expenditure on healthcare services. [2]</b>
	<p><b><u>Suggested Answer:</u></b>                  An overall increase in healthcare expenditure is due to the increase in demand as a result of the ageing population. [1m]                  Evidence: Extract 1 paragraph 1 suggests that the aged require intensive medical care and long periods of hospitalisation. [1m]</p>
	<p><b><u>Examiners Comments:</u></b></p> <ul style="list-style-type: none"> <li>• Some students cannot understand account means to give reasons and fail to address demand or supply factors.</li> <li>• Many are able to give demand reasons but with no case evidence.</li> </ul>
b)	<b>Describe the type of market structure the pharmaceutical industry is operating in. [2]</b>
	<p><b><u>Suggested Answer:</u></b>                  Oligopoly [1m]                  Two leading firms dominate the industry: SmithKline, Glaxo and Merck.                  Also,                  high set up costs “ multi-million dollar manufacturing facilities”</p>

	<p>OR Barriers to entry with “myriad of legislation.” [1m]</p>
	<p><b><u>Examiners Comments:</u></b></p> <ul style="list-style-type: none"> <li>• Almost all students are able to identify the market structure as oligopoly with the exception of a few who identify it as monopolistic competition.</li> <li>• Many are able to give case evidence for the market structure identified but there are a few who just explain the characteristics of oligopoly with no link to the case evidence.</li> </ul>
<p>c)</p>	<p><b>Assess whether the above identified market structure in the pharmaceutical industry is detrimental to society. [6]</b></p>
	<p><b><u>Suggested Answer:</u></b></p> <p><b>Introduction:</b> Overview – identifying criteria of evaluating market structure The pharmaceutical industry operates in a competitive oligopolistic market structure, where there are high barriers to entry. The impact of this oligopolistic market structure on society will be evaluated based on the microeconomic objectives of economic efficiency.</p> <p><b>Thesis: The oligopolistic pharmaceutical industry is detrimental to society: Productive inefficiency</b> The oligopolistic pharmaceutical industry would lead to productive inefficiency as it is unlikely to be producing at the minimum point of its LRAC since due to high market power, it tends to restricts output to maintain high prices. Hence, it is not exploiting all economies of scale, leading to wastage of resources. Also, a pharmaceutical firm having low degree of competition may not have the incentive to keep its costs at the lowest. Hence, the oligopolistic pharmaceutical industry is productively inefficiently from both firm and society’s point of view, resulting in wastage of resources and higher prices.</p> <p><b>Thesis 2: Allocative inefficiency</b> The oligopolistic pharmaceutical industry would lead to allocative inefficiency. It is not producing where <math>P = MC</math>. Instead, it is producing at <math>P &gt; MC</math> (Consumers’ valuation of the marginal benefit of consuming the good, is higher than the marginal cost of producing it), hence there is underproduction of the pharmaceutical drug and welfare loss to the consumers. This is due to the use of the intellectual property system, notably patents, as mentioned in extract 4, pharmaceutical firms have the market power to restrict output and set the corresponding price which is higher than the marginal cost of producing the next additional unit of drug.</p> <p><b>Anti-thesis: The oligopolistic pharmaceutical industry may not be detrimental to society: Dynamic efficiency</b> The oligopolistic pharmaceutical industry can be dynamically efficient. According to extract 4, patents “provide key incentives for taking on the risks of researching and developing new medicines.” Through the use of patents, pharmaceutical firms can be more certain of returns from the risks taken during R &amp; D. Hence despite the high costs of R &amp; D, firms continue to innovate through R &amp; D, which will have a positive impact on product quality, variety and costs.</p>

Oligopolistic firms are able to reap economies of scale. According to extract 4, "In 2011 alone, the industry invested €27.5 billion in R&D in Europe" Due to the high costs of R & D, which is necessary for the developing of new drugs, the output of a pharmaceutical firm has to be sufficiently large in order for its average costs to be low.

**Anti-thesis 2: Greater exploitation of Economies of Scale, thus may actually have Productive Efficiency**

Due to high barriers of entry, firms are able to secure a large market share and therefore reap economies of scale by spreading R&D costs over a greater output. If there are more firms in the market (and hence a smaller market share for each firm), it may lead to higher average costs for each unit and hence higher prices for consumers.

**Synthesis:**

Oligopoly is much more difficult to evaluate compared to other market structures because it covers a greater variety of market situations than the other market forms. For example some pharmaceutical firms which are not generally very concentrated (e.g. seven firms dominating the market), engage in no collusion and face considerable effective competition in the markets.

However, some oligopolies which are highly concentrated (e.g. 3 firms dominating the market) or collusive have more market power, and higher supernormal profits. Extract 3 "an established cluster of leading foreign companies such as SmithKline, Glaxo and Merck now dominating the industry here."

Level	Descriptors	Marks
L1	Listing of theoretical benefits/costs of having large firms, with no analysis of how efficiency/equity outcomes have resulted.	1-2
L2	Answers that are inadequately explained.	3-4
L3	Well-explained answers with own evaluated judgement. <ul style="list-style-type: none"> <li>• Analysis of how efficiency and equity outcomes have resulted</li> <li>• Usage of extract evidence</li> <li>• Substantiated evaluation</li> </ul>	5-6

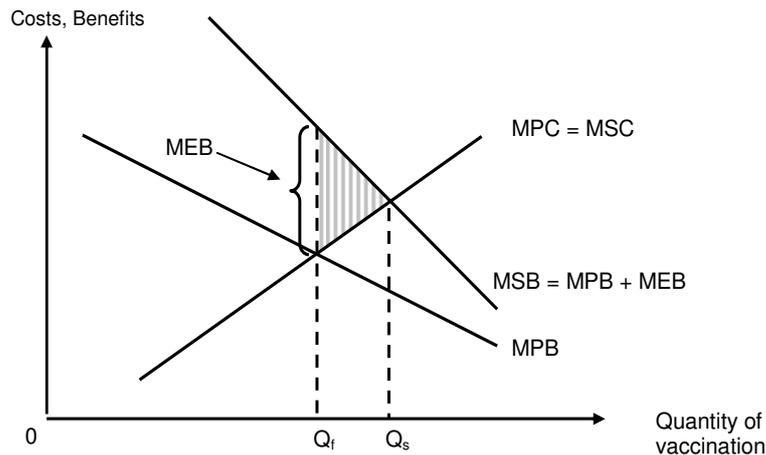
**Examiners Comments:**

- Some students cannot understand the question and write on how the pharmaceutical industry leads to positive externalities.
- General explanation on the advantages and disadvantages of large firms with no reference to the pharmaceutical industry.
- No case evidence
- One sided answer with allocative inefficiency and productive inefficiency well explained but with no anti-thesis on how oligopolistic pharmaceutical industry is not detrimental to society.
- Some students were confused between allocative and productive efficiencies i.e. Conceptual error!
- No synthesis

**TAS: [2+2+2]**

di) Explain the market failure in the market for healthcare. [4]

**Suggested Answer:**



**Explanation of Positive Externality in Consumption:**

In a free market economy driven by self-interest, individuals will consume healthcare at the point whereby  $MPB = MPC$  at  $Q_f$  to maximize their net private benefit.

For simplicity we assume there are no external costs in production, hence  $MPC = MSC$ .

Thus, markets fail to achieve socially optimal output with the existence of positive externalities in consumption. A positive externality is the benefit that is enjoyed by a third party who is neither the consumer nor the producer of the good for which no payment is made.

Extract evidence: (Extract 2) Screenings and good control of chronic conditions are intended to detect disease early and prevent complications respectively. These measures save money in the long term.

As a result of the positive externalities, there is a divergence between the marginal social benefit and the marginal private benefit. The marginal social benefit is higher than the marginal private benefit at any level of consumption.

The allocative efficient or social optimum quantity, however, is  $Q_s$  where marginal social benefit is equal to the marginal social cost ( $MSB = MSC$ ).

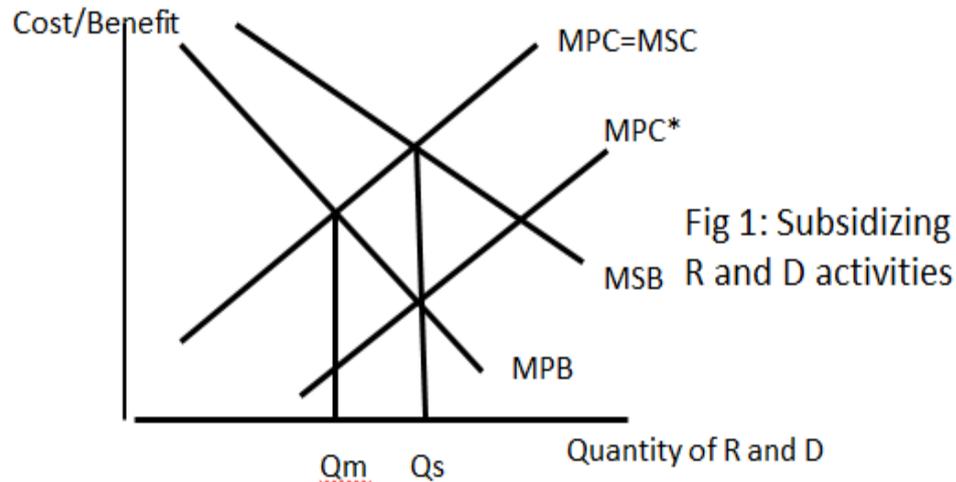
There is thus an underconsumption of the product by the amount  $Q_f - Q_s$ .

At free market equilibrium output level  $Q_f$ ,  $MSB > MSC$  which leads to a deadweight loss (welfare loss) and hence this indicates society's welfare is not maximized.

	<p>From the graph as a result of the under-consumption of the product by Q<sub>f</sub>Q<sub>s</sub>, the deadweight loss (represented by the shaded area) is incurred because MSB exceeds MSC over this output. Thus this results in market failure.</p> <p><u>Positive Externality</u>          Extract evidence of externality (1m)          Explaining what the points Q<sub>f</sub> and Q<sub>s</sub> mean (1m)          Stating there is a divergence between MPB &lt; MSB (1m)          Stating that there is deadweight loss due to under-consumption (1m)</p> <p><b>OR</b></p> <p><u>Imperfect information</u>          Extract evidence of imperfect information (1m)          Explain that MPB<sub>perceived</sub> &lt; MPB<sub>actual</sub> (1m)          Stating at consumption is not at Q<sub>s</sub> (1m)          Stating that there is deadweight loss due to under-consumption (1m)</p>
	<p><b><u>Examiners Comments:</u></b></p> <ul style="list-style-type: none"> <li>• The majority of the students are able to give case evidence and explain either imperfection information or positive externalities as market failure.</li> <li>• For those who score between 1 and 2 marks are those who explain imperfect information and positive externalities simultaneously and cannot distinguish between the two.</li> <li>• Or students who do not give case evidence and draw a diagram showing wrong triangle as dead weight loss.</li> </ul>
<p><b>dii)</b></p>	<p><b>Comment on whether subsidies in the healthcare industry is effective. [4]</b></p>
	<p><b><u>Suggested Answer:</u></b></p> <p><b>Subsidies are effective:</b>          The provision of subsidies shifts the MPC curve to the right and hence lowers the cost healthcare provision.</p> <p>This helps to internalise the marginal external benefits of consuming healthcare services and increases consumption of healthcare services to the socially optimal level. Deadweight loss is eliminated and allocative efficiency is achieved.</p> <p>This will reduce the likelihood of patients bring denied of adequate healthcare due to the high costs. Subsidies will enable the community to keep healthy and to “manage their chronic conditions”. [Extract 1]</p> <p><b>Evaluation of subsidies:</b>          Subsidies seek to make healthcare more affordable to the poor.</p> <p>However it is difficult to decide how much subsidies to grant. If subsidies are too low the poor will still not be able to enjoy healthcare. If subsidies are too high this will be a strain on the government’s budget.</p> <p>In the long run, as Singapore’s population ages and the number of elderly is</p>

	<p>expected to increase, the government's expenditure on healthcare is also expected to increase dramatically. This may increase the burden on future taxpayers and may decrease the incentive to work or even result in brain drain.</p> <p>In addition, it may lead to an over-reliance on the subsidies, causing patients to be less responsible for their health.</p> <p>Explanation of how subsidies work:          "internalise the marginal external benefits" (1m)          Extract evidence on benefits(1m)</p> <p>Any 2 points on evaluation of subsidies (1m for each point= 2m)</p>
	<p><b><u>Examiners Comments:</u></b></p> <ul style="list-style-type: none"> <li>• Most students explain how subsidies could shift the supply curve to the right and therefore reduce the cost of production leading to increase in supply. As a result the answer is not using the correct economic framework.</li> <li>• Students are able to explain how subsidies internalise the marginal external benefit and eliminate deadweight loss but spend so much time explaining the whole process of positive externalities similar to the answer in di.</li> <li>• No case evidence</li> <li>• Those who get 2 marks are able to explain the effectiveness of subsidies in internalising external marginal benefits but fail to evaluate the effectiveness of subsidies.</li> </ul>
<p>e)</p>	<p><b>Discuss the extent to which patents are more effective than subsidies in encouraging innovations in the pharmaceutical industry. [10]</b></p>
	<p><b><u>Suggested Answer:</u></b></p> <p><b>Introduction:</b>          Although patents and subsidies are both incentive-based policies, there remain differences in terms of how they work and the outcomes that ensue. This answer will compare the pros and cons between patents and subsidies and conclude whether patents or subsidies are more effective.</p> <p><b>Explanation of how patents and subsidies work:</b></p> <p>According to extract 4, patents are "intended to give the investors who decide to take on risks to develop new or improve existing drugs the possibility to recoup related costs... for a limited and legally defined period of time." Patents provide an artificial barrier to entry during this period of time, when a pharmaceutical firm becomes the sole producer of that particular drug, allowing the firm to make supernormal profits during the period.</p> <p>Without this protection, firms will earn only normal profits and will not be able to recoup to costs of R &amp; D. Furthermore, if other firms are allowed to borrow and reproduce the outcomes of a firm's R &amp; D, no firms would have any incentive to undertake R &amp; D, knowing others can free-ride on it.</p> <p>Subsidies, on the other hand, reduce the cost of R &amp; D. Due to the positive externality of successful R &amp; D i.e. the transference of knowledge to other firms not</p>

undertaking R & D, firms tend to under-produce R & D. Hence, giving subsidies equivalent to MEB will reduce the MPC of undertaking R & D from MPC to MPC\* as reflected in figure 1 below. When firms internalise this externality, they will undertake R & D up till Qs.



**Thesis: Patents are more effective in encouraging innovations in the pharmaceutical industry.**

The costs of R & D and the subsequent cost of producing the drug are separate and should be distinguished. Patents affect both post R & D revenues and costs of producing the drug, whereas subsidies merely offset the costs of R & D.

Besides allowing a pharmaceutical firm monopoly power and hence 100% of market share for a limited period of time, doing so also ensures the pharmaceutical firm is able to keep costs low.

The cost of producing the drug may be very high and thus, without market power and hence market share, the pharmaceutical firm may not be able to produce for a large enough output to reap economies of scale to keep costs low enough to earn (at least) normal profits

With foresight, the pharmaceutical firm may not undertake R & D in the first place if they are not protected against entry of new firms.

Subsidies on the other hand, do not affect post R & D revenues and costs since the subsidy is given per unit of R & D output (not for each unit of drug produced). Hence, this may not provide a sufficient incentive for firms to undertake R & D and innovate.

**Thesis 2**

Patents are better because it ensures asymmetric information between producers. It precludes the possibility of competitors' free-riding on research knowledge and outcomes whereas subsidies merely allow producers to internalise the externality of knowledge transference without preventing it from happening.

Asymmetric information remains the main incentive for producers to undertake R & D since incremental improvements depend on existing research knowledge. Hence, the long run impact on producers' revenue could be potentially large if existing research knowledge (which can lead to discovery of new blockbuster drugs) is freely shared.

Since the use of subsidies greatly reduces the incentive for firms to undertake R & D without the security of protecting its intellectual property, patents may be more effective in encouraging innovation.

**Anti-thesis: Subsidies are more effective in encouraging innovations in the pharmaceutical industry.**

Both subsidies and patents face some uncertainty in terms of the effectiveness of its implementation, but the uncertainty that can be attributed to patents will lead to larger long run impacts.

In order for subsidies to work, the government will have to be able to correctly estimate the amount of MEB associated with R & D. Overestimating MEB will lead to over subsidizing of R & D, leading to an over production of R & D and wastage of resources. However, the welfare loss associated with over or under production of R & D is only temporary.

On the other hand, for patents to work, the government will have to be able to correctly estimate the correct amount of time needed for the firm to recoup its R & D costs. This is a harder estimate to make, and if the estimate is inaccurate, the welfare loss due to the firm restricting output to charge a higher price will last for the period of the patent, which is usually 10 – 15 years.

Hence the impact of an inaccuracy in estimation is smaller in the case of subsidies.

**Synthesis: Equity**

Besides the effectiveness of patents and subsidies, whether each produces equitable outcomes is also a major concern.

With patents, the costs of R & D are recouped via the profits earned from subsequent production and sale of the drug.

Hence, the cost burden of R & D is borne only by consumers of the drugs (whose PED for the drug would be very inelastic given the unavailability of substitutes). Whereas the source of government funds for subsidies come from taxpayers and hence the cost burden of R & D is shared by all taxpayers.

Hence patents are better since it might be considered fairer to have only consumers of the drug bear the cost burden, even if the costs shared by each person are higher.

Thus, in most cases therefore, patents provide a better option to incentivise R & D. However, in cases where important drugs are crucial for mass consumption, e.g., the development of vaccines to prevent an epidemic, then patents may not be a viable option since some consumers would be priced out of the market.

Level	Descriptors	Marks
L3	Good discussion and <u>comparison</u> made between patents and subsidies. <ul style="list-style-type: none"> <li>• Established basis of comparison</li> <li>• Theoretical analysis to substantiate comparison</li> <li>• Use of extract evidence to illustrate context and</li> </ul>	7-8

		substantiate theoretical points (to get high L3)	
	<b>L2</b>	<p>Clear explanation of the two measures (two-sided) but there is no comparison made between the two.</p> <ul style="list-style-type: none"> <li>• Lists of merits and demerits of both patents and subsidies</li> <li>• Explanation of demerits and merits without established basis of comparison</li> </ul> <p><u>OR</u></p> <p>Comparison made between the two but inadequate explanation of the two measures</p> <ul style="list-style-type: none"> <li>• Establish basis of comparison</li> <li>• But lack theoretical analysis to substantiate comparison</li> </ul>	4-6
	<b>L1</b>	<p>One sided argument for both policies</p> <ul style="list-style-type: none"> <li>• Only merits or demerits for patents and subsidies</li> <li>• Descriptive answers with little economic analysis</li> </ul>	1-3
	<b>E1</b>	Attempts to make judgment but unsupported	1
	<b>E2</b>	Judgments are well explained and supported by analysis	2
	<p><b><u>Examiners Comments:</u></b></p> <ul style="list-style-type: none"> <li>• For the few better answers, students are able to make comparisons in the effectiveness between patents and subsidies in carrying out innovations as well as the use of extract evidence.</li> <li>• For answers that are mediocre, students only explain merits and demerits of patents and subsidies with no basis of comparison.</li> <li>• For very weak answers, students merely list some merits and demerits of patents and subsidies with no explanation. Also answer may be one-sided showing no demerits of the two or only patents are explained but subsidies are left out.</li> </ul>		

**Prelim Solution Package 2014 CSQ 2**

(ai)	<p><b>Describe the trend in the exports of goods and services as a percentage of GDP for China. [2]</b></p>
	<p><b><u>Suggested Answer:</u></b></p> <p>General Trend: Overall % shows a <b><u>falling/decreasing</u></b> trend. [1]</p> <p>Refinement: <b><u>Sharp fall</u></b> between <b><u>2006 and 2009</u></b>. (or any period between 06 to 09) [1]</p> <p><i>Note: We do not accept the answer: "lowest % in 2009" as it is not a trend. Neither are we accepting any other refinements as they are not nearly as significant as the sharp fall between 06-09.</i></p>
	<p><b><u>Examiners Comments:</u></b></p> <ul style="list-style-type: none"> <li>• Some candidates merely describe periodic changes (i.e. from Year X to Year Y without pointing out what was significant)</li> <li>• A handful gave description of trends i.e. describing it year by year/period by period. They failed to realise that they need to give an overall trend, followed by a refinement.</li> <li>• Some just went on to compare between years.</li> <li>• Some did not qualify the extent of the fall from 06 to 09</li> <li>• Many did not specify the period of sharp fall, and stated that the sharp fall occurred in 2009, which is factually inaccurate.</li> <li>• A significant handful of scripts pointed out insignificant refinements such as the small increases in some periods.</li> </ul>
aii)	<p><b>Consider whether the above trend allows us to make a judgement on China's Balance of Trade. [3]</b></p>
	<p><b><u>Suggested Answer:</u></b></p> <p>Definition of BOT: <b><u>Difference</u></b> between a country's <b><u>export revenue and import expenditure</u></b> [1]</p> <p>Explaining the effect of the fall in X on BOT, ceteris paribus: <b><u>Fall in X should lead to a fall in BOT</u></b> / worsening of BOT. [1] (<i>BOT deficit will not be accepted.</i>)</p> <p>Explaining that whether this will lead to an adverse BOT requires us to look at the <b><u>relative decrease between export and import values</u></b>, i.e. if import values are falling as well, there may not be a fall / decrease in BOT. [1]</p> <p>(Or</p> <p>Explaining that data given is merely a <b><u>percentage of the overall GDP</u></b>: Since the data given only shows BOT as a percentage of the overall GDP, it does not give us enough information to make a judgment on the relative change of the BOT as</p>

	<p>the percentage change could have arisen due to a change in GDP and not BOT. [1])</p> <p>Conclusion: We are <b>unable to make a judgment</b> on China's BOT based on the above data. [1]</p> <p><i>(conclusion mark only given if: both fall in X and the ambiguous change in M were explained)</i></p>
	<p><b><u>Examiners Comments:</u></b></p> <ul style="list-style-type: none"> <li>• Most did not define BOT.</li> <li>• Many did not explain effect of fall in X on BOT, ceteris paribus.</li> <li>• Many equated BOT to BOP, failing to realise the difference between the 2. Many also thought that BOT = CA.</li> <li>• Many used the terms 'exports' and 'imports' to refer to both volumes and revenue/expenditure. This is confusing and students should take notice to use clearer terms (export revenue, import expenditure, volume of exports etc.).</li> <li>• Some students erroneously thought that exports referred to (X-M).</li> </ul>
<p>(b)</p>	<p><b><u>With reference to Extract 1, assess if Asian markets should embrace globalization. [6]</u></b></p>
	<p><b><u>Suggested Answer:</u></b></p> <p><b><u>Thesis: Globalization is necessary/beneficial for Asian markets.</u></b></p> <p>Benefit: With trade, countries can now import goods from different countries and regions. This <b><u>enhances consumer choice</u></b> since there is now a tremendous range and variety of goods that they can choose from.</p> <p><i>Evidence: Asian firms face global competition at home. Thanks to social media and the internet, they are now influenced by trends around the world. So in many industries companies in emerging Asia face competition from global firms <u>selling to customers whose tastes are more globally influenced than before.</u></i></p> <p><i>(Or any other relevant point from extract)</i></p> <p><b><u>Anti-Thesis: Globalization might be harmful/detrimental to Asian markets.</u></b></p> <p>Cost: In order to allow existing domestic firms to go global involves significant restructuring of existing business models. This might lead to an <b><u>increase in unemployment in certain sectors</u></b> for locals due to processes such as outsourcing to other emerging economies.</p> <p><i>Trying to become a multinational is the hardest path to going global. It involves wrenching change, great risk, lots of scrutiny and the <u>disposal of peripheral businesses in order to concentrate resources.</u></i></p>

(Or any other relevant point from extract)

Conclusion: Asian markets need to embrace globalization, as evidenced: “In most industries it is hard to stay competitive without being active worldwide. Insularity does not work.”

Levels	Knowledge, Application, Understanding and Analysis	Marks
L3	Well-balanced answer that clearly analyses the benefits and costs of globalisation in the context of the extracts. It includes both evidence from the extract and economic theory <i>Overall conclusion is required for 6marks.</i>	5-6
L2	Two sided answers with incidental use of economic theory that is not based on the context of the extracts. Also for answers that consists of incorrect economic theories or if explanation is too brief or lacking in evidence.	3-4
L1	One-sided answer that doesn't consider the benefits and costs; “To embrace or not to embrace.	1-2

**Examiners Comments:**

- Most students were able to give 2 sided arguments but failed to explain with the relevant theory or evidence.
- Some just quoted evidence without any links to economic concepts.
- Some also did not synthesise after providing both sides of arguments.
- Many students argued that globalisation was not necessary for China due to their large domestic sector being sustainable instead of focusing on the harmful/detrimental effects of globalization. This answer was accepted but students will need to refer closely to extract evidence that clearly shows this rise in domestic demand being sufficient for sustainable economic growth in China.

c)

**Explain two ways in which Free Trade Agreements have benefitted the Singapore Economy. [4]**

**Suggested Answer:**

**Theory: Increased trade increases GDP, which raises material SOL. [1]**

Evidence: (Extract 2) Total bilateral trade has risen 70 per cent in the same time to US\$67.9 billion. [1]

**Theory: Increased capital flow into Singapore which could lead to an increase in both actual and potential economic growth. [1]**

Evidence: (Extract 2) The US-Singapore Free Trade Agreement (FTA) has raised bilateral trade and made Singapore the largest recipient of US investment in the

	<p>Asia Pacific as of 2012. [1]</p> <p><b>Theory: Increased employment opportunities for Singaporeans both locally and abroad and the inflow of foreign labour who could share their expertise to help improve the Singapore economy. [1]</b></p> <p>Evidence: (Extract 2) The FTA has raised Singapore's profile in the US and allows easier movement of people between the countries [1]</p> <p><b>Any 2 reasons for 4 marks.</b></p>
	<p><b><u>Examiners Comments:</u></b></p> <ul style="list-style-type: none"> <li>• Most could find the evidence from the extract but were either inaccurate or did not link it clearly to a theoretical explanation of the benefits of FTA.</li> <li>• Most used the extract evidence of increased bilateral trade by 70%. It should be noted that the rise in bilateral trade may not guarantee that net exports for Singapore had indeed increased. It may have meant that there was more overall trade between the 2 countries. To be more accurate, students need to state the assumption that the rise in bilateral trade has led to a growth of exports revenue by more than the import expenditure for Singapore.</li> <li>• Some only explained benefits of one flow (trade/investment/labour) and gain only half credit. Students should realise that since FTAs affects trade, labour and investment flows. Thus, the discussion of one flow is not enough. Some students provided two different pieces of evidence that points towards only one flow, e.g. trade. Such answers were also only given half credit because of the lack of scope.</li> <li>• Those who explained labour flows tended not to link to benefits using economic analysis. i.e. increase in LRAS.</li> </ul>
<p>(d)</p>	<p><b>Using AD/AS analysis, explain how a “combination of easy money and a tight labour market” can lead to inflation. [5]</b></p>
	<p><b><u>Suggested Answer:</u></b></p> <p>Inflation is defined as a <b><u>sustained increase</u></b> in the general price level. General Price Level is defined as the average price of goods and services in an entire economy. It is reflected in the intersection of aggregate demand and aggregate supply.</p> <p>Easy money as mentioned in the extract leads to a <b><u>greater availability of credit</u></b> where a rise in global liquidity which leads to a <b><u>fall in the interest rate</u></b>. This induces greater consumer spending. This <b><u>rise in consumption</u></b> leads to an <b><u>increase in the economy's Aggregate Demand</u></b>. [2]</p> <p>A tight labour market makes it <b><u>more difficult to find and hire labour</u></b>. This <b><u>increase the firm's cost of production</u></b> and thus, <b><u>decrease the economy's Aggregate Supply</u></b>. [2]</p> <p>The <b><u>combined effect of a rise in AD and a fall in AS</u></b> will lead to an unambiguous <b><u>rise in the General Price Level</u></b>, and thus leads to inflation. [1]</p>

	<p><b><u>Examiners Comments:</u></b></p> <ul style="list-style-type: none"> <li>• Many students could not identify what it meant by 'easy money' or 'tight labour market'. Many related 'easy money' to either 'money that is easily earned' or that somehow consumers now have a higher disposable income due to easy money. Both were not accepted. Others related 'easy money' to 'hot money' or capital inflow, but were not able to explain how this might have resulted in increased money supply could lower interest rates.</li> <li>• Some related 'tight labour market' to SG being at full employment level. However, given the context of the case material, it is more likely to be a situation of falling LRAS due to increase in cost of production due to falling productivity as a result of the ageing population.</li> <li>• Some did not label AD/AS diagram properly or did not draw it at all.</li> <li>• Most students could identify AD increase and AS falling but could not explain the reasons behind the increase or decrease properly.</li> </ul>						
(e)	<p><b>Discuss the view that “exchange rate policy is still relevant for Singapore” [10]</b></p>						
	<p><b><u>Suggested Answer:</u></b></p> <table border="1" data-bbox="359 929 1348 1164"> <tr> <td data-bbox="359 929 582 1164">Introduction</td> <td data-bbox="582 929 1348 1164">The Singapore economy is a small and open economy, with a small and limited pool of resources and is import-dependent. It has a large reliance on the external sector and a focus on outward oriented policies. Therefore, exchange rate policy has always been relevant for Singapore. This essay seeks to discuss if this is still the case.</td> </tr> </table> <p><b><u>Thesis: Singapore effectively employs the exchange rate policy.</u></b></p> <table border="1" data-bbox="359 1232 1348 1534"> <tr> <td data-bbox="359 1232 582 1534">Point</td> <td data-bbox="582 1232 1348 1534">Singapore's small size and lack of natural resources means that most of our basic necessities and raw materials have to be imported. Singapore's total trade (X+M) is about three times that of GDP. Given Singapore's small size, it does not influence world prices and is a price taker. Producers and consumers in Singapore have to accept prices dictated by global supply and demand conditions. As a result, the exchange rate directly affects the prices we pay.</td> </tr> </table> <table border="1" data-bbox="359 1534 1348 2011"> <tr> <td data-bbox="359 1534 582 2011">Elaborate and Examples</td> <td data-bbox="582 1534 1348 2011"> <p>MAS operates a <b>managed float regime</b> for the Singapore dollar. The trade-weighted exchange rate is allowed to fluctuate within a policy <u>band</u>, the level and direction of which is announced semi-annually to the market. The band provides a mechanism to accommodate short-term fluctuations in the foreign exchange markets and flexibility in managing the exchange rate.</p> <p>In the context of Singapore, an appreciating Singapore dollar results in lower prices of foreign goods and services imported into Singapore. This has the direct effect of lowering the prices that the economy pays for final goods and services imported into Singapore. If the imports are factor inputs, it has the added effect of lowering the cost of production of firms, as</p> </td> </tr> </table>	Introduction	The Singapore economy is a small and open economy, with a small and limited pool of resources and is import-dependent. It has a large reliance on the external sector and a focus on outward oriented policies. Therefore, exchange rate policy has always been relevant for Singapore. This essay seeks to discuss if this is still the case.	Point	Singapore's small size and lack of natural resources means that most of our basic necessities and raw materials have to be imported. Singapore's total trade (X+M) is about three times that of GDP. Given Singapore's small size, it does not influence world prices and is a price taker. Producers and consumers in Singapore have to accept prices dictated by global supply and demand conditions. As a result, the exchange rate directly affects the prices we pay.	Elaborate and Examples	<p>MAS operates a <b>managed float regime</b> for the Singapore dollar. The trade-weighted exchange rate is allowed to fluctuate within a policy <u>band</u>, the level and direction of which is announced semi-annually to the market. The band provides a mechanism to accommodate short-term fluctuations in the foreign exchange markets and flexibility in managing the exchange rate.</p> <p>In the context of Singapore, an appreciating Singapore dollar results in lower prices of foreign goods and services imported into Singapore. This has the direct effect of lowering the prices that the economy pays for final goods and services imported into Singapore. If the imports are factor inputs, it has the added effect of lowering the cost of production of firms, as</p>
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	<p>evidenced from the extract "... global oil prices have risen by an average of 16 per cent per year between 2010 and last year. But with a strong local currency, local petrol pump prices have increased by only 8 per cent over the period."</p> <p>An appreciating Singapore dollar would also help to lower both demand-pull and cost-push inflation. As mentioned in the extracts, "if the MAS did not allow the Singdollar to appreciate, headline inflation would have been about 2.5 percentage points higher than the 4.6 per cent rate last year."</p>
Evaluation	<p>However, the effectiveness of exchange rate policy can be undermined by the presence of time lags and lack of perfect knowledge and reliable information. Due to these lags in monetary policy, MAS formulates and conducts monetary policy in a forward looking manner based on reasonable assumptions of economic outlook and possible negative shocks.</p>
Link	<p>It is important to note that exchange rate policy does not work alone in Singapore, but also include a mix of fiscal and supply-side policies.</p>
<p><b><u>Anti-Thesis: Singapore needs to focus more on other policies</u></b></p>	
Point	<p>Singapore should also make full use of its limited resources and maximise their per unit output. The most abundant resource in Singapore would be their labour force and hence, it is crucial to develop and stretch this labour force by using Supply Side policies to raise productivity.</p>
Elaborate and examples	<p>The increase in productivity will increase the maximum potential of Singapore economy and will lead to an increase in aggregate supply of Singapore. Thus, there will be potential economic growth for Singapore. Increasing the productivity will also increase the average wage rate of the workers and that will increase their ability to consume more.</p> <p>In Singapore, "A key prong in our restructuring strategy has been to <i>provide firms with strong support</i> for every investment that can improve productivity." This is done through a variety of measures such as the <i>Productivity and Innovation Credit (PIC) scheme</i> and the Continuing Education and Training (CET) system.</p>
Evaluation	<p>However, supply side policies may not be effective in curbing inflations for Singapore as training the labour force usually faces large, significant time lags. The training process is also voluntary and it may take a while to complete. Many domestic investors may downsize their production level whereas the foreign investors may look for other neighbouring countries where labour cost is lower and there are more growth</p>

		opportunities.
	Alternative Points	<p>Students could also consider the below policy but it should not be the focus of the anti-thesis:</p> <ol style="list-style-type: none"> <li>1) Fiscal Policy - In Singapore, policies often also have fiscal effects as they involve large amounts of government spending which can help to increase aggregate demand and hence national income, as can be seen from the extract, <i>"This extension will cost the Government a total of \$3.6 billion."</i> This would result in actual economic growth as well as a fall in cyclical unemployment. However, fiscal policy is rather limited in use in Singapore due to our small multiplier. Although, this may still help in this 'era of slow growth.'</li> <li>2) Trade Policy - In addition to domestic-based fiscal and supply side policies, Singapore also needs to continue its stance in taking an outward oriented approach to trade. Beyond simply utilising exchange rates to manage the costs on foreign imports, Singapore needs to also aggressively pursue globalisation measures. One such way is to have multiple long-term partnerships with other trade partners through the signing of Free Trade Agreements. Examples include the US-Singapore FTA, the Sino-Singapore FTA etc.</li> </ol> <p>However, the MAS needs to take care of maintaining a stable exchange rate to ensure the success of trade policies. A rise in the external value of our currency can undermine export competitiveness whilst a fall in the external value may make imports more costly. Fluctuations in exchange rate might lead to investors finding it hard to estimate costs and profits. This will have an impact on businesses dealing with export and import of goods.</p>
	Conclusion	<p>Thus, exchange rate policy still relevant. However, given the multi-faceted nature of the economy, the government should consider combining its policies. These policies that will have impact on both the AD and the AS for the Singapore economy, Furthermore, the government can also push for greater trade integrations with other countries such as joining economic cooperations and signing FTAs. These trade policies will invariably help to support the existing demand management and supply side policies and help the government achieve its macroeconomic aims. While currency appreciation in Singapore is able to lower inflation, it does nothing in terms of creating more jobs or to increase the rate of economic growth. The 2 policies will have to be combined for a greater effect.</p>

Levels	Knowledge, Application, Understanding and Analysis	Marks
L3	Well-balanced answer that shows deep analysis in terms of the relevance of both the exchange rate and other policies, in particular supply side policy in the context of Singapore.	7-8
L2	Undeveloped attempt to analyse the relevance of the 2 policies. The answer mainly looks at the pros and cons of exchange rate policy, without bringing in other policies. Or it just brings in policies in a cursory manner, without addressing the idea of whether exchange rate is still relevant..	4-6
L1	Answer that presents limited understanding of the policies mentioned and that the scope of analysis of the policy in the context	1-3
E2	Judgement is made on the effectiveness of the policy with good substantiation (possible alternative suggestion)	2
E1	Unexplained judgement on the effectiveness of the policy	1

**Examiners Comments:**

- **Many students explained that exchange rate policy reduces AD and thus reduces demand pull inflation. Although this may be true, since (X-M) will fall following an appreciation, this does not touch on the key of why Singapore adopts Exchange rate policy. The key rationale behind the MAS exchange rate policy is primarily meant to prevent imported inflation.** An appreciation of our currency allows us to buy imported goods and services / factor inputs at a cheaper price, given our stronger currency. This is important to us, given our dependency on imports.
- **This meant some students were confused as to whether imported inflation is demand-pull or cost-push inflation. Imported inflation is seen as cost push inflation due to more costly raw materials for Singapore.** Therefore, students need to clearly analyse the relevance of exchange rate policy in terms of its ability to control this particular type of cost push inflation.
- Many students did not give an alternative policy or gave it briefly with little relevance to the context. The context touched on Supply-side policy to a great extent. Unfortunately, this evidence provided was used to a limited extent by many students.
- Many students also analysed by saying that exchange rate policy is relevant as interest rate policy is irrelevant in SG. While this is not conceptually erroneous, students should avoid this as it invariably weakens

the essay analysis, making it difficult to reach a L3 standard. Arguments should be made both for and against the policies themselves. The actual 'relevance' or 'effectiveness' of a particular policy cannot be the result of the 'irrelevance' or 'ineffectiveness' of other policies.

- Some students did not realise that **Singapore is unable to employ the interest rate policy or the money supply tool**, due to the Open economy Trilemma.
- An important point for students to note is that it is important to **answer case study questions with the context in mind**. Many students talked about exchange rate and supply side policy and how these policies can be used, as well as their disadvantages. However, they did so without considering the problem we are trying to settle i.e. inflation. For example, many students suggested depreciation of the exchange rate as being relevant to Singapore's economic growth objective. This is problematic as it: Firstly, does not address the question requirement, which is whether exchange rate policy is still relevant to maintaining price stability by lowering inflation. Secondly, it is implied by the case evidence that Singapore's exchange rate policy stance is a gradual appreciating one.



CATHOLIC JUNIOR COLLEGE  
JC2 PRELIMINARY EXAMINATIONS  
In preparation for  
General Certificate of Education Advanced Level  
Higher 2

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**ECONOMICS**

**9732/02**

Paper 2: Essay Questions

**1 September 2014**

**0800 - 1015**

Additional Materials : Writing Paper

**2 hours 15 min**

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**READ THESE INSTRUCTIONS FIRST**

Write your name, class and question number on **all** the work you hand in.

Write in dark blue or black pen on both sides of the paper.

You may use a soft pencil for any diagrams, graphs or rough working.

Do not use paper clips, highlighters, glue or correction fluid.

**Begin each question on a new sheet of paper.**

Answer **three** questions in total, of which **one** must be from Section A, **one** from Section B and **one** from **either** Section A or Section B.

At the end of the examination, **hand in all questions separately**.

The number of marks is given in brackets [ ] at the end of each question or part question.

Answer **three** questions in total.

**Section A**

**One or two** of your three chosen questions must be from this section.

- 1 Market failure is often worsened by government failure. Discuss the extent to which this is true in your country. [25]
  
- 2 Global food prices are poised to rise sharply in 2014 again. Economists cite the rising incomes in China, severe drought in the US, China's rapid urbanisation and unrests in Ukraine and Israel as key drivers of the abrupt price increase. India has been stockpiling grains for sale to consumers at heavily subsidised prices to ensure that the poor has access to cheap food.
  - (a) Account for the sharp rise in global food prices. [10]
  - (b) From the consumers, producers and government's perspectives, assess whether India's strategy of stockpiling for subsidised sale is better than a price ceiling. [15]
  
- 3 The online Apple Store offers special education pricing for educators as well as university students, students accepted into university, parents buying for university students, teachers and staff at all levels.
  - (a) Explain the factors that enable Apple to carry out price discrimination. [10]
  - (b) Discuss if barriers to entry is the key in determining a firm's behaviour in Singapore. [15]

**Section B**

**One or two** of your three chosen questions must be from this section.

- 4 Assess the extent to which an improvement in standard of living of an economy requires economic growth to be the top priority. [25]
- 5 (a) Explain the factors that influence the size of the national income multiplier. [10]
- (b) Discuss whether fiscal policy is most appropriate in managing the Singapore economy when faced with the twin threats of worldwide recession and high inflation. [15]
- 6 It has been asserted that the rapid pace of globalisation appear to have contributed to rising income inequity and economic vulnerability in developed economies. Thus, protectionism has been adopted by some countries in response to these challenges.
- (a) Explain the benefits of globalisation for developed economies. [10]
- (b) Discuss whether protectionism is the best approach to deal with the challenges posed by globalisation. [15]

### Package for Prelim 2014 Essays

- 1 Market failure is often worsened by government failure. Discuss the extent to which this is true in your country.

[25]

#### Suggested answer

##### Introduction

- Define market failure & government failure;
- Overview of essay: this essay will explain market failure and government failure (arising from their intervention to correct the market failure). It will also explore the cases when the failure of the SG government exacerbates market failure, and cases when it actually improves resource allocation; and thus, discuss the extent to which the statement is true.

##### Explain Market Failure & Govt Failure [Note: Depends on the flow of the essay, this can be worked into the Thesis & Anti-Thesis]

- Explain Market Failure and its sources – at least 3 well explained sources
- Explain Government Failure – what it is, and how it arises (e.g., imperfect information, time lag, electoral pressures)

##### Thesis: Market failure worsened by government failure in Singapore

- Imperfect info of the MEC/MEB results in a government intervention that worsens the misallocation of resources (DWL after intervention > DWL before intervention)
- E.g., Ban of chewing gum in Singapore
  - Chewing gum – negative externality due to inconvenience to non-consumers as a result of destruction of public property like train/bus seats → due to overconsumption
  - Diagram, showing MEC, overconsumption hence over-allocation of resources
  - Ban – may result in a larger DWL than before, as the MEC of chewing gum is not so high and thus implying MSC is not greater than MSB at every single unit of output.

##### Anti-thesis: Market failure not worsened by government failure in Singapore

- Provision of public goods such as flood control in view of the recent flash floods, street lights, etc.
  - No free market production due to characteristic of public goods thus, any form of government intervention to provide leads to improvement of resource allocation
  - There may be inefficiencies (X-ineff) arising from government provision, but this would still be better than without govt intervention.
- No govt failure arising from the need to gain electoral votes due to Singapore's longer term political rule which enables SG government to do forward planning. This means that they will not exacerbate market failures by implementing subsidies (so as to pursue popular vote) for goods that have negative externalities

- E.g., some other countries provide subsidies for petrol – a good with negative externalities
- Exacerbate overconsumption of petrol
- Often a policy that cannot be removed once it is in place, due to the political costs of loss of popular votes – e.g., Indonesia
- Thus, the nature of Singapore's ability to forward plan allows minimising of such policies that yield short term electoral gains at the expense of worsening allocation of resources.
- Free provision of merit goods on goods that come with very large MEB
  - Hence, govt's intervention tended to improve allocation (little or zero DWL after intervention) rather than worsen it
  - E.g., specific healthcare services (vaccination for children, which has very high MEB), unlike other countries like the UK where there is universal free healthcare
- Ban for goods with very high MEC – e.g., ownership of guns, smoking within enclosed areas

Synthesis/Conclusion: To what extent is the statement true for Singapore?

- True only to a small extent:
  - On balance, government intervention in the different types of market failure in Singapore tended to be moderated
  - Extreme government intervention such as (i) bans tends to be in cases where the MEC are extremely high and hence justified; or (ii) direct/free provision when the free market doesn't provide at all in the case of public goods or when MEB is extremely high.
  - Longer term government removes the political incentive to impose policies that exacerbates market failure.

Levels	Description
<p><b>L1 Knowledge/ Recognition {Description}</b></p>	<p><u>1-5 marks :</u>                      Answer did not address question or address in an incidental manner – failing to explain market failure (MF) and government failure (GF), let alone address the question of ‘worsening’.</p> <p>Very poor content development of MF and GF, such that the answer is mostly irrelevant and contains only a few valid points made incidentally in an irrelevant context. Argument is incoherent.</p>
	<p><u>6-9 marks :</u>                      Points merely state or describe, with little/weak explanations, or with basic conceptual errors, of:</p> <ul style="list-style-type: none"> <li>- sources of market failure,</li> <li>- policies to correct them, and</li> <li>- the government failure in correcting them</li> </ul> <p>Inadequate content development of analysis present.                      No/little examples raised in context of Singapore. Argument is incoherent.</p>
<p><b>L2 Consolidate {Add some detail – Application without Analysis}</b></p>	<p><u>10-11 marks :</u></p> <p><u>Some parts of the essay address the question (MF, GF and worsen), and shows economic analysis (with use of diagrams) of sources of market failure, policies to correct them and government failure, but with gaps/inaccuracies.</u> Content points are underdeveloped, but with evidence of ability to form some judgement of “whether GF worsened MF”. Argument may not be fully coherent.</p> <p>An answer that <u>does not address the question of whether GF has <b>worsened</b> MF</u> (even if just by mentioning the word “worsened”), i.e., merely explains the sources of MF and GF, with <b>no “worsened” word – max 11marks</b>, regardless of the depth and scope (e.g., number of MF explored) of the answer.</p> <p>Examples raised in context of Singapore, though not thoroughly.</p>
	<p><u>12-14 marks :</u>                      Most parts of the essay directly addresses/engages the question, esp that of whether GF <b>worsened</b> MF, and shows economic analysis (with use of diagrams) of sources of market failure, policies to correct them and government failure, with some gaps/inaccuracies. Content points are <u>more thoroughly developed</u> and with more evidence of ability to form some judgement in the various examples of MF vs GF raised. Argument is fairly coherent.</p> <p>Examples raised in context of Singapore, though not consistently well elaborated.</p>
	<p>Marking Guide:</p> <ul style="list-style-type: none"> <li>• Word “worsened” appears (with <u>no other form of elaboration or weighing</u>) – max 12m</li> </ul>

	<ul style="list-style-type: none"> <li>Word “worsened” appears <u>and student follows up with some attempt to elaborate or weigh</u> (even if elaboration is not rigorous or unsubstantiated) – 13-14m</li> </ul>	
<p><b>L3</b> <b>Elaborate {Extend to include analysis}</b></p> <ul style="list-style-type: none"> <li>Analyse relevant theory to aid explanation</li> <li>Apply explanation in the context of the question</li> </ul>	<p><u>15-17 marks :</u> Clearly answers the question, going beyond whether GF has <b>worsened</b> MF, into <b>the extent</b> to which GF has worsened MF. The extent can be weighed either by how badly the DWL has increased after intervention for a particular type of MF, or weighing the success of govt in reducing DWL across different types of MF.</p> <p>Answer shows a good knowledge of sources of market failure and government failure in Singapore. Coherent essay with many contextual explanations though this may not be consistently applied throughout the essay.</p> <p>An answer that is <b>very rigorous</b> in content development, good application to Singapore context and well substantiated argument of whether GF has worsened MF, but <b>only explores 2 sources of MF – max 15m</b></p>	
	<p><u>18-21 marks :</u> Clearly answers the question, addressing in particular, <b>the extent to which GF has worsened MF</b>. Shows thorough knowledge of sources of MF and GF in Singapore with an excellent ability to describe and explain the various sources and the extent of government failure in each source in a precise, logical and reasoned manner.</p> <p>Well-argued essay with clear evidence of ability to form reasoned judgment in each source, as well as overall in the conclusion of the essay.</p>	
<b>Evaluation Marks</b>		
<b>E1</b>	Mainly unexplained judgement of when government failure worsens market failure in each source, with no clear/justified conclusion to the extent to which it is true for Singapore	1-2
<b>E2</b>	Well-reasoned/explained judgment of when government failure worsens market failure in each source and as a whole	3-4

**Examiners’ Comments:**

A fairly demanding question that looks innocuous at first glance. Many scripts did not fully appreciate the depth of the question, and hence failed to answer at least one part of the question.

- A few good scripts managed to engage the question fully, i.e., (i) explain sources of Market Failure (MF); (ii) explain the sources of Government Failure (GF), usually in relation to correcting the said MF; (iii) discuss whether GF has worsened MF; and finally (iv) discuss the extent of worsening.
- This is also a very “context-heavy” question – the student needs to make smart choices of the examples to raise in order to illustrate their thesis/anti-thesis points, and develop and substantiate their arguments.

3. The aforementioned good scripts were able to do this well. These scripts were also able to build their argument smoothly to develop a well-reasoned stand at the end of the essay.
4. Of the scripts that did not fully answer the question, the following misinterpretations/gaps were the most common:
  - a) **Sweeping statements made of (iii) (iv)** – many students simply state that GF did not worsen MF in Singapore, without substantiating their claim.
  - b) Misunderstood question in terms of government intervention and government failure: For example, it is not the intervention using subsidies that worsens the MF but the failure to accurately estimate the MEB, and thus the wrong amount of subsidies that worsens MF, hence resulting in government failure (GF).
  - c) **Fail to recognise what “worsen” means.** Undercorrecting the MF does not “worsen” the misallocation of resources, it simply means that that misallocation is not fully corrected. “Worsen” means that the misallocation (and hence deadweight loss) has been **aggravated**, i.e., larger after government intervention, due to an ascribed GF.
  - d) Tried to suggest alternative reasons that worsens MF in Singapore, by raising externalities, imperfect information etc. These are *sources of market failure*, *how can they “worsen” MF?*
  - e) Weak scripts show poor application to Singapore context. For example, saying that Singapore government provides free medical check-up for all, and that our Singapore government is prone to making policies that yield short term gains but compromise on longer term benefits due to electoral votes. Both are incorrect – we do not provide free medical check-up for all (only selected vaccinations), and relative to other countries, we are arguably the least susceptible to electoral votes as a source of GF.
5. Other common errors to note:
  - a) Rigor of content development is not strong, even in the good scripts.
    - a. It is important to explain thoroughly how MF arises:
      - i. Explanation of the 7 steps process (for positive & negative externalities) is still under-developed in many scripts – the derivation of area of deadweight loss due to over/underconsumption/production is the most commonly omitted explanation. It is good habit to include this.
      - ii. Explanation for how the non-rivalry and non-excludability in consumption characteristics of public goods will lead to market failure were riddled with omissions too. Lacking contextualisation when explaining this source of market failure.
    - b. Quality of explaining how government intervention can cause government failure is poor. For example, just stating that government failure arises from information gaps therefore government failure will worsen market failure is not sufficient. Students need to explain with the diagram how this information gap will cause a DWL which is greater than that caused by market failure.
    - c. Labelling and referencing of explanation to diagrams is still weak.
  - b) Some students associated opportunity cost to deadweight loss by saying government failure occurs because provision of a public good like National Defence would mean less funds for infrastructure upgrading. While there is opportunity cost, it does not create further a deadweight loss / allocative inefficiency so it cannot be considered to be a cause of government failure.

**Q2** Global food prices are poised to rise sharply in 2014 again. Economists cite the rising incomes in China, severe drought in the US, China's rapid urbanisation and unrests in Ukraine and Israel as key drivers of the abrupt price increase. India has been stockpiling grains for sale to consumers at heavily subsidised prices to ensure that the poor has access to cheap food.

- (a) Account for the sharp rise in global food prices. [10]
- (b) From the consumers, producers and government's perspectives, assess whether India's strategy of stockpiling for subsidised sale is better than a price ceiling. [15]

Suggested Answer

Part (a)

- Rise in income → rise in demand for food Unrests in Ukraine & Israel → rise in demand now due to uncertainty for the future OR fall in SS due to reduction in sources of food
- Severe drought in US → fall in SS
- Rapid urbanisation → fall in amount of land for agriculture → fall in SS
- DD and SS of food are both  $P_{inE} - PED$  (necessity), PES (food needs time to grow)
- Illustrate with use of diagram a very sharp rise in food prices as a result of demand and supply shocks

<b>Knowledge, Application, Understanding and Analysis</b>	
<b>L3</b> 7-10	Addresses the question. Able to give in-depth contextual explanation of rise in DD, fall in SS well. Also able to explain price elasticities of demand and supply well. Good diagrammatic illustration and explanation of how these two factors lead to a very sharp rise in food prices.  Marking Guide: <ul style="list-style-type: none"> <li>- Any 3 well-explained sources of increase in price (DD, SS, PED or PES): max 7m</li> <li>- 4 well-explained sources of increase in price: 8-10m</li> </ul>
<b>L2</b> 5-6	Answer mostly relevant and addresses the question. For an answer which <ul style="list-style-type: none"> <li>• contains some economic analysis of the DD SS PED PES framework though not consistently applied throughout; or with some errors</li> <li>• is largely theoretical with limited application to the given context</li> </ul>
<b>L1</b> 1-4	For an answer which <ul style="list-style-type: none"> <li>• is largely irrelevant with no indication that the meaning of the question has been properly grasp</li> <li>• Did not explain PED and PES</li> <li>• is largely descriptive and/or contains gross conceptual mistakes</li> </ul>

Part (b)

Compare the impact on key benchmarks (e.g. equilibrium P & Q, TE, TR, consumer surplus, producer surplus, amount of government expenditure) for both stockpiling and price floor strategies to decide which is better.

<b>Thesis: Stockpiling to sell at subsidised price is better</b> Key Criteria: Consumer Surplus, Producer Surplus	
Stockpiling to sell at subsidised price	Price ceiling
<ul style="list-style-type: none"> <li>• Explain how stockpiling strategies reduces food prices within India – illustrate increase in SS due to release of stockpile and amount of subsidy in diagram</li> <li>• Extent of change for the above depends on relative PED and PES</li> <li>• Demand tends to be Price inelastic; SS tends to be relatively more price elastic due to stockpiling</li> <li>• Use diagram to illustrate impact based on above benchmarks: (i) P, Q change; (ii) impact on TE consumers; (iii) impact on govt revenue; (iv) impact on producers</li> <li>• As a result of the subsidy and price elasticities of DD and SS,                             <ul style="list-style-type: none"> <li>○ P falls by a large extent and Q rises less than proportionately</li> <li>○ TE by consumers falls</li> <li>○ Consumer surplus increases</li> <li>○ Producers gain revenue from subsidy and thus larger TR from sale of good</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Assume price ceiling is meant to achieve the same lower price at P1 as subsidy in figure 11a</li> <li>• Creates a shortage (reference to figure), since Qs is low at Qs at P1, but Qd is high at Q1</li> <li>• Qty exchanged will be based on Qs sold at P1 – <b><u>same P1 as subsidy, but lower Q at Qs.</u></b></li> <li>• Consumers who are able to purchase the lesser quantities of food will be able to gain from the lower p – (a)</li> <li>• But there will be consumers who were previously able to purchase but do not have access now (Qs-Q0 amount) and so are worse off.– (b)</li> <li>• Net change in consumer surplus (to before ceiling) is uncertain – depending on whether (a) outweighs (b)</li> <li>• <b><u>But relative to subsidy, consumer surplus for ceiling is lower.</u></b></li> <li>• <b><u>Producer surplus also reduced compared to subsidy</u></b></li> </ul> <p>(optional – black market)</p> <ul style="list-style-type: none"> <li>• Furthermore, there is likely to be formation of black market, where each unit of Qs can be sold up to the consumers' willingness and ability to pay – this will result in zero consumer surplus and producer's in black market will gain maximum seller surplus</li> <li>• This also effectively prices out the poor, aggravating the inequality</li> </ul>
<b>Anti-Thesis: Price Ceiling is better</b> Key Criteria: Government Expenditure	
<ul style="list-style-type: none"> <li>• Govt expenditure rises due to subsidy amount. Producer and consumers gain, but government expenditure rises.</li> </ul>	<p>However, SS in the price ceiling case may be more price inelastic, since there is no stockpiling by the government</p> <ul style="list-style-type: none"> <li>○ If so, due to the inelastic nature of PES, this will result in a smaller shortage as a result of the ceiling at</li> </ul>

	<p>P1.</p> <ul style="list-style-type: none"> <li>Thus, the effects on consumer and producer surplus as explained above will be moderated.</li> </ul>
	<ul style="list-style-type: none"> <li>However, there may be some government expenditure incurred, since the govt may however have to police the price ceiling, thereby incurring costs. (optional – black market)</li> <li>Government expenditure may be spent on policing the black market instead</li> </ul>
<ul style="list-style-type: none"> <li>Govt did reduce prices for the poor through subsidies, but the extent of increase in quantity is not substantial (less than prop) due to the price elasticity of demand.</li> <li>Wastage of precious food – food is perishable, stockpiling often leads to wastage when the piles of food goes bad in the government warehouses.</li> </ul>	
<ul style="list-style-type: none"> <li>Other considerations: Also depends on whether DD has further increased, due to increase in income; or expectation of food supplies and prices in future; or whether other neighbouring countries can purchase the subsidised grains from India. If there are able to, the subsidy may benefit non-Indians than the poor in India, despite the heavy expenditure on subsidies by the Indian government.</li> <li>Rise in demand would cause prices to rise, requiring more government subsidy and less access by the poor.</li> </ul>	<p>Other considerations:</p> <ul style="list-style-type: none"> <li>Rise in demand will aggravate the shortage and prevalence of black market</li> <li>The poor will only benefit to the extent that they can get their hands on the limited amounts of grains at the official P1 price ceiling.</li> </ul>
<b>Synthesis</b>	
<p>Government subsidy seems to yield better outcomes in terms of consumer surplus (particularly access to the poor), producer surplus. Government expenditure is substantial for subsidy, and is much lesser for price ceiling. However, this need not be the case if the monies were required to be spent on policing the price ceiling (or the black market) which may be substantially high and outweighs the costs of subsidy. This is likely to be the case given that India is a very large country (high costs of policing the ceiling or black market). Hence, on balance, subsidy may be better for India.</p> <p>(Added perspective) However, at the end of the day, the subsidy does not solve the root cause of the problem and is unsustainable in the long run given the large costs to the government. India should thus consider investing longer term policies to improve the technology and local production of agriculture produce, in order to meet the rising demand for food and improve access to the poor.</p>	

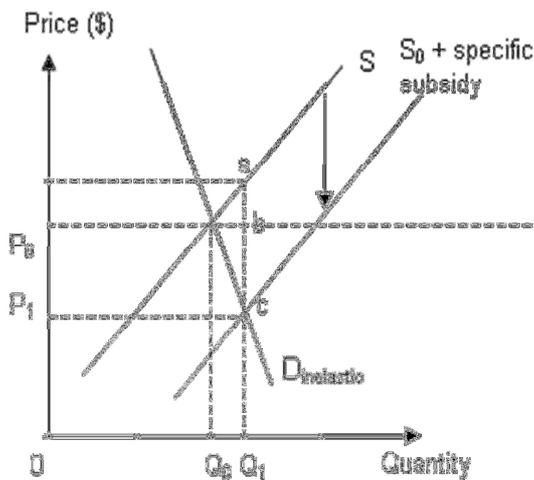


Figure 11a

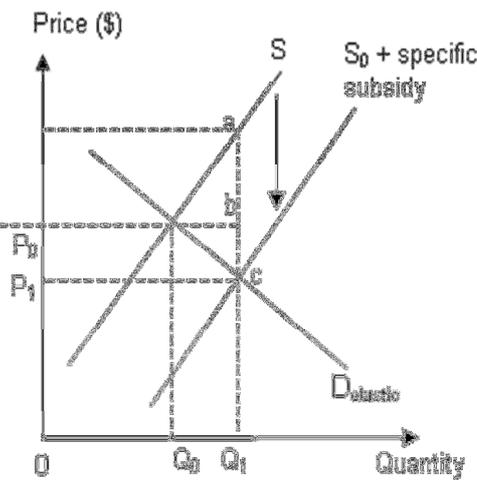


Figure 11b

[NB: Just refer to figure 11a, figure 11b is here for my own reference for the moment]

Knowledge, Understanding, Application and Analysis		
L3	Addresses the question, with thorough explanation of how price ceiling and stockpiling for subsidised sale work, and its effect on P, Q, consumers, producers (with explicit link to consumer & producer surplus) and government, with good use of diagrams to illustrate points. Coherent and well-argued essay that clearly compares the <u>relative</u> impact on consumers, producers and government.	9-11
L2	<p>Mostly addresses the question, and explains (but with some gaps/inaccuracies) how price ceiling and stockpiling for subsidised sale work, and its effect on P, Q, consumers, producers and government, with some relevant use of diagrams to illustrate points. Shows evidence of developing content points to form judgements on the relative impacts on the various parties, though without consistent, explicit and clear explanations.</p> <p>Mostly coherent argument, though not consistent throughout the essay.</p> <p>Marking Guide:</p> <p>Answer that does not fully address the question, in the form of the following variations – max 6m:</p> <ul style="list-style-type: none"> <li>- Answer with no comparison but thorough explanation</li> <li>- Explores only 2 out of 3 parties' perspectives, e.g., only from consumer and producer but not government POV</li> </ul>	6-8
L1	Essay only obliquely answers the question, with weak or incomplete content explanations of how price ceiling and stockpiling for subsidised sale work, and	1-5

	its effect on P, Q, consumers, producers and government, with no/little relevant use of diagrams to illustrate points. No link to consumer, producer and government, or with link to these parties but very poorly or skimpily explained. Little/no evidence of developing content points to form judgements on the relative impacts on the various parties. Incoherent arguments.  Marking Guide:  - Answer that does not address the question, exploring only 1 out of 3 parties perspectives – max 5m	
<b>Evaluation</b>		
E2	Shows well-reasoned evaluation on the effects on the various parties, and a justified (and contextualised) stand on which policy is better	3-4
E1	Shows some attempt to evaluate the effects on the various parties but with weak or no justified stand on which policy is better.	1-2

**Examiners' comments:**

**Q2(a)**

1. A very easy part of the question, but the responses are weak, and very disappointing.
2. Most students are able to correctly identify the factors of demand and supply from the preamble, but many scripts fail to explain role of price elasticities of demand and supply of food in contributing to the **sharp** rise in global prices. As such, a large majority of scripts did not fully answer the question of why there was a **sharp** increase in price.
3. Development of content (factors of demand, supply, and *how* price elasticities of demand and supply result in sharp increase in prices given the demand and supply changes) and application to context of food are usually only explained superficially and lacked the rigor required of a Level 3 score.
4. Other common errors to note:  
Content
  - a) Price elasticities of demand and supply and *how* they are related to how sharply prices have risen were not well explained, if at all mentioned.
    - a. First, the terms “more than proportionate” or “less than proportionate” should be consistently used to describe the relationship between P and Q.
    - b. Second, it is important to explain that price inelastic demand means that a rise in price leads to **a less than proportionate** fall in quantity demanded, which also means that there needs to be a more than proportionate increase in price to induce a given reduction in quantity demand. Hence, for **any given shortage at initial equilibrium price  $P_0$  due to a fall in supply, there needs to be a more than proportionate increase in price in order to correct the shortage, ceteris paribus**. This is in contrast to a price elastic demand, where the shortage can be corrected by a less than proportionate increase in price, ceteris paribus. This is the crux of the answer that is not

addressed by most scripts, and is the distinguishing factor for the excellent scripts (8-10marks).

- c. Diagrammatic analysis of PED and PES and their impact on the extent of price change were usually incomplete. E.g. students often did not compare a demand curve that is relatively price elastic to one that is relatively price inelastic to show the difference in extent of price increase.
- b) Inaccurate phrasing of economic concepts, such as “PES is inelastic”. It should be more accurately written as “Supply is price inelastic”, or “PES is less than 1”.
- c) Misuse of terminology: some students remain confused about the difference between “Supply” and “Quantity supplied”, “Demand” and “Quantity demanded”. Changes in “Quantity demanded” and “quantity supplied” are due to price, and hence should be used when explaining PED and PES. Changes in “demand” and “supply” are due to non-price determinants.
- d) Definitions of PED and PES are usually incomplete. It is important to include “ceteris paribus” to complete the definitions.
- e) Explanation of income as a demand determinant often did not include an explanation or qualification that food is considered a normal good. It is important to state so because demand for a good does not necessarily increase when income increases (e.g. inferior goods).

#### Context

- f) Many students linked urbanisation to a rise in income or assuming that people living in urban areas desire better quality or luxury goods (although the distinction between luxury and necessity goods is not required for this question). The assumption that urban dwellers have a higher income/wealth is a stereotype that reflects the unawareness of the urban poor and the ineffectiveness of urban-biased policies. Geography students should be the last ones to make such an assumption. Some students stated explicitly that ‘urban people are more affluent than rural people’.

#### Others

- g) Do not use short hand excessively. Terms like “demand” and “supply” should not be abbreviated to “DD” and “SS”. More critically, do not use mathematical symbols within the essay, such as “>” for “more than” etc.

#### **Q2(b)**

5. Another disappointing part, though the weak responses are understandable due to the demands of the question.
6. The better scripts show ability to directly answer the question, by analysing the effects of price ceiling vs subsidy on consumer, producer and government respectively. However, even these scripts were lacking in the rigor in economic concepts, e.g., either did not link to consumer and producer surplus, or with gaps and inaccuracies in analysis and diagrams. A few scripts show good contextualisation and awareness of the Indian economy (large economy, thus difficult to police, but with ready funds for expenditure on subsidies). Most scripts also concluded with a stand, but very few were able to provide a coherent and well-balanced synthesis of all the points raised in the essay.
7. Other errors to note:
  - a. Content

- a) It is important to compare the effects of price ceiling and subsidies with each other, **not** before and after the strategies, so as to address the question.
- b) Misinterpretation of India's Stockpiling strategy: Stockpiling for sale at subsidised prices effectively translates into subsidy for the food market, hence shifting supply curve down, because the Indian government actually buys the food at above market price and sells to the mass at below market price. Some students misinterpret this strategy, focussing instead at the 'stockpiling' aspect of the strategy, which they interpret at a fall in supply.
- c) Poor/inaccurate analysis of effects on consumer, producer, and government because:
  - a. Most scripts lacked rigor in economic concepts, which can be improved by bringing in diagrammatic analysis to substantiate the claims made about impacts on the three groups. For example, students made a claim that consumer surplus will fall with a price ceiling imposed on the market without having even drawn a diagram to illustrate how a price ceiling works and for those who did draw this diagram failed to reference the diagram and show how the consumer surplus changed. In fact, if they did do this step accurately they would have concluded that change in consumer surplus is uncertain. In summary the lack of referencing their diagrams to prove their statements reduced the rigor of the essay, not to mention the wasted effort in drawing a diagram that is ignored as no detailed and relevant reference was made to it.
  - b. Some students claimed that producers' total revenue falls when subsidies are implemented because they fail to include the subsidy in calculating producers' total revenue.
  - c. Some students' analysis focused on the welfare loss due to a price ceiling from society's perspective as a whole without breaking them down into producer and consumer surplus.
  - d. Some students conclude that consumer surplus falls for both strategies simply by looking at the decrease in price for both cases without considering the resulting equilibrium quantity.
- d) Misconception of economic framework to use:
  - a. Some claim that there is an underproduction/underconsumption when a price ceiling is implemented, hence that there is market failure and proceeded to do market failure analysis (usually due to positive externality). A shortage cannot be equated to an underproduction/underconsumption and it is not a market failure because the market was not allowed to function normally in the first place. Moreover, there is no positive externality that arises from the consumption of food.
  - b. Others claimed that subsidies or price ceilings aim to help achieve allocative efficiency. But the market had no market failure to begin with, i.e. it was already at the allocative efficient point. In fact, the subsidy or the price ceiling distorts the market and causes misallocation of resources.
- e) There was mention that impact on consumer, producer and government was dependent on the price elasticity of demand and supply. But the impact (price and quantity changes, consumer and producer surpluses) is dependent firstly on the policy implemented, only then does elasticities come into the picture to accentuate or downplay the impacts.

Argument Development/Synthesis

- f) In many of our economics essays, a combination of strategies is the best, since each strategy has its advantages and disadvantages, and the problem they are supposed to solve is multi-faceted. This is one example of a question where a combination of

strategies (implement both price ceiling and subsidy for the entire Indian economy) does ***not make any sense***. Be very careful when you are synthesizing your arguments.

3 The online Apple Store offers special education pricing for educators as well as university students, students accepted into university, parents buying for university students, teachers and staff at all levels.

(a) Explain the factors that would affect if Apple can carry out price discrimination in the above situation. [10]

(b) Discuss if barriers to entry is the key in determining a firm's behavior in Singapore. [15]

Suggested answer

Full Answer

Introduction	<p><b><u>Define price discrimination:</u></b> Price discrimination refers to the charging of different prices to different consumers for the same product, for reasons not associated with cost.</p> <p><b><u>Identify the type of PD mentioned in the preamble:</u></b> In the preamble, it is mentioned that Apple charges a lower price for their products for college-going students, educators, and parents of college-going children – therefore, since there are two distinct markets that are charged different prices, this is a form of 3<sup>rd</sup> degree PD.</p> <p><b><u>Briefly explain why the situation mentioned in the preamble is PD:</u></b> Since college-going students, educators, and parents of college-going children are charged a lower price for the same product as compared to the general population – and there are no conceivable differences in the costs of production or provision of this good to the two different groups of consumers, we can safely conclude that this is a form of third degree PD.</p> <p><b><u>Overview:</u></b> In this question I will explain the four conditions that must be fulfilled for PD to take place, using Apple as an example. I will show how not all conditions have been fulfilled satisfactorily, and therefore that might affect how successful Apple can carry out the above example of PD.</p>
Body	<p><u>Paragraph 1: Firm must have market power.</u></p> <p>P: The firm must have some market power, and is able to influence prices.</p> <p>E: This means that the firm can set prices and is not a price taker. Price discrimination would be impossible under perfect competition since firms have no influence over prices. If firms have no influence over prices, then firms will not be able to charge different prices in different markets to different consumers.</p> <p>E: This condition is satisfied in Apple's case, since Apple is one of the world's leading hardware and software provider, has substantial market power to engage in price discrimination.</p> <p>L: In addition, for successful PD to take place, the firm must also be</p>

able to segregate and identify the market.

Paragraph 2: Firm must be able to segregate and identify the market.

P: The firm must be able to segment the market by classifying buyers into separate, identifiable groups.

E: There are many ways this can be done, such as by classifying buyers in terms of age groups, gender, geography, etc. There must be a way for the firm to identify a consumer as belonging to either markets, as this would allow the firm to charge different prices to different consumers belonging in different markets.

E: Again this is satisfied in Apple's case, since the preamble mentioned that staff and students are entitled to the education pricing, together with parents who are purchasing Apple products for their school-going children. Presumably it would be fairly easy for Apple to request for proof (e.g. student/staff ID) from consumers to show that they are either the faculty/students of particular universities before qualifying for the discount.

Ev: (Optional) However, it must be noted that it is quite easy for consumers to cheat in order to obtain the discount.

L: In order for the firm to *benefit* from employing PD through increased profits, there must also be differing PED values in the segregated markets.

Paragraph 3: There must be differing elasticities in the segregated markets.

P: There must be different PED in the separate markets.

E: This is because it allows the firm to charge a lower price to the market with a more price elastic demand, and a higher price to the market with a more price inelastic demand. Overall, this allows the firm to earn a higher profit than if the firm charges one price across both markets (Diagram to illustrate – optional).

E: In Apple's case, it is likely that students and education professionals are charged a lower price as their demand is likely to be more price elastic as compared to the general public since computer hardware and software taking up a larger proportion of their income. If one price is charged, it is likely that some of the consumers in the market consisting of students and education professionals will drop out. Therefore there is a possibility that Apple can increase the amount of profits earned by charging these different groups of consumers different prices.

	<p>L: Finally, there must also be no possibility of resale.</p>
	<p><u>Paragraph 4: There must be no possibility of resale.</u></p> <p>P: Buyers must not be able to resell the good at a higher price in another market.</p> <p>E: This condition is necessary because if this condition does not hold, it is possible for consumers that belong in the lower price market (students or education professionals) to resell their computer software/hardware at a higher price to the general public (but the price would still be lower than what the general public would have paid). If this occurs, then PD would have failed because no one in the general public would be buying their computer software/hardware from Apple.</p> <p>E: Technically there is nothing that Apple is doing to prevent resale between the two markets, so therefore it is theoretically possible for a student/staff to buy multiple units and to sell it at a cheaper price to the other market.</p> <p>Ev: (Optional) However this does not happen in real life as the price differential is too small between the two markets for anyone to make much profit from resale.</p> <p>L: Therefore Apple is able to conduct price discrimination for its products between students/education professionals and the general public.</p>
	<p>Conclusion</p> <p>Generally, it can be acknowledged that the conditions for PD to be carried out by Apple have been satisfied. PD can be viewed as a type of non-price competition conducted by Apple to differentiate itself from its competitors. In the next part of my essay, I will explore what determines how firms behave in Singapore.</p>

b) Discuss if barriers to entry is the key in determining a firm's behavior in Singapore. [15]

Full Answer

<p>Introduction</p>	<p><b><u>Define 'firms' behavior':</u></b> Firms' behavior refers to the ability and incentive to engage in price and non-price competition.</p> <p><b><u>Define 'barriers to entry':</u></b> Barriers to entry refer to any condition that prevents other potential firms from entering the industry, thereby limiting the competition for existing firms.</p> <p><b><u>Overview:</u></b> In this question I will explain if the presence or non-presence of barriers to entry (BTEs) is the key to determining if firms in Singapore engage more in price or non-price competition, and to compare this factor with other factors that may be key in determining the behavior of firms in Singapore.</p>	
<p>Body</p>	<p><b><u>Thesis:</u></b> Barriers to entry may be the key to explaining firms' behavior in Singapore.</p> <p>P: Presence of barriers to entry is important in determining how prices are set.</p> <p>E: This is because the presence of high BTEs prevents potential competitors from entering easily, therefore demand is generally highly price inelastic due to the lack of substitutes. This allows firms to generally set higher prices and restrict output.</p> <div data-bbox="454 1422 1029 1904" style="text-align: center;"> <p>The graph plots price, costs, and revenue on the vertical axis against quantity on the horizontal axis. It features three main curves: a downward-sloping Demand/Average Revenue curve (DD=AR), a steeper downward-sloping Marginal Revenue curve (MR), and an upward-sloping Marginal Cost curve (MC = SS). The monopoly equilibrium is at the intersection of MR and MC, corresponding to price P and quantity Q. The perfect competition equilibrium is at the intersection of DD=AR and MC, corresponding to price P' and quantity Q'. Dashed lines indicate these equilibrium points on the axes.</p> </div> <p>As can be seen from the diagram above, in comparing a monopoly (very high BTEs) with a PC (no BTEs), prices are generally higher at P and</p>	<p><i>How high VS low level of BTEs affect prices</i></p>

output lower at Q (assuming producer is profit-maximizing and aims to maximize profit at where  $MR=MC$ ).

In a PC, P and Q are determined by market demand and supply forces which will cause prices to be set at P' and output produced to be at Q'.

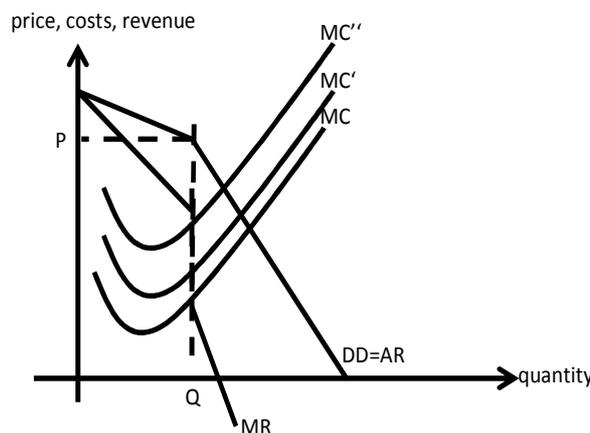
Similarly in a monopolistic competition, BTEs are generally lower and therefore demand is likely to be more price elastic as compared to the demand for the product/service in an oligopoly. As such, prices tend to be higher in an oligopolistic market as compared to a monopolistically competitive one.

*How high level of BTEs affect price competition*

P: The presence of high barriers to entry can result in significant market power in the hands of a few firms and this can result in mutually dependent behavior of firms whereby direct price competition is avoided.

E: This is true especially in an oligopoly where prices are fairly rigid due to mutual interdependence. As shown in the diagram below, the demand curve above P is more price elastic as compared to the demand curve below P. This is because firms assume that their rivals will match any price falls, but will not match any price rises. Therefore, when the firm lowers its price, the firm will find that Qd rises less than proportionately (therefore DD is p in E below P) since its rivals have also similarly lowered their prices; and if the firm raises its price, Qd will fall *more* than proportionately (therefore DD is pE above P) since its rivals would not have followed the price increase.

What happens is that as a result of high BTEs leading to mutual interdependence of a few firms in the oligopoly, prices tend to be fairly rigid – substantial changes in costs of production (MC rising to MC' or MC'') will cause price to remain at P.





	<p>in price, the benefits to the firm may be negligible. Also firms cannot reduce price indefinitely as this can lead to losses if revenue does not keep up with costs. Instead, we see monopolistically competitive firms engage in small-scale non-price competition as compared to firms in industries with high BTEs.</p> <p>Ex: For example, hawker stalls in hawker centres differentiate themselves from similar stalls selling similar fare (e.g. chicken rice) by relying on quality, word of mouth, etc.</p> <p>L: Therefore, we can see that to a large extent the level of BTEs (whether high or low) determine the kind of behavior firms in Singapore (supermarkets for oligopoly and hawker stalls for monopolistic competition) engage in – whether they are more likely to engage in price or non-price competition and also WRT the price they set.</p>	
	<p><u>Anti-Thesis: Other factors may be more important in explaining the behavior of firms in Singapore.</u></p> <p>P: Government intervention such as regulations, anti-trust laws, and the existence of consumer welfare organizations (CASE – Consumers Association of Singapore) may be more important in influencing the behavior of firms in Singapore.</p> <p>E + Ex: The public transport industry in Singapore is primarily an oligopolistic one with two large private companies – SBS Transit, and SMRT. The behavior of these firms in terms of setting prices to charge for public transport, whether by bus or train, is heavily regulated by the Public Transport Council. Any fare revision has to be submitted to the PTC for it to be approved before it is implemented.</p> <p>E + Ex: The Lemon Law is a consumer protection law that provides remedies against defective goods (colloquially known as “lemons”), which fail to conform to the contract at the time of delivery, e.g. do not meet standards of quality and performance, especially after repeated repair. Such laws obligate sellers to repair, replace, or refund or reduce the price of those defective goods. This will influence the behavior of firms especially in industries that are relatively insulated against competition due to high levels of BTEs – these laws and legislations will force firms to continually engage in R&amp;D to improve the quality of their products and services provided so as to protect consumer welfare.</p> <p>L: Therefore government intervention is a more important factor in influencing firms’ behavior,</p>	<p><i>How government intervention will affect behavior of firms.</i></p>

	<p>especially in industries that have broad social implications such as public transport as well as healthcare.</p>	
	<p>P: Alternative objectives of firms will also influence firms' behavior in Singapore.</p> <p>E: Some firms may not aim to maximize profits and therefore may not engage in price or non-price competition with its rivals. They may be more focused on output maximization (producing at where <math>MR=0</math>). These firms usually have other objectives such as a social, humanitarian or environmental focus.</p> <p>Ex: AnnaLakshmi Restaurant is a social enterprise where it is an Indian restaurant, which is largely run by volunteers, and operates on a "pay-as-you-wish" concept. Proceeds go towards sustaining the Temple of Fine Arts and funding classes for needy students.</p> <p>L: Therefore it is important to acknowledge that there are other factors that affect firms' behavior in Singapore.</p>	<p><i>How alternative objectives of firms will affect firms' behavior.</i></p>
	<p>Conclusion</p> <p>[STAND] I believe that whether the level of BTEs is key to influencing firms' behavior in Singapore depends on <i>the type of industry</i> it is.</p> <p>[SUBSTANTIATION] For industries that has broad social impacts and is deemed to be a social need, what determines firms' behavior is more the extent of government intervention, rather than the level of BTEs.</p>	

**Examiners' Comments:**

This question was generally very poorly attempted. For part (a), it is clear that students are not completely aware of the conditions necessary for price discrimination to be carried out, while for part (b), many students were unable to satisfactorily establish the relationship between the levels of barriers to entry, to explaining how it shapes firms' behavior. For part (a) marks range from 2 to 8 with the majority in the 3 to 6 mark range. For part (b) the marks range from 1 to 15 with the majority in the 6 to 11 marks range.

Part (a)

6. Good scripts often were able identify all four conditions necessary for price discrimination to be carried out, although scripts which have only identified three out of the four conditions were not penalized. These scripts often were able to make use of the preamble provided to great effect by recognizing that the situation in the preamble was classified as third-degree price discrimination. They were able to explain using concepts of PED why Apple would want to carry out price discrimination with the group of consumers identified in the preamble, and to charge them a different price as compared to the general public.
7. These scripts also put forth, very convincingly, that the reason why having substantial market power was an important factor for PD to be carried out was because even when discriminatory pricing are carried out by Apple, consumers are less likely to switch to alternatives. In addition, these candidates were able to give examples for each of the conditions explained with reference to Apple.
8. They were also able to draw diagrams to illustrate third degree price discrimination and explain the diagrams clearly pertaining to the condition of markets with different PED.
9. Top marks were awarded to candidates who were able to explain the *reasons* behind the conditions, i.e. why the conditions were necessary in order for PD to be carried out, thereby going beyond the question of whether Apple has satisfied the conditions necessary.
10. Of the scripts that did not fully answer the question, the following misinterpretations/gaps were the most common:
  - f) Poorer scripts were often unable to identify that the group of consumers singled out in the preamble were all belonging in the SAME market. They need to realise the 2 markets include everyone mentioned in the preamble vs. everyone not mentioned in the preamble.
  - g) Some students explained that since students use Apple products more frequently, these products were deemed as a necessity and therefore the demand would be more price inelastic than teachers'. This was not a very convincing argument since the preamble had already mentioned that BOTH students and teachers were entitled to the same educational discount!! Clearly this showed a lack of understanding and comprehension on the part of the candidate.
  - h) Many students also showed poor understanding of elasticity concepts in relation to total revenue. They would argue that students and teachers have a more price inelastic demand because they would require the usage of these educational tools regularly, thus rendering their demand more price inelastic. However, they did not realise that if the demand was price inelastic, it would be counter-intuitive for Apple producers to offer them the discount. The discount would only cause quantity demanded to rise less than proportionately, resulting in a fall in total revenue for Apple!

4 Assess the extent to which an improvement in standard of living of an economy requires economic growth to be the top priority.

[25]

Suggested answer

<p>Introduction</p>	<p><b><u>Define SOL:</u></b> SOL refers to the welfare/well-being for the average person in a country.</p> <p><b><u>Explain how material SOL is measured:</u></b> Material SOL is measured in terms of real GDP per capita, adjusted using PPP-adjusted exchange rates. It is used as a gauge of the level of output available for consumption on a per-head or per-person basis, adjusted for differences in PPP for the purpose of international comparison.</p> <p><b><u>Explain how non-material SOL is measured:</u></b> Non-material SOL is usually measured by a confluence of different factors such as income inequality, literacy rate, infant mortality rates, etc.</p> <p><b><u>Overview:</u></b> In this essay, I will show how although the pursuit of sustained economic growth can lead to an improvement in SOL, it should not be a top priority as there are other factors such as environmental indicators, as well as income equality that are more important than the relentless pursuit of sustained economic growth.</p> <p>However, this is also contingent on the stage of development the economy is at – whether the economy is a developing one or a developed economy.</p>	
<p>Body</p>	<p><b><u>Thesis:</u></b> An improvement in SOL may require economic growth to be the top priority.</p> <p>Economic growth is generally defined as an increase in the output (or income) level of an economy.</p> <p>There are two types of economic growth: actual economic growth, VS potential economic growth. Actual economic growth refers to the actual increase in output of goods and services, while potential economic growth refers to the increase in potential to produce more output. Diagrammatically, actual economic growth is represented by an increase in AD, while potential economic growth is represented by an increase in AS. When AD and AS rise together, there is sustained economic growth, otherwise known as non-inflationary economic growth.</p> <p>To generate sustained economic growth, governments can use demand-management policies such as fiscal or monetary policies, where the former adjusts government spending or taxation, while the latter adjusts interest rates or exchange rates, both to influence the level of economic activity within the</p>	<p><i>Setting up the premise</i></p>

economy. This will cause an increase in AD.

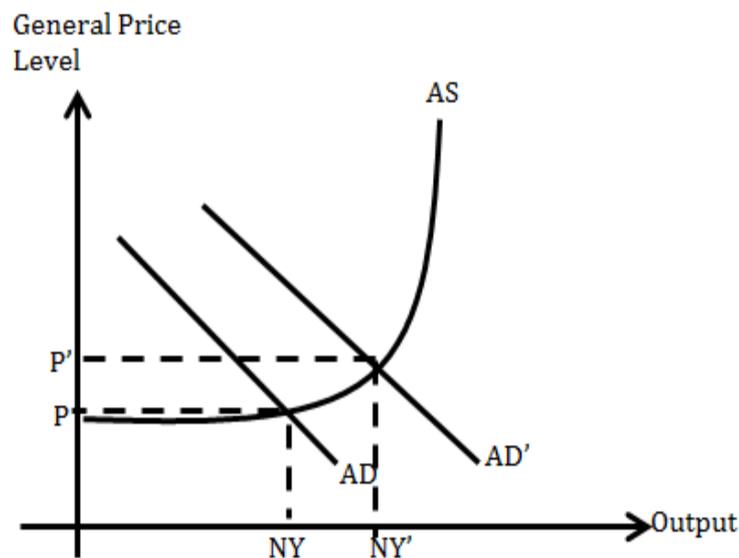
The increase in AS (or the expansion of an economy's productive capacity) can be brought about by the use of supply-side policies such as wage and incomes policies or retraining of workers.

P: When there is actual economic growth, SOL will be improved.

E: This is because actual economic growth means that there is more output produced within the economy, which then implies that more goods and services is available for consumption.

Referring to the diagram below, an increase in AD brought about by demand-management policies as mentioned earlier will cause NY to rise by a multiplied amount from Y to Y' through the multiplier effect, where the initial increase in spending brings about additional rounds of spending.

*How actual EG leads to improved SOL.*



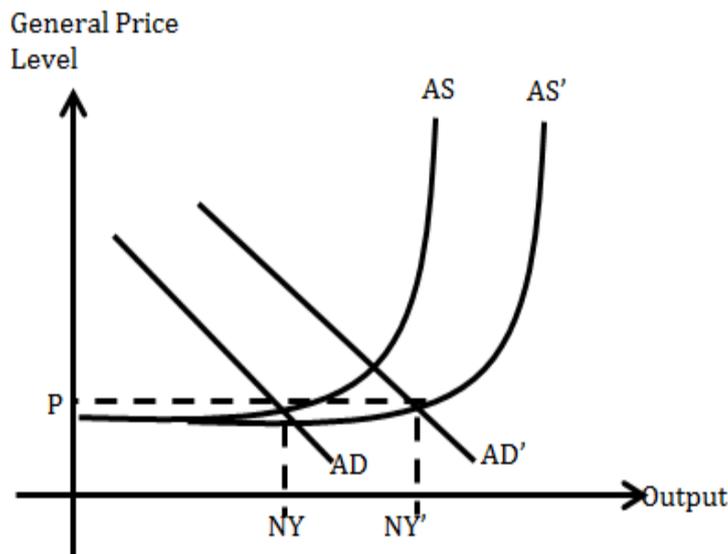
Ev: However, the above assumes that the increase in AD occurs in the Keynesian or intermediate ranges of the AS curve where there are still substantial amount of spare

capacity available in the economy. Successive increases in AD for an economy near full employment will merely result in a sustained increase in GPL, leading to DD-pull inflation. In this case, actual economic growth may come at the expense of rising prices, which means that real income may remain the same and therefore there is no improvement in SOL or SOL may even fall if inflation persists.

P: If, however, economic growth is sustained over a longer period of time due to an increase in *both* AD and AS, the increase in NY can be sustained permanently, leading to an increase in SOL *permanently*.

E: As seen in the diagram below, due to an increase in both the AD and the AS curve, NY is able to increase with no increase in the GPL as the productive capacity of the economy is expanded to accommodate the rising AD. In this case, the rise in NY does not conflict with rising GPL and real income is protected. This increase in SOL is sustained.

*How sustained EG leads to improved SOL.*



Ev: However, this is also assuming that population growth rate is constant. If population growth at the same time is also increasing, real GDP per capita may be lower since the larger amount of output available is to be shared amongst a greater number of people.

L: Therefore the pursuit of economic growth can improve SOL *if* economic growth is sustained. However, whether this pursuit should be a top priority remains to be seen, as the next part of my essay will show.



	<p>vehicles. Out of the world's 20 most polluted cities, the top 16 came from China. It is not uncommon to see many parts of China covered by smog including Beijing.</p> <p>L: Therefore, if the top priority is instead on improving environmental standards through the focus on green or sustainable growth e.g. the use of green technology; alternative fuels e.g. solar and biofuels; SOL may be improved to a greater extent.</p>	
	<p><b>Assess the extent to which</b></p> <p>P: Whether economic growth <u>should</u> be a top priority or not to improve SOL depends on the stage of economic development the economy is at.</p> <p>E + Ex: Economic growth may be more of a top priority to developing economies rather than developed economies. Developing economies include the BRICS economies (Brazil, Russia, India, China, South Africa), while developed economies refer to nations such as the United States, United Kingdom, Singapore, etc.</p> <p>In the initial stages of economic development, a greater improvement in SOL can be achieved by placing EG as the top priority. This is because in the initial stages of development there are a greater amount of resources in a country left unemployed – therefore if the emphasis is placed on EG, it is likely to lead to large rise in income and therefore SOL.</p> <p>In the later stages of development, the relentless pursuance of EG as a top priority will not lead to a very large increase in SOL. Instead, emphasis should be placed on distributing the gains of growth more evenly to ensure that SOL is increased uniformly throughout.</p> <p>L: Therefore it cannot be said the economic growth should be a top priority to all economies in order to improve SOL.</p>	<p><i>Comparison between factors presented, according to a criteria.</i></p>
<p>Conclusion</p>	<p>[STAND] The extent to which an improvement in SOL requires economic growth to be a top priority depends on two factors: (a) the type of economic growth (b) the stage of development an economy is at.</p> <p>[SUBSTANTIATION] In the short run, a faster improvement in SOL can be achieved when <i>sustainable</i> economic growth is placed as the top priority; however, in the long run as an economy becomes more developed, it is likely that other factors will become increasingly more important in raising SOL.</p>	<p><i>Synthesis</i></p>

**Examiners' Comments:**

This question was generally well-attempted. Most students were able to classify standard of living (SOL) into both the material and non-material aspects, and base their discussion on these two aspects to evaluate if pursuing economic growth should be the top priority.

1. The definition of Standard of living was often left wanting. The definition of Economic Growth was also left much to be desired, in that many students were under the misconception that Economic growth referred only to actual economic growth!! They should realise that Economic growth in the question refers to sustainable Economic Growth i.e. both actual and potential growth.
2. Thus, good scripts are able to give examples of how Singapore has achieved actual and potential growth through demand management policies e.g. expansionary fiscal policy and exchange rate policy as well as supply side policy and trade policy. As a result Singapore is able to achieve a high material SOL compared with other countries in the region.
3. Poorer answers would often use other macroeconomic indicators as part of the anti-thesis for this question. This is not recommended as students who establish this argument often fail to realise that the pursuit of (sustainable) economic growth as a top priority, often meant that the other macroeconomic aims are also at the same time achieved: for example, sustainable economic growth with the increase of both AD and AS will lead to increased employment and stable prices. Students who put forth the argument that achieving price stability and/or lowering unemployment should be the alternative top priority often overlook this key fact. Thus, such arguments often limit the students to a low L2 score.
4. Thus, to prevent such contradictions that undermine the value of their argument, students should look at other factors that should be the top priority in increasing SOL that clearly may be at odds with economic growth. For example, stronger answers put forth that with economic growth, income inequity may increase particularly if economic growth is achieved by the growth of certain sectors in the economy over others. Such answers made possible the attainment of L3 marks.
5. Many essays also overlooked the non-material aspect of SOL, providing only cursory links back to SOL (e.g. with economic growth, and thus higher employment levels, people will have greater peace of mind.) This is a poor example of non-material SOL. Instead, good points relating back to the environment, stress levels which are supported with real-life examples e.g. pollution levels in China or working hours in Japan should be brought up.
6. Also, the link between economic growth and SOL was sometimes not established clearly, with many students making statements stating the link between the two instead of explaining the relationship. Students should note that they should establish how material SOL is measured first before explaining how economic growth. In increasing national income, this will lead to an increase in purchasing power and thus the ability to consume more goods and services. Some candidates attempt to show this relationship without the use of AD-AS analysis, but this is often done poorly. Students are reminded that where possible, they should support their claims with relevant economic analysis and diagrams to obtain a higher Content Development score. Answers that obtained a lower L2 or higher L1 score would have included AD/AS analysis, but did so with no clear link to SOL. These students usually state that an increase in AD (with no explanation why AD increases) and an increase in AS

(without explaining why AS increases) will lead to an increase in national income without explaining how an increase in national income can increase material SOL.

7. A minority of the students explained that an increase in productive capacity of the economy that outstrips the increase in AD, will increase unemployment levels as the economy now moves further away from the full employment level. While this may be true diagrammatically, it is counter intuitive to mention that in achieving potential economic growth, unemployment rises instead of falls! To avoid such logical fallacies, students are encouraged to say that in such situations, employment rises with the creation of more jobs made possible by the increase in productive capacity.
8. Argument development for this question was the area for improvement. A large majority of the student completely ignored the key phrase of the question, which was 'top priority'. Students should note that in order to address this key phrase, there should not only be a listing of other factors that are priorities in improving SOL, but also a ranking amongst these factors to justify which should be the TOP priority. Often, the average answer would simply posit that economic growth, while allowing SOL to improve, often overlook the non-material aspects, etc etc without justifying IF certain types of economies/ certain situations would require the top priority to be economic growth. For example, stronger answers were able to explain that a country's economic situation needs to be taken into consideration when deciding whether economic growth should be the top priority. If the economy is currently suffering from a recession, then the pursuing of economic growth should be placed first over other priorities. For instance, these scripts indicated with supportive examples that economic growth is more important to the US whereas non material factors appear to be more important in Singapore. Such answers often obtained the top score for this question.

5 (a) Explain the factors that influence the size of the national income multiplier.[10]

(b) Discuss whether fiscal policy is most appropriate in managing the Singapore economy when faced with the twin threats of worldwide recession and high inflation. [15]

Suggested answer:

a)

<p><u>Introduction:</u></p> <p>The multiplier effect comes about when an initial change in aggregate expenditure (AE) results in a greater final impact on equilibrium national income. This multiplier effect comes about because injections of aggregate expenditure into the circular flow of income stimulate further rounds of spending. The calculation of the multiplier is derived by the reciprocal of the marginal propensity to withdraw. <math>K=1/[mpw] =1/[mps+mpt+mpm]</math> where mps is marginal propensity to save, mpt is marginal propensity to tax and mpm is the marginal propensity to import. Thus, the size of the multiplier is influenced by factors that will affect the marginal propensity to withdraw.</p>	<p>Define 'multiplier'</p> <p>Overview</p>
<p><u>Body: Paragraph 1 – factors that changes mpc or mps will affect size of k</u></p> <p>Factors that lower the marginal propensity to save will result in a greater multiplier size. Similarly, factors that raise the marginal propensity to consume domestically produced goods and services will also result in a greater multiplier size. Such changes may be brought about by higher consumer confidence or a shift in cultural attitudes towards consumption. For example, the shift towards consumerism may have led to a larger multiplier size in some newly industrialised countries such as Korea. Institutionalised factors such as a new mandatory savings scheme will also result in a higher marginal propensity to withdraw and consequently a smaller multiplier size. For example, if the Central Provident Fund board raises the employee's contribution rate of the CPF from the current 20%, this will result in a larger proportion of wages being saved in the CPF accounts and hence increases mps and the amount of leakages from the circular flow of income. This will thus lower the size of multiplier.</p>	<p>Point: higher mpc increases size of k Elaboration: factors that changes mpc/mps</p> <p>Example</p> <p>Link back to question</p>
<p><u>Body: Paragraph 2- Factor affecting mpm</u></p> <p>Another factor affecting the size of the multiplier effect is the propensity to purchase imports. If, out of extra income, people spend their money on imports, this income spent is not passed on in the form of fresh spending on domestically produced output. It leaks away from the circular flow of income and spending, reducing the size of the multiplier. This may happen due to a shift in taste and preference for imports over local products due to loss of comparative advantage of local products, favoured foreign goods due to foreign firms advertising the imported goods.</p>	<p>Point: higher mpm will lower size of k</p> <p>Elaboration: relate to circular flow</p> <p>Support with example</p>
<p><u>Body: Paragraph 3 – factor affecting mpt</u></p>	<p>Point: MPT changes</p>

<p>Lastly, the government can influence the size of the multiplier through changes in direct taxes. For example, a cut in the rate of income tax will increase the amount of extra income that can be spent on further goods and services. Such a tax policy change will bring about a smaller withdrawal from the circular flow of income and bring about a larger increase in the national income eventually, raising the size of the multiplier.</p>	<p>will affect size of k</p> <p>Elaboration: relate to circular flow</p> <p>Link back to question</p>
<p><u>Conclusion:</u> All in all, any factors that affect the marginal propensity to withdraw will bring about a change in the amount of leakages from the circular flow of income and thus influence the size of the multiplier. The size of the multiplier will have some consequences in terms of the impact of different types of policies used to manage the macroeconomy.</p>	<p>Summarise main points.</p> <p>Link to part b question</p>

Level	Descriptor	Marks
L1	Spattering of points, statements and unexplained or incidental explanation. Did not address question requirements on factors affecting <b>size</b> of multiplier, incorrect or conceptually lacking explanation of multiplier content.	[1-4m]
L2	Address question requirement though explanation may be undeveloped. Factors may not have all 3 aspects and/or not contextualised to real life economies	[5-7m]
L3	Excellent analysis of what determines the size of the multiplier with the aid of either a multiplier table or the circular flow diagram with contextualisation to real life economies	[8-10m]

b)

<p><u>Introduction:</u></p> <p>Faced with the twin threats of worldwide recession and high inflation, Singapore will be hit hard as a small open economy that depends heavily on external trade as her engine of growth and a resource-limited economy that needs to import the vast majority of her goods for final consumption as well as for inputs of production. The worldwide recession will drastically reduce demand for Singapore's exports and bring about a fall in Aggregate Demand (AD) and a fall in actual economic growth and employment levels. High inflation will raise the cost of living as well as cost of production for Singapore, shifting AS upwards, resulting in higher inflation rates. There will be a negative impact across all four macroeconomic aims of growth, employment, inflation and balance of payments. It is of utmost importance that interventionist policies be employed to tackle the twin threats and while expansionary fiscal policy may seem like the most appropriate policy to be employed, other policies still need to be utilised to complement and overcome shortcomings of inflationary pressures.</p>	<p>Explain the impact of worldwide recession and high inflation on Sg economy</p> <p>Overview/Thesis statement</p>
<p><u>Body: Thesis 1 – appropriateness of FP in addressing twin threats</u></p>	

<p>Expansionary fiscal policy can be used to directly resolve demand-deficient unemployment brought on by the worldwide recession. This can be done by increasing government expenditure spending which would raise the level of aggregate demand resulting in increase in employment.</p> <p>AND/OR tax incentives can also be used to increase the level of investment to encourage economic growth: e.g. lower corporate tax to increase after-tax profits. More funds will be available for re-investment due to the higher after-tax returns on investment which will encourage more investment to take place (explain with aid of AD-AS diagram) Together, the rise in AD and AS in the long run will bring about a reversal of the twin threats of higher unemployment, higher prices and lower growth.</p> <p>This is particularly appropriate in Singapore where fiscal measures are used often with a supply-side emphasis to prepare the economy for recovery by increasing AS. For example, the Resilience Package introduced in the aftermath of Global Financial Crisis brought about increased government expenditure that helped workers stayed employed but also encouraged them to go for retraining. This helps in adjusting the economy to be ready when the global economy turnarounds: targeted at increasing the potential output in the economy → in the long run, improve the productive capacity of the economy.</p>	<p>Point: use of expansionary FP to address recession and inflation</p> <p>Example</p> <p>Link back to question</p>
<p><u>Body: Antithesis 1- FP is inappropriate in other aspects when addressing twin threats</u></p> <p>However, the use of fiscal policy may have limited impact due to the small multiplier value of Singapore. This is because the marginal propensity to save and import is extremely high due to cultural and institutionalised reasons of savings in the mandatory CPF scheme, conservative attitudes towards saving for future emergencies. Hence the Increase in government spending may need to be significantly large before the intended effect can be achieved. This in turn may require the government to tap on its reserves to support the increase in government expenditure. This may not be sustainable as the worldwide recession may be dragged on and the tapping on reserves may become a regular affair rather than an abnormality. Moreover, the effectiveness of such pump-priming methods is questionable since a large proportion of the rise in government expenditure leaks out as withdrawal expenditure. More importantly, Singapore has always been dependent on external factors as the domestic market is very small. It may be difficult to make up the shortfall of AD from the fall in exports triggered by the worldwide recession. Moreover, should the fiscal policy be implemented as a pure demand management tool without any supply side effects, this will only tackle problems associated with the recession and worsen the effects of the cost push inflation.</p>	<p>Point: pitfalls of FP</p> <p>Elaboration: relate to limitations especially in context to Sg</p> <p>Support with contextual example</p>
<p><u>Body: antithesis 2 – Due to shortcomings of FP, need for other appropriate policies to complement</u></p> <p>Exchange rate policies can be used to tackle either the problem of weak worldwide demand or imported inflation. A mild appreciation of the Singapore dollar will help to mitigate against higher imported inflation without significant impact on export competitiveness. This is important as Singapore's exports have very high imported content and a mild appreciation would thus place emphasis on the addressing of imported</p>	<p>Point: suggest how other policies may be <b>more appropriate</b></p>

<p>inflation first. This can be used together with expansionary fiscal policy that will help tackle cyclical unemployment and prop up AD. However, should there be very high levels of imported inflation, the required appreciation of the Singapore dollar will mean that export competitiveness is compromised.</p> <p>Supply side policies - Supply side policies work by improving the productivity of Singapore and remaining attractive to foreign direct investments as MNCs seek out low cost or 'best sourcing' areas to produce goods. Singapore, with her productive economy and well developed trade links must continue to strengthen these capabilities to be in the best position possible when the global economy recovers. Supply side policies would be powerful to bring about non-inflationary potential economic growth but these measures would take a long time to take effect.</p> <p>(Can also accept argument of use of income &amp; wage policies to address domestic causes of cost push inflation)</p>	<p>Link back to question</p>
<p><u>Conclusion:</u> All in all, though there are large leakages in the Singapore context, the use of fiscal policy is still one of the cornerstone of policymakers due to the direct and malleability of how the fiscal measures can be executed. However, to maximize effectiveness and appropriateness, Singapore should utilize fiscal policy that has a supply side effect so that both issues will be effectively tackled.</p>	<p>Justify synthesis in light of above arguments.</p>

Level	Descriptor	Marks
L1	Question requirements have not been understood One-sided unbalanced view. Conceptual errors evident in analysis. Incidental discussion.	1-5m
L2	Question requirements addressed broadly. Balanced view attempted though can be skewed and lacking in some perspectives. Attempt at contextualisation evident though can be hypothetical Content development generally on the right areas  OR very well argued one-sided essay [max 6m]	6-8m
L3	Well-balanced view of perspectives. Coherently engaged question with clear two-sided discussion - clear explanation on how fiscal policy tackles the twin problems while considering limitations and suggesting alternative policies as better options. Detailed and relevant content development Well supported with applicable real-world examples	9-11m
E1	Unjustified synthesis with little or no evaluation within the essay	1-2m
E2	Evaluation within the essay evident. Justified stand in relation to above arguments and question requirements	3-4m

**Examiners' Comments:**

This question was generally well-attempted. Most students were able to list and explain the factors affecting size of multiplier, and discuss the circumstances behind appropriateness of fiscal policies to handle the twin threats of worldwide recession and high inflation. Majority of scripts were complete and showed good time management, though there were still some who clearly struggled with time constraints and did not attempt one part of the question.

Generally, those who were able to engage the question asked and address question requirements clearly in their analysis will be rewarded with good credit, as opposed to scripts which consist of large chunks of memorised explanation of multiplier or policies without addressing the question asked.

Lastly, it should also be noted that with this being a formal written examination, students should refrain from using excessive short forms or acronyms (especially those that are self-concocted) as this breaks up the reading flow and can be difficult for examiners to understand the explanation especially when acronyms are unestablished and self-concocted.

**Part A**

1. Good scripts were able to identify factors of marginal propensity to withdraw and explained these factors clearly to size of multiplier. For higher L3, there needs to be clear linkages to the circular flow of income as well, in terms of increased withdrawals/leakages that resulted in a smaller multiplier size. Weaker scripts were able to identify relevant factors but failed to recognise the focus of question requirements was on size of multiplier and not solely on the multiplier process.
2. The most common was the confusion between absolute size of withdrawals and marginal propensity to withdraw: While many can define that size of multiplier is the reciprocal of marginal propensity to withdraw, many scripts though continue to explain that "the larger the size of withdrawals, the smaller the multiplier"; "when consumers save more and spend less, there will be higher multiplier" – such statements are not accurate. A larger amount of savings may come about due to higher income but still the same proportion saved up. Size of multiplier needs to be linked to MPW (the proportion of each extra dollar of disposable income not spent by households), not absolute size of the withdrawal.
3. Similarly, some were confused about the size of multiplier being influenced by initial injection size: "if government pumped in a lot of money, then the increase in national income is larger, and so is the size of multiplier." This is a misconception, since the increased injection is the reason for the larger increase in national income and can occur with no change in size of multiplier. Others wrote about how the size of multiplier in Singapore is small due to the small size of the population. This is a serious misconception that showed little understanding of mpw.
4. Finally, many left out the explanation of MPT in their points.

**Part B**

5. For part b, students need to understand that the twin threats of recession and inflation are occurring at the same time and need to be dealt with together. Many scripts did not understand this and dealt with each problem in turn, which meant that they explained that expansionary fiscal policies should be employed to tackle recession and contractionary fiscal policies used for tackling inflation. There are

several glaring issues with this overly simplistic approach, since the analysis often meant that students would be contradicting themselves.

6. More problematic would be the often unexplained assumption that the cause of inflation in this case would be demand-pull inflation, which would contradict the first problem of a recession. This meant that there is a cap on the credit given to such scripts.
7. For those who have understand the twin threats to be dealt with together, the ideal analysis should explain why a traditional fiscal policy used as a pure demand management way would be clearly insufficient to deal with cost-push or imported inflation, and then proceed to suggest alternatives.
8. Better approaches were able to suggest that fiscal policy are normally implemented with a supply side policy slant as well in Singapore, and thus may be able to tackle the twin problems, though imperfections still exist. Some scripts though completely miss out on addressing how fiscal policy may be inappropriate or inadequate to address the twin threats and jump to discussing alternatives policies after a cursory discussion on fiscal policies. Students need to remember that engaging the question asked is of utmost importance and not just mechanically write out memorised paragraphs.
9. Exchange rate policies were suggested as an alternative. However, students should assess whether recession or inflation were the greater threat and suggest either depreciation or appreciation as the suggested exchange rate policy, then proceed to address the insufficiency to address the other problem.

6 It has been asserted that the rapid pace of globalisation appear to have contributed to rising income inequity and economic vulnerability in developed economies. Thus, protectionism has been adopted by some countries in response to these challenges.

- a) Explain the benefits of globalisation for the developed economies. [10]
- b) Discuss whether protectionism is the best approach to deal with the challenges posed by globalisation. [15]

Suggested answer

<p><u>Introduction:</u></p> <p>Globalisation is increasing integration and interdependence of the world's economies arising from increased trade and greater international mobility of factors like capital, labour and enterprise. There is a greater movement of goods and services, capital, information and people as well as the development of technology.</p> <p>As a small open economy with limited natural resources, Singapore has definitely benefited much from globalization.</p>	<p>Define Globalisation</p> <p>Contextualize: Singapore</p> <p>Overview</p>
<p><u>Body: Paragraph 1 – benefits of increased trade flows</u></p> <p>Singapore has benefited in terms of higher consumer welfare and access to export markets due to increased trade flows that comes with a more globalized world. With countries specializing and trading the goods that they have more comparative advantage in, consumers get to enjoy lower prices and increased variety. The theory of comparative advantage states that a country should specialize and trade in the goods it has lower opportunity cost in. Due to specialization, prices will be lowered and output higher and this translates to higher consumer surplus for Singapore. There will also be more variety and consumer choice, all of which means higher consumer welfare. In addition, producers of Singapore also benefit from being able to export to markets beyond Singapore shores. These benefits are not just restricted to inter-industry trade but also intra-industry trade. For example, Creative Technologies benefitted when it was able to import cheaper component parts and then assemble and trade their best-selling Soundblaster series of computer audio entertainment devices. The benefits from higher trade flows have definitely benefitted Singapore vastly especially since she has limited natural resources and would have suffered from a severe lack of products without trade.</p>	<p>Point: higher consumer welfare and access to global markets</p> <p>Elaboration: theory of comparative advantage.</p> <p>Example</p> <p>Link back to question</p>
<p><u>Body: Paragraph 2- benefits of increased capital flows</u></p> <p>Singapore actively sought, and still does, to attract foreign direct investments that come about with increased capital flows due to globalisation because of the expected favourable effect of technology spillover, increased productive capacity and sustainable economic growth. Higher capital flows in the form of higher FDI will help to increase AD in the short run and AS in the long run, leading to actual economic growth and</p>	<p>Point: technology spillover, growth and higher productive capacity from increased FDI</p>

<p>potential economic growth respectively. This not only increases output but also helps to maintain price stability. For example, Singapore benefited immensely from the increase in manufacturing sectors in the 1970s-1980s and the labour force also received technological spillover benefits when they learnt these skills from the foreign companies. Even now, Singapore companies also benefited from outward FDI flows that allowed them to tap on the benefits of lower production costs and easier access to foreign export markets.</p>	<p>Elaboration: Link to AD-AS analysis</p> <p>Support with example</p>
<p><u>Body: Paragraph 3 – benefits from increased labour flows</u></p> <p>Singapore also benefited in terms of higher productive capacity and lower cost of production due to increased labour flows. With the emergence of technology and organisation of production, movement of labour now does not necessary involve the physical movement of workers. For example, firms in Singapore can contract jobs to workers in developing countries without the workers relocating. One key benefit of higher labour flows is that we are able to maintain and even expand our labour force and thus able to increase our AS and productive capacity, which means more goods to enjoy. The movement of labour also allows foreign workers to fill jobs that are unpopular with locals. For example, the local cleaning industries and retail service industries were able to recruit from foreign labour forces to meet some of the shortages.</p>	<p>Point: higher productive capacity and lower cop from increased labour flows</p> <p>Elaboration: labour flows help to fill up jobs that face shortage of labour</p> <p>Link back to question</p>
<p><u>Conclusion:</u></p> <p>All in all, Singapore has indeed benefited greatly in terms of higher consumer welfare, gaining access to foreign markets, higher productive capacity and increased sustainable economic growth due to increased trade, capital and labour flows. However, this does not preclude some problems associated with globalization.</p>	<p>Summarise and reiterate main points. Link to part b question</p>

Level	Descriptor	Marks
L1	Spattering of points, statements and unexplained or incidental explanation. Did not address question requirements, weak explanation of content and little or no contextualisation.	[1-4m]
L2	Address question requirement though explanation may be undeveloped (No AD-AS analysis) Benefits may not have all 3 flows and/or not contextualised to any developed economy	[5-6m]
L3	All the above and to have benefits in terms of the 3 flows, with theory of comparative advantage and AD-AS analysis clearly explained and contextualised to developed economies For higher L3, explanation of bilateral flows of trade, capital and labour is expected.	[7-10m]

b)

<p><u>Introduction:</u></p> <p>As explained earlier, globalization brought about many benefits for Singapore but it has also resulted in increased income inequity and economic vulnerability. Protectionism, which is the act of any action that the</p>	<p>Contextualize to preamble &amp; Singapore</p>
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<p>government may take to influence market forces to provide an advantage to domestic industries over foreign producers, has been proposed as one of the response to cope with these problems. Yet, protectionism may not be one of the best approaches as it creates a whole load of other problems as well.</p>	<p>Define 'protectionism'</p> <p>Overview</p>
<p><u>Body: Thesis - Protectionism has its strengths as a short run approach to deal with the challenges posed by globalization</u></p> <p>Firstly, there is worsening income equity which is aggravated due to rapid rate of changes brought about by globalisation. Wages of lowly skilled labour generally grow slower than highly skilled labour. In addition, greater mobility and interdependency among countries mean problems in one country can be easily transmitted to other countries. For instance, recession in one country can be transmitted to other countries such as the US financial crisis affecting the rest of the world. In addition, the reliance on other countries for trade means we are also more susceptible to imported inflation.</p> <p>Some form of protection in the short run allows workers in sunset industries which are having declining comparative advantage and may employ significant proportion of the labour force to adjust to new conditions. For example, tariffs may be imposed on imports so that imports are now less attractive and ensures that the domestic firm is not priced out of the market. This will help buy time to improve workers morale and prevent social tensions. Moreover, imposing protectionism like tariffs earn more government revenue and less government funds will now be required for giving out some form of social safety net as compared to no protectionism when the workers are unemployed suddenly. This also allows time for workers to switch to another job. Thus, SOL is maintained.</p> <p>Limitations though exist in that it may lead to higher cost of production due to complacency, misallocation of scarce resources since any price intervention is distortionary and fall in world output and trade if protection is long term. Nevertheless, protectionism helps as a measure against the woes of globalisation, albeit in the short run.</p>	<p>Point: Protectionism works to counter challenges of globalization.</p> <p>Elaborate challenges posed – worsening income inequity</p> <p>Explain what protectionism can address</p> <p>Evaluation</p> <p>Link back to question</p>
<p><u>Thesis: Protectionism has its strengths as an insulator to external vulnerability posed by globalization</u></p> <p>One of the key criticisms of globalisation is that it results in economic vulnerability in terms of exposure to global crisis and more frequent economic recessions. For example, due to globalisation, countries are exposed to the Global Financial Crisis which initiated as a domestic subprime crisis in USA. As such, during a worldwide recession, some countries may protect to maintain home employment and restrict imports in order to ensure that income is spent in domestic country. This helps in providing certain stability in income and employment. However, there are also limitations in that this may encourage inefficiency in protected</p>	<p>Point: Protectionism works to counter challenges of globalization.</p> <p>Elaborate challenges posed – economic vulnerability</p> <p>Explain role of protectionism to reduce vulnerability.</p>

<p>industries and Singapore may also produce goods that she has no comparative advantage in. In addition, this result in reduced competitiveness of our goods in future</p>	<p>Evaluate limitations</p>
<p><u>Body: Antithesis 1 – problems of protectionism</u>                  Protectionism may result in risk of retaliation from trade partners, resulting in deterioration of trade relations and falling net exports and growth in the long run. This is because after the first round of protectionism measures, trading partners may impose their own import restrictions thus causing the initiating country's exports, output and employment to suffer subsequently. Even without retaliatory reactions, there may still be a fall in export revenue which is also caused by the beggar-thy-neighbour effect. This happens when the exports, output and income of trading partners are reduced, resulting in a depressed economy and falling demand for the goods of the country which initiated protectionism. This then curbs the exports, output and employment of the initiating country.</p>	<p>Point: Problems of protectionism</p> <p>Elaboration: retaliation and beggar-thy-neighbour effect</p>
<p><u>Body: Antithesis 2 – other approaches may be better</u>                  Government may want to protect the industry but this is a SR policy which does not solve the root of the problem of rising income inequity which may be rooted in structural unemployment. Structural change in country needed and relevant skills required                  In this case, use of supply-side policy that involves retraining the workers so as to allow better match of skills and jobs available while speeding up restructuring of the economy. In the long term, productivity increases as workers are equipped with appropriate and higher level of skills and unemployment levels fall. For example, Spore needs to move up value chain instead of protecting our domestic industries i.e. nature of our exports has to change as we compete with emerging economies such as China.</p> <p>Another approach to address increase vulnerability is via expansionary fiscal policy: Building of IRs which increases G and resilience package in the form of increase government expenditure. This will help to pump prime the economy in times of slowdowns. Lower corporate taxes may be considered in the longer run to reduce size of marginal propensity to tax and hence increase the size of multiplier. Such policies will help to regulate the aim of actual growth and address cyclical unemployment.</p> <p>These approaches are preferred to protectionism as they do not sour trade relations and invite retaliation nor have any detrimental impact on trade partners. In addition, these policies are more sustainable in terms of funding and have other wider macroeconomic benefits as compared to specific protectionism measures on selected industries.</p> <p>That said, however, these alternative policies are also not perfect. Limitations include unguaranteed effectiveness, due to the uncertainty of retraining schemes, and speed of implementation since time is needed for expansionary fiscal measures to take full effect.</p>	<p>Point: Supply side policies to reduce problems of globalisation</p> <p>Elaboration: why alternative approaches work</p> <p>Explain why these approaches are better</p> <p>Evaluate alternative policies</p>
<p><u>Conclusion: Justification &amp; Synthesis</u></p>	

In conclusion, protectionism should only be used as an interim measures to counter the problems of globalization since they result in detrimental effects on trade partners that eventually hurt our own economy as well. There should be use of adjustment policies such as supply side training programs and expansionary fiscal measures to deal with income inequity and economic vulnerability as they tackle the root problems more effectively.	Justified stand in relation to above arguments and question requirements
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Level	Descriptors	Marks
L1	Question requirements have not been understood One-sided unbalanced view. Conceptual errors evident in analysis. Incidental discussion.	1-5m
L2	Question requirements addressed broadly. Balanced view attempted though can be skewed and lacking in some perspectives. Attempt at contextualisation evident though can be hypothetical Content development generally on the right areas  OR very well argued one-sided essay [max 6m]	6-8m
L3	Well-balanced view of perspectives. Coherently engaged question with clear two-sided discussion - clear explanation on how protectionism tackles problems of inequity and vulnerability while considering limitations and alternative policies as better options. Detailed and relevant content development Well supported with applicable real-world examples	9-11m

E1	Unjustified synthesis with little or no evaluation within the essay	1-2m
E2	Evaluation within the essay evident. Justified stand in relation to above arguments and question requirements	3-4m

**Examiners' Comments:**

Part A

Students seemed to have a fairly good understanding about what globalisation means and thus were able to meet the requirements in terms of explaining their answers in the context of trade flows, capital flows and labour flows.

1. The answers, however, tend to be stuck at the mid-range with students not elaborating the benefits from the three flows well in the context of developed economies. The elaboration remained to be rather generic and not supported well by specific characteristics and hence, benefits that developed countries will enjoy. The elaboration of the benefits also seemed to not use economic framework very well. For example, the benefits from trade were seldom linked to the theory of comparative advantage. Similarly, the AD-AS framework was not used very well to explain the benefits from trade.

2. The *very good answers* started with **setting the tone** of the essay well. They seemed to set the context of the developed countries, often **using one or two specific countries as examples**, and explaining the characteristics of these countries. Henceforth, the benefits from trade were **well linked to the comparative advantage that developed countries have**. The benefits from the three flows were also explained **using the AD-AS framework** and 'benefits' explained in terms of **various macro and micro economic aims**.
3. The very weak answers were the ones that did not understand the requirement of answering a 'globalisation' question and thus, the benefits they explained were limited to benefits from trade only. They, often, also were confused between trade and capital flow, rendering to incoherent development of the content.
4. For scripts that were explained three flows (trade, capital and labour), they were able to attain L3 marks but many did not achieve full credit because they did not realise the need to **analyse the benefits from both inward and outward flows** for the three components (trade, capital and labour).

### Part B

Majority of the answers to this question were stuck at mid or low levels of marks. The main problem that the students faced for this question was with regard to understanding the requirements- the need to link to the preamble, to show how protectionism helps to solve the problems mentioned in the preamble, how protectionism does not help in solving the problems (instead may aggravate the problems) and the analysis of alternative policies in solving the problems. Most students explained memorised points on how protectionism works. These points were not linked to the problems in the extract.

1. Some students attempted to make the connections between 'sunrise' and 'sunset' industries to the problems of income inequity and economic vulnerability but the answers were largely weak in elaboration and rigour of analysis. They need to explain the terms 'sunrise' and 'sunset' industries and explain the linkage to income inequity and economic vulnerability in terms of loss of employment and greater risk of economic fluctuations, for example. Analysis of alternative policies was largely missing in most answers.
2. The few very good answers made use of specific countries as examples to show how globalisation has led to income inequity and economic vulnerability in those countries- this setting of context generally gave them an advantage to explain their points in the answer in a better way.
3. Thereafter, the students showed how protectionism may help/has helped these countries to lower the extent of the two problems. The answers also analysed the ways in which protectionism may not be useful in correcting the problems and may instead lead to bigger problems.
4. Analysis of alternative policies in the context of the country chosen was done well- choice of exchange rate policy to lower vulnerability from imported inflation for small open economies- rendered them good levels of marks.

<b>Name:</b>		<b>Index Number:</b>		<b>Class:</b>	
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**DUNMAN HIGH SCHOOL**  
**Preliminary Examination**  
**Year 6**

Economics

8819/1

Higher 1

**23 September 2014**

Section A Case Study

**3 hours**

Section B Essay

Additional Materials: Writing Papers

**PLEASE READ THE FOLLOWING INSTRUCTIONS FIRST**

Write your name and class on all the work you hand in.

Write in dark blue or black pen on both sides of the paper.

You may use a soft pencil for any diagrams, graphs or rough working.

Do not use staples, paper clips, highlighters, glue or correction fluid.

Please start on a fresh sheet of paper for a new question.

**Section A**

Answer **all** questions.

**Section B**

Answer **one** question.

At the end of the examination, fasten all your work securely into two separate bundles for Section A and Section B.

The number of marks is given in brackets [ ] at the end of each question or part question. Circle the question number you have attempted.

Section A		Section B	
Q1	Q2	Q3	Q4

This document consists of **8** printed pages including this cover page.

**[Turn over**

**Section A**

Answer **all** questions in this section

**Question 1****The high cost of food****Extract 1: Global food crisis**

This year, for the sixth time in 11 years, the world will consume more food than it produces, largely because of extreme weather in the US, Russia and other major food-exporting countries. Countries have been releasing grains from their reserves. World grain reserves are so dangerously low that severe weather in the United States or other food-exporting countries could trigger a major hunger crisis next year. China and India have the largest and fastest growing populations creating demand for food from around the world. Dietary changes in developing economies have seen increasingly wealthy workers eat more meat. Global corn prices surged nearly 23%, exacerbated by the heatwaves and drought in 2012.

The surge in corn prices will have a big impact on consumers. Corn is used in almost everything; arable crops as feedstock and crop diversion to biofuel production. The price of key staples is expected to rise, threatening disastrous consequences for poor people who spend a large proportion of their income on food. However, food price inflation is also driven by higher oil prices. Crude oil is used in practically every aspect of industrial-scale food production, from planting, irrigating and reaping, to transportation, then food processing and packaging. On top of that, petrochemicals are a principal component of many of the fertilizers and pesticides now so vital to modern agricultural activity. Crude price averaged \$112 per barrel during 2012 – the highest ever annual average price.

Adapted from various sources in 2012

**Extract 2: Livestock farmers' profits squeezed**

A surge in the cost of feedstock after the worst U.S. drought in more than half a century has stripped many livestock farmers of profit. The global economic downturn has made it difficult for farmers to pass on rising costs to cash-strapped consumers, and they have sought to scale back production plans in the face of mounting losses. In the pork industry, this has meant slaughtering breeding sows, which in the short term can actually increase meat supplies, with the eventual decline in production not felt until 2013.

Adapted from: <http://www.reuters.com>, 8<sup>th</sup> November 2012

**Extract 3: Ethanol cuts may drive down corn prices**

Congress has declined to renew the 30-year-old federal subsidy for ethanol. In the U.S., 95% of ethanol is made from corn. This had made subsidy of ethanol controversial because of the allegations that it raised food prices. The subsidy cost the government \$6 billion annually, and it had added to the budget deficit.

People who defend subsidies for particular sectors often highlight the goods or services that have been produced, or the new jobs created. What they do not normally acknowledge is that the benefits to society of that money, if it had been spent otherwise, or left in the pockets of taxpayers, might have been even greater. In the presence of a budget constraint, all spending decisions, at the margin, imply trade-offs.

Critics often point to the economic distortions created by subsidies, especially subsidies that are used to promote specific sectors or industries. Generally, such subsidies tend to divert resources from more productive to less productive uses, thus reducing economic efficiency.

Sources: Adapted from [usatoday.com](http://usatoday.com), [news.yahoo.com](http://news.yahoo.com), <http://www.iisd.org/gsi/effects-subsidies>

**Table 1: UK Annual Inflation**

Year	2008	2009	2010	2011	2012	2013*
CPI	3.6%	2.2%	3.3%	4.5%	2.7%	2.1%

\*Estimate

Source: [www.britishchambers.org.uk](http://www.britishchambers.org.uk), September 2012

**Extract 4: Economic growth adjusted downwards**

The UK economy is forecasted to contract by 0.1%. Domestic demand has been held back by a number of factors, including: tight credit conditions; austerity; and a squeeze on real incomes. Weak wage growth, increases in VAT and import and energy prices have borne down on real income growth in recent years. Household savings, which is dependent on their expectations of future, also rose sharply during 2008 and 2009. Corn and other food prices have surged to record highs recently, as a result of the US drought, and oil prices have risen. These developments will put pressure on UK food and petrol prices. Energy prices affect CPI inflation directly, for example through household energy bills. In addition, they affect inflation indirectly through their impact on companies' costs.

Source: Bank of England, November 2012

**Questions**

- (a) (i) Define price elasticity of supply. [1]
- (ii) With reference to Extract 1, is the supply of food likely to be price elastic or inelastic? Explain your reason. [2]
- (b) With reference to the data,
- (i) Explain the relationship between corn and ethanol. [2]
- (ii) Discuss whether rising oil price is the main cause of sharp increase in food prices. [8]
- (c) With reference to Extract 2 and the aid of demand and supply diagram, explain why farmers are finding it tough to pass on rising cost of pork to consumers. [5]
- (d) With reference to Extract 3, explain how the subsidy on ethanol leads to inefficient allocation of the economy's resources. [4]
- (e) With reference to Table 1 and Extract 4,
- (i) Describe the trend in UK annual inflation from 2008 to 2013. [2]
- (ii) Discuss the likely impact of rising food prices on the UK economy. [6]

**[Total 30marks]**

## Question 2

### Economic Growth and Challenges

#### Report on Indonesia, Japan and South Korea

##### Extract 5: Indonesia

Indonesia grew about 5% annually in 2009-12. During the global financial crisis, Indonesia outperformed its regional neighbours and joined China and India as the only G20 members posting growth in 2009.

Indonesia still struggles with poverty and unemployment, inadequate infrastructure, corruption, a complex regulatory environment, and unequal resource distribution among regions.

##### Extract 6: Japan

Japan's industrial sector is heavily dependent on imported raw materials and fuels. A small agricultural sector is highly subsidised and protected, with crop yields among the highest in the world.

The economy has fallen into recession three times since 2008. A sharp downturn in business investment and global demand for Japan's exports in late 2008 pushed Japan into recession. Government stimulus spending helped the economy recover in late 2009 and 2010, but the economy contracted again in 2011 as the massive 9.0 magnitude earthquake and the ensuing tsunami in March disrupted manufacturing. Newly-elected Prime Minister Shinzo Abe has declared economic growth as his government's top priority; will continue a longstanding debate on restructuring the economy and reining in Japan's huge government debt, which exceeds 200% of GDP. Persistent deflation, reliance on exports to drive growth, and an aging and shrinking population are other major long-term challenges for the economy.

##### Extract 7: South Korea

South Korea government promoted the import of raw materials and technology at the expense of consumer goods, and encouraged savings and investment over consumption.

The South Korean economy's long-term challenges include a rapidly aging population, inflexible labour market, and heavy reliance on exports – which comprise half of GDP.

Source: [www.indexmundi.com](http://www.indexmundi.com)

**Table 2: Macroeconomic Indicators: Indonesia**

	2009	2010	2011	2012
Annual Rate of Growth Real GDP (%)	4.6	6.2	6.5	6.3
Rate of Inflation (%)	4.8	5.1	5.3	4
Unemployment Rate (%)	7.9	7.1	6.6	6.1
Current Account Balance (% of GDP)	2	0.7	0.2	-2.8
Current Account Balance (USD billion)	10.6	5.1	1.7	-24.4
Visible Exports (USD billion)	116.5	157.8	203.5	190.0
Visible Imports (USD billion)	96.8	135.7	177.4	116.5
Exchange Rate vs USD	9,425	9,010	9,068	9,638

**Table 3: Macroeconomic Indicators: Japan**

	2009	2010	2011	2012
Annual Rate of Growth Real GDP (%)	-5.5	4.7	-0.5	1.4
Rate of Inflation (%)	-1.4	-0.7	-0.3	-0.0
Unemployment Rate (%)	5.1	5.1	4.6	4.3
Current Account Balance (% of GDP)	2.9	3.9	2.1	1.0
Current Account Balance (USD billion)	145.3	217.2	126.5	58.5
Visible Exports (USD billion)	581.1	768.1	823.4	798.0
Visible Imports (USD billion)	552.4	692.5	856.1	885.4
Exchange Rate vs USD	92.9	81.2	77.0	86.7

**Table 4: Macroeconomic Indicators: South Korea**

	2009	2010	2011	2012
Annual Rate of Growth Real GDP (%)	0.7	6.5	3.7	2.3
Rate of Inflation (%)	2.8	2.9	4.0	2.2
Unemployment Rate (%)	3.7	3.7	3.4	3.2
Current Account Balance (% of GDP)	3.7	2.6	1.6	4.1
Current Account Balance (USD billion)	33.6	28.9	18.7	50.8
Visible Exports (USD billion)	363.5	466.4	555.2	547.9
Visible Imports (USD billion)	323.1	425.2	524.4	519.6
Exchange Rate vs USD	1,276	1,156	1,108	1,127

Source: Organisation for Economic Co-operation and Development

### Questions

- (a)** (i) With reference to Tables 3 and 4, compare the trade balances in Japan and South Korea between 2009 and 2012. [2]
- (ii) Account for the difference in Indonesia's current account balance and trade balance in Table 2. [4]
- (b)** With reference to Table 3:
- (i) How does the value of Japanese Yen in 2011 compare to its value in 2009? [2]
- (ii) Comment on the significance of changes in exchange rates on the export revenue in Japan between 2009 and 2011. [6]
- (c)** Explain the likely macroeconomic impact of the massive 9.0 magnitude earthquake on Japan and its trading partners. [8]
- (d)** Discuss whether the data provided are sufficient to assess changes in the standard of living in these Asian economies over the period. [8]

**[Total 30marks]**

**Section B**

Answer **one** question from this section

- 3 (a) Explain why the existence of public good and merit good causes market failure. [10]
- (b) Discuss the view that taxation is the best policy for a government to correct the market failure resulting from the existence of negative externality. [15]
- 4 (a) Explain the importance of achieving low unemployment and high economic growth for an economy. [10]
- (b) Assess the view that supply-side policies are the most effective way to address the twin problems of high inflation and balance of trade deficit. [15]



**DUNMAN HIGH SCHOOL**  
**Preliminary Examination 2014**  
Economics **8819**

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**Answer and Mark Schemes**

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**Case Study Q1**

- a (i) Define PES. [1]**

Change in  $Q_{ss}$  in response to a given change in price of the good, ceteris paribus.  
[0m: no marks if ceteris paribus assumption is not provided]

- (ii) With reference to Extract 1, is the supply of food likely to be price elastic or inelastic? Explain your reason. [2]**

Supply of food is likely to be price inelastic.

<Evidence> 'world grain reserves are so dangerously low' (Extract 1)

<Analysis> low level of stocks  $\rightarrow$  given an increase in demand which increases the price,  $Q_{ss}$  of food can increase only by a smaller than proportionate amount, c.p.

1m for correct identification of PES of food

1m for correct explanation

- b (i) Explain the relationship between corn and ethanol. [2]**

The demand for corn is derived from the demand for ethanol.

<Evidence> 'Corn is used in almost everything; arable crops as feedstock and crop diversion to biofuel production' (Extract 1)

<Analysis> Corn is a factor input for the production of ethanol, a form of biofuel. As demand for biofuel rises c.p. sellers of biofuels experience rising profits, incentivising them to increase production. They will then enter into the corn market (factor market) to demand for more corn.

1m for correct identification of relationship between the two goods

1m for correct explanation

Accept also competitive supply if candidates explained corn as corn for food

- (ii) Discuss whether rising oil price is the main cause of sharp increase in food prices. [8]**

Thesis: rising food price is a result of rising oil price, antithesis: soaring oil costs is not the main cause of sharp increase in food prices as there are other factors that are also significant, evaluation.

Framework: market demand-supply analysis

Thesis

<Evidence>

'Crude oil is used in practically every aspect of industrial-scale food production... petrochemicals are a principal component of many of the fertilizers and pesticides now so vital to modern agricultural activity'

<Analysis> Oil is an essential FOP of food  $\rightarrow$  rising oil price leading to large increase in marginal cost of producing food, c.p.  $\rightarrow$  lower profits  $\rightarrow$  rational and incentive-driven firms decrease quantity supplied of food at every price level, shown by a leftward shift in supply

Antithesis

<Evidence>

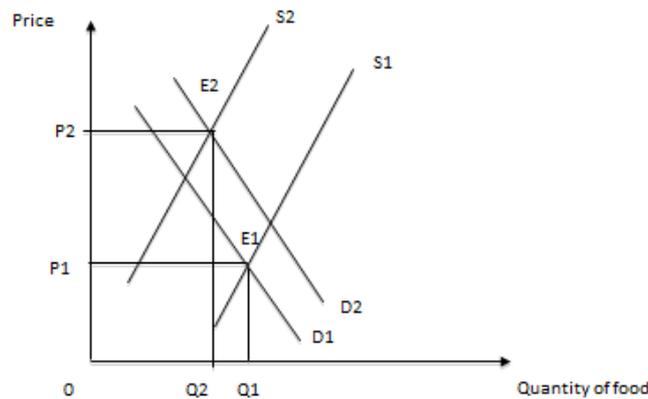
- 'largely because of extreme weather in ... major food-exporting countries'
- 'China and India have the largest and fastest growing populations creating demand for food from around the world ... dietary changes in developing economies have seen increasingly wealthy workers eat more meat'

<Analysis>

Extreme weather e.g. flood and drought → destruction of crops and increasing marginal cost of planting food due to lack of water → fall in  $Q_{ss}$  at each and every price, represented by a leftward shift in  $ss$

Increasing income in developing countries in particular China → Chinese consumers more willing and able to pay for more meat, meat being a normal good → increase in demand for corn as animal feed

Diagrammatic analysis: With rising  $dd$  and falling  $ss$ , shortage of food is observed at the current price level (label in the diagram). The increased competition for food will lead to some consumers willing and able to pay higher prices for food while others dropped out. Producers will respond to the shortage by increasing quantity supplied and this process will repeat and stop only when a new equilibrium has been achieved.



Evaluation:

Increasing income leading to an increase in demand for food has been an ongoing process while the surge in oil price leading to rising cost of production for food is a sudden phenomenon. Furthermore, there is a lack of substitutes for a lot of the oil-related FOP used in food production. Rising oil price is thus likely to be the main contributor of the sharp increase in food price.

L1	Largely unexplained points on whether rising oil price leads to rising food price. Conceptual errors. Incorrect use of Dd-Ss diagram.	1-2
L2	<ul style="list-style-type: none"> <li>• One-sided answer on whether rising oil price leads to rising food price was explained with Dd-Ss diagram.</li> </ul> <p>Or</p> <ul style="list-style-type: none"> <li>• Whether rising oil price leads to rising food price was explained with some gaps in the answer with Dd-Ss diagram.</li> <li>• Good use of exemplifications from case data.</li> </ul>	3-4
L3	<ul style="list-style-type: none"> <li>• Whether rising oil price leads to rising food price was well-explained with Dd-Ss diagram.</li> <li>• Good use of exemplifications from case data.</li> </ul>	5-6
E	A well-explained stand on whether rising oil price leads to rising food price was given.	1-2

**(c) With reference to Extract 2 and the aid of demand and supply diagram, explain why farmers are finding it tough to pass on rising cost of pork to consumers. [5]**

Supply of pork is price inelastic → long time to breed pig and thus pork. Demand of pork is price elastic → availability of substitutes.

P: PES of pork is inelastic

E: a long time is needed to breed pig, thus production of pork.

P: PED of pork is elastic

E: there are many substitutes available for consumers when consuming meat as a source of protein

Falling income has led to a decline in purchasing power of consumers and pork is a normal good, thus demand for pork. At the same time, there is a fall in supply of pork due to rising cost of production: surge in cost of feedstock.

P: Supply of pork has fallen

E: the surge in cost of feedstock has increased cost of production

Since both demand and supply of pork has fallen and supply of pork is more price inelastic than demand, producers are less able to pass on the rise in cost of production by reducing output of pork than if supply is more price elastic than demand.

P: Fall in demand and supply of pork has decreased price of pork

E: since supply is more price inelastic than demand, the increase in cost of production cannot be passed on easily by producers to consumers. Consumers can easily switch away given an increase in price, thus producers has to bear a larger portion of the increase in cost of production. A larger fall in quantity is required to clear the market.

[inserts Dd-Ss diagram]

L1	Largely unexplained points on why farmers are finding it tough to pass on rising cost of pork to consumers. Conceptual errors. Incorrect use of Dd-Ss diagram.	1-2
L2	<ul style="list-style-type: none"> <li>Well-explained answer on why farmers are finding it tough to pass on rising cost of pork to consumers with relevant elasticity concepts with correct use of Dd-Ss diagram.</li> <li>Good use of exemplifications from case data.</li> </ul>	3-5

**(d) With reference to Extract 3, explain how the subsidy on ethanol leads to inefficient allocation of the economy's resources. [4]**

The imposition of subsidy will decrease unit cost of production of firms, enabling them to produce at a lower price. This essentially increases supply of food and the vertical distance the supply curves is the per unit subsidy provided by the government to the firm. The total amount of subsidy (\$6 billion) provided by the government is not transferred entirely in increasing consumers' and producers' surplus, thus deadweight loss of area ABC is observed (diverting of resources from productive to less productive use). The total amount of subsidy spent by the government is P1PtCB. The increase in consumers' surplus is P0P1BA while the increase in producers' surplus is P0PtCA.

Refer to diagram below for this comment.



increase AD, assuming they do not spend on imports but on domestically produced goods and services. The overall impact on the negative economic growth can be cushioned. [insert AD/AS]

**Evaluation:**

It depends on consumers' expectation of the increase in GPL. If the outlook remains bad, consumers might expect the AD to fall continuously and this can overcome the decrease in AS in SR due to rising food price.

Q: May I ask what is your opinion? It seems to say AS in SR will decrease due to drought, energy and oil prices while AD will decrease due to tight credit, austerity, weak wage growth.

L1	<ul style="list-style-type: none"> <li>• One-sided answer on whether rising food price will affect the UK economy.</li> <li>• Balanced answer on whether rising food price will affect the UK economy, but answer contained explanation gaps.</li> <li>• Did not exemplify</li> <li>• Conceptual errors.</li> </ul>	1-2
L2	<ul style="list-style-type: none"> <li>• Balanced answer on whether rising food price will affect the UK economy.</li> <li>• Good use of exemplifications from case data.</li> </ul>	3-5
E	A well-explained stand on whether rising oil price leads to rising food price was given.	1

**H1 Case Study Q2**  
**Suggested Mark Scheme**

- (a) (i) **Compare the trade balances in Japan and South Korea between 2009 and 2012. [2]**

*Trade Balance (USD billion)*

	2009	2010	2011	2012
<i>S Korea</i>	40.4	41.2	30.8	28.3
<i>Japan</i>	28.7	75.6	-32.7	-87.4

- Both countries' trade balances have worsen
- Japan – surplus to deficit while South Korea has a surplus trade balance

*Students cannot explain the current account balance*

*Workings for the trade balances are not required nor credited for marks*

- (ii) **Account for the difference in Indonesia's current account balance and trade balance. [4]**

	2009	2010	2011	2012
<i>Current Account Balance (USD billion)</i>	10.6	5.1	1.7	-24.4
<i>Trade Balance (USD billion)</i>	20	22	26	74

- Current account includes both trade (visible) and invisible trade account
  - trade in services such as shipping, aviation, banking and insurance and tourism
  - factor income (i.e. interest, profits and dividends received from or paid to abroad)
- Indonesia Data: Surpluses in both visible and current account in 2009 to 2011
- In 2012 has trade surplus but a current account deficit => net outflow for invisible account balance > the trade surplus

Difference between C/A balance & trade balance is the invisible trade balance

**[1]**

Current a/c balance has consistently been < trade balance **[1]**

Suggests that invisible trade consistently been in deficit **[1]**

Net outflow in factor income (i.e. interest, profits and dividends received from or paid to abroad) **[1]**

- (b) (i) **How does the value of Japanese Yen in 2011 compare to its value in 2009? [2]**

- Yen appreciated against USD from 2009 -2011.
- If only states "appreciate" – 1m

(ii) **Comment on the significance of changes in exchange rates on the export revenue in Japan between 2009 and 2011. [6]**

- Yen appreciated against USD from 2009 -2011, visible export (value) has increased
- Yen has depreciated against USD in 2012 while export revenue has decrease
- Implied positive relationship
- In theory: Prices of Japanese exports in USD increased, PED<sub>x</sub> is price elastic (students can quote from Extract 2, Japan main exports are manufacture products & explain why PED >1), quantity demanded will decrease by a larger, export revenue should decrease.
- Not supported by the data => not significant
  - ✚ Cause and effect. Eg. Increase in demand for export => demand for yen increase (appreciation of Yen against USD)
  - ✚ Other factors – contract, lacked of substitutes, change in other non-price factors

Significance – data usage with economic analysis – 4m  
 May not be significant – 2m

(c) **Explain the likely macroeconomic impact of the massive 9.0 magnitude earthquake in Japan and its trading partners. [8]**

- 4 macro objectives
- Period under consideration only 2011 & beyond
- Japan's economy contracted: using AD/AS framework explain the
- Internal impact – economic growth, employment and price stability
- External impact – BOP as well as the external value of Japanese yen. From Table 2, yen has depreciated against USD
- Trading partners (use case or empirical examples) – external effect – BOP, currencies against Yen. Such as – a fall in imports from Japan; currency appreciated against yen.
- Mostly negative impact; any positive impact?
  - Japan, in the LR – consider the safety issues of nuclear plant, preventive measures
  - Trading partners – how to prevent a disruption in supply chain that was experienced during the tragedy.

<b>Knowledge, Application, Understanding and Analysis</b>		
<b>L3</b>	- Structure & linking sentences are present - Rigour in economic analysis, including multiplier effect (reverse process) – consider both Japan and its trading partners - Address the 4 macro objectives	<b>5-6</b>
<b>L2</b>	- An accurate but undeveloped/ lapses in explanation - refer to Japan and trading partners	<b>3-4</b>
<b>L1</b>	- Content: Weak - Mainly irrelevancies and substantial glaring conceptual errors	<b>1-2</b>
<b>Evaluation</b>		
<b>E</b>	For an evaluative assessment based on economic analysis or empirical evidence.	<b>1 –2</b>

(d) Discuss whether the data provided are sufficient to assess changes in the standard of living in these Asian economies over the period. [8]

Introduction

- Assess **changes**, students have to identified - as an improvement in SOL
- Define SOL – both material and non-material aspects

Body

- Balanced answer with data from case materials

Material aspects:

- In general, real GDP growth rates for the 3 economies are rising while unemployment rates are decreasing (from the 3 tables). This means that while materially, people are better off than before (and hence higher SOL). [Students do not need to consider inflation rate; as we are looking real GDP growth, which has eliminated the effects of inflation]
- Current account balance shows improvement in South Korea and Japan except for Indonesia. However, the higher imports in Indonesia could lead to higher SOL since this is due to strong private consumption. Furthermore, if the imports are primarily on capital goods for investments, then this could translate into higher SOL only in the future. While current account improvement means higher export earnings, goods produced are meant for foreigners and hence may not translate into higher SOL but it generates income and employment for the economies.
- Public debt as a % of GDP is rather stable for South Korea and Indonesia but increasing for Japan. Indicating the economies are doing well except for Japan. In future, Japanese government will implement contractionary fiscal policy to repay the public debt, leading to lower SOL, ceteris paribus.

Hence the data does provide an indication of the changes to the material aspect of the SOL over the time period. However it provides an incomplete picture. E.g.: per capita income figure should be considered to take into account population changes. Other indicators to take into account non-material aspect could be:

- Gini coefficient to account for differences in income distribution on living standards
- Pollution index esp. as there is high level of production in China which could contribute to increased pollution
- Amount of leisure time: high economic growth may mean better material well-being but this could imply more stress, less leisure time and hence possibility of lower SOL.

<b>Knowledge, Application, Understanding and Analysis</b>		
<b>L3</b>	- Structure & linking sentences are present - Rigour in economic analysis – balanced answer whether the data provided are sufficient to assess improvement in the standard of living in these Asian economies over the period. - Use of case material	<b>5-6</b>
<b>L2</b>	- An accurate but undeveloped/ lapses in explanation - refer to the 3 Asian economies	<b>3-4</b>
<b>L1</b>	- Content: Weak - Mainly irrelevancies and substantial glaring conceptual errors	<b>1-2</b>
<b>Evaluation</b>		
<b>E</b>	For an evaluative assessment based on economic analysis or empirical evidence.	<b>1 –2</b>

**H1 Question 3**

- (a) Explain why the existence of public good and merit good causes market failure. [10]
- (b) Discuss the view that taxation is the best policy for a government to correct the market failure resulting from the existence of negative externality. [15]

**Answer for part (a)**

**Define public goods:** A good is a public good if it has the two characteristics of non-rivalry and non-excludability.

Total market failure arising from public good:

- [P] *Non-excludability* means it is either impossible or prohibitively expensive to exclude anyone from using the good, once it is provided.
- [E] Once national defence is produced by the government, it is impossible to exclude people who did not contribute to the tax revenue of the government, like tourists, from enjoying the security provided.
- [P] *Non-rivalrous in consumption* means the consumption of the good /service by one person does not diminish another person's ability to consume the same good/ service. This implies that once the good is produced, marginal cost to provide for another person benefiting from consuming the good is zero.
- [E] Once national defence is produced by the government, the marginal cost of providing national defence for another citizen is zero as no additional resources are required.
- [E]: *Free-ridership*: rational consumers would conceal their true demand for public good and are unwilling to pay private firms to produce public good. They would be incentivised to free-ride on others as it is prohibitively costly to exclude non-payers from consuming it.
- [L]: As a result, public good is not produced by the free market and the problem of a missing market is created.

**Merit goods** are goods which the *government*<sup>1</sup> deems as desirable and that the market under-allocates resources to the production of such goods.

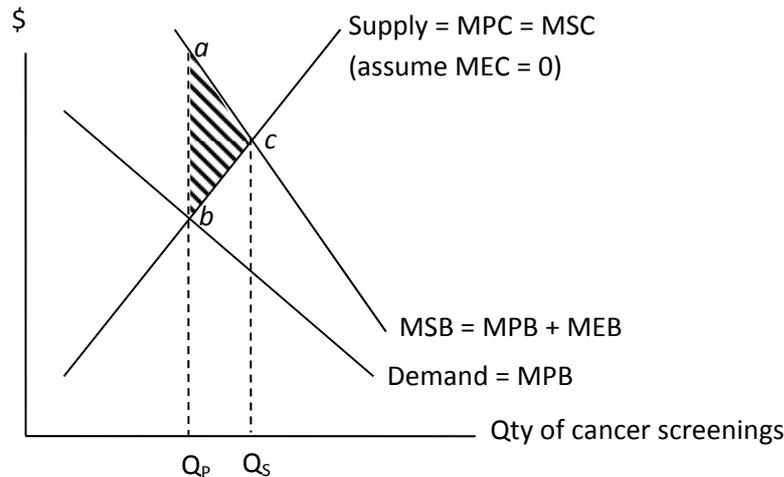
**Causes of market failure in merit good:** positive externality and imperfect information (Imperfect info is not in the H1 syllabus)

**Define positive externality:** Positive externalities are spillover benefits on 3<sup>rd</sup> parties who are not directly involved in the production or consumption of the good.

- Screening for cancer is deemed to have positive externalities. Identify the MPB and MPC of screening for cancer. MPB includes the benefits to the individual from early detection of cancer. This will be a longer lifespan & higher life time income. MPC includes the cost of screening itself.
- Identify MEB: MEB may include the productivity of the workforce due to the lack of illness.
- Explain that individuals, acting in pursuit of their self-interest, disregard the external benefit and in consequence consume only up to  $Q_P$ , a case of under-consumption. The fact that  $Q_P < Q_S$  was not consumed results in the loss of additional benefit to society measured by the area  $Q_PacQ_S$ . At the same time, it also allows the society to avoid additional costs equal to the area  $Q_PbcQ_S$ . As the loss of additional benefits exceeds the

<sup>1</sup> In a democracy, the government is seen as representative of the society – acting in accordance to the values of the community.

additional costs avoided, the under-consumption results a welfare loss or deadweight loss of area  $abc$ .



• Figure 1: Under-consumption of cancer screening

<p><b>L1</b> [1-4m]</p>	<ul style="list-style-type: none"> <li>- Answer largely descriptive</li> <li>- Gross conceptual error of 'positive externality' and characteristics of 'public' good</li> </ul>
<p><b>L2</b> [5-7m]</p>	<ul style="list-style-type: none"> <li>- Some ability to use economic framework for analysis</li> <li>- Scope OR depth</li> <li>- Scope: Able to explain how the characteristics of public good leads to market failure and how positive externality in can result in market failure</li> <li>- Depth: Able to explain the characteristics of public goods leads to market failure, and how positive externality can result in market failure</li> <li>- Exemplification</li> <li>[Cap L2-5 : Perfect explanation of positive externality without public goods]</li> </ul>
<p><b>L3</b> [8-10m]</p>	<ul style="list-style-type: none"> <li>- Scope <u>AND</u> depth</li> <li>- Analysis consistently rigorous</li> <li>- Well applied to context</li> <li>- No fundamental conceptual error</li> </ul>

**Answer for part (b)**

**Define negative externality:** negative externalities are spillover costs on 3<sup>rd</sup> parties who are not directly involved in the production or consumption of the good.

- Consumption of cigarettes is deemed to have negative externalities. Identify the MPB and MPC of smoking cigarettes. MPB includes the benefits to the individual from the utility derived from smoking. This will enable smokers the ability to work normally. MPC includes the cost of purchasing cigarettes.
- Identify MEC: MEC is the external cost on 3<sup>rd</sup> parties such passive-smokers who need to incur additional healthcare costs due to breathing difficulties.
- Explain that individuals, acting in pursuit of their self-interest, disregard the external cost and in consequence consume only up to  $Q_p$ , a case of over-consumption.  $Q_p$  (MPB=MPC) is the private output maximizing utility of private individuals while  $Q_s$  (MSB=MSC) is the socially desired output maximizing welfare of society. The fact that  $Q_p < Q_s$  was over-consumed results in the additional benefit to society ( $Q_s - Q_p$ ) be less than additional cost to society ( $Q_s - Q_p$ ). The over-consumption results a welfare loss or deadweight loss of area  $abc$ .

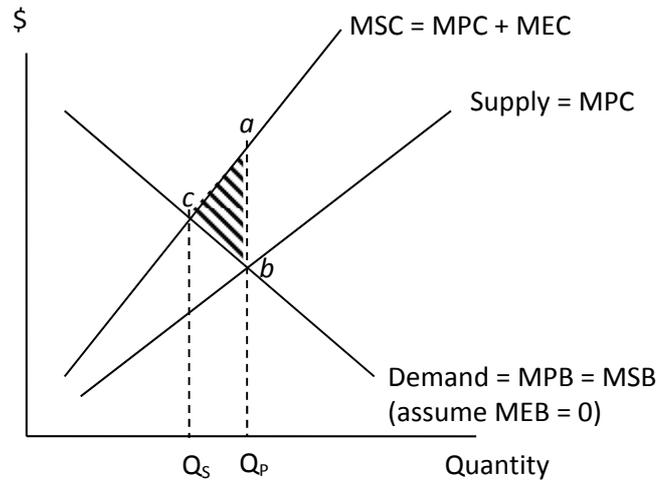


Figure 6: Over-consumption of goods with negative externalities

Thesis:

Taxation can correct the market failure resulting from the existence of negative externality

**Indirect tax:**

Imposition of indirect tax to force consumers of cigarettes to internalise the 3<sup>rd</sup> parties cost.

When faced with negative externalities, a government may choose to impose an indirect specific tax that is equivalent to the value of the marginal external costs generated at the socially optimum level of output, given by the divergence between MSC and  $MPC_0$  at  $Q_s$ .

The cost that was previously 'external' to the firm, through the indirect tax, now becomes part of the firm's private cost, aligning MPC with MSC. In other words, the pigouvian tax gets firms to "internalise" the external cost.

new MPC of firms,  $MPC_1 = MPC_0 + \text{tax per unit of output}$

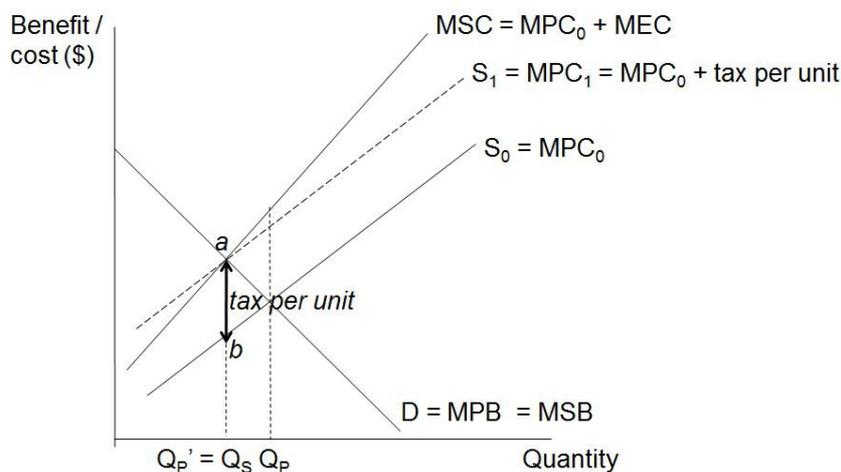


Figure: Indirect tax to correct negative externality

In Figure above, an indirect specific tax equal to  $ab$  per unit of output will increase the firm's marginal cost, shifting the marginal private costs (MPC) upwards to  $MPC_1$ . The new private optimum level of output occurs at  $Q_p'$  where  $MPC_1 = MPB$ , down from the original private

equilibrium output  $Q_P$  where  $MPC_0 = MPB$ . Notice that the new private optimal output  $Q_P'$ ,  $MSC = MSB$ . In other words, by taxing an amount equivalent to the MEC at  $Q_S$ , the pigouvian tax aligns firms' marginal private cost with the marginal social cost. Faced with the full cost of production, the firm will therefore cut back its production to the socially optimal level.

### **Advantage of indirect taxation:**

A source of revenue for government in financing policies used to remedy the negative externalities. Such as, subsidizing healthcare costs to help 3<sup>rd</sup> parties suffering from the harmful effects of smoking. But more than the revenue to correct the effects of the negative externality, indirect taxes raise revenue that the government can use to reduce other taxes, such as income taxes, which distort incentives and reduce economic welfare.

### **Problem of indirect taxation:**

It is difficult for the government to correctly estimate the amount of indirect tax to be imposed on smokers. It is difficult to quantify the negative externalities. Negative externalities are unpriced effect. The indirect tax imposed might be too much or too little to correct the negative externality. **The problem of too little indirect tax being levied is the problem of over-consumption remains and DWL remains unsolved.**

Antithesis:

Other policies can correct the market failure resulting from the existence of negative externality **arising apart from consumption of cigarettes**

- Command and control policies: setting production standards for production of a good which is causing negative externalities or banning the consumption of a good which is causing negative externalities
- Education on the harms of over-consumption of a good with negative externalities

### **Command and control policies:**

#### **Imposing Standards**

**The over-consumption of car-rides in Singapore has led to the problem of air pollution. The marginal private cost of drivers is the cost of extra petrol for extra car-rides while the marginal private benefit is the extra time saved and spent on increasing one's productivity and thus income. However, drivers do not account for marginal external cost, the cost borne by 3<sup>rd</sup> parties due to breathing in polluted exhaust released from the burning of petrol.**

One method of imposing standard is for the government to specify the type of cars suitable for driving in Singapore. These cars must be fitted with catalytic convertor, otherwise a fine or imprisonment will be meted out to offenders. While a reduction in pollution brings benefit to society (e.g. improved productivity and consequently increase income through better health and increased tourism earnings), pollution reduction or abatement is not costless. Car owners have to bear the higher cost of buying a car fitted with catalytic convertor, to incur cost to treat the pollutive exhaust before discharging it into the atmosphere, etc. **The socially optimal level of pollution occurs when the MSB of pollution abatement = MSC of pollution abatement**

One method is for the government to specify maximum pollution levels beyond which, a fine may be imposed. While a reduction in pollution brings benefit to society (e.g. improved productivity and consequently increase income through better health and increased tourism earnings), pollution reduction or abatement is not costless. Firms have to install pollution abatement devices, to incur cost to treat their industrial waste before discharging the effluent into the river, etc. **The socially optimal level of pollution occurs when the MSB of pollution abatement = MSC of pollution abatement.** Alternatively, government may make it compulsory for firms to install pollution abatement equipment.

*Examples:*

- In Singapore the National Environment Agency (NEA) sets a limit on smoke from vehicles and imposes a penalty against vehicles which emit excessive smoke.

Bans

Apart from consumption of cigarettes which leads to negative externality, government also intervenes in the consumption of drugs like cocaine. In extreme cases such as the consumption of cocaine where the magnitude of external effects may be so large that the government may choose to ban the production and/or consumption of the good.

*Examples of bans in Singapore include:*

- chewing gum
- firecrackers
- drugs like cocaine

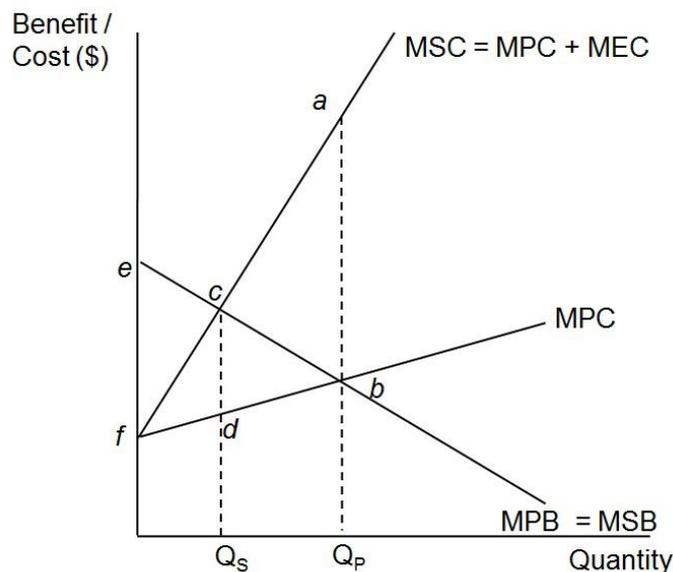


Figure 14

The MPB of consumption of cocaine is the extra satisfaction of craving and ability to function normally at work, MPC of consumption of cocaine is the extra cost to buy cocaine. The MEC of consumption of cocaine is the 3<sup>rd</sup> party cost borne by firms when workers disappear to consume cocaine illegally.

In Figure 14 above, the private optimal quantity where  $MPB = MPC$  is  $Q_P$ . There exists a very large magnitude of external costs (shown by the divergence between the  $MSC$  and  $MPC$ ) at output level  $Q_P$ , the social optimal quantity exists at a very small output level ( $Q_S$ ). For the units  $Q_S Q_P$  produced and consumed in excess of the socially optimal level, the additional cost to society (area  $Q_S c a Q_P$ ) is greater than the additional benefit the society derives (area  $Q_S c a Q_P$ ) and a deadweight loss of area  $abc$  arises.

In situations like this, the government can choose to either impose an indirect tax or a total ban on this market. If indirect tax is imposed, it will be imposed at the socially optimal output level of  $Q_S$ . The amount of specific indirect tax imposed will equal to  $cd$  per unit, equivalent to the  $MEC$  at  $Q_S$ . However, the cost incurred by the government to collect indirect taxes could be costly due to the sheer size of manpower to be deployed and complexities of administration.

In such cases, the government may prefer to impose a total ban on such economic activities. Although the society still incurs a welfare loss, it has been reduced with the use of ban. The welfare loss without a ban is represented by area *abc*. The welfare loss with a ban is represented by area *cef*, the excess of MSB over MSC from consuming  $OQ_S$  units of output. This shows that the society's welfare has been improved with the use of a ban.

**Advantages of command and control:**

Unlike the use of market-based solutions such as taxes, command-and-control policies give greater certainty of outcome. With indirect taxes and subsidies, the final effect on output is uncertain - it depends on both price elasticity of demand and price elasticity of supply.

**Problem of command and control:**

Regulatory standards do little to encourage compliance beyond what is mandated because unlike an **tax on cigarettes**, the firm does not benefit from further reduction in pollution.

**Evaluation:**

A combination of policies is needed to effectively solve negative externality in both SR and LR.

SR: indirect taxation is likely to least effective as demand can remain price inelastic, thus a large indirect taxation needs to be imposed for successful reduction of over-consumption as compared to command and control policies.

LR: Indirect taxation and education is more effective than command and control policies. Indirect taxation is able to provide the funding needed to educate society on the negative externality created. Furthermore, demand is more price elastic as not only habits can be changed, it also takes time for society to be successfully educated. Both policies deals with root cause of as compared to command and control policies. Consumers' awareness of the need to protect the environment can act as an incentive for firms to use more clean methods of production.

<b>L1</b> [1-4m]	<ul style="list-style-type: none"> <li>- Answer largely descriptive</li> <li>- Gross conceptual error of how indirect taxation and other policies can solve the problem of negative externality.</li> </ul>
<b>L2</b> [5-7m]	<ul style="list-style-type: none"> <li>- Some ability to use economic framework for analysis</li> <li>- Scope OR depth</li> <li>- Scope: Able to explain how indirect taxation and other policies can solve the problem of externality, and problem of each policy with some conceptual gaps</li> <li>- Depth: Able to explain thoroughly <b>at least</b> how one of the policy can solve the problem of externality, and problem of this policy</li> <li>- Exemplification is provided</li> </ul>
<b>L3</b> [8-10m]	<ul style="list-style-type: none"> <li>- Scope <b>AND</b> depth</li> <li>- Analysis consistently rigorous</li> <li>- Well applied to context</li> <li>- No fundamental conceptual error</li> </ul>
<b>E1</b> [1-2]	<ul style="list-style-type: none"> <li>- A stand was given on which policy can best solve negative externality in SR and LR, respectively.</li> </ul>
<b>E2</b> [3-4]	<ul style="list-style-type: none"> <li>- A well-explained stand on which policy can best solve negative externality in SR and LR, respectively.</li> </ul>

**Question 4**

(a) Explain the importance of achieving low unemployment and high economic growth for an economy. [10]

Candidates are to analyse why an economy wants to achieve low unemployment and high economic growth – benefits of attaining these two goals to the different stakeholders of the economy.

**Suggested Answers for Part (a)**

***Introduction***

Explain what is meant by economic growth (EG). There are two types of EG, namely actual EG and potential EG. The former measures the rise in real national output that an economy produces within a given time period, while the latter measures the rise in productive capacity in the long run, i.e. what a country can possibly produce.

Explain what is meant by unemployment (UN). UN is the condition of the economy in which some factors of production are not being used in the production of goods and services. It is measured by the UN rate, which is a measure of the percentage of the labour force of legal working age who are without jobs but are willing and able to work, and are actively seeking work at current wage rates.

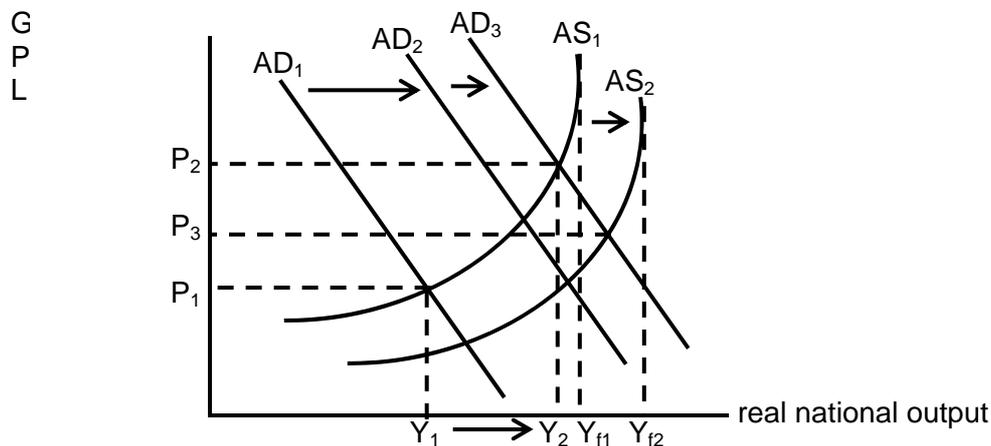
***Body***

1) Rise in material and non-material standard of living (SOL)

<P> High economic growth (EG) leads to a rapid rise in SOL. <E> A rise in actual EG reflects a rise in real national output produced by the country, and corresponds to the rise in income earned from the production of these goods and services. As households enjoy more incomes, the increase in purchasing power leads to a rise in willingness and ability to consume more and better quality goods and services. As a result, they experience a rise in material SOL due to the greater utility / satisfaction derived. <E> The double digit growth rates in China has enabled Chinese citizens to enjoy rapid rises in incomes as well as the quantity and types of goods and services (imported luxury / branded goods) they purchase.

2) Fall in cyclical unemployment

<P> With the increased purchasing power to buy more goods and services due to the rise in actual EG, aggregate demand (AD) rises from  $AD_1$  to  $AD_2$ .



<E> Domestic firms draw down on their inventories and in order to restore inventories back to the optimal level, in the next production cycle, they step up production and in the process employ more factors of production, including labour, reducing cyclical UN. These workers would then receive factor incomes, and in the process spend on goods and services. This rise in income-induced consumption is known as the multiplier effect, generating further increases in AD as well as boosts national output and employment. This process continues until any further rise in income-induced consumption is too insignificant to generate any further rise in employment and national output. The total rise in AD due to income-induced consumption from  $AD_2$  to  $AD_3$  causes the real national output to be at  $Y_2$  and cyclical UN to fall. <E> China, characterised by her strong nominal EG between 7.7% and 10.4%, has generally been experiencing low UN rates of 4.4 to 4.5 % between 2009 and 2012.

### 3) Non-inflationary EG

<P> The rise in actual EG indicates a rise in expected rate of returns (ROR) on investments. <E> This is due to the rise in demand for goods and services that brings about greater profits for firms. Firms therefore find it more profitable to invest in such a country that enjoys strong EG rates. The rise in foreign direct investments (FDI) leads to positive spill-over effects such as transfer of technology, expertise and management know-how which raise productivity of the country due to increased efficiency that boosts production output levels per factor input. As a result, the aggregate supply (AS) of the country shifts rightwards and downwards from  $AS_1$  to  $AS_2$  (refer to previous graph), causing a rise in productive capacity from  $Yf_1$  to  $Yf_2$ . The rise in efficiency reduces unit costs of firms, and if these cost savings are passed on to consumers, general price level (GPL) falls. As a result, the country enjoys non-inflationary EG, where EG is experienced with minimal inflation (GPL rises to  $P_3$  instead of  $P_2$ ). <E> China received about 20% of all FDI to developing countries over the last 10 years, and industries in China with higher FDI seem to have higher productivity rises than other industries. Moreover, FDI has catalysed China's economic reforms, and together, these contributions have supported China in maintaining a record high of 10% growth rate during most of the 1980-2010 period.<sup>2</sup> This rise in potential EG also means that the country is able to produce more consumer goods in future, thereby raising future SOL.

### 4) Improves fiscal position / government budget of the country

<P> A country that experiences strong EG and lower UN rate adds to the government coffers. <E> As explained earlier, a rise in EG and thus a fall in cyclical UN imply that the government does not need to spend on welfare or UN benefits, and boosts its revenue via a rise in income tax revenue (as more people are now employed) as well as goods and services tax revenue (as more households spend their increased incomes on goods and services). Furthermore, less of other costs such as social costs are incurred from higher crime rates or frequent riots committed by the unemployed. <E> China has faced a rising tax revenue as a % of GDP (8.7% to 10.6% between 2005 and 2011<sup>3</sup>). Together, they improve the budget / fiscal position of the country. Also, this allows the government can also better divert these resources to other uses such as to provide public or merit goods, reducing allocative inefficiency and improving the non-material SOL of its people without having to raise tax rates or incur debt. For instance, the government can build more recreational facilities such as national parks to promote family bonding as well as to create a clean and green living environment, or sports hubs that encourage healthier living which enhance non-material SOL. <E> In China, public health expenditure as a % of total health expenditure has been rising from 52.5% to 56% between 2009 and 2012.

<sup>2</sup> <http://www.worldbank.org/en/news/feature/2010/07/16/foreign-direct-investment-china-story>

<sup>3</sup> <http://wdi.worldbank.org/table/5.6>

5) Reduces productive inefficiency

<P> The lower the UN rate, the higher the EG. <E> A fall in UN rate means that more factors of production (FOPs) are employed / utilised, hence pushing the economy from a point within PPC to a point on the PPC. This helps to increase the real national output and hence contribute to EG. Moreover, this also means a reduction in productive inefficiency.

6) Reduces economic burden on the government and society

<P> A country that faces long periods of stagnant EG such as Japan since 1990s may suffer from high UN. <E> These workers who are unemployed for long periods become de-skilled via erosion of skills, and their skills become increasingly obsolete in a rapidly changing job market, leading to structural UN, reducing their chances of gaining employment in the future. In addition, discouraged workers may drop out of the labour market, causing the labour force to shrink, and the economy may thus suffer from a slowdown in potential growth. <E> Japan's youth joblessness, which surged after its financial crisis in the early 1990s, has stayed high. A large class of *hikikomori* live with their parents, rarely leaving home and withdrawn from the workforce.<sup>4</sup> A shrinking labour force means a shrinking tax base for the government, and furthermore, the government may have to distribute more UN benefits to them, increasing the economic burden on the government and society (that has to be taxed more). Hence, with majority of the workforce being employed, it reduces the need for the government to implement retraining programmes to equip structurally unemployed workers, due to the loss of jobs in declining industries, with relevant skills to move into growing / sunrise industries. As such, this reduces opportunity costs incurred by the government as it does not have to divert resources to such supply-side policies.

**Conclusion**

The various benefits associated with high and sustained economic growth as well as low unemployment explain governments' pursuit of these macroeconomic goals to achieve the overall aim of higher standard of living for its citizens.

L1	<ul style="list-style-type: none"> <li>➤ May show some understanding of the question.</li> <li>➤ May make serious conceptual errors.</li> </ul>	1 – 4
L2	<ul style="list-style-type: none"> <li>➤ Undeveloped analysis on the benefits of achieving low unemployment AND high economic growth, covering either breadth OR depth:                             <ul style="list-style-type: none"> <li>- Breadth: different types of EG or unemployment OR benefits to different stakeholders of the economy (households, investors or government)</li> <li>- Depth: rigorous analysis with the aid of diagrams</li> </ul> </li> <li>➤ OR well-developed analysis on the benefits achieving low unemployment OR high economic growth, covering both breadth AND depth.</li> <li>➤ Lack of real world exemplifications to support analysis.</li> </ul>	5 – 6
L3	<ul style="list-style-type: none"> <li>➤ Well-developed analysis on the benefits of achieving low unemployment AND high economic growth, covering both breadth AND depth.</li> <li>➤ Use of real world exemplifications to support analysis.</li> </ul>	7 – 10

<sup>4</sup> <http://www.economist.com/news/international/21576657-around-world-almost-300m-15-24-year-olds-are-not-working-what-has-caused>

- (b) Assess the view that supply-side policies are the most effective way to address the twin problems of high inflation and balance of trade deficit. [15]

Candidates are required to assess if supply-side (SS-side) policies or demand-management (DD-mgmt) policies are the best way to address the twin problems of high inflation and balance of trade (BOT) deficit. They should explain how the policies work and evaluate specifically on how effective the policies help to reduce inflation and BOT deficit. Lastly, candidates need to come to a conclusion on which is the most effective policy to help address the twin problems.

**Suggested Answers for Part (b)**

***Introduction***

Inflation is defined as the sustained increase in general price level. There are two main types of inflation, namely, demand-pull and cost-push inflation, the latter comprising different types such as imported inflation, wage-push inflation etc. BOT deficit refers to a negative balance of trade i.e. the sum of the receipts from the export of goods (total revenue of exports  $TR_X$ ) falls short of the payment for the import of goods (total expenditure on imports  $TE_M$ ). In short, net export revenue,  $TR_X - TE_M$ , is negative, i.e.  $TE_M > TR_X$ .

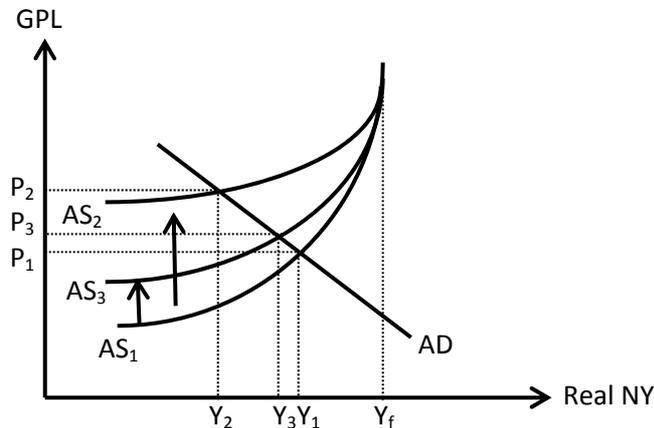
***Body***

Different policies for e.g. SS-side and DD-mgmt policies are required to alleviate BOT deficit and different types of inflation. The former involves both short-run (SR) and long-run (LR) SS-side policies such as cost-cutting measures and improving productivity or training or research and development (R&D) programmes respectively. The latter includes fiscal policy (F/P), interest rate centred monetary policy (i/r M/P), as well as trade policies – signing of more free trade agreements (FTAs) and exchange rate centred monetary policy (ER M/P).

**Thesis: SS-side policies are effective in addressing the twin problems of high inflation and BOT deficit**

*SR cost cutting measures → address high cost-push inflation*

<P> SR cost cutting measures that aim to reduce firms' unit cost of production (COP) can help to alleviate high cost-push inflation. <E&E> Developed countries annually provide \$13 billion in subsidies and protection to encourage biofuels production<sup>5</sup>. During the global oil inflation where oil per barrel hit US\$100 and US\$150 in 2007 and 2008 respectively due to greater DD in emerging and developing economies, reflected by upward shift of aggregate supply (AS) to  $AS_2$  as they are major factors of production (FOPs) used in many industries, the US govt apportioned 17,895 million dollars in energy-related subsidies and support to encourage the production of oil and biofuel to meet the huge rise in DD.<sup>6</sup>



<sup>5</sup> <http://www.un.org/esa/socdev/rwss/docs/2011/chapter4.pdf>

<sup>6</sup> <http://www.eia.gov/analysis/requests/subsidy>

Diagram 1: impact of short-run SS-side policy on the US economy

Such subsidies help to lower oil and biofuel firms' unit COP, and firms incentivised by the profit motive, will be more willing and able to step up the production of oil and biofuel, leading to a rise in supply. Thus, the economy faces a downward shift in AS from  $AS_2$  to  $AS_3$ , where more output can be produced for any given FOP. As firms' unit COP falls, the general price level (GPL) rises to  $P_3$  instead of  $P_2$  (due to the rise in oil prices) since firms pass on these cost savings to consumers in the form of lower prices, alleviating cost-push inflation.

*In the US, the amount of money the federal government forfeits via subsidies has risen steadily over the past five years. These include tax breaks (where U.S. oil and gas companies are given tax deductions to attract investment into an industry deemed high risk and to promote employment), incentives for production on federal lands and state subsidies for oil, gas and coal production etc., where the total value amounts to \$21.6 billion for 2013.<sup>7</sup>*

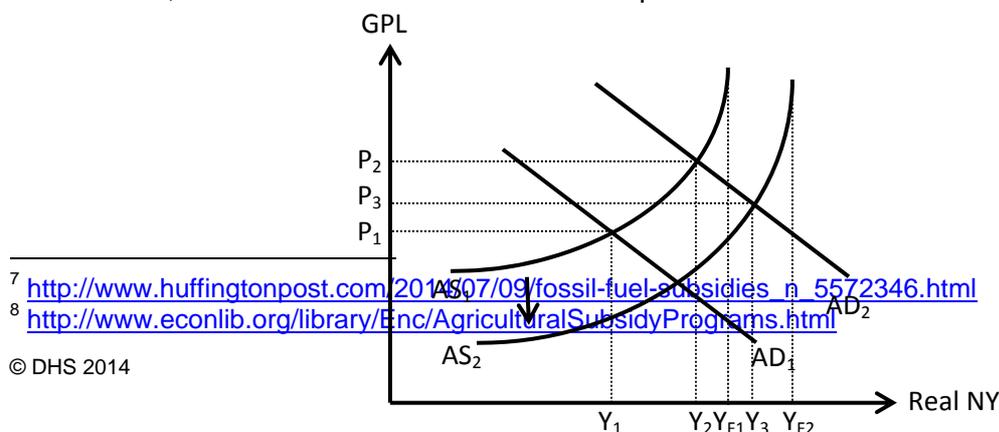
*SR cost cutting measures → address BOT deficit*

<P> SR cost cutting measures that aim to reduce firms' unit COP help to address BOT deficit. <E> As explained earlier, due to the oil subsidy, the price of US goods rises to a smaller extent, and are thus more price competitive relative to goods produced by other countries that are also adversely affected by the global oil inflation. Hence, given a price elastic demand for US exports due to the many available substitutes in the global market, the quantity demanded for US exports rises more than proportionately, leading to a rise in  $TR_x$ . Simultaneously, due to the substitution effect, US consumers switch away from the relatively more expensive imports to the relatively cheaper domestic goods, assuming they are close substitutes of each other and a price elastic demand for imports, leading to a fall in  $TE_M$ . Coupled with a rise in  $TR_x$ , there is a reduction in BOT deficit.

OR students can explain export subsidies implemented by different governments, such as Japan's highest farm subsidies especially for rice in the world as well as U.S. heavy subsidies on grains, oilseeds, cotton, sugar and dairy products where U.S. farm programmes cost about \$20 billion per year in government budget outlays in recent years<sup>8</sup>. Similarly, such export subsidies help to reduce firms' unit COP and BOT deficit as analysed earlier.

*LR SS-side policies → address high inflation*

<P> LR SS-side policies that aim to alleviate SS bottlenecks in the economy help to reduce high inflation in the LR. <E> Govt expenditure on education, training as well as research and development (R&D) programmes such as building of schools, training centres and R&D facilities boosts aggregate demand (AD) to  $AD_2$  in the SR and AS in the LR. Education and training ensure that workers are equipped with the necessary skills for the rapidly changing global economy, raising workers' employability and productivity, thereby increasing the amount of output produced within a shorter time, raising AS. Investments in R&D capabilities and institutes stimulate the pace of technological advancements and breakthroughs, raising AS. With a more productive workforce and technological improvements within the economy that attract foreign direct investments (FDIs) due to the higher expected rate of returns on investments, AD and AS rise further via more capital accumulation.



## Diagram 2: Impact of LR SS-side policies on the economy

With a fall in unit COP and a rise in productive capacity of the economy, AS shifts downwards and rightwards to  $AS_2$ . This relieves structural bottlenecks / rigidities within the economy, thus allowing the economy to experience non-inflationary economic growth as firms pass on the fall in unit COP to consumers as lower prices, represented by the minimal rise in GPL from  $P_1$  to  $P_3$  instead of  $P_2$ .

<E> For e.g. USA Office of Career, Technical, and Adult Education (OCTAE) administers, coordinates programmes that are related to adult education and literacy, career and technical education, as well as community colleges. OCTAE builds public support for community colleges as centres of innovation and providers of excellent education and training that are affordable and accessible to all citizens<sup>9</sup>. The Organisation for Economic Cooperation and Development report findings state that USA spent more than \$11,000 and beyond \$12,000 per elementary student and per high school student in 2010. When researchers factored in the cost for programs after high school education such as college or vocational training, the United States spent \$15,171 on each young person in the system — more than any other nation. In contrast, the average OECD nation spent only \$9,313 per young person<sup>10</sup>. The US and Japan spend an approximate 5.3% and 3.6% of GDP on all education respectively<sup>11</sup>.

<E> The U.S. remains the world's largest R&D investor with projected US\$465 billion spending in 2014, which is a globally competitive level of research intensity equal to 2.8% of US GDP. Japan, the world's third largest R&D investor, is projected to spend an estimated US\$165 billion in 2014 that is equivalent to 3.4% of its GDP<sup>12</sup>.

Such substantial govt expenditures are likely to boost productive capacity to a large extent, reducing inflationary pressures significantly.

**Anti-thesis: SS-side policies are not the most effective in addressing the twin problems of high inflation and BOT deficit**

*Ineffectiveness of SS-side policies to address high inflation*

<P> SR cost-cutting measures may be ineffective in addressing the problem of high inflation. <E> The energy-related subsidies led to farmers devoting large parts of their agricultural crops to biofuel production, causing the SS of land and resources available for food production to be reduced correspondingly. This led to a significant rise in unit COP for food industries and many retail stores that sell these final food products to the end consumers. In order to protect profit margins, these producers partially cut back on production and partially pass on as higher prices to consumers. Since AS continued to shift upwards from  $AS_3$  to  $AS_2$  in Diagram 1, GPL rose back to  $P_2$  or even higher if the fall in AS due to fall in food production exceeds the rise in AS due to the oil subsidy. <E> In mid-2008, the world experienced large spikes in key global food prices. The World Bank Food Price Index rose by 60% in the course of just a few months of 2008, and international prices of maize, rice,

<sup>9</sup> <http://www2.ed.gov/about/offices/list/ovae/index.html>

<sup>10</sup> <http://www.cbsnews.com/news/us-education-spending-tops-global-list-study-shows>

<sup>11</sup> <http://www.oecd.org/edu/EAG2012%20-%20Country%20note%20-%20Japan.pdf>

<sup>12</sup> [http://www.battelle.org/docs/tpp/2014\\_global\\_rd\\_funding\\_forecast.pdf](http://www.battelle.org/docs/tpp/2014_global_rd_funding_forecast.pdf)

and wheat rose by 70%, 180% and 120% respectively, compared to the mid-2007.<sup>13</sup> <L> Hence, SR cost-cutting measures may be ineffective in mitigating high inflation, and in worst case scenario, may worsen inflation, if the govt. policy causes unintended consequences.

<P> LR SS-side measures may also be ineffective in reducing high inflation. These policies may have a long gestation period, since it takes time to construct the required infrastructure, and to train, educate workers with the relevant skills as well as to conduct successful R&D. In the SR, these policies may not be immediate / timely in reducing high inflation, and are therefore ineffective. In addition, these policies may worsen the high inflation problem in the SR as they cause DD-pull inflation. From Diagram 2, the rise in AD to AD<sub>2</sub> causes unplanned disinvestments, and firms step up production. In the process employ more FOPs, thus bidding up factor prices due to greater competition for FOPs. This causes firms' unit COP to rise, and to protect profit margins, firms pass on cost increase to consumers as higher prices, leading to a rise in GPL from P<sub>1</sub> to P<sub>2</sub> in the SR. Especially since the economy is overheated / lacks spare capacity, this policy may have adverse impact on inflation.

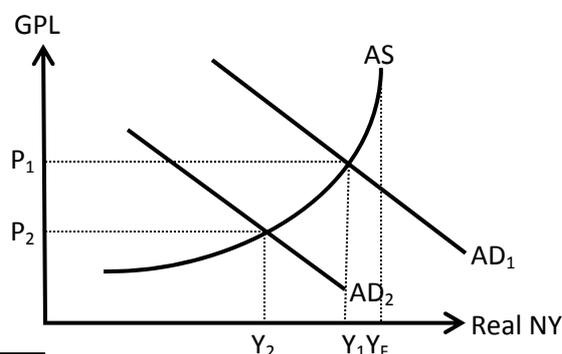
*Ineffectiveness of SS-side policies to address BOT deficit*

<P> Export subsidies may be ineffective in addressing the problem of BOT deficit. <E> This measure is a beggar-thy-neighbour policy which benefits domestic country at the expense of trading partners, and thus be viewed as a form of protectionist measure, inviting retaliation from trading partners. Since export subsidies lead to trading partners' goods to be less price competitive, their BOT is likely to worsen ceteris paribus. Hence, trading partners may implement similar protectionist measures, offsetting the initial price competitiveness of exports and domestic goods, resulting in no improvement in BOT for the initial country that implements export subsidies. <E> For instance, apart from Japan and US that subsidise their exports, South Korea and Taiwan also have farm support, alongside many other economies such as Norway, Switzerland, and Iceland, with average subsidies of about 65-75% of the value of production, European Union with average subsidies of about 35% of the value of production as well as Australia and New Zealand with the lowest subsidy rates of less than 4%.<sup>14</sup> As such, the BOT deficit of Japan and USA may not be reduced despite spending large amounts of govt budget on export subsidies.

The govt may implement DD-mgmt policies to address the twin problems, such as contractionary i/r M/P or F/P, which are expenditure reducing policies.

*Effectiveness of DD-mgmt policies to address high inflation*

<P> Contractionary i/r M/P may be effective in reducing high inflation. <E> The Central Bank of US, Federal Reserve, may reduce the money supply within US, which raises i/r in the US. This raises the cost of borrowing for households and investors, deterring them from taking up loans to purchase big-ticket items such as properties and cars as well as to invest respectively. Furthermore, the savings to returns increase, thereby raising the opportunity cost of consumption, incentivising households to save more and consume lesser. With a fall in consumption and investment, AD falls from AD<sub>1</sub> to AD<sub>2</sub>.



<sup>13</sup> <http://www.worldbank.org/en/results/2013/04/11/global-food-crisis-response-program-results-profile>

<sup>14</sup> <http://www.econlib.org/library/Enc/AgriculturalSubsidyPrograms.html>

## Diagram 3: Contractionary DD-mgmt policies on the economy

With a fall in AD, unplanned investments occur, signalling firms to cut back on production. In the process, they lay off workers and employ less FOPs, reducing the intense competition for FOPs due to a fall in derived DD for FOPs. This reduces firms' unit COP, and thus relieves DD-pull inflation within the economy, as firms pass on fall in costs as lower prices to consumers, as seen from a fall in GPL from  $P_1$  to  $P_2$ .

<P> Contractionary F/P may be effective in reducing high inflation. <E> The govt may cut back on govt expenditure and raise taxes to cool down the economy. When the govt taxes more on income and corporate profits ( $\uparrow$  income tax and  $\uparrow$  corporate tax respectively), households' disposable incomes fall and firms' post-tax profits fall respectively. Households have lesser willingness and ability to buy goods and services leading to a fall in domestic consumption, and firms have lesser willingness and ability to invest due to the lower net expected rate of returns on investments. Both consumption and investment fall causing AD to fall since they are components of AD. As explained earlier, DD-pull inflation is curbed.

*Effectiveness of DD-mgmt policies to address BOT deficit*

<P> Contractionary DD-mgmt policies may be effective in reducing BOT deficit. <E> As the fall in AD due to contractionary DD-mgmt policies leads to a fall in employment of FOPs, factor incomes paid to labour falls, and hence they spend lesser on goods and services, causing a fall in income-induced consumption. This is the **multiplier effect**, and the process continues until any further fall in income-induced consumption is too insignificant to generate any further fall in employment and real national income. Thus, as the AD continues to fall further, the fall in income leads to fall in purchasing power, which results in a fall in DD for imports, causing a fall in  $TE_M$ . Ceteris paribus, BOT deficit declines.

*Effectiveness of DD-mgmt policies to address high inflation and BOT deficit*

<P> Contractionary DD-mgmt policies may be ineffective to reduce inflation and BOT deficit. <E> If the high inflation stems from an overheated economy signifying strong economic growth (EG), the rational expectations of consumers and investors that the future EG remains high may cause them to still borrow to finance their spending and investments despite higher  $i/r$ , since they are able to pay the higher interest payments given a strong EG. <L> This interest inelasticity of consumption and investment due to strong consumer and business confidence / sentiments, renders the contractionary M/P to be ineffective to reduce AD by a large extent, and hence unable to curb DD-pull inflation.

<E> Likewise, a rise in taxes may not deter consumption and investment since households and investors are optimistic about future outlook of the economy. <L> Thus, contractionary F/P may be ineffective to reduce AD by a large extent, thus unable to curb DD-pull inflation.

<E> If AD does not fall or falls by a small extent, the fall in DD for imports will be limited as the fall in purchasing power is small. Hence, contractionary DD-mgmt policies may be limited in effectiveness in reducing BOT deficit.

Note: candidates may also explain the use of contractionary M/P centred on ER or trade policies to address the twin problems.

**Conclusion**

Conditional evaluation: Whether SS-side policies are most effective in addressing the twin problems depend on the following criteria:

- (1) Root cause or source of the inflation – is the inflation demand-pull or cost-push in nature? If it is the former, SS-side policies may be less effective compared to DD-mgmt policies, since they do not target the root cause of the inflation problem. Especially if it is a monetary inflation phenomenon caused by excessive increases in money supply, the most effective policy is contractionary i/r M/P. If it is imported inflation, the most effective policy will be ER centred M/P (assuming the country has a fixed or managed float ER system), where the country should revalue or appreciate its currency to make imports relatively cheaper. If it is cost-push inflation, SS-side policies may be more effective.
- (2) Root cause of the BOT deficit – is the BOT deficit due to loss of comparative advantage (CA) in the production of low-end labour intensive products because of the emergence of low cost competitors like China and Vietnam? Or is the BOT deficit due to excessive import expenditure due to easy credit as a result of loose M/P? If it is the former, LR SS-side policies that help to regain CA or to gain new niche areas / CA in other industries for the economy may be more effective in tackling the BOT deficit. If it is the latter, contractionary i/r M/P may be more effective in reducing BOT deficit.
- (3) Characteristics of the economy – is it a small and open economy that depend heavily on trade vs. a large and less open economy that depend more on domestic consumption? If it is the former, contractionary ER centred M/P may be more effective in reducing DD-pull inflation since exports take up a relatively greater percentage of the GDP, and thus AD may fall by a larger extent. If it is the latter, contractionary F/P or contractionary M/P may be more effective in reducing DD-pull inflation since domestic consumption takes up a relatively greater percentage of the GDP, reducing AD by a bigger extent.

Tinbergen’s theory of economic policy (or Tinbergen’s rule) states the necessary equality of number of instruments (policies) to the number of targets (goals / aims of the government). More targets than instruments makes targets incompatible (or some goals will not be achieved). More instruments than targets makes instruments alternative; that is, one instrument may be used instead of another or a combination of others, depending on the effectiveness of an instrument in attaining each of the targets.<sup>15</sup> In this case, given the twin problems of high inflation and BOT deficit, there should be at least two policies implemented to address these twin problems. Hence, it will be advisable to implement a multi-pronged approach / combination of DD-mgmt and SS-side policies to alleviate the twin problems both in the SR and in the LR.

L1	<ul style="list-style-type: none"> <li>➤ May show some understanding of the question.</li> <li>➤ May make serious conceptual errors.</li> <li>➤ Does not address the question, e.g. explains side effects of policies</li> </ul>	1 – 5
L2	<ul style="list-style-type: none"> <li>➤ Undeveloped analysis on the policies in addressing the twin problems of high inflation and BOT deficit, covering either breadth OR depth:                             <ul style="list-style-type: none"> <li>- Breadth: explains at least two policies without analysing ineffectiveness of policies OR covers different types of inflation</li> <li>- Depth: rigorous analysis of policies, explaining the ineffectiveness of at least two policies in addressing one problem with the aid of diagrams</li> </ul> </li> <li>➤ Shows limited application to real-world context.</li> </ul>	6 – 8
L3	<ul style="list-style-type: none"> <li>➤ Well-developed analysis on the policies in addressing the twin problems of high inflation and BOT deficit, covering both breadth AND depth, with three policies analysing their effectiveness and ineffectiveness in</li> </ul>	9 – 11

<sup>15</sup> Adapted from <http://www.garfield.library.upenn.edu/classics1986/A1986C401200001.pdf>

	addressing the twin problems and covers at least two types of inflation. ➤ Shows application to real-world context. ➤ Each policy does not need to address both problems.	
E1	Unexplained judgement on which type of policies are the most effective in addressing the twin problems.	1 – 2
E2	Above judgement supported with economic analysis.	3 – 4

Name:		Index Number:		Class:	
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**DUNMAN HIGH SCHOOL**  
**Preliminary Examination**  
**Year 6**

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**ECONOMICS**

**9732/1**

**(Higher 2)**

**23 September 2014**

Paper 1

**2 hours 15 minutes**

Additional Materials:  
Writing Papers

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**READ THESE INSTRUCTIONS FIRST**

Answer **all** questions.

Write your name and class on all pieces of work handed in.

Write in dark blue or black pen on both sides of the paper.

You may use a soft pencil for any diagrams, graphs or rough working.

Do not use staples, paper clips, highlighters, glue or correction fluid.

The number of marks is given in brackets [ ] at the end of each question or part question.

At the end of the examination, fasten all your work securely into two separate bundles (one for Question 1 and one for Question 2). Please attach the respective cover sheet at the front of your answers.

This document consists of **7** printed pages including this cover page.

**[Turn over**

Answer all questions.

**Question 1**

**The Blessing and Curse of Palm Oil**

**Extract 1: Crude Palm Oil**

The oil palm is currently the most efficient vegetable oil crop in the world. High yields and low land requirements make palm oil the least expensive vegetable oil in the market. Palm oil is also versatile, as it is readily usable for baking, frying, soaps, cosmetics, and biofuel.

The palm oil industry has been a boon to small landowners in Southeast Asia, where it has helped reduce poverty. And in Indonesia and Malaysia, which account for almost 90 percent of world production, palm oil accounts for approximately five percent of gross domestic product, generates roughly five percent of export earnings, and provides a source of employment and livelihood for more than three million people.

Sources: (1) New Oils for the New World, (2) Modern Oil Palm Cultivation by the FAO

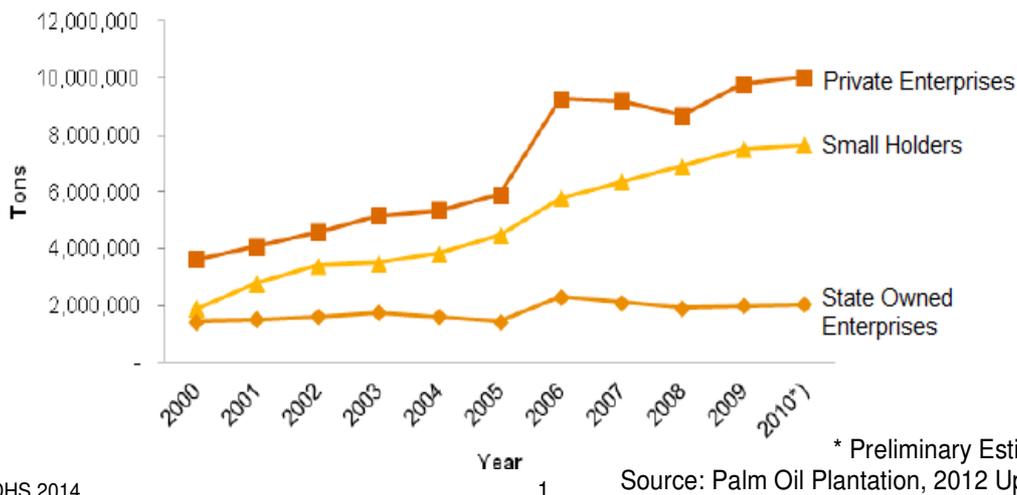
**Extract 2: Overview of Palm Oil Industry Landscape in Indonesia**

Indonesia is the world's biggest producer of palm oil. About 75% of palm oil production in Indonesia is exported to the world market. Based on a 2011 study, the value of the demand elasticity of its own export price in the short run is estimated to be -0.54 while the estimated value of foreign countries' income elasticity of demand is +0.61.

Being the third largest export earner, palm oil plantation and its processing industry is an important industry to Indonesia. Other than its contribution in foreign exchange earnings, the cooking oil produced from the palm oil plantation is one of the dominant factors in determining the inflation rate of the Indonesia economy. Furthermore, the palm oil plantation industry actively provides opportunity for small-scale farmers, develops the rural economy and generates significant employment.

Sources: various

**Chart 1: Crude Palm Oil Production in Indonesia (2000 – 2010)**



### **Extract 3: Leaders fiddle as Sumatra burns**

For Sumatra, it is an annual environmental trauma. But when the haze drifts across the Straits of Malacca to cover Singapore and Malaysia, it is a regional nightmare, too. The Asian Development Bank (ADB) estimated that the 1997-8 haze had cost Indonesia between USD8.5 and 9.4 billion.

The fires are usually started deliberately, often to clear land to make way for palm-oil plantations. Burning is quick, cost-effective, and enriches the soil. It is therefore the preferred land-clearing method for both smallholders and large companies. Successive governments have passed a mountain of laws and regulations outlawing burning, yet enforcement is so poor that people carry on regardless.

The fire and haze problem has persisted due to the confluence of factors such as the Indonesian's government development policies that encourage resource exploitation, the increase in global demand for pulp and palm oil, and weak forestry governance.

Sources: (1) The Economist, 22 Mar 2014  
(2) Gill and Tan (2013) [Transboundary Haze: How Might The Singapore Government Minimise Its Occurrence?](#) Lee Kuan Yew School of Public Policy

### **Extract 4: Environmental group WWF name and shame top global buyers**

Palm oil continues to proliferate in everything from ice cream to shampoo but sustainable palm oil has failed to catch on. Fewer than half of the companies surveyed purchase palm oil that meets the social and environmental standards set by the Roundtable for Sustainable Palm Oil (RSPO), a non-governmental organisation. Some buyers have already joined the 100% club. Unilever, one of the largest palm oil buyers in the world, buys all its palm oil from certified providers despite higher costs.

Naming and shaming will certainly chivvy some reputation-conscious companies along. Environmental groups would like to see certified growers rewarded. But certification is a free-market game and, unlike in the movies, the good guys don't always win.

Source: The Guardian, 28 January 2014

### **Extract 5: The eternal battle between Procter & Gamble and Unilever**

Unilever is winning market share from Procter and Gamble (P&G). The slow economic recovery in America and the deteriorating economic situation in Europe have hit P&G harder, because it earns a greater share of its revenues in those developed markets and its brands tend to be more expensive than Unilever's—and thus more likely to be sacrificed by consumers who are being forced to count the pennies. In contrast, Unilever, with its innovation focused on providing post-recession westerners with what they want: good enough products at affordable prices, has thrived.

Source: The Economist, 30 Jun 2012

### Extract 6: Cartels

France's competition regulator has fined three of the world's biggest consumer goods firms, Procter and Gamble, Henkel and Colgate-Palmolive for colluding to fix the price of laundry powder, tablets and liquids in France between 1997 and 2004. A fourth, Unilever received immunity for coming forward first.

The report illustrates how difficult it was to maintain cooperation. Executives had been meeting in some form since the 1980s to share price information, but in the early 1990s a price war broke out. Following this, a formal cartel was contrived in 1996 and stricter controls were implemented. Special offers were banned and cost savings were not to be passed on. In the end, however, the scheme unravelled: while fixing prices was easy, monitoring special offers proved difficult. In 2004 Unilever launched a 10% discount that proved terminal. A cascade of deals and special offers from the others followed.

Leniency regimes, which have been widely adopted around the world, aim not only to destabilise cartels, but also to reduce investigation and legal costs. The first member to come forward receives full immunity from fines and prosecution.

Source: The Economist, 11 Dec 2011

### Questions

- (a) (i) Summarise the trend in crude palm oil production in Indonesia. [2]
- (ii) Explain how the small holders' share of the total crude palm oil production affects the price and profit of the crude palm oil industry in Indonesia. [6]
- (b) Explain what a value of
- (i)  $-0.54$  for the demand elasticity of Indonesia's own export price of crude palm oil, and
- (ii)  $+0.61$  for foreign countries' income elasticity of demand for Indonesia's palm oil exports
- mean. [4]
- (c) How far does the behaviour of Unilever support the fundamental assumption that firms are profit maximisers? [10]
- (d) Discuss whether the Indonesian government's promotion of development policies that encourage resource exploitation is justifiable. [8]

**[Total: 30]**

## Question 2

### Economic Growth and Challenges

#### Report on Indonesia, Japan and South Korea

##### Extract 7: Indonesia

Indonesia grew about 5% annually in 2009-12. During the global financial crisis, Indonesia outperformed its regional neighbours and joined China and India as the only G20 members posting growth in 2009. The government has promoted fiscally conservative policies, resulting in a debt-to-GDP ratio of less than 25%, a fiscal deficit below 3%, and historically low rates of inflation.

Indonesia still struggles with poverty and unemployment, inadequate infrastructure, corruption, a complex regulatory environment, and unequal resource distribution among regions. The government faces the challenge of improving Indonesia's insufficient infrastructure to remove impediments to economic growth, labour unrest over wages, and reducing its fuel subsidy programme in the face of high oil prices.

##### Extract 8: Japan

Japan, a technologically advanced economy, has two notable characteristics – firstly, the close interlocking structures of manufacturers, suppliers, and distributors; secondly, the guarantee of lifetime employment for a substantial portion of the urban labour force. Both features are now eroding under the dual pressures of global competition and domestic demographic change. Japan's industrial sector is heavily dependent on imported raw materials and fuels. A small agricultural sector is highly subsidised and protected, with crop yields among the highest in the world.

The economy has fallen into recession three times since 2008. A sharp downturn in business investment and global demand for Japan's exports in late 2008 pushed Japan into recession. Government stimulus spending helped the economy recover in late 2009 and 2010, but the economy contracted again in 2011 as the massive 9.0 magnitude earthquake and the ensuing tsunami in March disrupted manufacturing. Newly-elected Prime Minister Shinzo Abe has declared economic growth as his government's top priority; he has pledged to reconsider his predecessor's plan to permanently close nuclear power plants and is pursuing an economic revitalisation agenda of fiscal stimulus, regulatory reform and loose monetary policy. The new government will continue a longstanding debate on restructuring the economy and reining in Japan's huge government debt, which exceeds 200% of GDP. Persistent deflation, reliance on exports to drive growth, and an aging and shrinking population are other major long-term challenges for the economy.

**Extract 9: South Korea**

South Korea is currently the world's 12th largest economy. The government promoted the import of raw materials and technology at the expense of consumer goods, and encouraged savings and investment over consumption. Korea adopted numerous economic reforms following the Asian financial crisis, including greater openness to foreign investment and imports. Growth moderated to about 4% annually between 2003 and 2007. Korea's export focused economy was hit hard by the 2008 global economic downturn, but quickly rebounded in subsequent years, reaching 6.3% growth in 2010. The US-South Korea Free Trade Agreement was ratified by both governments in 2011 and went into effect in March 2012. Throughout 2012 the economy experienced sluggish growth because of market slowdowns in the United States, China, and the Eurozone. The incoming administration in 2013, following the December 2012 presidential election, is likely to face the challenges of balancing heavy reliance on exports with developing domestic-oriented sectors, such as services. The South Korean economy's long-term challenges include a rapidly aging population, inflexible labour market, and heavy reliance on exports – which comprise half of GDP.

Source: [www.indexmundi.com](http://www.indexmundi.com)

**Table 1: Macroeconomic Indicators: Indonesia**

	2009	2010	2011	2012
Annual Rate of Growth Real GDP (%)	4.6	6.2	6.5	6.3
Rate of Inflation (%)	4.8	5.1	5.3	4
Unemployment Rate (%)	7.9	7.1	6.6	6.1
Current Account Balance (% of GDP)	2	0.7	0.2	-2.8
Current Account Balance (USD billion)	10.6	5.1	1.7	-24.4
Visible Exports (USD billion)	116.5	157.8	203.5	190.0
Visible Imports (USD billion)	96.8	135.7	177.4	116.5
Public Debt (% of GDP)	27	24.6	22.5	22.4
Exchange Rate per USD	9,425	9,010	9,068	9,638

**Table 2: Macroeconomic Indicators: Japan**

	2009	2010	2011	2012
Annual Rate of Growth Real GDP (%)	-5.5	4.7	-0.5	1.4
Rate of Inflation (%)	-1.4	-0.7	-0.3	-0.0
Unemployment Rate (%)	5.1	5.1	4.6	4.3
Current Account Balance (% of GDP)	2.9	3.9	2.1	1.0
Current Account Balance (USD billion)	145.3	217.2	126.5	58.5
Visible Exports (USD billion)	580.7	768.1	823.4	798.0
Visible Imports (USD billion)	552.4	692.5	856.1	885.4
Public Debt (% of GDP)	185.0	190.5	203.4	210.5
Exchange Rate vs USD	92.9	81.2	77.0	86.7

**Table 3: Macroeconomic Indicators: South Korea**

	2009	2010	2011	2012
Annual Rate of Growth Real GDP (%)	0.7	6.5	3.7	2.3
Rate of Inflation (%)	2.8	2.9	4.0	2.2
Unemployment Rate (%)	3.7	3.7	3.4	3.2
Current Account Balance (% of GDP)	3.7	2.6	1.6	4.1
Current Account Balance (USD billion)	33.6	28.9	18.7	50.8
Visible Exports (USD billion)	363.5	466.4	555.2	547.9
Visible Imports (USD billion)	323.1	425.2	524.4	519.6
Public Debt (% of GDP)	33.8	33.4	34.2	35.0
Exchange Rate vs USD	1,276	1,156	1,108	1,127

Source: Organisation for Economic Co-operation and Development

**Questions**

- (a) Compare the trade balances in Japan and South Korea between 2009 and 2012. [2]
  
- (b) Using the data in Table 1:
  - (i) Account for the difference in Indonesia's current account balance and trade balance. [2]
  - (ii) Identify the year which Indonesia had the highest nominal GDP growth. [1]
  - (iii) Explain the relationship between the two indicators: rate of inflation and unemployment rate. [3]
  
- (c) Comment on the significance of changes in exchange rates on the visible export revenue in Japan. [4]
  
- (d) Discuss whether the data provided are sufficient to assess changes in the standard of living in these Asian economies over the period. [8]
  
- (e) As a consultant economist, what options would you present to the governments as possible responses to the challenges faced by any **two** of these economies, and what would you recommend? Justify your answer. [10]

**[Total: 30]**

<b>Name:</b>		<b>Index Number:</b>		<b>Class:</b>	
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**DUNMAN HIGH SCHOOL**  
**Preliminary Examination**  
**Year 6**

**Economics**

**9732/2**

Paper 2 Essay Questions

**15 September 2014**

**2 hours 15 minutes**

Additional Materials:  
 Writing Papers

**READ THESE INSTRUCTIONS FIRST**

Write your name and Civics Class in the spaces provided on the answer paper.

Answer three questions in total, of which **one** must be from Section A, **one** from Section B and **one** from **either** Section A or Section B.

Write your answers on the separate writing paper provided.

Write in dark blue or black pen on both sides of the paper.

You may use a soft pencil for any diagrams, graphs or rough working.

Do not use staples, paper clips, highlighters, glue or correction fluid.

The number of marks is given in brackets [ ] at the end of each question or part question.

At the end of the examination, fasten all your work securely into three separate bundles, one for each question.

Please indicate all questions attempted in the boxes below.

Section A			Section B		
Q1	Q2	Q3	Q4	Q5	Q6

This document consists of **3** printed pages including this cover page.

**[Turn over**

Answer **three** questions in total.

**Section A**

**One or two** of your three chosen questions must be from this section.

**1** Consumers should be allowed to have what they want because they are often the best judges of what is good for them. Government intervention that 'corrects' consumer choice is not only unnecessary but counterproductive. Discuss. [25]

**2** UK bread manufacturers are facing difficult times with competition from supermarkets' own brands and rising wheat costs. Own brands are able to offer recession-hit consumers cheaper value. In-store bakeries mean that supermarkets offer freshness that the bread manufacturers find hard to match. Bread manufacturers are increasingly under pressure to engage in promotional activities.

Source: Bread & Bakery Products 2012

**(a)** Explain how elasticity concepts can assist in understanding the effect of the increase in wheat price on the market for bread. [10]

**(b)** Discuss how the above combination of factors might affect expenditure by consumers in the two different bread markets. [15]

**3 (a)** Explain the conditions for price discrimination. [8]

**(b)** In US, the Federal Trade Commission (FTC) blocked the mergers of two hospitals in the state of Illinois. On the other hand, the Competition Commission of Singapore (CCS) has granted clearance for Heineken's acquisition of Asia Pacific Breweries, the maker of Tiger Beer from Fraser and Neave (F&N). Heineken has a global network of distributors and breweries, owning more than 250 beer brands.

Assess the economic case for these two different approaches. [17]

**Section B**

**One or two** of your three chosen questions must be from this section.

- 4 (a) The Singapore government spends on development expenditure such as road works and public infrastructure. Explain how a rise in government spending can lead to a larger increase in national income. [10]
- (b) Discuss whether the multiplier size is the most significant factor influencing governments' approach towards macroeconomic stabilisation. [15]
- 5 (a) Explain the causes of a balance of payments deficit on the capital and financial account. [10]
- (b) Discuss whether protectionism is the best policy to help a country correct its balance of payments deficit. [15]
- 6 (a) Account for the trend towards globalisation. [8]
- (b) How far do the benefits from globalisation that Singapore enjoys conflict with some of the main government objectives? [17]



# DUNMAN HIGH SCHOOL

## Preliminary Examination

Higher 2 Economics

Suggested Answers and Mark Schemes

**Suggested Mark Scheme (9732/1)**

Question 1

- (a) (i) **Summarise the trend in crude palm oil production in Indonesia.** [2]

*General trend [1]*

- *Increasing*

*Trend refinement [1]*

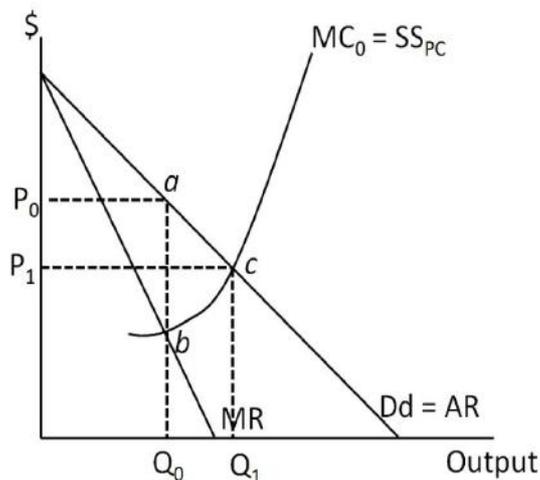
- *While production by small holders and private enterprises have been increasing, production by state owned enterprises remained largely constant.*

- (ii) **Explain how the small holders' share of the total crude palm oil production affects the price and profit of the crude palm oil industry in Indonesia.** [6]

**<P1> With the small holders' share of the total production closely matching the share of the large enterprises over the years, small holders keep the market competitive and price low.**

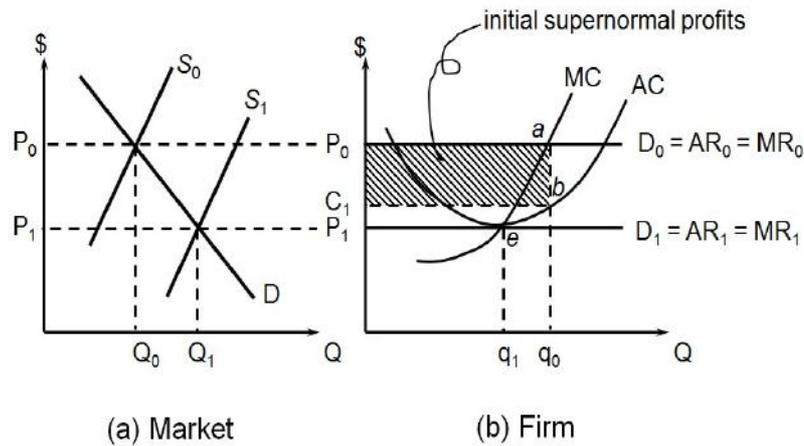
*In the extreme case of perfectly competitive industry, price is determined by the interaction of market forces of demand and supply. Price that prevails would be at  $P_1$  where  $Dd = SS$  (MC). In the other extreme where all the firms are merged to form a monopoly, the price that prevails will rise to  $P_0$ , the maximum price that the market is willing to pay for the profit-maximising output  $Q_0$  at which  $MC = MR$ .*

*Referring to Chart 1, small holders' share of palm oil production rose from one-quarter to close to 40% while the large enterprises' share rose from one-quarter to just past 50%. Even as the private enterprises output and share increased rapidly, the pace of increase of small holders' output and share was closely matched. This prevents the market from being dominated by the large enterprises which is critical as it greatly limits larger firms' ability to fix prices by restricting their own output. This keeps prices closer to the level that would have prevailed in a perfectly competitive industry ( $P_1$ ) than would have been the case had the market been dominated by large firms in which prices might have been closer to  $P_0$ .*



<P2> With the small holders' share of the total production closely matching the share of the large enterprises over the years, small holders keep the market competitive and profits low.

Similarly, the rapid increase in the output of small holders hints at the low BTE into the industry. Any initial supernormal profits earned by small holders attract entry of new firms. The increase in market supply pushes prices (AR) down. This process continues until the marginal firm earns only normal profits. Larger private enterprises, reaping iEOS face lower AC and may still earn supernormal profits though the size of the supernormal profits would nonetheless fall following the fall in price (AR). <explain graph>



- (b) Explain what a value of
- (i)  $-0.54$  for the demand elasticity of Indonesia own export price of crude palm oil, and
  - (ii)  $+0.61$  for foreign countries' income elasticity of demand for Indonesia's palm oil exports
- mean. [4]

A 1% increase in the price of Indonesia's crude palm oil export brings about a 0.54% decrease in the quantity demanded for it, *ceteris paribus*

A 1% increase in foreign income brings about a 0.61% increase in the quantity demanded for Indonesia's crude palm oil export, *ceteris paribus*.

[1] for the direction of change, [1] for the relative magnitude of change

- (c) How far does the behaviour of Unilever support the fundamental assumption that firms are profit maximisers? [10]

Thesis	Antithesis
<p><b>Non-price competition through innovation as a means to increase profits</b>                      &lt;Evidence&gt; Unilever, with its innovation focused on providing post-recession westerners with what they want: good enough products at affordable prices, has thrived. (Extract 5)                      &lt;Analysis&gt; Unilever introduced products that better meet consumers' tastes and preferences – post-recession consumers trading down to inferior goods with negative YED when their income falls.                      Here, we assume that even if there had been a recovery, income has not returned to its pre-recession level.</p> <p><b>Collusion to fix prices is a means, albeit illegal, to increase profits</b>                      &lt;Evidence&gt; Unilever, Procter and Gamble, Henkel and Colgate-Palmolive for colluded to fix the price of laundry powder, tablets and liquids in France between 1997 and 2004                      &lt;Analysis&gt; There is a tendency for firms in oligopoly to be stuck in a low-price-low-profits equilibrium as they attempt to undercut each other to gain market share. Cartel is an attempt by firms to break out of this situation by entering into an agreement in which they act as if they were a single monopoly to maximise their combined profits.</p> <p><b>Even cheating on the price-fixing agreement helps increase SR profits</b>                      &lt;Evidence&gt; Despite the formation of a formal cartel in 1996, Unilever went against the agreement to give discounts in 2004. (Extract 6)                      &lt;Analysis&gt; Unilever, by cheating, and give discount when all its competitors maintain high prices → more than proportionate increase in <math>Q_d</math> → increase in TR and where the increase in TC is less, profits increase</p> <p><b>What appears to be departure from profit-maximising behaviour may in fact be Unilever's attempts to increase its profits CSR</b></p>	<p><b>&lt;P&gt; Unilever prioritises CSR over profits</b>                      &lt;Evidence&gt; Unilever, one of the largest palm oil buyers in the world, buys all its palm oil from certified providers despite higher costs. (Extract 4)                      &lt;Analysis&gt; c.p. profit falls → Unilever appears to be prepared to sacrifice profits for CSR</p> <p><b>&lt;P&gt; Unilever has been always the first firm to back out from price-fixing arrangement that is aimed at maximising profits</b>                      &lt;Evidence&gt; Despite the formation of a formal cartel in 1996, Unilever went against the agreement to give discounts in 2004. (Extract 6)                      &lt;Analysis&gt; Unilever, by cheating, has led to tit-for-tat strategy by other firms. Industry as a whole enter into price war → all firms cut price to protect their market share, profits diminished</p>

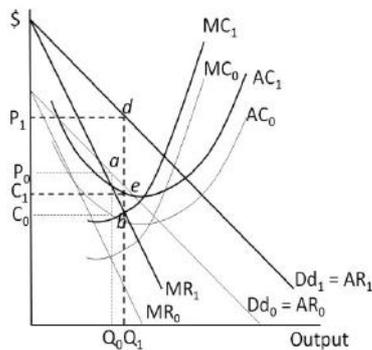
Given original cost and revenue conditions,

- profit-maximising,  $Q_0$ , occurs where  $MC_0 = MR_0$
- supernormal profit  $= C_0baP_0$

The use of sustainable palm oil adds to the firm's variable cost, raising AC to  $AC_1$  and MC to  $MC_1$ . Such a move may attract crs who are environmentally conscious and are prepared to pay a premium for green products raising AR to  $AR_1$  and MR to  $MR_1$ .

- New profit-maximising,  $Q_1$ , occurs where  $MC_1 = MR_1$
- New supernormal profit  $= C_1edP_1$

Where the increase in TR > increase in TC, profits increase



Cooperation with regulators

- Benefit to firm: avoidance of fine, rescue reputation which may mean avoidance of loss of dd and profits
- Cost to firm: loss of additional profit that cartel brings

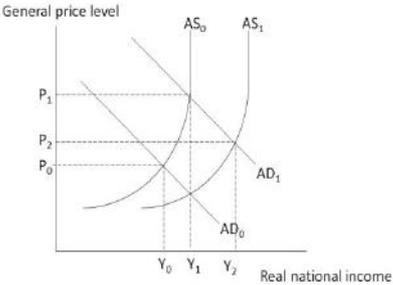
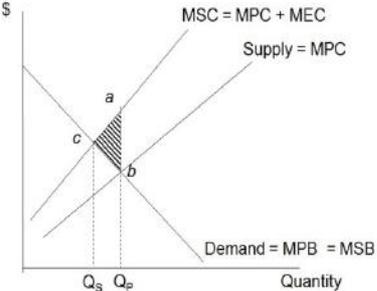
Where benefit > cost, voluntary cooperation with the regulators may be the optimal strategy for the profit-maximising firm

**Evaluation**

Unilever as a large listed firm tends to suffer from the principal-agent problem. The separation between ownership (shareholders of the company) and management (managers) may lead to a departure from profit-maximisation when the interests of the managers are in conflict with the interests of the shareholders but given information asymmetry and high cost of monitoring, the management team will be able to pursue their own interests, to the detriment of the interest of the shareholders. The firm may end up satisficing rather than maximising profits. Nonetheless, the watchful eye of the media makes it less costly for shareholders to monitor the actions by the firm and helps align the behaviour of the managers closer to profit-maximising goal.

Level	Descriptors	Marks
L3	For an answer which <ul style="list-style-type: none"> <li>• displays both scope and depth of economic analysis</li> <li>• considers both profit-maximisation and alternative goals of firms</li> <li>• makes effective use of diagrams and other tools of economic analysis to analyse the effect of the various strategies on firm's profits</li> <li>• well-applied to the given context</li> </ul>	7 – 8
L2	For an answer with limited reference to data that is <ul style="list-style-type: none"> <li>• insufficient SCOPE: one-sided argument</li> <li>• insufficient DEPTH: not consistently analytical throughout</li> <li>• limited application to given context</li> </ul>	5 – 6
L1	For an answer without reference to data that is largely descriptive and/or contains substantial conceptual flaws.	1 – 4
E	For a reasoned judgement on which the behaviour exhibited by Unilever is consistent with the profit-maximisation assumption	1 – 2

(d) Discuss whether the Indonesian government's promotion of development policies that encourage resource exploitation are justifiable. [8]

Thesis	Antithesis
<p><b>Raise SOL</b>                      &lt;Evidence&gt; The oil palm grows well where it is hot all the year round. (Extract 1), Indonesia is the world's biggest producer of palm oil (Extract 2)                      &lt;Analysis&gt; Specialisation and trade based on theory of comparative advantage → consume outside PPC → raise material SOL</p> <p><b>Achieve macroeconomic goals</b>                      &lt;Evidence&gt; About 75% of palm oil production in Indonesia is exported to the world market. Being the third largest export earner, palm oil plantation and its processing industry is an important industry to Indonesia. Other than its contribution in foreign exchange earnings, the cooking oil produced from the palm oil plantation is one of the dominant factors in determining the inflation rate of the Indonesia economy. Furthermore, the palm oil plantation industry actively provides opportunity for small-scale farmers, develops the rural economy and generates significant employment. (Extract 2)</p> <ul style="list-style-type: none"> <li>• Healthy BOP position – C/A balance (X of palm oil) &amp; K&amp;F/A balance (FDI)</li> <li>• Increase AD (X, I) → increase real NY, reduce unemployment through the multiplier</li> </ul>  <ul style="list-style-type: none"> <li>• Increase AS → sustained, non-inflationary growth</li> </ul>	<p><b>Inefficiency</b>                      &lt;Evidence&gt; 1997-8 haze had cost Indonesia between USD8.5 and 9.4 billion                      &lt;Analysis&gt; Resource exploitation e.g. use of forest for oil palm plantation → generation of negative externalities → allocative inefficiency &amp; DWL</p>  <p><b>Lowers SOL</b></p> <ul style="list-style-type: none"> <li>• Pollution → reduce non-material SOL</li> </ul>

<b>Evaluation</b>	
<p><i>In the SR, it is less of a matter of whether the Indonesian gov is right in encouraging resource exploitation but how it goes about it.</i></p> <ul style="list-style-type: none"> <li>• <i>At its current stage of economic development, Indonesia might need to be more reliant on its natural resources - its area of comparative advantage given the suitability of its climate (Extract 1) - as it is limited in its other capabilities. Given its current low per capita income, there still exists a strong correlation between EG and SOL – many basic needs are still unsatisfied e.g. access to quality education and healthcare. It may thus prioritise SR growth over other economic goals.</i></li> <li>• <i>However, the Indonesian gov has a choice on how it goes about promoting resource exploitation – the country is not lacking in laws and regulations. What it needs is to strengthen its enforcement ability.</i></li> <li>• <i>Also, there exists market incentive (albeit weak) for oil palm to be grown sustainably e.g. RSPO certification, i.e. resource exploitation need not come at too high a cost to the environment.</i></li> </ul> <p><i>Nonetheless, it is not a sustainable solution in the LR in view of the tradeoffs. Indonesia still needs to develop new areas of comparative advantage to allow it to diversify away from commodities exports.</i></p>	

Level	Descriptors	Marks
L3	For an answer which <ul style="list-style-type: none"> <li>• displays both scope and depth of economic analysis</li> <li>• considers (i) both micro and macroeconomic goals, (ii) possible compatibility / conflicts in goals</li> <li>• makes effective use of diagrams</li> <li>• well-applied to the given context</li> </ul>	6 – 7
L2	For an answer with limited reference to data that is <ul style="list-style-type: none"> <li>• insufficient SCOPE: one-sided argument, or considers only micro or only macro goals</li> <li>• insufficient DEPTH: not consistently analytical throughout</li> <li>• limited application to given context</li> </ul>	4 – 5
L1	For an answer without reference to data that is largely descriptive and/or contains substantial conceptual flaws.	1 – 3
E	For a reasoned judgement on the desirability of its economic development model, well-contextualised to the Indonesian economy	1

**Suggested Mark Scheme (9732/1)**

Question 2

(a) **Compare the trade balances in Japan and South Korea between 2009 and 2012. [2]**

- Both countries' trade balances have worsen
- Japan – surplus to deficit while South Korea has a surplus trade balance

*Students cannot explain the current account balance*

*Workings for the trade balances are not required nor credited for marks*

(b) (i) **Account for the difference in Indonesia's current account balance and trade balance. [2]**

- Current account includes both trade (visible) and invisible trade account
  - (i) trade in services such as shipping, aviation, banking and insurance and tourism
  - (ii) factor income (i.e. interest, profits and dividends received from or paid to abroad)
- Indonesia Data: in 2012 has trade surplus but a current account deficit => outflow more than the inflow for invisible account balance

(ii) **Identify the year which has the highest nominal GDP growth. [1]**

2011

(iii) **Explain the relationship between the two indicators, rate of inflation and unemployment rate. [3]**

- There is a *trade-off* between rate of inflation and unemployment rate - a little more unemployment meant a little less inflation (Phillips Curve).
- Supported by the data, except 2012, rate of inflation has increased from 2009 to 2011, while unemployment rate has slowed down
- Increasing AD, might be due to an increase in the demand for labour as government spending generates growth. The pool of unemployed will fall. Firms must compete for fewer workers by raising nominal wages. Workers have greater bargaining power to seek out increases in nominal wages. Faced with rising wage costs, firms pass on these cost increases in higher prices.

**(b) Comment on the significance of changes in exchange rates on the visible export revenue in Japan. [4]**

- Yen appreciated against USD from 2009 -2011, visible export (value) has increased
- Yen has depreciated against USD in 2012 while export revenue has decrease
- In theory: Prices of Japanese exports in USD increased, PED<sub>x</sub> is price elastic (students can quote from Extract 2, Japan main exports are manufacture products & explain why PED >1), quantity demanded will decrease by a larger, export revenue should decrease.
- Not supported by the data => not significant
  - Cause and effect. Eg. Increase in demand for export => demand for yen increase (appreciation of Yen against USD)
  - Other factors – contract, lacked of substitutes, change in other non-price factors

**(d) Discuss whether the data provided are sufficient to assess changes in the standard of living in these Asian economies over the period. [8]**

## Introduction

- Assess **changes**, students have to identified - as an improvement in SOL
- Define SOL – both material and non-material aspects

## Body

- Balanced answer with data from case materials

## Material aspects:

- In general, real GDP growth rates for the 3 economies are rising while unemployment rates are decreasing (from the 3 tables). This means that while materially, people are better off than before (and hence higher SOL). [Students do not need to consider inflation rate; as we are looking real GDP growth, which has eliminated the effects of inflation]
- Current account balance shows improvement in South Korea and Japan except for Indonesia. However, the higher imports in Indonesia could lead to higher SOL since this is due to strong private consumption. Furthermore, if the imports are primarily on capital goods for investments, then this could translate into higher SOL only in the future. While current account improvement means higher export earnings, goods produced are meant for foreigners and hence may not translate into higher SOL but it generates income and employment for the economies.
- Public debt as a % of GDP is rather stable for South Korea and Indonesia but increasing for Japan. Indicating the economies are doing well except for Japan. In future, Japanese government will implement contractionary fiscal policy to repay the public debt, leading to lower SOL, ceteris paribus.

Hence the data does provide an indication of the changes to the material aspect of the SOL over the time period.

However it provides an incomplete picture. E.g.: per capita income figure should be considered to take into account population changes. Other indicators to take into account non-material aspect could be:

- Gini coefficient to account for differences in income distribution on living standards
- Pollution index esp. as there is high level of production in China which could contribute to increased pollution

- Amount of leisure time: high economic growth may mean better material well-being but this could imply more stress, less leisure time and hence possibility of lower SOL.

<b>Knowledge, Application, Understanding and Analysis</b>		
<b>L3</b>	- Structure & linking sentences are present - Rigour in economic analysis – balanced answer whether the data provided are sufficient to assess improvement in the standard of living in these Asian economies over the period. - Use of case material	<b>5-6</b>
<b>L2</b>	- An accurate but undeveloped/ lapses in explanation - refer to the 3 Asian economies	<b>3-4</b>
<b>L1</b>	- Content: Weak - Mainly irrelevancies and substantial glaring conceptual errors	<b>1-2</b>
<b>Evaluation</b>		
<b>E</b>	For an evaluative assessment based on economic analysis or empirical evidence.	<b>1-2</b>

(e) **As a consultant economist, what options would you present to the governments as possible responses to the challenges faced by any two of these economies, and what would you recommend. Justify your answer. [10]**

- 2 economies with 2 challenges each
- Any 3 different policies used to solve the above challenges
- Explain the limitations of the policies.

<b>Knowledge, Application, Understanding and Analysis</b>		
<b>L3</b>	-TAS structure should be used when discussing the benefits and costs of policies (preferably cover both demand-management and supply-sides) used to solve the challenges in any 2 economies. - Rigour in analysis – use AD/AS framework - Good exemplification – use case material to support their answer	<b>10-13</b>
<b>L2</b>	- An accurate but undeveloped explanation of the policies used to solve the challenges in any 2 economies - Listing the limitations of the policies without making reference to the characteristics of the economies.	<b>6-9</b>
<b>L1</b>	- For an answer that shows some knowledge of the challenges - One-sided answer - No economic framework used	<b>1-3</b>
<b>Evaluation</b>		
<b>E</b>	For an evaluative assessment based on economic analysis or empirical evidence.	<b>1-2</b>

**Suggested Mark Scheme (9732/2)**

Essay Q1

Consumers should be allowed to have what they want because they are often the best judges of what is good for them. Government intervention that 'corrects' consumer choice is not only unnecessary but counterproductive. Discuss. [25]

**Thesis 1:****Government intervention that 'corrects' consumer choice is unnecessary as free consumer choice brings about efficient allocation of resources.**

<P> Consumer, assumed to be rational utility maximiser, constrained by his budget, will consume a good up to the point where the  $MPB = MPC$ .

The **marginal private benefit** is the marginal utility or additional utility or satisfaction that the consumer derives from consuming one more unit of the good.

Assuming the consumer is just one of the many buyers in the market, the consumer faces a perfectly elastic supply curve, i.e. the consumer is a price-taker, able to buy as many units as he wishes at the current market price. The **marginal private cost** is the price that the consumer pays (hence the value of alternative goods forgone) to consume one more unit of the good.

At  $Q_1$ ,  $MPB > MPC$ . The last unit consumed brings the consumer  $aQ_1$  of additional benefits (marginal utility) but cost the consumer only  $bQ_1$  (price), adding  $ab$  to his consumer surplus. **A rational consumer, attempting to maximize his consumer surplus** will therefore consume additional units of the good. As more units are consumed, the MPB or the MU declines as explained by the Law of Diminishing Marginal Utility. Holding MPC or P constant – the consumer being a price-taker – the consumer surplus from consuming additional units declines. Eventually, at  $Q_e$ ,  $MPB (MU) = MPC (P) = eQ_e$ , i.e. the additional utility derived from the last unit of good consumed exactly equals the price the consumer paid for the good and no more consumer surplus can be gained. At this point, their optimum level of consumption has been reached: consumer surplus has been maximized.

<insert diagram>

With complete and accurate information, i.e. "crs are often the best judges of what is good for them" and if we further assume perfect competition and absence of externalities,

- perceived MPB = actual MPB = MSB
- perceived MPC = actual MPC = MSC

<L> The last unit consumed where perceived MPB = perceived MPC, actual MPB = actual MPC and MSB = MSC. The last unit consumed adds as much to society's benefit as it does to society's cost, all positive net benefit has been exhausted and no further relocation of resources can increase welfare further. **Free consumer choice maximizes economic welfare of the society.**

**Antithesis 1a:**

**Free consumer choice does not always bring about efficient allocation of resources.**

**Market failure** is said to occur when free markets, operating without government intervention, fail to deliver a socially efficient allocation of resources, i.e. economic welfare is not maximised in the allocation of resources by the free market.

(Explain 2 relevant sources of market failure)

A traditional example is to be found in the attitude of the **uninformed** to the benefits of preventive health services. Consumers may put off health screening as they are not aware of the full extent of benefits e.g. early detection will increase chances of recovery and reduce the cost of treatment. Their  $MPB_{\text{perceived}}$  is thus  $<$  the  $MPB_{\text{actual}}$ .

Consumers will consume healthcare up to the point where their  $MPB_{\text{perceived}} = MPC$  (price of health screening)

For healthcare, there exists another source of **uncertainty** – individuals are unable to predict when and what kind of illness / accident may strike, how severe it will be and hence the exact cost of treatment. As a consequence, they may not save enough for healthcare. In the event of catastrophic illness, costs of treatment may be so high that it is beyond the means of the individual or his family to pay for it.

And even if consumers realise the need for such precautionary saving, they may **lack the self-control** to defer current consumption e.g. to put off buying that latest model of smart phone to save for future medical expenses.

For these various reasons, there will be an under-consumption of health care.

**Distorted preferences** can also lead to over-consumption. The increasing trend of obesity in many countries is one such case – when young children, under the influence of cartoons and free gifts that come with a fast food meal, may see the  $MPB_{\text{perceived}} > MPB_{\text{actual}}$ . In addition, it is accepted that many young children **do not have the cognitive ability** to weigh the short-term benefits of consuming fast food with the long-term cost to their health, **neither do they have the self-control** to deny themselves of the immediate gratification.

**Externalities** are spillover or third party effects resulting from the production or consumption of a good. Explain and exemplify the positive externalities that arise from the consumption of health care services like vaccination and how free consumer choice results in inefficient allocation of resources.

<insert diagrams>

**Antithesis 1b:**

**Under such circumstances, government intervention that aims to correct consumer choice may be necessary to reduce inefficiency**

(Explain 2 relevant measures)

**CLOSING THE INFORMATION GAP**

Where the problem arises from imperfect information or misinformation, the government can

- (i) engage in public education campaign, or
- (ii) legislation to mandate disclosure of information / prohibit false and misleading advertisement

so that consumers are able to make consumption decisions based on full and accurate information.

Examples include the Health Promotion Board (HPB) short film “Kaki” (better known as Ong and Raj) on colorectal cancer screening. In addition to TV advertisement, the HPB website also provides information on topics such as “Food for Health”, “Smoke Free Living”, etc. The Singapore Food Regulations require all prepacked food products for sale in Singapore to be labelled according to the guidelines set by HPB. Nutrient function claims may be allowed if the following criteria only under strict regulation.

**TAXES AND SUBSIDIES**

When faced with negative externalities, a government may choose to impose an indirect tax. Imposition of an indirect tax raises the price the consumers have to pay, and the MPC of consumption relative to the MPB. (Explain graph) Examples include taxes on cigarettes, cars and petrol.

Where the problem is one of under-consumption, the government could provide subsidies to reduce the MPC of consumption relative to MPB to incentivise rational consumers to increase consumption. Examples include the education and healthcare subsidies in many countries.

Other acceptable measures:

- compulsory savings and health care insurance (opt-out system)
- mandatory MMR vaccination for all infants
- hybrid measures like the VQS and COE to control congestion

<insert diagrams>

**Thesis 2:**

**Even when free consumer choice brings about inefficient allocation of resources, government intervention does not necessarily help reduce the inefficiency but may instead prove counterproductive<sup>1</sup>**

**Government failure** occurs when government intervention proves to be unwarranted, either because markets are performing adequately or public policy does not correct a market failure efficiently. In such cases, government intervention may actually exacerbate a problem or produce unintended negative results making the cost of government failure considerably greater than the cost of market failure

(Explain 2 relevant sources of government failure)

**IMPERFECT INFORMATION**

<P> Government, even if it intervenes in the market with the intent of correcting market failure could, given imperfect information, create more inefficiencies. <E&E> Rational economic agents in pursuit of their self-interest produce (consume) up to the point where  $MPB = MPC$ , ignoring the external benefit/cost their production (consumption) impose on 3<sup>rd</sup> parties. One solution to this problem is indirect tax to raise MPC so as to get consumers to cut back consumption towards the socially optimum level. Without accurate information on the PED and PES value, the government is not able to determine the indirect taxes required to bring the consumption level exactly to the socially optimum level. Referring to Figure 3, the government may overestimate the tax required, shifting the MPC to  $MPC_2$ . The new private equilibrium output will be at  $Q_2$ , lower than the socially optimum amount  $Q_S$ . The underproduction, while producing a cost saving of  $Q_2eaQ_S$  to the society denies the society of the potential benefit of  $Q_2daQ_S$ , creating a DWL of  $dae$ . <L> Should area  $dae$  (DWL after the intervention) > area  $abc$  (original DWL), government intervention makes the society worse off.

<insert diagram>

**ADMINISTRATIVE COST**

<P> Even if there were no serious information imperfection problem, government intervention can also produce inefficiency when administrative cost is high. <E&E> Following from the above example, administrative cost of an indirect tax could include the wages paid to customs officers and police to conduct checks to keep out contraband cigarettes from being smuggled into the country and sold over the counter. The reduction in DWL from the cutback in consumption has to be weighed against the administrative cost incurred in the intervention. <L> Should the administrative cost > reduction in DWL from overconsumption, government intervention makes the society worse off.

<sup>1</sup> Counterproductive: thwarting the achievement of the intended goal

## Evaluation

The risk of government failure should not be the reason for government inaction:

- As the **cost of gathering information declines** or **the accuracy of information improves** with technological advancement and scientific research, government intervention can be even more efficient for example the development of satellite technology and wireless connectivity has made it easier and less costly to implement distance-based congestion charging which the LTA will be rolling out in the future.
- Also, as the **strategies of firms and lifestyle change, government policies need to keep up**. The rising trend of childhood obesity is one such case in point – proliferation of processed food, the use of cartoon characters to sell snacks high in sugar and sodium content and the decline in exercise have all contributed to the problem.

There is little disagreement on protecting the most vulnerable in the society and consumers from firms' marketing strategies that are deliberately designed to distort information. Where extensive cost-benefit analyses have been conducted e.g. cost of congestion to the economy, the case for government intervention is also clear cut. The issue becomes more divisive in areas rooted in ideological beliefs and social values e.g. the socially conservative groups in the society may favour tighter regulation on content that the public can view on free-to-air TV and in the movies while the liberals, who uphold free choice and self-determination, see such intervention as acts of the nanny state.

**Essay Q1**

Consumers should be allowed to have what they want because they are often the best judges of what is good for them. Government intervention that 'corrects' consumer choice is not only unnecessary but counterproductive. Discuss. [25]

<b>Knowledge, Application, Understanding and Analysis</b>	
L3 (15-21m)	<p>For an answer that</p> <ul style="list-style-type: none"> <li>• demonstrates depth and scope, using economic framework</li> <li>• well-developed analyses of:                             <ul style="list-style-type: none"> <li>○ free consumer choice brings about an efficient allocation of resources</li> <li>○ market failure associated with free consumer choice e.g. imperfect information and externalities</li> <li>○ government policies that influence consumer choice</li> <li>○ government failure in the above policies</li> </ul> </li> </ul> <p>The highest L3 marks (19-21) may only be achieved by an answer that</p> <ul style="list-style-type: none"> <li>• demonstrates that the meaning of the question has been grasped, i.e. analysis anchored on consumer choice rather than, say, firms' production decision</li> </ul> <p>AND</p> <ul style="list-style-type: none"> <li>• is consistently exemplified</li> </ul>
L2 (10-14m)	<p>For an answer that</p> <ul style="list-style-type: none"> <li>• may be limited in scope e.g. analyses the market failure associated with free consumer choice and government policies to correct the various sources of market failure only</li> <li>• may be limited in depth: contains accurate though undeveloped explanations, not consistently analytical</li> <li>• is largely theoretical, limited application to the real world context</li> <li>• may contain a few minor misconceptions.</li> </ul>
L1 (1-9m)	<p>For an answer that</p> <ul style="list-style-type: none"> <li>• is largely irrelevant with no indication that the meaning of the question has been properly grasped,</li> <li>• is largely descriptive,</li> <li>• has severe misconception(s)</li> </ul>
<b>Evaluation</b>	
E2 (3-4m)	For an insightful evaluative assessment supported by well-developed economic reasons
E1 (1-2m)	Unexplained statements or an evaluative assessment with weak substantiation

**Essay Q2**

UK bread manufacturers are facing difficult times with competition from supermarkets' own brands and rising wheat costs. Own brands are able to offer recession-hit consumers cheaper value. In-store bakeries mean that supermarkets offer freshness that the bread manufacturers find hard to match. Bread manufacturers are increasingly under pressure to engage in promotional activities.

*Bread & Bakery Products 2012*

- (a) Explain how elasticity concepts can assist in understanding the effect of the increase in wheat price on the market for bread. [10]
- (b) Discuss how the above combination of factors might affect expenditure by consumers in the two different bread markets. [15]

**Part (a)**

**<P> An increase in wheat price reduces the supply. Ceteris paribus, this would bring about an increase in equilibrium price and a decrease in equilibrium quantity.**

Increase in wheat price → increase marginal cost → (i) firms willing to supply the same output only at higher prices, shifting supply curve upwards OR equivalently leftwards → shortage created at the original price level → as competition for the good intensifies, consumers bid up the price of the good → higher price gives firms positive marginal profits, incentivising firms to increase quantity supplied; on the other hand, consumers who are unwilling or unable to pay the higher price drop out of the market, reducing quantity demanded → shortage is reduced as quantity supplied increases and quantity demanded falls. Process will continue until price rises such that  $Q_d = Q_s$  and the shortage is eliminated. Overall, the increase in wheat price causes equilibrium price to increase and equilibrium quantity to fall.

<Insert diagram>

**<P> Applying to the bread market, it is likely that the price increase is large though the reduction in equilibrium quantity might not.**

Supply of bread is likely to be price elastic relative to demand

- produced daily → manufacturers able to cut production at short notice → supply likely to be price elastic, i.e. a decrease in price brings about a larger than proportionate decrease in quantity supplied
- staple in UK diet → demand likely to be price inelastic, i.e. an increase in price brings about a smaller than proportionate fall in quantity demanded since, as a staple, it is difficult for the people of UK to switch away quickly or completely even in response to higher prices (here, we consider bread as a single class of good rather than the different brands of bread)

Given that supply is likely to be elastic relative to demand, price increase following an increase in factor prices is likely to be large. This is because consumers are less responsive to price changes than producers → firms are able to pass on the cost increase by raising prices without fearing large fall in  $Q_d$  → larger price increase, consumers bear the higher share of the cost increase

Since the supply of bread is likely to be price elastic while the demand price inelastic,

- higher wheat price → manufacturers have to accept a lower net price (price less additional MC) → the more price elastic the supply, the larger the reduction in quantity supplied in response to a lower net price received

- as a staple, it is difficult for the people of UK to switch away quickly or completely even in response to higher prices → the more price inelastic the demand, the smaller the reduction in quantity demanded in response to a higher price charged

<Insert diagram>

Combined effect on the above PES and PED on the equilibrium quantity:

- the inelastic nature of the demand helps moderate the extent by which equilibrium quantity falls in response to the increase in wheat prices

### Part (b)

#### Bread by manufacturers

##### **Demand factors**

##### DIRECTION OF SHIFT

- Recession → falling Y → falling willingness and ability of crs to buy bread given positive YED (normal goods) → fall in  $Q_d$  at each and every price → leftward shift of dd
- Promotional activity e.g. setting up of booths at fairs to reach out to consumers → increase in  $Q_d$  at each and every price → rightward shift of dd

Two factors have an offsetting effect though it is likely that the net effect is a fall in demand - promotional activities unlikely to be highly successful

- consumers are still budget conscious,
- supermarkets are likely to respond with their own promotional activities,
- supermarkets 'offer freshness that manufactured breads cannot match'
- in periods of falling profits (rising costs + falling demand), bread manufacturers might not have the means to spend aggressively on promotional activities

##### **Supply factors**

##### DIRECTION OF SHIFT

- Rising wheat prices → decrease ss

##### **Effect on consumer expenditure**

Given:

- PED and PES are of similar magnitude
    - While bread as a single class of good may be staple, but manufactured bread is not → as bread manufacturers raise their prices in face of increase wheat cost, crs can easily switch to the lower-price own brand offerings by supermarkets → demand likely to be price elastic
  - Magnitude of fall in ss > magnitude of fall in dd
- At the original price, there is now a shortage → upward pressure on price → (i) firms incentivised to increase quantity supplied; (ii) crs who are unwilling and unable to pay the higher price drop out of the market, reducing quantity demanded → new equilibrium price settles as  $P_1$
  - Simultaneous fall in dd and ss reinforce each other to bring about a fall in equilibrium qty → new equilibrium price settles as  $Q_1$  → consumer expenditure falls

Bread by supermarkets

**Demand factors**

DIRECTION OF SHIFT

- Recession  $\rightarrow$  falling  $Y \rightarrow$  demand for inferior goods with negative YED rise with increasing willingness of crs to trade down to cheaper supermarket own brand  $\rightarrow$  increase in dd
- Promotional activity by bread manufacturers  $\rightarrow$  appeal to crs t&p, might cause a switch away from supermarket brands to manufacturers bread

**Supply factors**

DIRECTION OF SHIFT

- Rising wheat prices  $\rightarrow$  decrease ss
- (1) The two demand factors have an offsetting effect though it is likely that the net effect is that demand will increase:
- promotional activities by bread manufacturers to reverse the shift in cr t&p unlikely to be highly successful (as explained above)
- (2) Increase in demand  $>$  decrease in supply  
The extent of fall in ss may not be significant:
- wheat is a small % of the bread manufacturers' total COP,
  - other costs are likely to decline esp in a period of recession e.g. layoff full-time workers and engage part-timers with less benefits,
  - continuous improvement in management and operation  $\rightarrow$  increase productivity, reduce MC

**Effect on consumer expenditure**

Given:

- (i) PED and PES are of similar magnitude
- (ii) Magnitude of the rise in dd likely to  $>$  magnitude of fall in ss

Simultaneous increase in equilibrium P and Q  $\rightarrow$  pay more per unit + purchase more units  $\rightarrow$  increase in cr expenditure

**Essay Q2**

UK bread manufacturers are facing difficult times with competition from supermarkets' own goods and rising input (wheat) costs. Own brands are able to offer recession-hit consumers cheaper value, yet similar, even better quality. Not only do supermarkets offer bagged bread, but in-store bakeries mean that they offer freshness that the bread manufacturers find hard to match. The intensification of competition has put pressure on manufacturers to engage in promotional activity.

*Bread & Bakery Products 2012*

- (a) Explain how elasticity concepts can assist in understanding the effect of the increase in wheat price on the market for bread. [10]
- (b) Discuss how the above combination of factors might affect expenditure by consumers in the two different bread markets. [15]

**Part (a)**

<b>Knowledge, Application, Understanding and Analysis</b>	
L3 7-10	<p>For an answer that</p> <ul style="list-style-type: none"> <li>• displays depth of economic analysis throughout the essay</li> <li>• analyses how PED and PES together influence the extent of price and quantity changes</li> <li>• contains well-explained diagrams and sound economic reasoning</li> <li>• is well-applied to the given context</li> </ul> <p>Answers at the lower end of the mark range may contain very few minor misconceptions [If use XED instead of PES, cap at 8m]</p>
L2 5-6	<p>For an answer that</p> <ul style="list-style-type: none"> <li>• may be limited in scope e.g. analyses the influence of one elasticity concept on equilibrium P and Q changes, OR</li> <li>• may be limited in depth: contains accurate though undeveloped explanations, not consistently analytical</li> <li>• some, though inconsistent, application to context</li> <li>• may contain a few minor misconceptions.</li> </ul>
L1 1-4	<p>For an answer which</p> <ul style="list-style-type: none"> <li>• is largely irrelevant with no indication that the meaning of the question has been properly grasped, e.g. no attempt to analyse how and to what extent equilibrium P &amp; Q change,</li> <li>• is largely descriptive,</li> <li>• has severe misconception(s)</li> </ul>

Part (b)

<b>Knowledge, Application, Understanding and Analysis</b>	
<b>L3</b> 9-11	<p>For an answer that</p> <ul style="list-style-type: none"> <li>• displays depth of economic analysis throughout the essay</li> <li>• analyses how the combination of factors together influence consumer expenditure on the two distinct bread markets</li> <li>• contains well-explained diagrams and sound economic reasoning</li> <li>• is well-applied to the given context</li> </ul> <p>Answers at the lower end of the mark range may contain very few minor misconceptions</p>
<b>L2</b> 6-8	<p>For an answer that</p> <ul style="list-style-type: none"> <li>• may be limited in scope e.g. analyses the influence of some of the factors on consumer expenditure in the two bread markets</li> <li>• may be limited in depth: contains accurate though undeveloped explanations, not consistently analytical</li> <li>• some, though inconsistent, application to context</li> <li>• may contain a few minor misconceptions.</li> </ul>
<b>L1</b> 1-5	<p>For an answer which</p> <ul style="list-style-type: none"> <li>• is largely irrelevant with no indication that the meaning of the question has been properly grasped, e.g. no attempt to analyse effect on consumer expenditure</li> <li>• is largely descriptive,</li> <li>• has severe misconception(s)</li> </ul>
<b>Evaluation</b>	
<b>E2</b> 3-4	For an insightful evaluative assessment supported by well-developed economic reasons
<b>E1</b> 1-2	Unexplained statements or an evaluative assessment with weak substantiation

**Question 3**

- (a) Explain the conditions for price discrimination. [8]
- (b) In US, the Federal Trade Commission (FTC) blocked the mergers of two hospitals in the state of Illinois. On the other hand, the Competition Commission of Singapore (CCS) has granted clearance for Heineken's acquisition of Asia Pacific Breweries, the maker of Tiger Beer from Fraser and Neave (F&N). Heineken has a global network of distributors and breweries, owning more than 250 beer brands. Assess the economic case for these two different approaches. [17]

**Suggested Answers for Part (a)**

*Candidates are expected to identify and explain the prerequisites for firms to engage in price discrimination (P.D.), namely second degree P.D. and third degree P.D.*

***Introduction***

Define price discrimination (P.D.) – a pricing strategy whereby a firm charges different prices for the same product for reasons not associated with differences in costs of production.

***Body***

To identify and explain the prerequisites for firms to engage in P.D.:

- (1) Ability to set prices or market power,
- (2) Ability to separate / segregate the market into different sub-groups of consumers, and prevent the resale of the good between different consumers or different markets
- (3) Differences in price elasticity of demand (PED) for the good in each market / between different consumers

Explain and exemplify

- Hospital context – price of health screening bundle v.s. a la carte

L1	<ul style="list-style-type: none"> <li>➤ May show some understanding of the question.</li> <li>➤ May make serious conceptual errors.</li> </ul>	1 – 4
L2	<ul style="list-style-type: none"> <li>➤ Undeveloped explanation on the conditions for price discrimination.</li> <li>➤ Lacks application to real world examples.</li> </ul>	5 – 6
L3	<ul style="list-style-type: none"> <li>➤ Well-developed analysis on the conditions for price discrimination.</li> <li>➤ Provides application to real world examples.</li> <li>➤ Only need to explain either second or third degree P.D. in detail.</li> </ul>	7 – 8

**Suggested Answers for Part (b)**

Candidates are required to analyse the economic benefits and costs for both cases / scenario to justify which approach adopted by which government is more appropriate.

**Introduction**

Governments have different microeconomic and macroeconomic objectives / aims / goals to achieve – efficiency and equity; low inflation, low unemployment (UN), high and sustained economic growth as well as healthy balance of payments (BOP) respectively.

**Body**

**Thesis: economic case for blocking merger of hospitals**

Background information

Federal Trade Commission (FTC) filed a complaint against an acquisition deal between two Illinois health systems – OSF Healthcare System and Rockford Health System, as it will substantially reduce competition among hospitals and primary care physicians in Rockford, Illinois. This will significantly harm local businesses and patients in the general acute-care inpatient services market and primary care physician services market. In the Rockford area, the proposed acquisition, OSF, will control 64% of general acute-care inpatient services, and face only one competitor, SwedishAmerican Health System. Together they control more than 99% of the general acute-care services market. In the primary care physician services market, there are three significant primary care physician groups. Post-acquisition, OSF and SwedishAmerican will control almost 60% of all primary care physician services.

The reasons for blocking the merger of the hospitals are as follows:

- (1) Prevent anti-competitive behaviour from occurring, as reduced competition may lead to
  - higher price-setting ability, allocative inefficiency → DWL and inequity

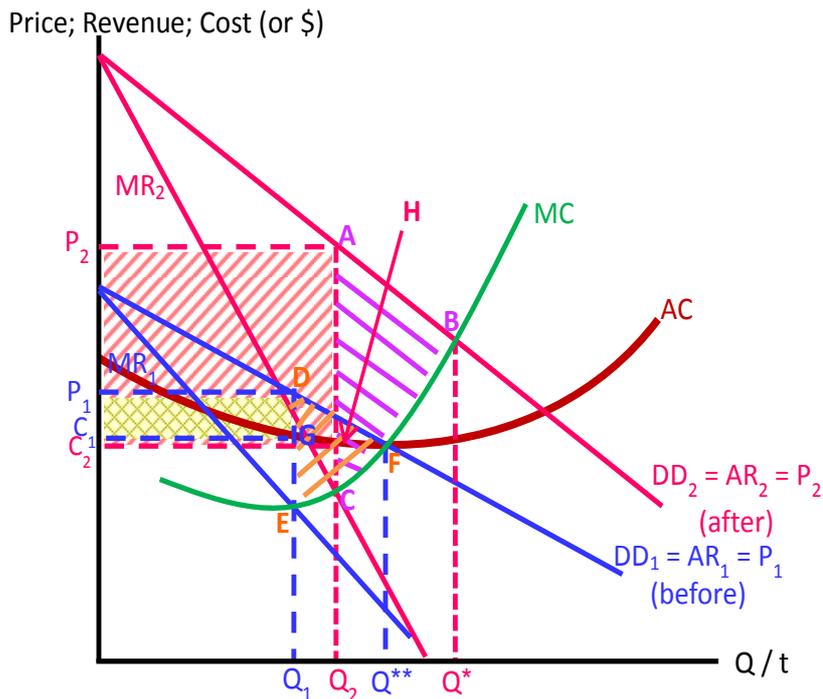


Diagram 2: demand and cost structure of hospital before and after merger

- The hospital being a profit maximising firm sets price and output where marginal revenue (MR) = marginal cost (MC), where the last unit is transacted. At  $MR > MC$ , the last unit sold adds on more to revenue earned by the firm than to costs incurred by the firm, hence, a rational profit-maximising firm should continue to sell more so as to gain additional profit margin. Similarly, at  $MR < MC$ , the last unit sold adds on less to revenue earned by the firm than to costs incurred by the firm, hence, a rational profit-maximising firm should sell lesser so as to gain additional profit margin.
- Assuming the same total market share before and after the merger, the DD curve for the hospital after the merger is higher, as market DD is spread over less number of firms before the merger. Also, DD becomes more price inelastic since there is only one remaining competitor, SwedishAmerican Health System (fewer availability of close substitutes) for consumers to choose from → higher market power.
- Assuming that MC remains the same before and after the merger, a higher and more price inelastic DD for the hospital consequently leads to a steeper and higher MR curve, resulting in a higher profit-maximising price ( $P_2 > P_1$ ) than before. This causes consumers to pay higher prices for healthcare, which compromises on consumers' welfare as they can now consume lesser healthcare services or of other goods for any given income. Since healthcare is a basic human right and necessity for everyone in society regardless of one's income, the higher price charged due to the merger is unjustified especially to the low-income households as healthcare services become increasingly unaffordable to them. This leads to greater under-consumption of healthcare which is undesirable, since healthcare is a merit good and confers positive externalities → allocative inefficiency → DWL
- With the rise in market power due to the merger, the hospital is able to restrict output by a greater extent since DD is more price inelastic than before → able to charge much higher prices,  $P_2$  (without fear of losing significant sales) and under-produce the good by a greater extent ( $Q_1Q^*$ ) than before ( $Q_2Q^{**}$ ) → extent of allocative inefficiency is greater → DWL is bigger (area ABC since the marginal social benefit (MSB) of  $ABQ^*Q_2$  that is not enjoyed for  $Q_2Q^*$  units > marginal social cost (MSC) of  $CBQ^*Q_2$ ) relative to before merger occurred (area DEF, where the MSB of  $DFQ^{**}Q_1$  that is not enjoyed for  $Q_1Q^{**}$  units > MSC of  $EFQ^{**}Q_1$ )
- In addition, as analysed earlier the hospital can now charge a higher price due to greater market power → higher supernormal profits of  $P_2AHC_2$  relative to  $P_1BGC_1$  due to high BTEs that allow the hospitals to retain the supernormal profits in the LR → sustained redistribution of income from the consumers who are usually the poorer group to the hospital providers that are the richer group → greater inequity problem due to the unfair distribution of income in society.
  - greater X-inefficiency since both hospitals (after the merger) are non-profit motivated, and the fall in competition may cause them to be even more complacent → do not keep a check on their costs → no active cost-minimisation efforts
  - significant financial burden on local employers and employees in the US, either directly or through higher insurance premiums, co-payments and other out-of-pocket expenses since each hospital has a significant market share and hence possesses:
    - ❖ greater price setting ability to charge a higher price, and also pass on higher costs due to X-inefficiency to consumers as higher prices → fall in consumers' welfare
    - ❖ greater bargaining power over its suppliers e.g. insurance companies to negotiate higher prices for healthcare services paid by the insured, i.e. greater leverage to charge insurance companies a higher premium for healthcare services, and in turn they pass on as higher premium to consumers who buy the healthcare insurance policies. Research has shown that prices are significantly higher for different procedures in consolidated than competitive hospital markets.<sup>2</sup> In the US, worker's health insurance premiums have risen 9.3% in 2012 and 40% since 2007.

<sup>2</sup> <http://www.berkeleyhealthtech.org/docs/Vol.3.2.Hospital-Markets.pdf>

- fall in vital non-price competition among the hospitals → fall in dynamic efficiency due to lesser incentive to engage in research and development (R&D) → compromises on quality, convenience and breadth of services provided to the patients
- (2) Prevent possible loss of jobs, because mergers usually result in redundant workers due to replication of similar job scope or designation – for e.g. there is no need for two directors to manage one hospital → retrenchment of workers → higher unemployment

### **Anti-thesis: economic case against blocking merger of hospitals**

Merger → pooling of funds and resources as well as higher supernormal profits earned → greater ability to finance risky investments in R&D → process and product innovation

- Process innovation → lowers unit costs due to streamlining production processes → lower prices → increases affordability of healthcare
- Product innovation → setting up of laboratories to conduct clinical research and experiments → medical breakthroughs and discovery of new and better medicines, vaccinations against new and existing diseases → significant improvement in consumers' welfare as more people can be cured as well as dynamic efficiency
- Import better and new machinery to perform medical operations that could raise patients' survival chances or speed up recovery processes etc. → improve consumers' welfare

### **Thesis: economic case for approval of acquisition**

#### Background Information

F&N is a leading Asia Pacific Consumer Group with expertise and prominent standing in the Food & Beverage and Publishing & Printing industries. Its core businesses are the production and sale of soft drinks, beer and stout, dairy products, property investment and development as well as publishing and printing.<sup>3</sup> Listed on the Singapore stock exchange, F&N is one of the most established and successful companies in the region with renowned brands that enjoy strong market leadership. F&N is present in 12 countries spanning Asia Pacific, Europe and the USA, and employs close to 9,000 people worldwide.<sup>4</sup>

Dutch brewer Heineken is placed third of the world's four biggest brewers which they now account for over half the global market for beer.<sup>5</sup> Heineken is the leading brewer in Europe with over 250 brands in more than 70 countries<sup>6</sup>, such as Amstel, Scottish and Newcastle beers, Moretti and Tiger.

The acquisition of F&N by Heineken is a forward vertical integration, which brings about benefits such as:

- internal economies of scale (EOS) such as financial EOS and marketing EOS (explain) → lower unit costs (draw graph showing downward movement along LRAC with increased production) → Heineken may pass on cost savings to consumers as lower prices; produce closer to minimum efficient scale (MES) of production → reduces productive inefficiency (define)
- greater ability to control costs throughout the distribution process. In the traditional distribution process, every step in product movement involves mark-ups so the reseller can earn profit. By selling directly to end buyers, Heineken can eliminate the middle man, removing one or more steps of price mark-ups along the way. In this way, Heineken can better manage the distribution process, and hence has more ability to optimise resource

<sup>3</sup> [http://www.ccs.gov.sg/content/dam/ccs/PDFs/Public\\_register\\_and\\_consultation/Public\\_register/Mergers%20and%20acquisition/GD%20\(Non-Confidential\)%20Final%20APB%20Heineken.pdf](http://www.ccs.gov.sg/content/dam/ccs/PDFs/Public_register_and_consultation/Public_register/Mergers%20and%20acquisition/GD%20(Non-Confidential)%20Final%20APB%20Heineken.pdf)

<sup>4</sup> <http://www.fraserandneave.com/about-us>

<sup>5</sup> [http://www.economicsonline.co.uk/Business\\_economics/Brewing.html](http://www.economicsonline.co.uk/Business_economics/Brewing.html)

<sup>6</sup> <http://www.theheinekencompany.com/about-us/company-strategy/company-profile>

- utilisation and reduce costs such as lower transportation costs → lower prices and reduced productive inefficiency
- gaining more control over the production and sale of beer by Heineken → more reliable / stable retail channel → reduces vulnerability to shocks e.g. distributor demanding higher prices at a critical time that raises costs and hence prices for consumers → better control over production costs and distribution network
  - facilitating sharing of information and learning by doing spill-overs, allowing firms to better learn from each other's experience and knowledge → lower unit costs → lower prices
  - pooling of resources and higher supernormal profits earned → greater ability to finance risky investments in R&D → process and product innovation → the former lowers unit costs due to streamlining operations like eliminating duplication in marketing and corporate functions / technological advancements, while the latter results in new and improved products → better quality and more variety of beverages → achieves dynamic efficiency and higher consumers' welfare. Also, there is lesser wastage of resources → reduces allocative inefficiency
- Improvement in BOP since Heineken's acquisition of Singapore firm F&N is a foreign direct investment (FDI) inflow into SG.
  - Prevents possible domestic unemployment from occurring, since Heineken can either distribute its beer products in the Singapore market on its own or with another joint venture partner and/or licensee / distributor<sup>5</sup>, should the acquisition fail instead of getting F&N to distribute its beer → F&N is likely to face intense competition from Heineken → F&N may face a large fall in DD since Heineken may be able to charge at a much lower price due to higher iEOS → F&N may exit the industry if it earns subnormal profits → rise in local UN

#### **Anti-thesis: economic case against approval of acquisition**

Higher market share → higher market power → able to set higher prices. However, the barriers to entry into the beer industry is not significant, as all brewers can enter the global duty-free beer market fairly easily. Also, the market for duty-free products is global and thus Heineken competes with many other larger international beer brewers globally, which will be able to restrict the behaviour of the merged entity. The marginal rise in Heineken's market share will not allow Heineken to unilaterally raise its beer prices in the global duty-free beer market. Furthermore, feedback from customers of Heineken and APB stated that they are able to source for other suppliers of beer relatively easily, including switching to suppliers not based in Singapore. The market from which customers of beer source their products from is global in nature, with the presence of product differentiation. As such, due to the highly competitive nature of the beer industry, and that customer bargaining power is present, it can be concluded that the acquisition does not raise competition concerns.<sup>5</sup>

#### ***Conclusion***

The difference in the type of good results in different approaches adopted by the two countries. Beer is an internationally traded good, where Heineken's most significant competitors are based internationally. Given the increasingly globalised world, foreign competition becomes more prevalent, preventing possible tacit collusion among firms and anti-competitive behaviour. Globalisation also enables existing beer brewers with existing brand equity, global pricing and supply chain logistics to enter the relevant market relatively easily with the necessary capital expenditure on advertising and promotions, listing fees and marketing support fees. The acquisition is thus unlikely to significantly reduce market power. However, medical service is not an internationally traded good, and thus, hospitals face little foreign competition. The two hospitals will have significant market share and hence market power after merging, since the only competitor is SwedishAmerican Health System, and they may engage in anti-competitive behaviour such as tacit collusion since they control more than 99% of the general acute-care services market, which is likely to hurt consumers' welfare considerably. Especially since healthcare is a basic necessity, whereas beer is not, it

is even more important for governments to judiciously weigh the benefits against the costs of merger to ensure that the welfare of the low-income households will not be compromised. As such, the approaches adopted by the two different governments are justified.

L1	<ul style="list-style-type: none"> <li>➤ May show some understanding of the question.</li> <li>➤ May make serious conceptual errors.</li> </ul>	1 – 6
L2	<ul style="list-style-type: none"> <li>➤ Undeveloped analysis on the benefits OR costs of blocking the hospital merger OR Heineken's acquisition of F&amp;N, covering breadth OR depth:                             <ul style="list-style-type: none"> <li>- Breadth: two-sided / balanced argument on benefits AND costs OR covers at least two govt. goals</li> <li>- Depth: rigorous analysis of benefits OR costs with the aid of diagrams</li> </ul> </li> <li>➤ Shows limited application to Heineken's acquisition and hospital merger.</li> </ul>	7 – 9
L3	<ul style="list-style-type: none"> <li>➤ Balanced discussion to explain the benefits AND costs of BOTH scenario</li> <li>➤ Shows application to Heineken's acquisition and hospital merger.</li> </ul>	10 – 13
E1	Unexplained judgement on whether the approaches adopted by the two different governments is justified or otherwise.	1 – 2
E2	Above judgement supported with economic analysis.	3 – 4

**Question 4**

- (a) The Singapore government spends on development expenditure such as road works and public infrastructure. Explain how a rise in government spending can lead to a larger increase in national income. [10]
- (b) Discuss whether the multiplier size is the most significant factor influencing governments' approach towards macroeconomic stabilisation. [15]

Candidates are required to explain how a rise in government spending in development expenditure (Singapore) leads to national income rising by a larger extent, through the multiplier (k) effect. Candidates need to explain the full blown k effect, i.e. numerical figures of k effect.

**Suggested Answers for Part (a)**

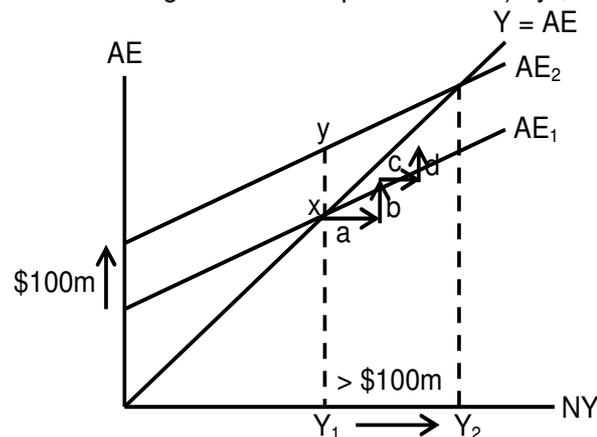
**Introduction**

Development expenditure such as building roads, repairing bridges and widening of drainage systems (public infrastructure) as well as developing new technologies may lead to potential economic growth as they raise productive capacity of the economy in the long run (LR). In the short run (SR), it results in higher national income and actual economic growth.

**Body**

Demand factor

- (1) Define multiplier: The multiplier indicates the number of times income changes relative to the initial change in autonomous AE (or AD or injection).
- (2) Basis for the working of the multiplier: In the circular flow of income and expenditure and the fact that one group's spending becomes another group's income, expenditure creates income and income generates more expenditure. A reinforcing feedback loop is thus formed.
- (3) Numerical example (2 rounds and how it comes to an end + final impact): Based on the preamble, the Singapore government spends on development expenditure such as road works and public infrastructure e.g. repairing bridges or improve educational system, thereby devoting \$100m to build more schools. This increases the AE (or AD or injection) (via its effect on government expenditure – G) by \$100m.



**Round 1** » The rise in G → at the initial level of NY  $Y_1$ ,  $AE > Y$  by  $yx$  amount → unplanned disinvestment → signal to firms to step up production → derived demand for fops (including labour) rises → factor owners receive more factor incomes. Thus the \$100m of G becomes the revenue of firms selling goods and services, which then gets disbursed out as factor income to households (arrow 'a'). But households will not simply keep all of this \$100m in banks. Singapore is a small and open economy with small domestic market and lack of natural resources, hence the marginal propensity to consume domestically produced goods

and services ( $MPC_D$ ) is low and marginal propensity to import (MPM) is high respectively. In addition, there is high marginal propensity to save (MPS) due to the Central Provident Fund (CPF), a compulsory savings scheme<sup>7</sup> of up to 20% of monthly wage contribution by the employee<sup>8</sup> to set aside funds for retirement, as well as the Asian thrift culture. Given the low  $MPC_D$  and high marginal propensity to withdraw (MPW) due to high MPM and MPS, assume an  $MPC_D$  of 0.2 and MPW of 0.8. Income-induced consumption rises by \$20m (arrow 'b') and this goes on to become income for the next group of people in the economy (arrow 'c'). The remaining \$80m leaves the circular flow in the form of savings (S), taxes (T) and imports (M). However, the process does not stop here.

*Round 2* » In the second round, as income rises by \$20m (arrow 'c'), and assuming a constant  $MPC_D$  of 0.2, this second group will spend \$4m out of their additional income on domestically goods and services (arrow 'd'). The other \$16m form the leakages in the form S, T and M out of the circular flow.

*How it comes to an end* » the process of additional spending creating additional income which brings about yet another round of spending and income creation continues. Notice that at each successive round, the rise in income gets smaller and smaller because of the leakages in the form of S, T and M of the circular flow. Eventually the multiplier process will end, and a new equilibrium national income is attained when the additional leakages total \$100m, balancing the initial injection by the government.

*Final effect* » To calculate the final impact on national income, we just need to sum up the string of additional incomes created.  $\Delta Y = \$100m + \$20m + \$4m + \dots = \$125m$ . Here, we see that the multiplier size is  $\frac{1}{MPW} = \frac{1}{0.8} = 1.25$ . In total, the rise in national income to  $Y_2$  will be worth  $\Delta Y = k \text{ size} \times \Delta AE$  (AD, in this case is G) =  $\$100m \times 1.25 = \$125m$ .

Assumption – idle resources available, prices held constant

Supply factor

Development expenditure → increase in AS, creates the capacity for further expansion in real NY

<insert diagram>

**Conclusion**

The multiplier effect causes a rise in government spending to lead to a larger increase in national income.

L1	<ul style="list-style-type: none"> <li>➤ May show some understanding of the question.</li> <li>➤ May make serious conceptual errors.</li> </ul>	1 – 4
L2	<ul style="list-style-type: none"> <li>➤ Undeveloped analysis of the multiplier process, either no numerical examples but with graphical illustration OR with numerical examples but only one round OR gaps in explanation of the multiplier process.</li> <li>➤ Limited application to the Singapore context.</li> </ul>	5 – 6
L3	<ul style="list-style-type: none"> <li>➤ Well-developed analysis of the full multiplier process (at least two rounds) with numerical examples.</li> <li>➤ Application to the Singapore context.</li> </ul>	7 – 10

<sup>7</sup> <http://mycpf.cpf.gov.sg/CPF/About-Us/Intro/Intro>

<sup>8</sup> <http://mycpf.cpf.gov.sg/Members/Gen-Info/Con-Rates/ContriRA>

### **Suggested Answers for Part (b)**

Candidates need to explain how multiplier ( $k$ ) size and how other factors are significant / important in influencing governments' (govts') approach towards macroeconomic stabilisation, then weigh / rank relative importance of these factors.

#### **Introduction**

Macroeconomic stabilisation is a condition in which a complex framework for monetary and fiscal institutions and policies is established to minimise vulnerability to external shocks / volatility, as well as to achieve internal and external stability. The former refers to achieving the three internal macroeconomic goals of low and stable inflation, low unemployment (UN), high and stable economic growth (EG), while the latter refers to achieving exchange rate stability and the external macroeconomic goal of healthy balance of payments (BOP).

Governments approach → measure / instrument / policy implemented by govt → type of policy option adopted and how to implement

#### **Thesis: multiplier ( $k$ ) size is a significant factor influencing governments' approach towards macroeconomic stabilisation**

The  $k$  size determines the type of policy implemented by the govt.

$K$  size tends to be higher for

- transfers targeted at low  $Y$  households rather than tax cuts for high  $Y$  households
- economies with sound fiscal positions (otherwise, Ricardian equivalence will reduce  $k$  size)
- less open economies

Larger  $k$

- more effective a policy like expansionary FP in providing stimulus to raise actual EG and reduce cyclical unemployment in times of economic recession

Where size is small,

- May need a larger stimulus (subject to feasibility)
- Need for alternative policies e.g. SR cost cutting measures to raise actual EG and reduce cyclical unemployment in times of economic recession

#### **Antithesis: multiplier ( $k$ ) size may not be the most significant factor influencing governments' approach towards macroeconomic stabilisation**

Other factors such as (1) characteristics of the economy, (2) prevailing economic conditions, (3) size of the govt. or fiscal / budget position, (4) magnitude / severity and duration of the economic problem and (5) root cause of the economic problem are also crucial factors to determine govts' approach towards macroeconomic stabilisation.

L1	<ul style="list-style-type: none"> <li>➤ May show some understanding of the question.</li> <li>➤ May make serious conceptual errors.</li> </ul>	1 – 5
L2	<ul style="list-style-type: none"> <li>➤ Undeveloped analysis on how k size / other factors influence govts approach towards macroeconomic stabilisation, covering either breadth OR depth:                             <ul style="list-style-type: none"> <li>- Breadth: explains how k size AND 1 other factor (2-sided answer) are important in influencing govts' approach towards macroeconomic stabilisation. Minimum of 2 different policies OR 2 macroeconomic goals</li> <li>- Depth: rigorous analysis of how a factor influences govts' approach towards macroeconomic stabilisation with the aid of diagrams</li> </ul> </li> <li>➤ Lack of real world exemplifications to support analysis.</li> </ul>	6 – 8
L3	<ul style="list-style-type: none"> <li>➤ Well-developed and 2-sided analysis on the importance of at least 3 factors influencing govts' approach towards macroeconomic stabilisation, covering both breadth AND depth, with at least 2 policies AND 2 macroeconomic goals.</li> <li>➤ Shows application to real-world context.</li> </ul>	9 – 11
E1	Unexplained judgement in weighing / ranking the importance of factors in influencing govts' approach towards macroeconomic stabilisation.	1 – 2
E2	Above judgement supported with economic analysis.	3 – 4

**Question 5**

- a) Explain the causes of a balance of payments deficit on capital and financial account. [10]
- b) Discuss whether protectionism is the best policy to help a country to correct its balance of payments deficit. [15]

**Part (a)**

Define BOP deficit on capital and financial account

- BOP measures the total international receipts and payments between a country and the rest of the world in a given time period, usually a year.
- Define Capital and financial account -
- Deficit – International receipts is less than payments/ outflow>inflow

Explain any 3 causes of capital and financial account deficit: (cover both short-term and long-term capital outflow exceeding capital inflow)

- Fall in domestic interest rate relative to other countries
- Expected fall in exchange rate of domestic currency
- Loss of CA leading to FDI outflow
- Fall in expected returns on investments

Level 1	Able to <b>define BOP deficit</b> and <b>vaguely explain</b> the factors causing capital & financial account deficit.	1-4
Level 2	<b>Adequate explanation</b> on the causes of capital & financial account deficit <b>Brief explanation</b> on causes for <b>both</b> short term & long term capital flows. Either short term or long term.	5-7
Level 3	<b>Good explanation</b> on causes for <b>both</b> short and long term capital flows. <b>Use of examples</b> to illustrate how various factors affect capital & financing account deficit.	8-10

Part (b)

Students are expected to provide detailed illustration of how various protectionist measures, such as tariff and quota, can be implemented by a country to correct the BOP deficit through trade balance; prevent outflow through capital & financial. Limitations of such measures in correcting BOP deficit must be discussed, especially the issue of against the theory of CA. Students are to provide 2 alternative policies that a country can adopt to solve BOP deficit and be able to arrive at a reasoned judgment on whether protectionism is the best policy to correct a BOP deficit.

- 
- Define BOP deficit
  - Worsening of Current account
    - loss CA (cars, electronic equipment) due to the emergence of developing nations (including China, India). With abundant resources, hence lower factor prices, manufactured goods from developing economies are relatively price competitive than those from Japan. This lead to **fall in demand for the latter exports** has led to a fall in export revenue and **increase in import expenditure** (purchase of cheaper imports from developing economies by domestic consumers), **resulting in current account deficit.**
  - Deficit in capital and financial account
    - Similarly, the relatively lower costs of production in developing nations have **attracting many FDIs from Japan**, causing capital outflow hence **capital & financial account deficit.**

**Thesis: Protectionism is a good policy to correct BOP deficit**

- Illustrate how the use of tariffs and quotas can be used to correct current account deficit / or slow down the worsening of trade balance
  - Tariff diagram is required => link to improvement in  $(x-m)$
- Prevent out flow of FDI – correct capital & financial account
- Students may use managed its exchange rate as a form of protectionism

**Anti-thesis:**

- Limitations of using protectionist measures
  - Retaliation by trading partners might lead to a fall in export revenue of host country
  - Not solving the root cause (loss of CA) such as depletion of resources and inefficiencies. Hence, inefficient firms have no incentive to restructure to improve the competitiveness of the products
  - May harm export competitiveness due to the increase in costs of production for firms that are dependent on imported resources or intermediate goods
  - Unable to resolve the outflow of FDI due to loss of CA as protectionist measures mainly target imports to protect domestic industries, rather than preventing the outflow of capital. Instead, protectionism will inevitably lead to inefficiencies and higher costs of production, which discourage FDI (fall in the inflow of capital. The increase in capital outflow will worsen capital account, making efforts to correct BOP deficit counterproductive.
- 2 alternative policies:
  - Fiscal Policy
    - Fiscal Policy (expansionary, reduce taxation or increase government subsidies) to restructure economy in finding new niche industries (attract FDI); as well as leading to an increase export revenue.

- FP (infrastructure development) to improve efficiencies so as to lower costs of production (improve export competitiveness and attract FDI)

Monetary policy

- higher interest rate (contractionary MP) attracts hot money inflow => reducing capital & financial account deficit However, this will lead to an increase in demand for the currency and a decrease in supply of the currency. This leads to an upward pressure on the exchange rate and exports become relatively expansive, thus decreasing the country's export competitiveness.
- Helps to correct inflationary pressure

Supply-side policies

- interventionist or market oriented, such as retraining the older workers to improve labour productivity (quality of FOPs) and support niche industries (improve export competitiveness and attract FDI)
- Relax immigration policy to expand labour force (quantity) -lower labour cost / or wage rate increase at a slower rate- improve export competitiveness and attract FDI
- Discover new area of CA – potential increase in export revenue

(Limitations of each measure must be provided)

Conclusion: Judgment

While use of protectionist measures is effective in correcting BOP deficit in the short run, are **unable to solve the issue of the loss of CA**. The use of such measures could be **counterproductive** as it **impedes efficiencies** and might lead to a **more severe BOP issue in the long run**. Hence, the use of appropriate **supply-side measures** would be a better solution albeit more time is needed for these measures to make a positive impact on the economy. (Consider the social values of the Japanese- willingness to accept foreign workers etc?)

Level 1	<b>One-sided argument</b> on how protectionist measure is able to correct BOP deficit. Lacked rigour in explain how the protectionist measure can correct BOP deficit, such as only explain the effect on either trade balance or capital & financial account only.	1-4
Level 2	<b>Good one-sided</b> illustration of how protectionist measures can correct BOP deficit provided with <b>adequate limitations</b> of the measures. Balanced answer, explain <b>1 alternative policy</b> that correct BOP deficit.	Max 6 5-8
Level 3	<b>Good illustration and evaluation</b> of protectionist measures in correcting BOP deficit and suggest at least <b>2 alternative policies (with limitations)</b> that address the threat of losing CA. High L3 marks will be given for <b>good use of real world examples</b> .	9-11
E1	<b>Make a stand</b> on whether the use of protectionist measure is the best policy to correct a BOP deficit.	1-2
E2	<b>Substantiate the stand.</b>	3-4

**Question 6**

- (a) Account for the trend towards globalisation. [8]  
 (b) How far do the benefits from globalisation that Singapore enjoys conflict with some of the main government objectives? [17]

**Part (a)**

Define Globalisation

The improvement in technology, physical and financial infrastructure, government policies are key drivers for increasing trend of globalisation due to the following reasons (non-exhaustive):

- Reduction in transport costs
- Reduction in information imperfection and immobility of factors
- Production Technology, increase in the likelihood of internal economies of scale and/or delays in the onset of internal diseconomies of scale
- New developments in information technology and communication capacity, software advances and huge expansions in global data transmission infrastructure have driven down telecommunication prices while at the same time increasing bandwidth. This has made it possible to share work across continents and oceans

**Link to freer trade, increase labour mobility, capital mobility and transfer in technology**

<b>Knowledge, Application, Understanding and Analysis</b>		
<b>L3</b>	- Structure & linking sentences are present - Rigour in economic analysis –3 factors why there is an increase in the freer trade, labour and capital mobility	<b>7-8</b>
<b>L2</b>	-An accurate but undeveloped/ lapses in explanation	<b>4-6</b>
<b>L1</b>	- Content: Weak - Mainly irrelevancies and substantial glaring conceptual errors	<b>1-3</b>

**Part (b)**

Introduction

Offer a short description regarding the economy of Singapore

List and explain the four macro-economic objectives and two micro-economic objectives

- sustained economic growth
- price stability
- low unemployment
- healthy BOP and strong exchange rate
- efficiency
- equity

Body

- link the benefits of globalisation such as-
  - greater trade, trade creation, opening of export markets to greater and sustained growth
  - Labour mobility
  - Capital mobility
  - Transfer of technology
    - Greater AD due to export demand, investment

- Ability to increase AS due to the import of input factors, lower labour cost, an increase in productive capacity
- Comment on the compatibility or conflict of above benefits with the other macroeconomic objectives
  - Price stability
    - Could lead to higher prices due to increased growth and demand
    - Could lead to lower prices if foreign goods are cheap, OR subjected to imported inflation
    - Over-reliance on imports/external markets, leading to greater vulnerability of the economy to external shocks.
    - Reliance on imports may threaten price stability
    - CPF policy (savings) and strong Singapore dollar (against imported inflation) also helps keep inflation low.
  - Unemployment
    - Could lead to structural unemployment
    - Could lead to higher employment in long run, if structural changes are dealt with
  - BOP equilibrium
    - Growth could lead to BOP deficits.
    - However, given the fact that Singapore is a value-added economy, the exports are usually of higher value than imports, thereby, lowering chances of BOP deficits
  - Efficiency
    - greater economic efficiency, small size of Singapore's domestic market, with greater export market, with increased competitiveness (with removal of tariffs), more earnings and higher wages, trade creation, greater employment, increase in technological know-how, greater FDI flows (demonstration and competitive effect)
    - With larger market, might be able to produce nearer to MES (depends on the products)
    - Enjoys IEOS or suffer x-inefficiency
  - Equity
    - Factor owners vs workers
    - Skilled vs unskilled workers
    - Structural unemployment – problem especially so with aging population and the difficulty to get older workers to re-train.
    - Dual economy, greater income inequality

#### Conclusion & Evaluation

- Overall, more difficult for government to stabilise the economy.
- Make an assessment of whether the benefits from globalisation are beneficial, weighing the benefits against the costs in Singapore's context.
- Recognise that FTAs are an integral part of Singapore's trade architecture; designed to generate higher level of economic growth by positioning Singapore as an integrated manufacturing centre in this region; promote research & development in our knowledge-based economy and drive the services hub. The main benefit of FTAs is sustained growth which may possibly conflict with price stability in the short run, depending on our expansion of our productive capacity
- Government policies may help to reduce the conflicts among the objectives
- Short run vs long run; the conflict may be present in the SR - current sacrifices may lead to future growth...

<b>Knowledge, Application, Understanding and Analysis</b>		
<b>L3</b>	TAS structure should be used when discussing the benefits and costs of globalisation. Discuss at least 3 macro + 1 micro objectives Good exemplification – Singapore context	<b>10-13</b>
<b>L2</b>	An accurate but undeveloped explanation of the rationale for globalisation. Able to recognise both the compatibility or conflict among the objectives for Singapore economy.	<b>6-9</b>
<b>L1</b>	For an answer that shows some knowledge of globalisation One-sided answer No economic framework used	<b>1-5</b>
<b>Evaluation</b>		
<b>E2</b>	For an evaluative assessment based on economic analysis or empirical evidence.	<b>3 – 4</b>
<b>E1</b>	For an evaluative assessment not supported by analysis.	<b>1 – 2</b>



HWA CHONG INSTITUTION  
C2 Preliminary Examination  
Higher 1

CANDIDATE NAME

CT GROUP

CENTRE NUMBER 

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INDEX NUMBER 

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**ECONOMICS**  
Paper 1

**8819/01**  
**16 September 2014**  
**3 hours**

Additional Materials: Answer Paper

**READ THESE INSTRUCTIONS FIRST**

Write your **Name, CT group, Centre number and Index number** clearly in the spaces at the top of this page and on every page you hand in.

Write in dark blue or black pen on both sides of the paper.

You may use a soft pencil for any diagrams, graphs or rough working.

Do not use staples, paper clips, highlighters, glue or correction fluid and tape.

**Section A**

Answer **all** questions.

**Section B**

Answer **one** question.

**Begin each question on a fresh sheet of writing paper.**

At the end of the examination, fasten the answer scripts to Section A Question 1, Section A Question 2 and Section B **separately** with the 3 cover pages provided.

The number of marks is given in brackets [ ] at the end of each question or part question.

You are advised to spend several minutes reading through the questions before you begin writing your answers.

You are reminded of the need for good English and clear presentation in your answers.

Section A

Answer all questions.

Question 1

The New Normal for China: Internal and External Shifts

Extract 1: China’s economic growth below the magical 8%

For years, there’s been one constant for people talking about the Chinese economy: GDP growth would exceed 8 percent. The country needed to create enough jobs for the millions of young people entering the workforce every year, and the Chinese leadership decided that anything below 8 percent would put job creation in jeopardy. Economists and investors agree that China is now entering a new era of slower growth, one where the old 8 percent figure is no longer so important. Anything much higher than 8 percent, would be “unsustainable.”

China is going through a major demographic shift, thanks to the shrinking family size and the one-child policy. As the population starts to age, job creation for millions of young people isn’t so vital anymore. While China needed 10 million new jobs a year in the early 2000s, today it needs just half that number. Thus the labour force as a whole is barely growing in recent years and Chinese policy makers don’t need to create as many jobs as they did before.

Indeed, in some parts of China there is now a labour shortage as young and low-skilled Chinese workers who once flocked to factories along China’s coast find they don’t need to travel far from home to find work.

Slower growth and higher wages are two elements of the Chinese economy’s new normal. The Chinese will need to learn to live with higher inflation, expected to average about 5 percent over the next decade, compared with 2 percent over the past 10 years. Since China does not need to worry that much about job creation, there is less urgency for the government to subsidise the cost of electricity, water, and oil for producers. China is changing from this miracle growth to a more normal growth stage.

Source: Bloomberg, 5 March 2012

Figure 1: China Growth in Real Gross Domestic Product (year-on-year), Q1 2010 to Q4 2012 (%)



Source: National Bureau of Statistics of China

Table 1: Selected Macroeconomic Indicators for China, 2008 to 2014

	2008	2009	2010	2011	2012	2013*	2014*
Unemployment rate (%)	4.4	4.4	4.2	4.3	4.5	4.1	4.1
Rate of Inflation (%)	5.9	-0.7	3.3	5.4	2.7	4.4	5.1

\* forecast

Sources: World Bank & Statista

### **Extract 2: China new jobless amidst full employment**

A quarter of recent college graduates in China are unemployed, according to official statistics published by the state-run Xinhua News Agency. And many of those who are employed end up working in jobs that are nothing near what they have studied in their undergraduate days.

In fact, some argue that the prospects for educated workers are far worse than for low-skilled labourers. Factory workers are in high demand in the coastal regions of central and southern China, fuelled by booming industrial, blue-collar sectors like manufacturing and construction. Wages for migrant workers rose by 14.9 percent just last year alone. While higher education has long been considered a ticket to a brighter future in China, the number of well-paying jobs has not grown nearly as fast as enrolment.

Over the last decade, China's college-educated population has multiplied eightfold, from 830,000 graduating in 1998 to 6.8 million in 2012, largely due to the Chinese government decision to expand the country's higher-education system in 1999.

Furthermore, being a large country like China, it is common that some graduates are unwilling to accept or do not possess the necessary information to land their first job in other parts of the country.

Source: *Globalpost.com*, 6 August 2012

### **Extract 3: Don't blame China for US trade deficit**

China is one of the top three trading partners of the United States (US) in recent years and its bilateral trade surplus with the US hit a record US\$202 billion in 2011. Despite the Yuan appreciating against the US dollar by almost 30 percent since 2006, protectionist sentiments in the US are running high. There is a familiar chorus calling for a major revaluation of the Yuan, to counteract China's alleged currency manipulation to keep the Yuan undervalued so as to make its exports cheap.

But to focus on China's currency is to miss the real story behind the country's trade surplus. Much of the confusion comes from focusing on the still huge US-China trade imbalances, rather than looking at the trade picture from a structural perspective. The truth is that China's surpluses are not driving US deficits.

Two phenomena largely explain the emergence of China's trade surpluses: surging American consumption and a maturing East Asian production network centred on China.

The origins and consequences of the increase in US consumption followed by growing fiscal deficits are well known. This has little to do with China but reflects US domestic realities. The US economy has now been growing for more than three years and unemployment rates had been falling. This is in part due to Obama's fiscal 'pump-priming' measures as well as the Federal Reserves' two rounds of monetary Quantitative Easing (QE).

The role of the East Asian production network began decades ago as Japan moved portions of its production base to Southeast Asia. China became central to that network with its 2001 accession to the World Trade Organisation, which offered easier access to Western markets, especially the US. Despite substantial real wage increases of about 12 percent annually in China, labour productivity rose even more rapidly, making it profitable for multinationals to use the country as the assembly plant for the world. Processing exports (those with high import content, facilitated by low import tariffs) are responsible for the entirety of its surplus. As much as eighty percent of the components are sourced elsewhere. In that respect, the US trade balance with China is really a regional, rather than a bilateral, issue.

However, the trade imbalances are unlikely to continue if the US government decides to scale back on fiscal expansion, halt any further QE policies as well as initiate the much anticipated increase in interest rates. Furthermore, analysts predict an erosion of China's current advantage if wages continue to grow excessively.

Sources: *BloombergView*, 19 April 2012 and *Wall Street Journal*, 10 July 2012  
**Figure 2: China Monthly Trade Balance, (in US\$billions), 2005-2012**



Source: General Administration of Customs, China

### Questions

- (a) Using Figure 1, describe the trends in real Gross Domestic Product for China from 2010 to 2012. [2]
- (b) Use AD/AS analysis to explain the views that
- (i) 'anything below 8 percent would put job creation in jeopardy' (Extract 1) in China. [2]
  - (ii) there is 'less urgency for the Chinese government to subsidise the cost of electricity, water and oil for producers' (Extract 1). [3]
- (c) (i) Explain the meaning of labour force. [1]
- (ii) Account for the 'barely growing' (Extract 1) labour force in China. [2]
- (d) (i) Using AD/AS analysis, explain the possible trade-off between inflation and unemployment. [2]
- (ii) Comment on whether Table 1 shows such a trade-off in China. [2]
- (e) Discuss whether China should be concerned about unemployment as she enters the 'new normal' growth stage. [6]
- (f) (i) Using Figure 2, describe the trends in China monthly trade balance from 2009 to early 2012. [2]
- (ii) Discuss whether the alleged undervaluation of the Yuan is the major reason behind China's growing trade imbalance with the United States. [8]

[Total: 30]

Question 2

Paper Industry and Paper Recycling

Table 2: Production of Paper and Paperboard (million tonnes)

Year	2008	2009	2010	2011	2012
World	389.6	370.4	394.2	400.4	400.5
China	83.7	90.1	96.5	103.1	106.3

Source: www.fao.org

Table 3: Consumption of Paper and Paperboard (million tonnes)

Year	2008	2009	2010	2011	2012
World	389.8	368.1	392.9	400.0	398.9
China	84.3	90.2	96.9	102.7	105.5

Source: www.fao.org

Extract 4: Paper industry in China

Asia, with its robust economic growth over the past few decades, has become one of the most important markets for everything from printing and writing paper to corrugated boxes (made from paperboard) for packaging, driven by both greater domestic consumption and exports across the world.

China, as one of the world's largest exporters, has seen a surge in demand for packaging paper. She is now the largest purchaser of pulp fibre globally. Rises in per capita demand in China have basically turned the global paper market on its head. Much of this is to do with rising incomes and the burgeoning middle class.

Chinese producers have also been aggressively expanding production and some have even been trying to export their products but have faced stiff resistance in the form of rules in developed countries to control the flow of paper from cheaper producers.

Source: *Asia News Monitor*, 23 April 2012

Extract 5: The pulp and paper industry in Thailand

Since the first paper mill opened in Thailand in 1923, the pulp and paper industry has steadily expanded its capacities to reach present day levels, which include dozens of pulp and paper mills located throughout the country. Some of the largest paper producers now operating in Thailand include Siam Cement Group (SCG) subsidiary – SCG Paper, the Panjapol Group, and Double A.

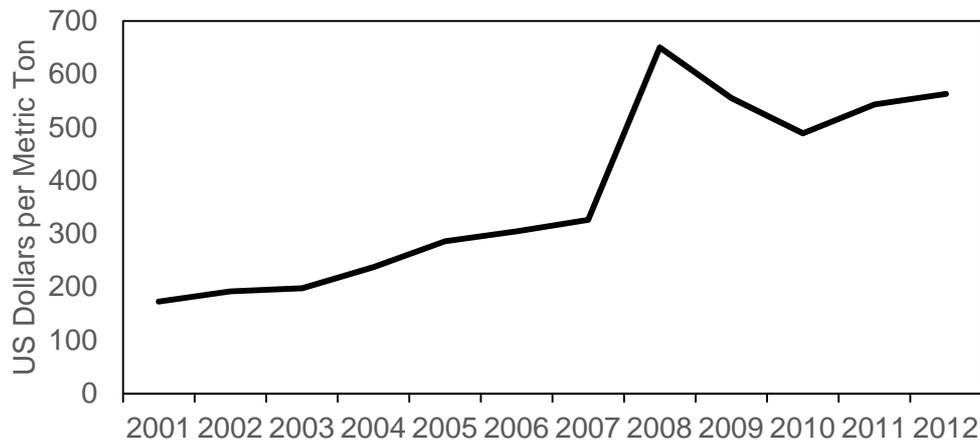
Long criticised by environmentalists for production activity from deforestation to the use of caustic chemicals in production, the pulp and paper businesses have been making significant efforts in recent years to clean up their image. Looking to avoid the costly negative publicity which can lead to boycotts and contract cancellations, most major pulp and paper producers are implementing more environmentally friendly business practices.

Double A, for instance, recently won the Green Leadership Award for its sustainable paper from the KHAN-NA program. Paper from KHAN-NA is the production of sustainable fiber through the cultivation of Double A Paper-Tree – a hybrid species of hardwood which is well adopted to Thailand's tropical climate – in straight rows along KHAN-NA, the unused space between rice paddies. While other paper manufacturers deliberately convert farm lands and natural forest to tree plantations, Double A brings out the real value of this KHAN-NA to cultivate its raw materials and at the same time introduces a huge number of carbon dioxide absorbers to the world. This program has helped to improve the living conditions of more than 1.5 million farmers across Thailand by supplementing their income through selling the matured trees back to Double A and providing employment during off peak season, like cutting matured trees, transporting logs to Double A mill and working in nurseries where tree saplings are initially grown.

SCG Paper introduced similar eco-friendly products of its own in 2011, such as “Green” corrugated cartons, which claim to require less paper and use less chemicals in pulp bleaching, and a new form of paper made entirely from recycled materials, as certified from the Forest Stewardship Council. It also emphasizes eco-friendly production processes that reduce energy consumption and manage site waste through reuse or recycling in compliance with the 3Rs principle (reduce, reuse/ recycle, replenish).

Sources: <http://www.oxfordbusinessgroup.com/news/paper-trail-pulp-and-paper-sector-seeing-new-interest-and-techniques>, accessed 18 July 2014 and *Enterprise Asia*, 30 June 2012

**Figure 3: Price of Thailand Rice, 2001 – 2012**



Source: *World Bank*

### **Extract 6: Recycling in Thailand**

Like other developing countries in Asia, Thailand is facing severe problems in waste management. In 2009, the volume of waste being generated reached about 15.1 million tonnes. Of this, only approximately 22% were separated and sent to recycling centres, a rather small fraction compared to the total amount of garbage produced. In contrast, the recycling rate in Singapore is around 60%.

Economic and social benefits should be taken into consideration when developing sustainable recycling programs. As far as the environment is concerned, producing recycled paper involves between 28 – 70% less energy consumption than virgin paper and uses less water. Paper recycling also leads to savings in the use of raw materials for pulp and paper production and less wood is used. This results in less exploitation of old growth forests, vitally important for their biodiversity.

Recycling is also an economically attractive option. For example, in the Nonthaburi Municipality, located 20 km northwest of Bangkok and covering an area of 39 km<sup>2</sup> with a population of 270,000, approximately 373 million baht (US\$12.5 million) can be expected as "annual net earnings" from the existing recycling program. This money is being distributed among the stakeholders of the process chain, such as the small companies collecting the recyclables, sorting facilities and recycling companies. Such financials prove that recycling activities could be economically attractive in Thailand.

Furthermore, recycling can contribute to raising living standards of the community. In Nonthaburi, the sale of source separated recyclables (on the basis of 90 tonnes per day) is estimated to offer an indirect annual income generation potential of 573 million baht (US\$19.2 million) to the community. It is also estimated that 675 skilled employment opportunities will be created.

The success of recycling depends on the active contribution from the community. Effective source separation is a key to success. Thus, education and awareness raising campaigns are pre-requisites to ensure more widespread and successful recycling activities in the country.

Sources: <http://www.waste-management-world.com>, accessed 20 July 2014 and  
<http://www.zerowastesg.com/>, accessed 26 June 2014

**Questions**

- (a) (i) Compare China's and the world's consumption of paper and paperboard between 2008 and 2012 in Table 3. [2]
- (ii) Account for China's trend in part (a)(i). [2]
- (b) With reference to Tables 2 and 3,
- (i) explain whether China is a net importer or exporter of paper and paperboard in 2012. [1]
- (ii) use a supply and demand diagram to explain how world price of paper and paperboard might have changed between 2008 and 2009. [4]
- (c) Extract 4 says that Chinese producers are facing stiff resistance in the form of rules in developed countries to control the flow of paper from cheaper producers.
- (i) Comment on whether the above protectionist measure by the developed countries is justified. [3]
- (ii) Using AD/AS analysis, consider the impact of the above action on the developed countries. [6]
- (d) To what extent would the change in price of rice in Figure 3 affect the production of paper in Thailand? [4]
- (e) In the light of the data provided, if you were an economic advisor to the Thailand government, would you recommend that it should intervene in the market for recycled paper. [8]

**[Total: 30]**

**Section B**

Answer **one** question from this section.

- 3 (a) Explain why prices of some goods and services fluctuate more than others. [10]
- (b) Discuss whether government intervention in the working of the free market through indirect taxation does more harm than good. [15]
- 4 (a) Explain the main causes of inflation in Singapore in recent years. [10]
- (b) Discuss the view that exchange rate policy is the best way for Singapore to achieve non-inflationary economic growth. [15]

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Copyright acknowledgments:

Question 1 Extract 1	© Bloomberg, 5 March 2012
Question 1 Figure 1	© National Bureau of Statistics of China
Question 1 Table 1	© World Bank & Statista
Question 1 Extract 2	© Globalpost.com, 6 August 2012, retrieved on 12 August 2014
Question 1 Extract 3	© BloombergView, 19 April 2012 and Wall Street Journal, 10 July 2012
Question 1 Figure 2	© General Administration of Customs, China
Question 2 Tables 2 & 3	© www.fao.org, retrieved 15 August 2014
Question 2 Extract 4	© Asia News Monitor, 23 April 2012
Question 2 Extract 5	© <a href="http://www.oxfordbusinessgroup.com/news/paper-trail-pulp-and-paper-sector-seeing-new-interest-and-techniques">http://www.oxfordbusinessgroup.com/news/paper-trail-pulp-and-paper-sector-seeing-new-interest-and-techniques</a> , accessed 18 July 2014 and Enterprise Asia, 30 June 2012
Question 2 Figure 3	© World Bank
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Question 1

The New Normal for China: Internal and External Shifts

Suggested Answers

(a)	<b>Using Figure 1, describe the trend in real Gross Domestic Product for China from 2010 to 2012. [2]</b>
	The real Gross Domestic Product (GDP) increased from 2010 to 2012. [1m] It increased at a decreasing rate. [1m]
(b)	<b>Use AD/AS analysis to explain the views that</b>
(i)	<b>'anything below 8 percent would put job creation in jeopardy' (Extract 1) in China. [2]</b>
	The rise in AD leads to actual growth in the economy. As output increases, firms would demand for more factors of production including labour. [1m]  According to the Chinese leadership, with an economic growth of at least eight percent, the increase in output in the economy would be able to create <b>enough jobs sufficiently</b> for an expanding labour force in China that leads to an increase in AS. [1m]
(ii)	<b>there is 'less urgency for the Chinese government to subsidise the cost of electricity, water and oil for producers' (Extract 1). [3]</b>
	<u>Higher cost of production affect output and general price level</u> A higher cost of production at all levels of output in the economy will result in a fall in the SRAS, causing a rise in general price level and a fall in real national output. The rise in general price level will lead to inflation while the fall in real national output will lead to lower growth rate. [1m]  <u>This is less urgency for the Chinese government to subsidise cost of electricity, water and oil for producers.</u> Since the Chinese government is allowing for a slower growth rate and higher inflation rate of around 5 percent [1m], there is no urgent need for the government to subsidise the cost of electricity, water and oil to reduce the fall in SRAS. [1m]
(c)	<b>(i) Explain the meaning of labour force. [1]</b>
	Labour force refers to the number of people of legal working age, who are willing and able to work.
(ii)	<b>Account for the 'barely growing' (Extract 1) labour force in China. [2]</b>
	Reason with reference to Extract 1: Demographic change in China – As the population starts to age, more people in the labour force are reaching the retirement age. With the one-child policy, the number of people entering the labour force is increasing at a slower rate than the people leaving the labour force, hence there is a slow growth in the labour force in China.  Reason with reference to Extract 2: The people in China could have abandoned the hope of finding jobs, especially the college graduates. As the number of people who are actively looking for work decreased, it could possibly lead to a slow growth in the labour force in China.  Either one reason – 2 marks

(d)	(i)	<p><b>Using AD/AS analysis, explain the possible trade-off between inflation and unemployment. [2]</b></p>
		<p>An increase in AD will lead to a rise in both real national output and general price level. As the level of output increases, firms would employ more factors of production, including labour. [1m] Hence during periods of economic growth, cyclical unemployment rate decreases, while demand-pull inflation rate increases, and vice versa. Hence, a higher rate of inflation will result in a lower unemployment rate. [1m]</p>
	(ii)	<p><b>Comment on whether Table 1 shows such a trade-off in China. [2]</b></p>
		<p><u>Table 1 did not show a trade-off between inflation and unemployment</u>          Table 1 shows that the unemployment rate does not seem to change much over the period 2008-2014 while the inflation rate ranges from -0.7% to 5.9%. Hence it suggests that inflation and unemployment are unrelated. [1m]</p> <p><i>[Note: Do not accept inverse relationship that holds for one year. It should be for the entire time frame. Candidates should realise that unemployment had barely changed over the period]</i></p> <p><u>Comment on possible explanation of the data</u>          Eg. Fall in SRAS will lead to a rise in both inflation and unemployment hence Table 1 did not demonstrate an inverse relationship between inflation and unemployment. [1m]</p>
(e)	<p><b>Discuss whether China should be concerned about unemployment as she enters the 'new normal' growth stage. [6]</b></p>	
	<p><u>Introduction</u>          This essay will discuss China should be concerned about unemployment as she enters the 'new normal' growth stage.</p> <p><u>Thesis 1: Unemployment (in general) might be a concern in China</u>          With the 'new normal' growth stage, AD will be rising slower. There might be a chance that AD will not be rising at least in tandem of LRAS due to changing size of labour force. As such, there might still be issues with unemployment.</p> <p>Economic Implication: It means that the economy will be performing below full employment.</p> <p><u>Thesis 2: Structural unemployment might be a concern in China</u>          However there could be structural unemployment in China as the skills of the graduates may not be relevant to the needs of the industries in China. The number of college-educated (or university graduates) labours has increased tremendously from 1998 to 2012 due to the government decision to expand the higher-education system in 1999. However these university courses may not produce the necessary knowledge and skills that are specific to the industries, leading to high unemployment among them.</p> <p>In addition, structural unemployment due to geographical immobility also present in China.</p> <p>There could be government failure in identifying the relevant courses to meet the industry needs. If this is not resolved structural unemployment could persist and become a major issue.</p> <p><b>Evidence:</b> "A full quarter of recent college graduates in China are unemployed... And many of those who are employed end up working in jobs that are nothing near what they have studied in their undergraduate days."</p> <p>Economic Implication : There will issue with underemployment.</p> <p><u>Thesis 3: Frictional unemployment might be a concern in China</u>          Furthermore, with more jobs being created in the economy, it does not mean that most of the workers would be employed. This is due to imperfect information, leading to frictional unemployment in China.</p> <p>Evidence: "being a large country like China, it is common that some graduates are unwilling or do not possess the necessary information to land them their first job in other parts of the country."</p>	

**Economic Implication:** This is because having a large number of unemployed graduates would mean that **resources are not being utilised, leading to a loss in output**. In addition, if these workers are not employed for a long period of time, they will need to seek help from the government for financial assistance, which is a **strain on the Chinese government's budget**. Besides, there could be **social problems** associated with the high level of unemployment among the graduates. The structural unemployment could be worsened in view that China is a very big country and there is geographical immobility of labours. Therefore a high level of structural unemployment might be a concern for China

Anti- thesis: Unemployment (in general) might not be a concern in China

Unemployment as a whole may not be a major issue. Table 1 shows that unemployment rate is around 4% from 2008-2012 and is also projected to be around 4% in 2013 and 2014. Moreover, there is a shortage of labour in some provinces in China. This implies that the labour market in general could be very tight and unemployment may not be a major issue. Furthermore, as the Chinese economy achieves actual growth due to the rise in AD, more jobs would be created, leading to a rise in demand for labours, hence maintaining a low unemployment rate of around 4%. This imply that majority of the labour force are being employed and are able to maintain a minimum standard of living. Therefore unemployment might not be a concern in China.

**Mark Scheme**

L3	5 - 6m	Good discussion on the types of unemployment with sufficient or good implications to the economy. Provided good evaluations and sound judgment. Excellent use of data.
L2	3 - 4m	Able to explain the types of unemployment in the data with little implications to the Chinese economy. Little or no attempt at evaluating the material. Max 3m for a lopsided answer
L1	1 - 2m	Only identifying the types of unemployment with no implications to the Chinese economy to show illustrate the concerns. Weak attempt in answering the question requirement. Major conceptual errors might be evident. Descriptive answer without economic concepts or answer that is mostly irrelevant or has little or no reference to data.

(f) (i) **Using Figure 2, describe the trends in China monthly trade balance from 2009 to early 2012. [2]**

The trade balance with US had been in a increasing surplus throughout

Trade balance with the rest of world was in a surplus from 2009 to 2010 before experiencing deficit for most months from 2010 onwards.

(ii) **Discuss whether the alleged undervaluation of the Yuan is the major reason behind China's growing trade imbalance with the United States. [8]**

Introduction

China has enjoyed a trade surplus against the United States (US) from 2005 to 2012, with reference to Figure 4.

Thesis: The alleged undervaluation of the Chinese yuan is the reason behind China's growing trade imbalance with the United States

There is a common sentiment among the producers in the US to request for a major revaluation of the Yuan. This suggests that the Yuan could be undervalued against the US dollar. This would make Chinese exports relatively cheaper in terms of US dollar, while US imports relatively more expensive in terms of Chinese Yuan. Therefore a cheaper Yuan against the US dollar will allow China to enjoy a balance of trade surplus against the US. This is evident as shown in Figure 2, China's trade surplus against US would continue to increase.

Anti-thesis 1: The Chinese Yuan has appreciated since 2006 hence this is not the reason behind China's growing trade imbalance with the United States

However the Yuan had appreciated against the US dollar by almost 30 percent since 2006. This implies that the Yuan may not be too undervalued against the US dollar. Instead, Chinese exports have increasingly become more expensive in terms of US dollar hence the exchange rate movement is not the reason behind China's growing trade surplus against the US.

In addition, Figure 2 shows that China's balance of trade deficit with the world excluding US has increased from 2005 to 2012. This shows that China's Yuan may not be undervalued and the growing trade imbalance with the US may not be due to the exchange rate movement.

Other reasons to explain China's growing trade imbalance with the United States – US's high level of consumption of imported goods

There could be other reasons for China's growing trade imbalance with the US. The trade imbalance could be caused by US's high level of consumption and the use of China as a production base.

The US government has implemented expansionary fiscal policy and monetary policy through Quantitative Easing (QE). The expansionary fiscal policy is implemented via a rise in government's expenditure, leading to a rise in AD, resulting in a rise in real national output in the US. The rise in the output has increased the demand for factors of production including labour, leading to a fall in the level of unemployment. As mentioned in Extract 3, the US economy has grown for more than three years and unemployment rates had been falling. The consumers in US are very optimistic that the economy would continue to grow and thus the level of consumer expenditure is likely to rise.

This might lead to a rise in import expenditure from other countries such as China. The two rounds of QE would also encourage the US consumers to purchase more consumer durable goods such as cars, electronic goods and household appliances which are imported from China. Hence this will increase the export revenue of China, at the expense of US, creating China's growing trade imbalance with the US.

Evaluation: However the US government may decide to scale back the fiscal expansion, halt further QE policies and possibly raise the interest rates in the latter half of 2012. This would slow down the rise in the income level of the US consumers, and reduce the consumption of imported goods from China. Hence this might reduce US's trade deficit with China.

Other reasons to explain China's growing trade imbalance with the United States – China as an export centre

China entered the World Trade Organisation in 2001 and soon became the assembly plant for the world. With abundant supply of labour that process high level of productivity, China has a comparative advantage in the production of manufactured goods, especially goods which are labour intensive. Hence many multinational companies have moved their production plants to China and use China as an export centre to export goods to the rest of the world such as the US. As China exports more goods to US, the trade surplus against US would rise, resulting in China's growing trade imbalance with the US.

Evaluation: As wages rises in China, its role as a production base for East Asia might diminish if firms decide to move another place in Asia such as Vietnam or Indonesia.

Conclusion

In conclusion, it is unlikely that the external value of the Yuan is the major reason behind China's growing trade imbalance with the United States as the Yuan has appreciated against the US dollar since 2006. The trade imbalance is more likely to be caused by the rising import expenditure by the US residents and the establishment of production plants in China due to her comparative advantage.

**Mark Scheme**

L3	Balanced and well developed economic analysis, based on the case material. Good economic analysis of how the 3 factors attribute to the changes in trade imbalance.	6-8
L2	Some balance in answer. Able to give some economic analysis in the 3 factors to explain the trade imbalance between China and US.	4-5
L1	Descriptive answer without much reference to economic analysis. Good explanation centered on exchange rate alone, max 3 marks	1-3

Question 2

Paper Industry and Paper Recycling

Suggested Answers

(a)	(i)	<p>Compare China's and the world's consumption of paper and paperboard between 2008 and 2012 in Table 3. [2]</p>
		<p><b>Similarity:</b> <u>Both</u> China's and the world's consumption of paper and paperboard between 2008 and 2012 <u>increased</u>. [1m]</p> <p><b>Difference:</b> <u>However</u>, China's consumption increased at a <u>faster rate</u> (25.14%) than that of the world's (2.33%). [1m]</p> <p><b>OR:</b> <u>However</u>, China's consumption <u>consistently increased</u> while the world's consumption <u>fell</u> in 2009 and 2012. [1m]</p>
	(ii)	<p>Account for China's trend in part (a)(i). [2]</p>
		<p>China's demand for paper and paperboard increases due to rising exports/ greater domestic consumption that require packaging. Hence as demand for exports/ domestic goods increases, <u>derived demand</u> for packaging increases, leading to increasing consumption of paper and paperboard. Evidence: Extract 1 "China, as one of the world's largest exporters, has seen a surge in demand for packaging paper" or "greater domestic consumption".</p> <p><b>OR:</b> Evidence: Extract 1 "rises in per capita demand" or "rising incomes and the burgeoning middle class". When income increases, demand for paper and paperboard increases as they are <u>normal goods</u>, hence consumption increases.</p>
(b)	<p>With reference to Tables 2 and 3,</p>	
	(i)	<p>explain whether China is a net importer or exporter of paper in 2012. [1]</p>
		<p>In 2012, China is a net <b>exporter</b> of paper and paperboard as <b>production</b> of paper and paperboard is <u>more than consumption</u>.</p>
	(ii)	<p>use a diagram to explain how world price of paper and paperboard might have changed between 2008 and 2009. [4]</p>
		<div style="text-align: center;"> </div> <p>1m for diagram</p> <p>Between 2008 and 2009, world production (supply) decreased by 19.2 million tonnes, shown by a leftward shift in supply curve from <math>S_0</math> to <math>S_1</math> [1m] while world consumption (demand) decreased by 21.7 million tons, shown by a leftward shift in demand curve from <math>D_0</math> to <math>D_1</math>. [1m] The <b>decrease in demand is more than the decrease in supply</b> hence price would likely <b>decrease to <math>P_1</math></b>. [1m]</p>

(c)	<p><b>Extract 4 says that Chinese producers are facing stiff resistance in the form of rules in developed countries to control the flow of paper from cheaper producers.</b></p>						
(i)	<p><b>Comment on whether the protectionist measure by the developed countries is justified. [3]</b></p>						
	<p>The above action is a form of protectionism to prevent the Chinese producers from exporting papers to developed countries, probably via the imposition of quotas.</p> <p>The action is justified if it can be proven that China is guilty of 'dumping'. Define Dumping. [1]</p> <p>However, the low prices of Chinese papers might actually be due to the abundance of land and labour in China, which means that China has comparative advantage, i.e. lower opportunity cost, in paper production and is hence not guilty of dumping. [1]</p> <p>There is insufficient evidence provided in the data to suggest whether the above action in the developed countries is justified. [1]</p>						
(ii)	<p><b>Using AD/AS analysis, consider the impact of the above actions on the developed countries. [6]</b></p>						
	<p>The imposition of quotas on paper will restrict the level of imports into the developed countries by making imported papers more expensive. Hence, import expenditure on final goods (i.e. printing and writing papers) will fall. <math>AD = C+I+G+X-M</math> will increase. As firms face an unplanned fall in stocks when AD falls, they will increase production by hiring more factors of production (e.g. labour), leading to a fall in cyclical unemployment. There will be a multiple rise in national income from <math>Y_0</math> to <math>Y_1</math> via the multiplier effect, hence leading to actual economic growth. However, the general price level will increase if the country is approaching full employment, leading to demand-pull inflation.</p> <p>Moreover, the costs of production may increase as corrugated boxes are needed by most firms for packaging. Hence, when prices of paperboard increases, costs of production increase, leading to a fall in SRAS. This will cause a fall in real national income from <math>Y_0</math> to <math>Y_2</math>, slowing down actual growth and increasing unemployment. The general price level will also increase from <math>P_0</math> to <math>P_2</math>, resulting in cost-push inflation.</p> <p>The <b>overall impact</b> on the economy depends on the extent of the shift in AD and AS. If AD increases more than AS falls, there will be beneficial effects on economic growth and employment level. Conversely, if AD increases less than AS falls, there will be adverse effects.</p> <p>There will definitely be greater inflationary pressures when AD rises and AS falls.</p> <p>Externally, <math>BOP = CA + FA</math> will improve as BOT improves, assuming ceteris paribus.</p> <p><b>Mark Scheme</b></p> <table border="1" data-bbox="263 1458 1449 1738"> <tr> <td data-bbox="263 1458 432 1552">L3 (5-6)</td> <td data-bbox="432 1458 1449 1552">Excellent explanation with economic analysis using diagram(s) Considered impact on both AD and AS Considered impact on the macroeconomic aims (at least 3) of developed countries</td> </tr> <tr> <td data-bbox="263 1552 432 1646">L2 (3-4)</td> <td data-bbox="432 1552 1449 1646">Explained using economic analysis but explanation might not be detailed enough. Considered impact on AD and/or AS. Considered impact on the macroeconomic aims (at least 2) of developed countries</td> </tr> <tr> <td data-bbox="263 1646 432 1738">L1 (1-2)</td> <td data-bbox="432 1646 1449 1738">Weak attempt in answering the question requirement. Major conceptual errors might be evident. Descriptive answer without economic concepts or answer that is mostly irrelevant or has little or no reference to data.</td> </tr> </table>	L3 (5-6)	Excellent explanation with economic analysis using diagram(s) Considered impact on both AD and AS Considered impact on the macroeconomic aims (at least 3) of developed countries	L2 (3-4)	Explained using economic analysis but explanation might not be detailed enough. Considered impact on AD and/or AS. Considered impact on the macroeconomic aims (at least 2) of developed countries	L1 (1-2)	Weak attempt in answering the question requirement. Major conceptual errors might be evident. Descriptive answer without economic concepts or answer that is mostly irrelevant or has little or no reference to data.
L3 (5-6)	Excellent explanation with economic analysis using diagram(s) Considered impact on both AD and AS Considered impact on the macroeconomic aims (at least 3) of developed countries						
L2 (3-4)	Explained using economic analysis but explanation might not be detailed enough. Considered impact on AD and/or AS. Considered impact on the macroeconomic aims (at least 2) of developed countries						
L1 (1-2)	Weak attempt in answering the question requirement. Major conceptual errors might be evident. Descriptive answer without economic concepts or answer that is mostly irrelevant or has little or no reference to data.						

(d)	<p>To what extent would the change in price of rice in Figure 3 affect the production of paper in Thailand? [4]</p>
	<p>The <b>price of rice</b> has shown an <b>increasing</b> trend over the years. Rice and paper-tree are <b>competitive in supply</b> as they use the same resources in production (e.g. land and labour) such that when the resources are used to produce rice, they cannot be used to produce trees (Extract 5: convert farm lands ... to tree plantations). This means that when the price of rice increases, the quantity supplied increases. Hence, to increase rice production, farmers might divert resources used in tree production to the production of rice. Therefore the <b>production of tree might fall</b>. [2m]</p> <p>However, according to Extract 5, Double A Paper-Trees are planted “along KHAN-Na, the unused space between rice paddies” hence rice and paper-tree <b>are not competitive in supply</b> as they might not use the same resources in production – the land is unused space while the farmers only cut the matured trees during off peak season. Also, there is no statistics on what proportion of paper production in Thailand is actually produced from trees using land that were previously designated for planting rice. Hence, to a large extent, the increase in price of rice might not affect the production of paper in Thailand. [2m]</p>
(e)	<p>In the light of the data provided, if you were an economic advisor to the Thai government, would you recommend that it should intervene in the market for recycled paper. [8]</p>

**Introduction**

Government should only intervene if there is market failure and/or when it wants to achieve certain macroeconomic goals. I shall now assess whether the Thailand government should or should not intervene in the market for recycled paper.

Thesis – Should intervene in the market for recycled paper	Anti-thesis – Should not intervene in the market for recycled paper.
<p>1. The consumption of recycled paper generates external benefits to third parties who are not part of the production or consumption process. Hence, this is a case of a positive consumption externality. As mentioned in Extract 6, the external benefits includes less energy and water consumption, and less trees being felled to produce virgin papers leading to better biodiversity. However, the third parties do not compensate the users of recycled papers for the environmental/ external benefits (EMB) they enjoy.</p> <p>Explain how the market equilibrium quantity <math>Q_m</math>, will be less than the socially efficient quantity <math>Q_s</math>, leading to underconsumption of recycled papers by <math>Q_s - Q_m</math> and DWL, hence social welfare is not maximized and there is a need for government intervention.</p>	<p>1. It is difficult to estimate the size of the EMB correctly so as to achieve <math>Q_s</math>. Given that “most major pulp and paper producers are implementing more environmentally friendly business practices” (Extract 5), the extent of the EMB might not be as significant as what the environmentalists are suggesting.</p> <p>By intervening in the market for recycled paper, there might be a case of overconsumption if the EMB is estimated overly high and resources would still be misallocated. To show using diagram (high vs low EMB).</p> <p><b>Evaluation:</b> Given that the recycling rate in Thailand is only 22% compared to Singapore’s 60%, it is unlikely that Thailand has done enough to encourage recycling and the use of recycled paper. So even if EMB is not as high as estimated, it is unlikely that the current effort will increase demand and consumption beyond the socially efficient level.</p>

2. It was mentioned in Extract 6 that “recycling is an economically attractive option... raising living standards... and creating skilled employment”, hence the government can opt to develop the recycled paper industry as an alternative that would damage the environment to a lesser degree, Steps can be taken via “education and awareness raising campaigns”, to encourage the use of recycled papers, raising demand for recycled papers and shifting the PMB to the right. The government could also take steps to encourage recycling in order to increase the quantity of paper waste collected which would help to lower the cost of production for recycled papers, increasing supply. Hence, by intervening in the market for recycled paper, this would lead to more recycled papers being consumed/ produced, creating skilled jobs, generating higher incomes and improving the living standards of the citizens.

**Evaluation:**

Thailand may be able to develop CA in the production of recycled paper industry if the industry is able to buy enough paper waste either domestically or by importing from the neighbouring countries at relatively low cost.

2. If the intention of the government is to create jobs and raise living standards, it might need to consider the kind of jobs it intends to create. According to Extract 6 the type of jobs created from recycling are “skilled employment”,

However, in Extract 5, Double A’s KHAN-NA program has already “helped to improve the living conditions of more than 1.5 million farmers (low/ unskilled workers) by supplementing their income during off peak season. Any intervention in the market for the domestic industry to produce recycled paper may result in further of **widening income gap** as more skilled workers (from the production of recycled paper industry) gained employment at the expense of unskilled workers.

**Evaluation:**

If it is developed successfully, the production of recycled paper industry as a sunrise industry will contribute to economic growth. Any widening of income gap between workers in sunrise and sunset industry might require further government actions.

**Conclusion**

It is important that the Thai government helps the paper production industry to improve from its standing as “one long criticised by environmentalists”. In the short run, it is important to encourage production and use of recycled papers and for more firms to practise environmentally friendly programme such as KHAN-NA. In the long run, government intervention may need to involve carrot and sticks to regulate the amount of pollutants release by the paper industry and to reward firms that find ways to decrease the amount of byproducts such as chlorine and dioxin being generated while producing virgin papers.

**Mark Scheme**

L3 (7-8)	Excellent explanation with economic analysis using data and diagrams Considered both positive externality and macro aims. Judgement based on analysis given
L2 (4-6)	Show understanding of how government interventions in the recycled paper market can be grounded on economics analysis. Considered positive externality but the analysis on macro aims may be underdeveloped or not considered. Answer must be balanced.
L1 (1-3)	Able to give descriptive link between recycled papers and positive externality or impact on macroeconomic aims. Lopsided analysis

## 2014 H1 Prelims Essay Question

### Question 3

- (a) Explain why the prices for some goods and services would fluctuate more than others. [10]  
(b) Assess whether Government intervention in the working of the free market through indirect taxation does more harm than good. [15]

(a)

### INTRODUCTION

- Prices are determined by DD and SS factors.
- Fluctuate: to **rise** and **fall sharply** over time.
- Prices change when DD and SS change. The extent to which prices change depends not only on the magnitude of the shift of DD and SS curves, but also on PED and PES.

### BODY

It is important to examine **both** the reasons for changes in price (**direction**), and the **magnitude** of the changes. The extent of the magnitude depends on (1) the extent of changes in DD and SS, and (2) PED and PES.

#### (1) Changes in DD (PES matters)

- When there is a global economic boom, demand for commodities such as oil increases as it is a major source of energy in the production of goods and services. When income increases, DD for normal goods increase.
- When DD increases, there will be a shortage at the original price, exerting upward prices.
- The extent to which prices increases depends on how responsive producers are to price changes, that is, PES.
- PES depends on the **spare capacity, nature of production and inventories level**. Use the determinants to give specific examples to illustrate  $PES > 1$  and  $PES < 1$ .
- When  $PES < 1$ , producers are less able to respond to price changes that stem from changes in DD hence prices tend to increase more than proportionately for a given increase in DD. In contrast, when  $PES > 1$ , prices tend to increase less. Conversely, when DD falls, the magnitude of the fall in prices will be magnified when  $PES < 1$ .

#### (2) Changes in SS (PED matters)

- When there are supply shocks, production of goods and services will be disrupted, leading to a fall in supply. Examples include political instability in the Middle East and natural disasters.
- When SS decreases, there will a shortage at the original price, exerting an upward pressure on prices.
- The extent to which prices increases depends on how responsive consumers are to price changes, that is, PED.
- PED depends on the availability of substitutes, degree of necessities and proportion of income spent. Use the determinants to give specific examples to illustrate  $PED > 1$  and  $PED < 1$
- When  $PED < 1$ , consumers are less able to respond to price changes that stem from changes in SS hence prices tend to increase more than proportionately for a given decrease in SS. In contrast, when  $PED > 1$ , prices tend to increase less. Conversely, when SS increases, the magnitude of the fall in prices will be magnified when  $|PED| < 1$ .

Hence theoretically, prices fluctuate most for products whose PED and PES are of low values.

#### (3) Fluctuations in demand and supply

Besides PED and PES, the fluctuations in price of goods can be due to the unpredictable nature of demand and supply for some goods due to the following reasons:

- Seasonal nature of consumption:
  - o The demand for oil consumption varies according to seasons i.e. higher consumption in winter, and lower consumption in summer
- Unpredictability of supply factors:
  - o Agricultural products due to unpredictable climate change. Sudden changes to weather would lead to supply shocks in the form of either an abundant or poor harvest. This would either increase or decrease the supply of the good.

- Due to the significant concentration of the world's oil resources in the Middle East, the political instability in the region and the consequent disruptions to the oil supply accounts for the fluctuations in its price.

**COMBINED ANALYSIS AND CONCLUSION**

(Show combined diagram of increase in DD and fall in SS with price inelastic DD and SS)

In conclusion, goods with price inelastic demand and supply, and which tend to experience unpredictable changes in demand and supply, will see their prices fluctuate more than other goods. Usually agricultural produce and commodities fall under this category of goods.

**Mark Scheme**

L3	A clear and developed economic analysis of DD and SS concepts + both PED and PES + Appropriate examples  Must consider the fluctuation of DD/SS as a contributing factor	7-10
L2	Economic analysis using DD and SS concepts + Underdeveloped application of PED <u>and</u> PES; OR  Clear but one sided application of PED <u>or</u> PES  May not have considered the fluctuation of DD/SS as a contributing factor	5 - 6
L1	Smattering of ideas why prices change more with no/minimal reference to elasticity concepts. For example, just using DD and SS concepts.	1-4

**(b) Assess whether Government intervention in the working of the free market through indirect taxation does more harm than good. [15]**

**INTRODUCTION**

- Define indirect tax: A sales tax, a specific tax, value added tax (VAT), or goods and services tax (GST) collected by an intermediary (such as a retail store) from the consumers who bear the ultimate economic burden of the tax.
- State the objectives of government intervention in the free market through indirect taxation:
  - To correct market failure due to demerit goods
  - To promote equity

**BODY**

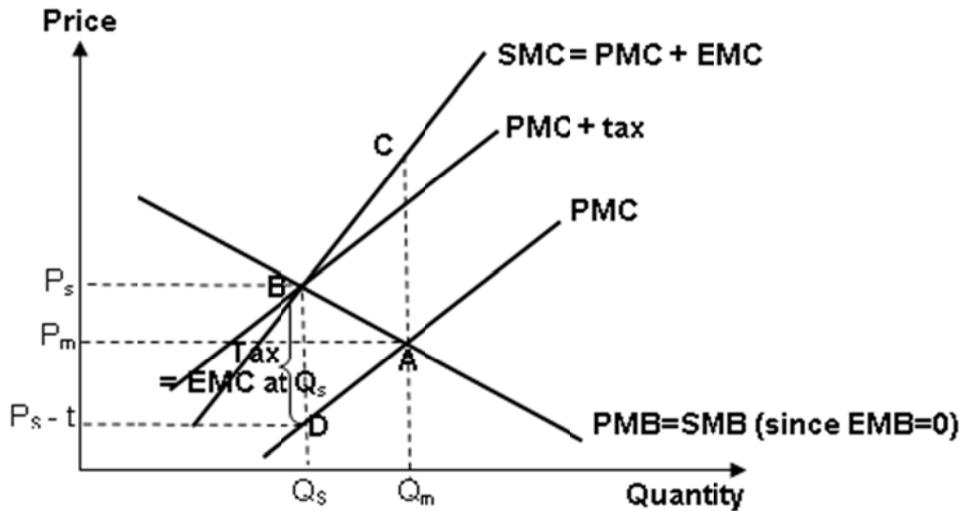
**Thesis: Indirect taxation do more good than harm by achieving both efficiency and equity**

**(A) Indirect taxation by governments on demerit goods are useful to address the problem of overconsumption**

Example of smoking

- Smoking generates negative externalities because third parties who do not smoke but live or work in close proximity to the smoker would suffer from the second hand smoke, potentially developing or worsening health problems such as asthma and lung cancer. They would then have to incur healthcare costs for their treatment. However, the third parties are not compensated by smokers for the external costs.
- Cigarettes are therefore deemed undesirable by most government and is considered a demerit good.
- Explain with reference to Figure 1 how the market equilibrium quantity,  $Q_m$ , is more than the socially efficient quantity,  $Q_s$ . Thus there is **overconsumption of cigarettes by the quantity  $Q_s - Q_m$** , and there is inefficient allocation of resources.
- The government might impose an indirect tax on producers corresponding to the external marginal cost i.e. Tax=EMC **at  $Q_s$**  (distance BD) on each unit of cigarette. This shifts the PMC upwards so that the new PMC, which equals PMC + tax, coincides with the PMB at  $Q_s$ .
- Hence, the new market equilibrium quantity where PMB = PMC + tax, now coincides with the **socially efficient** quantity  $Q_s$ , where SMB = SMC.
- If the tax accurately reflects the external marginal cost, cigarette consumers are now in effect paying for the external cost they impose on others as the price they are paying is now higher at  $P_s$ , compared to  $P_m$  before the tax. The externality has then been **internalised or priced in**.

Figure 1: Tax to internalise EMC from cigarette consumption



**(B) Governments can also improve the equity of outcomes thru indirect taxation.**

Government can also improve the equity of outcomes thru indirect taxation via the redistribution of income. The classic Singapore example is the GST voucher introduced in Budget 2012. The government imposes a 7% GST and since the rich pays a higher amount of GST in absolute terms, the government is able to use the tax revenue to fund the GST voucher scheme for the poorer Singaporeans.

Also, such revenue raised thru indirect taxes can also be used by the government to fund education and retraining programs for the unskilled workers, who are typically the lower income groups, to raise their labor productivity and hence their wages.

**Anti-thesis: Indirect taxation does more harm than good - Government use of indirect taxation hurts efficiency and equity.**

**(A) Without existing market failure, taxation leads to an inefficient allocation of resources**

With reference to Fig 1, considering the case of the consumption of a good that does not lead to both positive and negative externalities, the market equilibrium  $Q_m$  where  $PMB=PMC$  would also be the socially efficient output. In this case, taxation leads to  $Q_s$ , which corresponds to the underconsumption of the good. Government intervention via indirect taxation would therefore lead to an inefficient allocation of resources to the production of the good.

**(B) Government failure in addressing negative externalities of demerit goods due to imperfect information**

- Indirect taxation used to internalise a negative externality is considered a market-based approach. However, it is difficult for the government to determine the amount of tax accurately in order to attain the socially optimum level of consumption, as it is difficult to accurately measure the extent of EMC due to tangible and intangible benefits.
- As a result, overconsumption may persist or if too much tax is imposed, underconsumption may occur, and the deadweight loss increases.
- If demand for a good is price inelastic, a very high indirect tax rate would be needed to decrease the consumption of demerit goods. Such a tax will hurt income distribution, and hence equity, as indirect taxes are fundamentally a regressive tax: it takes a higher proportion of income when your income is low as compared to when your income is high.

**(C) Indirect taxation may not result in a more equitable distribution of income.**

- Indirect taxation have to be funded from taxes, and taxpayers are also consumers. If the tax revenue is used to redistribute income to only a certain group, it may not result in a more equitable distribution.

**SYNTHESIS AND CONCLUSION**

While the market may fail to achieve allocative efficiency and an equitable income distribution, it is important to always be aware that government failure can also occur, where government indirect taxation can possibly worsen resource allocation. Moreover, indirect taxation have to be funded from taxes and entails opportunity costs. It would be difficult to conclude in a sweeping manner that indirect taxation does more harm than good, given that the circumstances and context of the implementation would vary from country to country.

**Mark Scheme**

L3 (10-11)	For an answer that <ul style="list-style-type: none"> <li>• Has a <u>balanced response</u> spanning discussion on demerit goods and inequity + consider other possible arguments e.g. opportunity costs of indirect taxation</li> <li>• Depicts good understanding of question requirements with a very clear attempt to discuss both sides of the question</li> <li>• Provides sufficient rigour/analysis (including taxation diagram) to analyse</li> </ul>
L3 (9)	<ul style="list-style-type: none"> <li>• Has a balanced response (at least consider both demerit goods and inequity arguments)</li> <li>• Depicts good understanding of question requirements with a very clear attempt to discuss both sides of the question.</li> </ul>
L2 (6-8)	<ul style="list-style-type: none"> <li>• Lacks either scope or depth in coverage</li> <li>• Lop-sided analysis:                     <ul style="list-style-type: none"> <li>o Did not consider arguments in anti-thesis</li> <li>o Only considered either market failure due to demerit goods or the argument on inequity, but not both</li> </ul> </li> </ul>
L1 (4-5)	<ul style="list-style-type: none"> <li>• Descriptive answers without framework for analysis.</li> </ul>
L1 (1-3)	<ul style="list-style-type: none"> <li>• Serious conceptual errors</li> </ul>
E2 (3-4)	<ul style="list-style-type: none"> <li>• For an evaluative judgement based on economic analysis</li> </ul>
E1 (1-2)	<ul style="list-style-type: none"> <li>• For an unexplained judgment, or one that is not supported by analysis.</li> </ul>

**Question 4**

(a) Explain the main causes of inflation in Singapore in recent years. [10]

(b) Discuss the view that exchange rate policy is the best way for Singapore to achieve non-inflationary economic growth. [15]

(a)

**INTRODUCTION**

- Define inflation
- The two main causes of inflation in Singapore in recent years are demand-pull and cost-push inflation.

**BODY****Demand-pull inflation in Singapore**

Demand-pull inflation is caused by a rise in AD with no or little increase in the productive capacity of the economy, i.e. supply bottleneck.

The rapid rise in AD may be a result of spending by the households, firms, public sector and foreign sector during prolonged economic boom time. Households and firms may be spending excessively due to good economic outlook and low interest rate while exports are high due to vibrant world economic activities.

In the case of Singapore, which is heavily dependent on exports for her national income (exports are 2-3 times GDP), most of the demand pull inflation stems from rising export demand. At the same time, with rising affluence due to strong growth and a property market boom, wealth of Singaporeans increased, leading to higher consumption levels and an overall increase in AD in the economy.

Explain using a diagram how a rightward shift in AD will lead to demand-pull inflation.

**Cost-push inflation in Singapore (import-price-push inflation)**

Cost-push inflation is a result of an increase in the costs of production at all levels of output in the economy. For Singapore the main form of cost-push inflation is that of import-price-push inflation.

This is a type of inflation which originates from importing raw materials and finished goods from other countries. When other countries face inflation, the prices of goods that we import from them also rises, hence causing inflation. When prices of raw materials increase, costs of production will rise, shifting AS to the left, causing cost-push inflation.

Import-price-push inflation is especially pertinent to small and open economies such as Singapore, which possesses limited natural resources and hence need to import these necessities for consumption and production of exports that will drive trade and hence economic growth. In 2008, oil prices saw an unprecedented sharp increase (US\$147 per barrel in July 2008), together with rising food prices in neighbouring countries. Both oil and food prices have driven Singapore's inflation rate for 2008 to be 6.6%, which was 3 times the inflation rate in 2007.

**Wage-push inflation**

The government has tightened the flow of foreign labour into Singapore and increased the foreign worker levy for firms in Singapore that hire foreign labour. The tightening of foreign worker inflow has forced firms in Singapore to increase wages in order to attract more Singaporeans to take up jobs that tend to be filled by foreign labour. The increase in the foreign worker levy meant that it costs more for firms in Singapore to hire foreign labour. Both factors have led to an increase in wage costs and hence cost of production for firms in Singapore without a corresponding increase in labour productivity, resulting in wage-push inflation.

Explain using a diagram how a leftward shift in AS will lead to cost-push inflation.

**CONCLUSION**

Singapore faces both demand-pull and cost-push inflation. For cost-push inflation, imported inflation and wage-push inflation are most relevant to Singapore.

Mark Scheme

Level		Descriptors
L1	1-4	<ul style="list-style-type: none"> <li>• Conceptual errors</li> <li>• Poor or inappropriate examples given</li> <li>• Insufficient elaboration and link to AD and/or AS</li> </ul>
L2	5-6	<ul style="list-style-type: none"> <li>• Recognises both demand-pull and cost-push inflation with some attempts to apply to Singapore context</li> <li>• Attempts to link to AD and AS</li> <li>• Cap at 6m if candidate only focuses on demand-pull inflation or cost-push inflation</li> </ul>
L3	7-10	<ul style="list-style-type: none"> <li>• Excellent analysis of both demand-pull and cost-push inflation with application to Singapore context</li> <li>• Excellent link to AD and AS</li> </ul>

(b)

**INTRODUCTION**

Non-inflationary economic growth is achieved when the aggregate supply of the economy increases in tandem with aggregate demand. Aggregate supply increases when the economy experiences an increase in her productive capacity and hence her full employment level of real GDP. Therefore, when aggregate demand increases, real GDP increases while the general price level does not increase significantly. Exchange rate policy is employed by Singapore to achieve non-inflationary economic growth. However, this policy has its limitations and drawbacks and thus Singapore also employs other policies to achieve her objective.

**BODY**

**Thesis: Exchange rate policy is capable of helping Singapore achieve non-inflationary economic growth.**

**Anti-thesis 1: Exchange rate policy has its limitations/drawbacks**

Singapore is a small and open economy with few natural resources. Therefore, Singapore is heavily dependent on imported consumer goods and raw materials. Because of her small domestic market, Singapore is also heavily dependent on her export markets to boost her real GDP.

The modest and gradual appreciation of Sing Dollar would mitigate the increase in Singapore's exports with high import content in terms of foreign currency. However, the price of said exports will still rise in terms of foreign currency and hence become less price competitive in the international market.

The Monetary Authority of Singapore (MAS) pursues a modest and gradual appreciation of the Sing Dollar. When this happens, imported consumer goods and raw materials become cheaper in Sing Dollar while Singapore's exports become more expensive in foreign currency.

In addition, not all of Singapore's exports have high import content, especially in sectors like banking and consultancy. The price of such exports in terms of foreign currency would thus increase at around the same pace as the rate of the modest and gradual appreciation of the Sing Dollar.

The fall in the price of imported raw materials in terms of Sing Dollar would decrease the cost of production of firms in Singapore which produce goods and services with high import content, such as refined oil. This in turn translates into a **fall in the final price of goods and services produced in Singapore in terms of Sing Dollar**, contributing towards keeping the cost of living in Singapore at bay.

If Marshall-Lerner condition ( $PEd_x + PEd_m > 1$ ) holds for Singapore, Singapore's net exports ( $X - M$ ) are likely to decrease. This results in a downward impact on Aggregate Demand and hence real GDP. **Therefore, although import price-push inflation may be kept at bay, Singapore's actual growth may slow down.**

When these goods and services are exported, their prices in terms of foreign currency would increase due to the appreciation of the Sing Dollar, but the extent of this increase is mitigated by the fall in cost of production -> rightward shift of SRAS. This means that **the price of**

Furthermore, an appreciating Sing Dollar may **deter foreign investment** as it becomes more expensive for foreign investors to set up businesses in Singapore. Therefore, there might be a fall in the flow of foreign direct investment into Singapore, which has a **negative impact on Aggregate Demand and hence real GDP growth.**

In addition, besides import price-push inflation, there are **other sources of inflation** that Singapore also faces.

<p>Singapore's exports in terms of foreign currency would increase by a smaller extent than the rate of appreciation of the Sing Dollar.</p>	<p>Hence other policies are needed together with exchange rate policy.</p>
	<p><b>Anti-thesis 2: There are other policies that are also capable of helping Singapore achieve non-inflationary economic growth.</b></p>
	<p><u>Supply side policies to tackle wage-push inflation</u> Singapore may also face other sources of inflation such as wage-push inflation.</p> <p>Wage-push inflation occurs when wages of workers increase faster than their labour productivity. To reduce this, the Singapore government could give firms <b>more incentives such as financial grants and tax breaks to send their workers for retraining</b> to update their skills and learn new skills related to their jobs, hence increasing their productivity.</p> <p><u>Supply side policies to increase Singapore's productive capacity</u> The Singapore government could allocate funds from the budget surpluses it has accumulated over many years to provide firms with financial incentives to engage in R&amp;D to <b>increase productivity and the quality of Singapore's exports</b>. The R&amp;D efforts should also be geared towards <b>developing new technologies and more efficient production methods</b>.</p> <p>In the short run, this increase in spending on R&amp;D increases investment and government spending. This <b>increases Aggregate Demand and hence real GDP. Actual growth thus occurs.</b></p> <p>In the long run, if the supply side policies are successful, the quality of Singapore's exports increases. This increases the non-price competitiveness of Singapore's exports in the international market. Therefore, even though the appreciation of the Sing Dollar makes Singapore's exports more expensive in foreign currency, foreigners may not be deterred to purchase Singapore's exports if the <b>quality of Singapore's exports is improving</b>. As foreigners switch their taste and preferences towards Singapore's exports, they increase their demand for Singapore's exports, resulting in an increase in <math>(X - M)</math> and hence Aggregate Demand. <b>Real GDP growth is thus achieved, leading to actual growth.</b></p> <p>At the same time, the productive capacity of the Singapore economy increases. When Singapore's productive capacity increases in tandem with Aggregate Demand, <b>potential growth is achieved and demand-pull inflation is kept at bay.</b></p> <p>The Singapore government has to <b>continue to improve the infrastructure in Singapore</b>. A more efficient public transport system, wider roads and expressways increase the efficiency of transportation of goods and services within Singapore. A more efficient</p>

	<p>airport and seaport increases the efficiency of transporting goods from overseas to Singapore and from Singapore to overseas. These factors attract domestic and foreign firms to set up businesses in Singapore. When this happens, Singapore's Aggregate Demand and real GDP increases in the short run. <b>Actual growth is achieved. In the long run, potential growth is achieved</b> as Singapore's productive capacity increases.</p> <p><u>Limitations of supply side policies</u></p> <p>It remains to be seen if these supply side policies would be successful. Workers may be resistant to retraining due to their advancing age, limitation in aptitude and less than forthcoming attitude towards retraining. Long run supply side policies to improve Singapore's productive capacity have a long gestation period and may not be successful due to unforeseen circumstances that result in R&amp;D failure.</p>
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**EVALUATIVE CONCLUSION**

Exchange rate policy is best for Singapore to achieve a low inflation rate. However, exchange rate policy has its limitations and drawbacks and thus should never be used as a stand-alone policy. To achieve low inflation, actual and potential growth, exchange rate policy has to be complemented with appropriate short and long run supply side policies. Supply side policies help to further enhance Singapore's competitiveness, especially during instances where exchange rate policy may prove to be harmful to Singapore.

**Mark Scheme**

Level		Descriptors
L1	1-3	<ul style="list-style-type: none"> <li>• Serious conceptual errors</li> <li>• Answer is largely out of point</li> </ul>
	4-5	<ul style="list-style-type: none"> <li>• For a descriptive answer that is poor in or lack economic analysis</li> <li>• An answer with very limited ideas relevant to the given context, or containing some conceptual errors</li> </ul>
L2	6-8	<ul style="list-style-type: none"> <li>• Discussion based on BOTH exchange rate policy and supply side policies but underdeveloped OR <b>Excellent</b> discussion based only on exchange rate policy or supply side policies, but not both</li> <li>• Only considered SS supply side policies to address other causes of cost push inflation (besides import price push such as wage push inflation), or to increase productive capacity, but not both</li> </ul>
L3	9-11	<ul style="list-style-type: none"> <li>• Discussion is based on BOTH exchange rate policy and supply side policies (BOTH one other cause of cost push inflation besides import price push, and to increase productive capacity have to be addressed)</li> <li>• Discussion has excellent elaboration on the arguments raised.</li> <li>• Candidate pointed out that the pursuit of supply side policies also boosts Aggregate Demand and hence achieves actual growth in the short run</li> </ul>
E1	1-2	<ul style="list-style-type: none"> <li>• Relevant stand taken but with inappropriate or inadequate justification.</li> </ul>
E2	3-4	<ul style="list-style-type: none"> <li>• Relevant stand taken with appropriate and adequate justification.</li> </ul>

Hwa Chong Institution  
2014  
H2 Economics  
JC2 Prelim Exam  
Paper 1 Case Studies

Answer all questions

## Question 1

## Paper and bookstore industries in China

Table 1: Production of Paper and Paperboard (million tonnes)

Year	2008	2009	2010	2011	2012
World	389.6	370.4	394.2	400.4	400.5
China	83.7	90.1	96.5	103.1	106.3

Source: www.fao.org

Table 2: Consumption of Paper and Paperboard (million tonnes)

Year	2008	2009	2010	2011	2012
World	389.8	368.1	392.9	400.0	398.9
China	84.3	90.2	96.9	102.7	105.5

Source: www.fao.org

## Extract 1: Paper industry in China

Asia, with its robust economic growth over the past few decades, has become one of the most important markets for everything from printing and writing paper to corrugated boxes (made from paperboard) for packaging, driven by both greater domestic consumption and exports across the world.

China, as one of the world's largest exporters, has seen a surge in demand for packaging paper. She is now the largest purchaser of pulp fibre globally. Rises in per capita demand in China have basically turned the global paper market on its head. Much of this is to do with rising incomes and the burgeoning middle class.

A fragmented market made up of many outdated paper mills is a burden to a country where consumption is expected to lead the world in years ahead as more mature markets such as the United States and Europe start to witness a decline in demand. Most analysts foresee a wave of consolidation in China, but when it may happen is yet to be seen. Chinese producers have been aggressively expanding production and some have even been trying to export their products but have faced stiff resistance in the form of rules in developed markets to control the flow of paper from cheaper producers.

The Chinese government plans to consolidate the paper manufacturing industry by shutting down outdated paper and pulp fibre equipment nationwide and persuading smaller, older manufacturers to reduce capacity. 'Small mills have to shut down if they are not making money,' says Cao Zhen Lei, general secretary of the China Paper Industry Technical Association.

For big players in the market, now that they are required to retire some small assembly lines and old paper machines, it is a great opportunity for equipment modernisation to increase capacity. To shut down old equipment is a way for a company to produce new products adapted to market needs.

The new rulings will encourage new pulp fibre projects above a certain scale, to address China's pulp fibre shortage as the country is heavily dependent on imports of pulp fibre.

Source: *Asia News Monitor*, 23 April 2012 and  
*Pulp & Paper International Magazine*, 22 November 2011

**Extract 2: Bookstore industry in China****The disappearing bookstore**

'As online bookstores become more and more popular, traditional bookstores are disappearing, and a whole attitude and lifestyle is in danger of disappearing with them,' said Xue Yuan, author of the book 'Hello! The Independent Bookstores'.

Every city is home to a certain number of bookstores. And a good bookstore is usually seen as a cultural landmark within a city. In Beijing, there is All Sages Books; in Nanjing, Librairie Bookstore and in Hangzhou, Fenglinwan Bookstore. While these landmark bookstores are not in immediate danger of disappearing, many smaller bookstores are vanishing from the maps of major cities. Recently, the closure of the large private O2 Sun chain of bookstores, which once operated over 30 outlets, aroused great concern from Beijing's book lovers. The O2 Sun Bookstore is just one of dozens of 'brick and mortar' bookstores across the country that has encountered serious difficulties.

With enormous choices and no pressure to pay rent, online bookstores offer customers lower prices. Dangdang, the biggest online bookstore in China, slashed its prices by 35 percent in April and by 50 percent in May as a way to attract customers. Online booksellers now control so much of the market share that traditional bookstores are now competing for an ever-shrinking share of the market.

The demand for books remains strong. However, consumers are switching to buying books online and traditional bookstores have effectively become free exhibition platforms for online bookstores.

'Rent and employees' salaries now account for half of the total cost of a traditional bookstore. Online stores don't have these burdens,' said Lu Jinbo, a renowned domestic publisher and General Manager of Wan Rong Book Co. Ltd.

In the meantime, the market share of online booksellers has continued to expand. In addition to Dangdang, many new online vendors have entered the market.

**Traditional bookstores struggle to survive**

Facing increasing competition from online booksellers and rising cost, traditional bookstores are trying to revive their businesses. Some bookstores have begun to provide diversified services and offer space for seminars, coffee and socialising in order to win over customers.

Yu Zhenghui, public relations manager at the Xiamen-based bookstore chain Apodon, believes that if traditional bookstores want to be more successful, their businesses have to provide readers with something online retailers cannot furnish. Apodon Bookstore, instead of just selling books, provides an area in which customers can relax with comfortable sofas, coffee and free Wi-Fi. O2 Sun Bookstore also tried to establish itself as a social space but its efforts didn't yield satisfactory results. The management found that customers began coming to the bookstore only to enjoy the pleasant atmosphere and did not purchase any books.

Backed by abundant capital, big online booksellers can negotiate with publishers and secure an advantage in the retail price war. 'Traditional bookstores such as O2 Sun Bookstore have to expand their businesses to survive, but they don't have access to bank loans or other financing channels, and they don't generate enough revenue internally to expand their business. That's the reason behind their troubles,' said Lu, the publisher.

Some traditional bookstores have resorted to setting up their own online bookstores. For example, Xooyo Book, the Guangzhou-based bookstore, provides their customers with a 30-percent discount if they purchase books online. However compared to the prices offered by major online retailers such as Dangdang, the prices offered by Xooyo Book are not competitive.

Currently, with more and more traditional bookstores facing closure, many booklovers and bookstore owners are calling on the government to adopt measures to save traditional bookstores. In many foreign countries, the government provides favourable policies for traditional bookstores. For example, traditional bookstores are exempt from income tax in France; the Canadian Government provides half the expenses for the computer facilities of independent bookstores; the Japanese and South Korean governments have adopted policies which seek to establish fair competition between traditional bookstores and online retailers.

Source: *Beijing Review*, 28 November 2011

### Questions

- (a) (i) Compare China's and the world's consumption of paper and paperboard between 2008 and 2012 in Table 2. [2]
- (ii) Account for China's trend in part (a)(i). [2]
- (b) With reference to Tables 1 and 2,
- (i) explain whether China is a net importer or exporter of paper and paperboard in 2012. [1]
- (ii) use a diagram to explain how world price of paper and paperboard might have changed between 2008 and 2009. [3]
- (c) Discuss how the plans by the Chinese government to consolidate the paper manufacturing firms might affect consumers and producers. [8]
- (d) Explain how 'increasing competition from online booksellers and rising cost' (Extract 2) have affected the survival of traditional bookstores. [4]
- (e) Discuss the strategies that could be adopted by the traditional bookstores in response to the competition from online bookstores and consider whether the government should 'adopt measures to save traditional bookstores' (Extract 2). [10]

**[Total 30 marks]**

Question 2

The New Normal for China: Internal and External Shifts

Extract 3: China's Economic Growth Below the Magical 8%

For years, there's been one constant for people talking about the Chinese economy: GDP growth would exceed 8 percent. The country needed to create enough jobs for the millions of young people entering the workforce every year, and the Chinese leadership decided that anything below 8 percent would put job creation in jeopardy. Economists and investors agree that China is now entering a new era of slower growth, one where the old 8 percent figure is no longer so important. Anything much higher than 8 percent, would be 'unsustainable'.

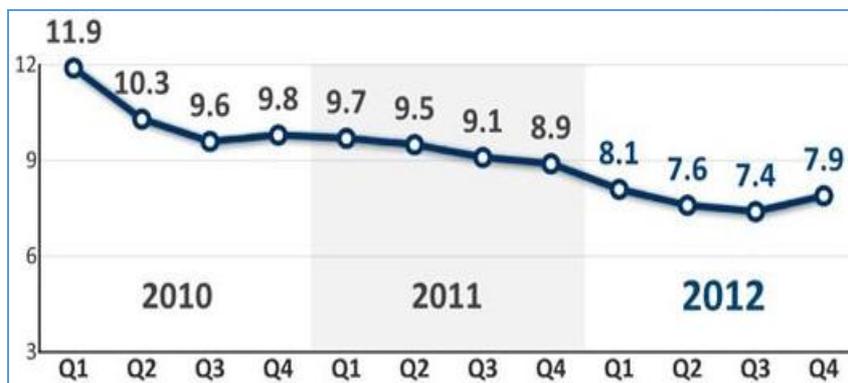
China is going through a major demographic shift, thanks to the shrinking family size and the one-child policy. As the population starts to age, job creation for millions of young people isn't so vital anymore. While China needed 10 million new jobs a year in the early 2000s, today it needs just half that number, says Jian Chang, China economist in Hong Kong with Barclays Capital. Thus the labour force as a whole is barely growing in recent years and Chinese policy makers don't need to create as many jobs as they did.

Indeed, in some parts of China there's now a labour shortage as young and low-skilled Chinese workers who once flocked to factories along China's coast find they don't need to travel so far from home to find work. Local administrators such as the Shandong provincial government raised minimum wages last week in order not to lose too many of its workers to Shanghai and Beijing.

Slower growth and higher wages are two elements of the Chinese economy's new normal. The Chinese will need to learn to live with higher inflation, says Jian Chang, who expects inflation to average about 5 percent over the next decade, compared with 2 percent over the past 10 years. She added since China does not need to worry that much about job creation, there's less urgency for the government to subsidise the cost of electricity, water, and oil for producers. China is changing from this miracle growth to a more normal growth stage.

Source: *Bloomberg*, 5 March 2012

Figure 1: China Growth in Real Gross Domestic Product (year-on-year), Q1 2010 to Q4 2012 (%)



Source: National Bureau of Statistics of China

**Extract 4: China New Jobless amidst Full Employment**

A full quarter of recent college graduates in China are unemployed, according to official statistics published by the state-run Xinhua News Agency. And many of those who are employed end up working in jobs that are nothing near what they have studied in their undergraduate days.

In fact, some argue that the prospects for educated workers are far worse than for low-skilled labourers. Factory workers are in high demand in the coastal regions of central and southern China, fueled by booming industrial, blue-collar sectors like manufacturing and construction. Wages for migrant workers rose by 14.9 percent just last year alone. While higher education has long been considered a ticket to a brighter future in China, the number of well-paying jobs has not grown as fast as enrollment.

Over the last decade, China’s college-educated population has multiplied eightfold, from 830,000 graduating in 1998 to 6.8 million in 2012, largely due to the Chinese government decision to expand the country’s higher-education system in 1999.

Furthermore, being a large country like China, it is common that some graduates are unwilling to accept or do not possess the necessary information to land their first job in other parts of the country.

Source: *Globalpost.com*, 6 August 2012

**Table 3: Selected Macroeconomic Indicators for China, 2008 to 2014**

	2008	2009	2010	2011	2012	2013*	2014*
Unemployment rate (%)	4.4	4.4	4.2	4.3	4.5	4.1	4.1
Rate of Inflation (%)	5.9	-0.7	3.3	5.4	2.7	4.4	5.1

\* forecast

Source: World Bank & Statista

**Extract 5: Don’t blame China for US Trade deficit**

China is one of the top three trading partners of the United States (US) in recent years and its bilateral trade surplus with the US hit a record US\$202 billion in 2011. Protectionist sentiments in the US are running high, with a familiar chorus calling for a major revaluation of her currency, the Yuan, to counteract China’s alleged currency manipulation intended to keep its exports cheap.

But to focus on China’s currency is to miss the real story behind the country’s trade surplus. Much of the confusion comes from focusing on the still huge US-China trade imbalances, rather than looking at the trade picture from a structural perspective. The truth is that China’s surpluses are not driving US deficits.

Two phenomena largely explain the emergence of China’s trade surpluses: surging American consumption and a maturing East Asian production network centered on China.

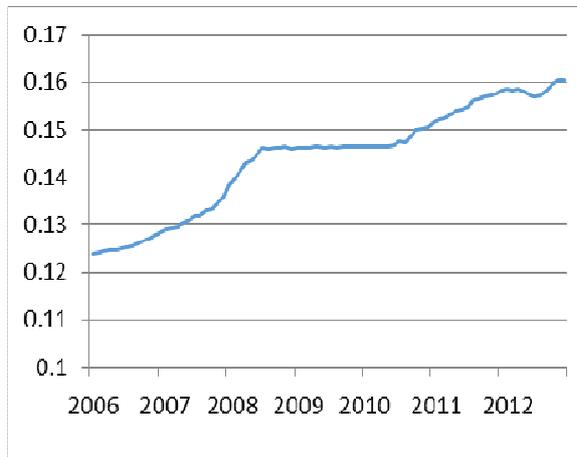
The origins and consequences of the increase in US consumption followed by growing fiscal deficits are well known. This has little to do with China but reflects US domestic realities. The US economy has now been growing for more than three years and unemployment rates had been falling. This is in part due to Obama’s fiscal ‘pump-priming’ measures as well as the Federal Reserves’ two rounds of monetary Quantitative Easing (QE).

The role of the East Asian production network began decades ago as Japan moved portions of its production base to Southeast Asia. China became central to that network with its 2001 accession to the World Trade Organisation, which offered easier access to Western markets, especially the US. Despite substantial real wage increases of about 12 percent annually in China, labor productivity rose even more rapidly, making it profitable for multinationals to use the country as the assembly plant for the world. Processing exports (those with high import content, facilitated by low import tariffs) are responsible for the entirety of its surplus. As much as eighty percent of the components are sourced elsewhere. In that respect, the US trade balance with China is really a regional, rather than a bilateral, issue.

However, the trade imbalances are unlikely to continue if the US government decides to scale back on fiscal expansion, halt any further QE policies as well as initiate the much anticipated increase in interest rates. Furthermore, analysts predict an erosion of China's current advantage if wages continue to grow excessively.

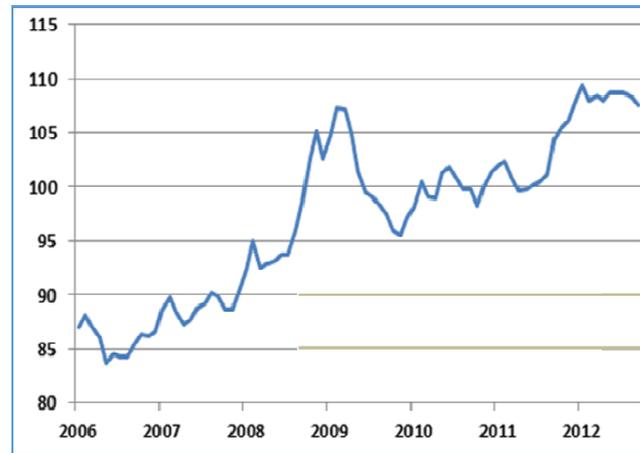
Source: *BloombergView*, 19 April 2012 and *Wall Street Journal*, 10 July 2012

**Figure 2: Exchange Rate of Yuan (US\$ per Yuan)**



Source: The Pacific Exchange Rate Service, University of British Columbia

**Figure 3: Real Effective Exchange Rate (REER)\* for Chinese Yuan, 2006 to 2012 (March 2010=100)**



Source: Bank of International Settlements

\*REER refers to the weighted average of a country's currency relative to an index or basket of other major currencies adjusted for the effects of inflation. The weights are determined by comparing the relative trade balances, in terms of one country's currency, with each other country within the index.

**Figure 4: China Monthly Trade Balance, (in US\$billions), 2005-2012**



Source: General Administration of Customs, China

[Turn over

**Questions**

- (a) Describe the trend in real Gross Domestic Product for China from 2010 to 2012. [1]
- (b) Explain the statement that ‘the Chinese leadership decided that anything below 8 percent would put job creation in jeopardy’. [2]
- (c) Account for the ‘barely growing’ labour force in China. [2]
- (d) Explain why there is ‘less urgency for the Chinese government to subsidise the cost of electricity, water and oil for producers’. [2]
- (e) (i) Explain the possible tradeoff between inflation and unemployment and comment whether it is shown in Table 3. [3]
- (ii) Discuss whether unemployment or inflation might be a concern for China as she enters the ‘new normal’ decade. [8]
- (f) (i) Explain how the change in the exchange rate of Yuan in Figure 2 affects China’s Real Effective Exchange Rate (REER) in Figure 3. [2]
- (ii) Discuss whether the external value of the Yuan is the major reason behind China’s growing trade imbalance with the United States. [10]

**[Total 30 marks]**

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*Copyright Acknowledgements:*Question 1 Table 1 & 2: [www.fao.org](http://www.fao.org), retrieved 15 August 2014

Question 1 Extract 1: Asia News Monitor, 23 April 2012 and Pulp &amp; Paper International Magazine, 22 November 2011

Question 1 Extract 2: Beijing Review, 28 November 2011

Question 2 Extract 3: Bloomberg, 5 March 2012

Question 2 Figure 1: National Bureau of Statistics of China

Question 2 Extract 4: Globalpost.com, 6 August 2012, retrieved on 12 August 2014

Question 2 Table 3: World Bank &amp; Statista

Question 2 Extract 5: BloombergView, 19 April 2012 and Wall Street Journal, 10 July 2012

Question 2 Figure 2: The Pacific Exchange Rate Service, University of British Columbia

Question 2 Figure 3: Bank of International Settlements

Question 2 Figure 4: General Administration of Customs, China

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Question 1

Paper and bookstore industries in China

Suggested Answers

(a)	(i)	Compare China's and the world's consumption of paper and paperboard between 2008 and 2012 in Table. [2]
		<p><b>Similarity:</b> <b>Both</b> China's and the world's consumption of paper and paperboard between 2008 and 2012 <b>increased</b>. [1m]</p> <p><b>Difference:</b> <b>However</b>, China's consumption increased at a <b>faster rate</b> (25.14%) than that of the world's (2.33%). [1m]</p> <p><b>OR:</b> <b>However</b>, China's consumption <b>consistently increased</b> while the world's consumption <b>fell</b> in 2009 and 2012. [1m]</p>
	(ii)	Account for China's trend in part (a)(i). [2]
		<p>China's demand for paper and paperboard increases due to rising exports/ greater domestic consumption that require packaging. Hence as demand for exports/ domestic goods increases, <b>derived demand</b> for packaging increases, leading to increasing consumption of paper and paperboard. Evidence: Extract 1 "China, as one of the world's largest exporters, has seen a surge in demand for packaging paper" or "greater domestic consumption".</p> <p><b>OR:</b> Evidence: Extract 1 "rises in per capita demand" or "rising incomes and the burgeoning middle class". When income increases, demand for paper and paperboard increases as they are <b>normal goods</b> with <b>income elasticity of demand greater than zero/ positive income elasticity</b>, hence consumption increases.</p>
(b)	With reference to Tables 1 and 2,	
	(i)	explain whether China is a net importer or exporter of paper in 2012. [1]
		In 2012, China is a net <b>exporter</b> of paper and paperboard as <b>production</b> of paper and paperboard is <b>more than consumption</b> .
	(ii)	use a diagram to explain how world price of paper and paperboard might have changed between 2008 and 2009. [3]
		<div style="text-align: center;"> </div> <p>1m for diagram</p> <p>Between 2008 and 2009, world production (supply) decreased by 19.2 million tonnes while world consumption (demand) decreased by 21.7 million tons. This is shown by a leftward shift in supply curve and demand curve from <math>S_0</math> to <math>S_1</math> and <math>D_0</math> to <math>D_1</math> respectively. [1m]. The <b>decrease in demand is more than the decrease in supply</b> hence price would likely <b>decrease to <math>P_1</math></b>. [1m]</p>

(c) Discuss how the plans by the Chinese government to consolidate the paper manufacturing firms might affect consumers and producers. [8]

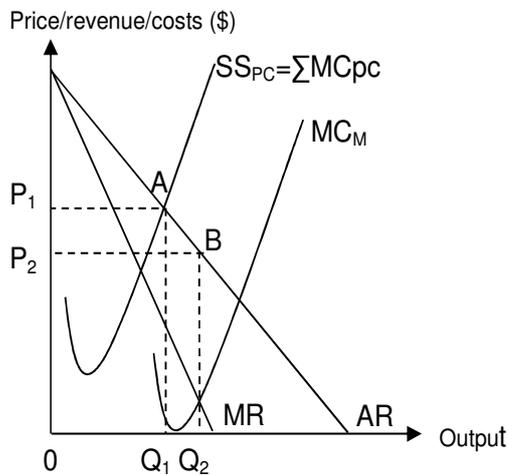
**Introduction**

- The Chinese government plans to consolidate the paper manufacturing industry by shutting down outdated paper and pulp equipment nationwide and persuading smaller, older manufacturers to reduce capacity.
- I shall be discussing why the Chinese government is encouraging consolidation in the paper manufacturing industry and explaining how this might affect consumer and producer welfare.

**Body**

**Thesis 1 – Positive impact on consumer welfare**

- By encouraging consolidation, the bigger firms could use modernized equipment to increase capacity (Extract 1) to reap substantial EOS, i.e. the lowering of unit cost of production as scale of production increases.
- Using the monopoly and PC industry diagram as a **benchmark**, the substantial EOS enjoyed by bigger firms may lead to lower prices ( $P_1$  to  $P_2$ ) due to lower cost of production ( $MC_M$ ) compared to smaller firms ( $\sum MC_{PC}$ ) who are unable to enjoy EOS due to smaller scale of production and less efficient machines.



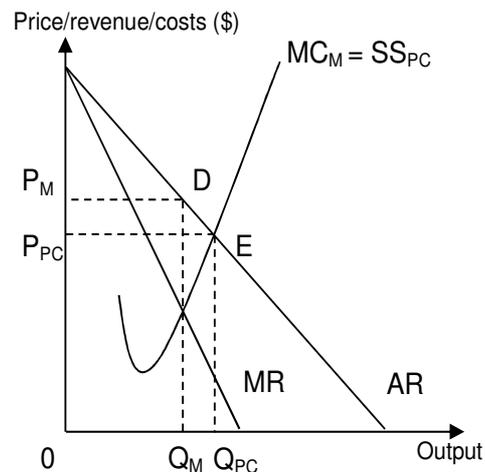
- Output may increase from  $Q_1$  to  $Q_2$ .
- **Consumer surplus increases** by  $P_1ABP_2$ , leading to improvement in consumer welfare.
- Extract 1 also mentioned about 'new products' that could be created with modernized equipment. Hence, there might be better quality and more variety of paper products, which will improve consumer welfare.

**Thesis 2 – Positive impact on producers**

When a paper manufacturing firm grows in size, it will enjoy greater cost and revenue advantages. With greater economies of scale (lower unit costs as scale of production increase), greater market shares and/or invention of new products (Extract 1: new products), AR increases and AC and MC fall, leading to higher profits.

**Antithesis 1 – Negative impact on consumer welfare**

- Assuming constant costs (or EOS is not substantial enough), by encouraging consolidation, it may lead to higher prices ( $P_{PC}$  to  $P_M$ ) and lower output ( $Q_{PC}$  to  $Q_M$ ).
- **Consumer surplus falls** by  $P_MDEP_{PC}$ , leading to worsening in consumer welfare.



**Antithesis 2 – Negative impact on producers**

Firms that are too small and needed to be shutdown would leave (Extract 1: small mills have to shut down if they are not making money).

**Stand**

- Given that the paper manufacturing industry in China is fragmented and burdened with outdated mills, consolidation might be beneficial since modernized equipment could be used to increase capacity, possibly leading to lower prices and better quality of goods for consumers.
- The increased efficiency leading to increased scale of production will also make China less dependent on imports of both pulp and recovered paper (Extract 1), hence consumers will benefit as China will be less vulnerable to fluctuations in world economic conditions.
- Moreover, since the consolidation is encouraged by the government, the government will likely monitor the situation to prevent dominant firms from abusing their monopoly power to exploit consumers.

**Mark Scheme**

L3 (7-8)	Excellent explanation with economic analysis using diagrams where appropriate. Balance view and synthesis. Justified conclusion.
L2 (4-6)	Show understanding of consolidation and explain why it could either raise or lower consumer welfare and producer welfare.
L1 (1-3)	Show understanding of consolidation but only explain one possible outcome in terms of consumer welfare and/or producer welfare.

**(d) Explain how “increasing competition from online booksellers and rising cost” (Extract 2) has affected the survival of traditional bookstores. [4]**

Increasing competition → Falling demand/ AR as “consumers are switching to buying online” due to the “lower prices” (substitutes).

Rising cost → AVC increases (rising employees’ salaries, printing costs, papers price, utilities etc.) and/or AC increases (rising AVC, rental, fixtures, etc.).

As revenue falls and cost increases, there is an **erosion of profits/ a traditional bookstore makes losses** and will not survive/ will shut down. [2m]

If its **total revenue is unable to cover total variable cost (or  $AR < AVC$ )**, the bookstore will shut-down in the SR to minimize loss. [1m]

And if its **total revenue is unable to cover total cost (or  $AR < AC$ )**, the bookstore firm will exit the industry in the LR. [1m]

**(e) Discuss the strategies that could be adopted by the traditional bookstores in response to the competition from online bookstores and consider whether the government should ‘adopt measures to save traditional bookstores’ (Extract 2). [10]**

**Introduction**

Given the increasing competition from online booksellers and rising cost, the traditional bookstores could adopt strategies that will increase the demand for their products and/or reduce the costs of production in order to survive.

<b>Thesis – Explain strategies that can be adopted</b>	<b>Anti-thesis – Evaluate strategies</b>
<p><b>1) To increase demand + reduce PED &amp; CED</b></p> <ul style="list-style-type: none"> <li>• The traditional bookstores could undertake <b>non-price competition</b> to <b>increase demand to gain higher revenue</b>.</li> <li>• At the same time, it <b>reduces magnitude of PED</b> and if it is price inelastic, any rise in price by traditional bookstores due to rising cost, will only lead to a less than proportionate fall in output.</li> <li>• Besides, it will <b>reduce magnitude of CED</b> and when online bookstores reduce price, a less than proportionate of consumers will</li> </ul>	<p><b>However,</b></p> <ul style="list-style-type: none"> <li>• the strategies might not work. Extract 2: O2 Sun Bookstore failed to raise revenue as “customers began coming to the bookstore only to enjoy the pleasant atmosphere and did not purchase any books”. Hence, even though the bookstore managed to attract more customers, they did not buy any books hence demand did not increase.</li> <li>• the increase in revenue might not be enough to offset the increase in costs (purchase of furniture, free Wi-Fi, promotional effects).</li> </ul>

<p>turn away from traditional bookstores. E.g.s:</p> <ul style="list-style-type: none"> <li>• <b>Product development</b> such as providing space for relaxation, coffee and socializing, free Wi-Fi (Extract 2: strategies are adopted by Apodon), early opening and late closing hour, sale of complementary goods like stationary.</li> <li>• <b>Product promotion</b> such as using banners and flyers as form of advertisement.</li> <li>• <b>Illustrate with a price-setter diagram</b> – initial position is subnormal profits and after a rise in AR/MR, the firm earns normal and a little supernormal profit.</li> </ul>	<p>Hence, the traditional bookstores will still shut down in the LR if <math>AR &lt; AC</math>.</p> <ul style="list-style-type: none"> <li>• the strategies will not help to change the fact that it is more convenient and there are enormous choices (Extract 2) available online. Hence demand might not increase due to consumers' existing preferences for online bookstores.</li> </ul>
<p><b>2) To reduce costs of production</b></p> <ul style="list-style-type: none"> <li>• According to extract 2, rent and employees' salaries account for half of the total cost of a traditional bookstore. Hence, the bookstore could try to reduce costs of production by hiring less workers or negotiating for lower prices of books with the publisher (to survive in the SR where <math>AR \geq AVC</math>) and/or shifting to another location with lower rent (to survive in the LR where <math>AR \geq AC</math>).</li> <li>• Illustrate with a price-setter diagram – initial position is subnormal profits and after a fall in AC/MC, the firm earns normal and a little supernormal profit.</li> </ul>	<p><b>However,</b></p> <ul style="list-style-type: none"> <li>• given the existing stiff competition, it is likely that the bookstores are already hiring the minimal number of workers to ensure the bookstores remain operational/ functional (i.e. there is little X-inefficiency) and ability to cut costs further is very limited.</li> <li>• Extract 2 mentions that big online booksellers can negotiate with publishers and secure an advantage (i.e. lower prices) because they are backed by abundant capital, hence they could bulk purchase and enjoy marketing economies of scale. Traditional bookstores, on the other hand, are not as big and many are small enterprises. Hence, there is little room for negotiation for lower prices as their orders will not be as large as the online booksellers.</li> <li>• additional cost (e.g. renovation, logistics) will be incurred when they shift to a new location. Hence, the firm will need to weigh whether the cost savings from rental is substantial enough to warrant the shift. Moreover, they may lose their current customers and have to build up a new clientele base.</li> </ul>
<p><b>Synthesis</b> Given that the strategies that the traditional bookstores could adopt are of limited effectiveness, it might be inevitable that many smaller bookstores would be forced to shut down. For bigger bookstores that have many outlets, they might want to consider closing down most of their outlets and maintain a few outlets in strategic locations to maintain their market presence and switch to sell their books online. This way, they will save on rents and employees' salaries and have bigger rooms to slash prices to be more competitive.</p>	
<p><b>Should the government 'adopt measures to save traditional bookstores' (Extract 2)?</b></p>	
<p>Government should only intervene and adopt measures to save traditional bookstores when the free market fails to allocate resources efficiently and equitably to maximise society's welfare and/or when the economy fails to achieve the four macroeconomic goals.</p> <p>In this case, Extract 2 mentions that the demand for books remains strong and consumers are only switching from buying <b>books</b> from bookstores to buying online. Hence, there is <b>no</b> indication that there is <b>underconsumption</b> of books (if the government deems it to be a <b>merit good</b>) and the government should not intervene.</p> <p><b>Or:</b> Government intervention is required as there is external benefits from having traditional <b>bookstores</b> (e.g. preserving the cultural and heritage aspects of bookstores). Hence, there is <b>underproduction</b> of bookstores and government should intervene, e.g. by exempting them from income tax, providing subsidies for expenses for the computer facilities (Extract 2 last paragraph).</p>	

However, it is difficult to estimate the EMB and hence the level of intervention.

**Or:** If there is consumers' exploitation due to **market dominance** leading to an inefficient allocation of resources and equity issues, the government should intervene. For e.g., in Extract 2 last paragraph, the Japanese and South Korean government have adopted policies to establish fair competition between traditional bookstores and online retailers. However, in China, there is intense competition and no indication of consumers' exploitation, hence the Chinese government should not intervene.

**Or:** The government should intervene if the sudden closures of many traditional bookstores is going to result in massive unemployment and/or contribute to greater income disparity. However, this is unlikely to be the case as bookstores is just one of the many retailing industries in most countries, .e.g. China, and does not contribute significantly to its GDP.

**Mark Scheme**

L3 (7-8)	Excellent explanation of strategies using economic analysis, data and diagram(s) in an appropriate manner. Good analysis of the limitations of the strategies. Good consideration on whether the government should or should not intervene based on economic analysis.
L2 (4-6)	Explain using economic analysis the strategies the bookstores could adopt. Consideration of the limitations of the strategies might not be comprehensive enough Consideration on whether the government should or should not intervene might not be based on economic analysis and might be more descriptive in nature.
L1 (1-3)	Able to give describe the strategies without much economic analysis. Limited or no consideration of the limitations of the strategies. Weak consideration of government intervention.
E2 (2)	Judgment based on analysis (justified conclusion).
E1 (1)	Mainly unexplained judgments.

Question 2

The New Normal for China: Internal and External Shifts

Suggested Answers

(a)	Describe the trend in real Gross Domestic Product for China from 2010 to 2012.	[1]
	<i>The real Gross Domestic Product <b>increased</b> from the first quarter of 2010 to the fourth quarter of 2012. [1m]</i>	
(b)	Explain the statement that ‘the Chinese leadership decided that anything below 8 percent would put job creation in jeopardy’.	[2]
	<p><i>The rise in AD leads to actual growth in the economy. As output increases, firms would demand for more factors of production including labour. [1m]</i></p> <p><i>According to the Chinese leadership, with an economic growth of at least eight percent, the increase in output in the economy would be able to create <b>enough jobs sufficiently</b> for an expanding labour force in China. [1m]</i></p>	
(c)	Account for the ‘barely growing’ labour force in China.	[2]
	<p><u><i>Explain the meaning of labour force</i></u></p> <p><i>Labour force represents the group of people of legal working age, who are either employed or unemployed (available and actively looking for work).</i></p> <p><u><i>Provide a possible reason for the slow growth of labour force</i></u></p> <p><i>Reason with reference to Extract 1:</i></p> <p><i>Demographic change in China – As the population starts to age, more people in the labour force are reaching the retirement age. With the one-child policy, the number of people entering the labour force is increasing at a slower rate than the people leaving the labour force, hence there is a slow growth in the labour force in China.</i></p> <p><i>Reason with reference to Extract 2:</i></p> <p><i>The people in China could have abandoned the hope of finding jobs, especially the college graduates. As the number of people who are actively looking for work decreased, it could possibly lead to a slow growth in the labour force in China.</i></p> <p><i>Either one reason – 2 marks.</i></p>	

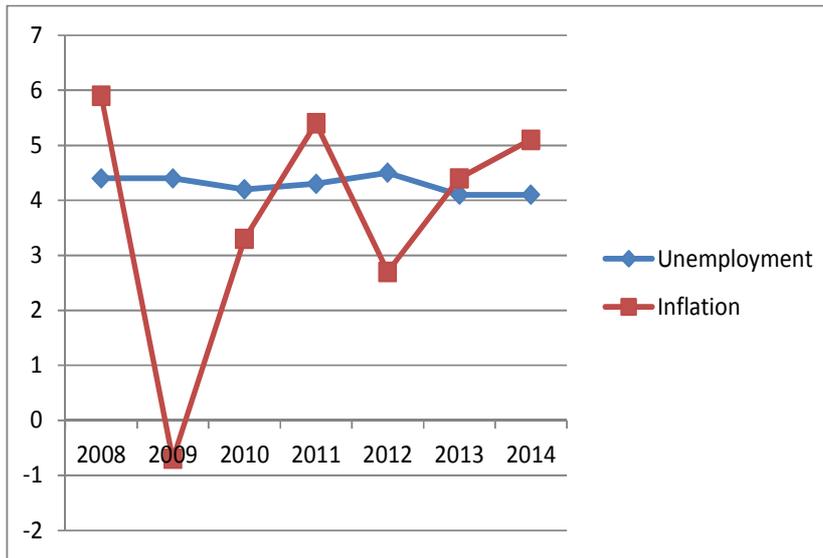
(d)	Explain why there is 'less urgency for the Chinese government to subsidise the cost of electricity, water and oil for producers'.	[2]
	<p><u>Higher cost of production affect output and general price level</u></p> <p>A higher cost of production at all levels of output in the economy will result in a fall in the SRAS, causing a rise in general price level and a fall in real national output. The rise in general price level will lead to inflation while the fall in real national output will lead to lower growth rate. [1m]</p> <p>Alternative explanation:</p> <p>A higher cost of production at all levels of output in the economy will result in a fall in the SRAS, causing a rise in general price level and a fall in real national output. The rise in general price level will lead to inflation. In addition, with a higher cost of production in the economy, firms will cut back on their production level, leading to retrenchment of workers. [1m]</p> <p><u>This is less urgency for the Chinese government to subsidise cost of electricity, water and oil for producers.</u></p> <p>Since the Chinese government is allowing for a slower growth rate and for a higher inflation rate of around 5 percent, there is no urgent need for the government to subsidise the cost of electricity, water and oil for firms to reduce the fall in SRAS. [1m]</p>	
(e)	(i) Explain the possible tradeoff between inflation and unemployment and comment whether it is shown in Table 3.	[3]
	<p><u>Tradeoff: A rise in AD will lead to a rise in inflation and fall in unemployment</u></p> <p>The increase in AD will lead to a rise in both real national output and general price level. As the level of output increases, firms would employ more factors of production, including labour. However the competition for resources (factors of production) would drive up the costs (movement along the upward sloping nature of the AS), increasing the general price level. Hence during periods of economic growth, cyclical unemployment rate decreases, while demand-pull inflation rate increases, and vice versa. This explains the <b>inverse relationship</b> between inflation and unemployment. [1m]</p> <p>[Note: Tradeoff refers to an improvement in one macroeconomic objective that leads to a worsening of another macroeconomic objective.]</p> <p><u>Table 1 did not show an inverse relationship between inflation and</u></p>	

unemployment

Table 1 shows that the unemployment rate doesn't seem to change much over the period 2008-2014 while the inflation rate ranges from -0.7% to 5.9%. Table 1 did not demonstrate such a link for China hence it suggests that unemployment and inflation are unrelated. [1m]

[Note: Do not accept inverse relationship that holds for one year. It should be for the entire time frame. Candidates should realise that unemployment had barely changed over the period. Can refer to the diagram below.]

The diagram shown below is only for your information, not required to draw this in the answer.



Comment on possible explanation of the data

Fall in SRAS will lead to a rise in both inflation and unemployment. The rise in AD and fall in SRAS could occur concurrently hence Table 1 did not demonstrate an inverse relationship between inflation and unemployment. [1m]

(ii) Discuss whether unemployment or inflation might be a concern for China as she enters the 'new normal' decade. [8]

Introduction

As China enters the 'new normal' decade, China has to grapple with particular sources of unemployment and inflation.

Information from the case material suggests that unemployment (in general) might not be a concern in China

Unemployment as a whole may not be a major issue. Table 3 shows that unemployment rate is around 4% from 2008-2012 and is also projected to be around 4% in 2013 and 2014. Moreover, there is a shortage of labour in

some provinces in China. This implies that the labour market in general could be very tight and unemployment may not be a major issue. Furthermore, as the Chinese economy achieves actual growth due to the rise in AD, more jobs would be created, leading to a rise in demand for labours, hence maintaining a low unemployment rate of around 4%. This imply that majority of the labour force are being employed and are able to maintain a minimum standard of living. Therefore unemployment might not be a concern in China.

Structural unemployment might be a concern in China

However there could be structural unemployment in China as the skills of the graduates may not be relevant to the needs of the industries in China. The number of college-educated (or university graduates) labours has increased tremendously from 1998 to 2012 due to the government decision to expand the higher-education system in 1999. However these university courses may not produce the necessary knowledge and skills that are specific to the industries, leading to high unemployment among them.

In addition, structural unemployment due to geographical immobility also present in China.

There could be government failure in identifying the relevant courses to meet the industry needs. If this is not resolved structural unemployment could persist and become a major issue.

**Evidence:** "A full quarter of recent college graduates in China are unemployed... And many of those who are employed end up working in jobs that are nothing near what they have studied in their undergraduate days."

Frictional unemployment might be a concern in China

Furthermore, with more jobs being created in the economy, it does not mean that most of the workers would be employed. This is due to imperfect information, leading to frictional unemployment in China.

**Evidence:** "being a large country like China, it is common that some graduates are unwilling or do not possess the necessary information to land them their first job in other parts of the country".

**Economic Implication:** This is because having a large number of unemployed graduates would mean that **resources are not being utilised, leading to a loss in output**. In addition, if these workers are not employed for a long period of time, they will need to seek help from the government for financial assistance, which is a **strain on the Chinese government's budget**. Besides, there could be **social problems** associated with the high level of unemployment among the graduates. The structural unemployment could be worsened in view that China is a very big country and there is geographical immobility of labours. Therefore a high level of structural unemployment might be a concern for China.

Information from the case material suggests that inflation (in general) might

be a concern in China

Table 3 shows that the inflation rate in China is maintained at around or below 5% from 2008-2011 and is projected to be 4.4% in 2013 and 5.1% in 2014. From Extract 3, the inflation rate is also expected to average around 5% over the next decade. Investors could be concerned if inflation rate is at a relatively 'high level' of 5% per year. They may need to have higher returns to obtain better real incomes.

Cost-push inflation might be a concern in China

The Chinese government has decided to remove the subsidy on electricity, water and oil for producers thus the cost of production at all levels of output in the economy would increase, leading to a fall in SRAS hence cost push inflation in China.

The inflationary pressure could be higher as there is implementation of minimum wages in some provinces, and the higher wages may not be offset by a rise in productivity.

Evaluations: However, the rise in general price level would be less substantial if the subsidy is removed gradually. This is because producers would be given ample time to develop new methods of production to cushion the rise in cost when the government removes the subsidy. Moreover, if there are appropriate policies in place to raise the labour productivity in China, such that it exceeds the rise in cost of production at all levels of output, cost-push inflation would not be a concern in China.

**Economic implications:** If the pressures from the cost side lead to a high inflation rate, which is higher than China's trading partners, China will lose her **export competitiveness**. Furthermore, if increase in wages does not match increase in inflation, **real income for households may fall**.

Conclusion

In conclusion, whether unemployment or inflation might be a concern for China depends on the extent of the consequences of structural unemployment or cost-push inflation and what policies the government can implement to address these problems.

	L3	Good discussion on the types of unemployment and inflation with sufficient or good implications to the economy. Provided good evaluations and sound judgment.	7-8
	L2	Able to explain the types of unemployment and inflation in the data with little or no implications to the Chinese economy. Little or no attempt at evaluating the material.	4-6
	L1	Weak attempt in answering the question requirement. Major conceptual errors were evident. Either unemployment or inflation is discussed, a maximum of 3 marks is awarded.	1-3
(f)	(i)	Explain how the change in the exchange rate of Yuan in Figure 2 affects China's Real Effective Exchange Rate (REER) in Figure 3.	[2]
		<p><i>REER is a trade weighted exchange rate of the country with <b>major trading partners</b> having a large weighting in the computation of the REER. <b>US is a major trading partner of China</b> (and vice versa) (Extract 5)</i></p> <p><i>Thus when China appreciated against US\$ in Figure 2 and US is a major trading partner, the REER would therefore also show an appreciation (of about 25% from 2006 to 2012), ceteris paribus.</i></p> <p><i>[Identify that US is a major trading partner of China and using Figure 2 to show that Yuan appreciating against USD and thus REER is also appreciating - 2m]</i></p>	
	(ii)	Discuss whether the external value of the Yuan is the major reason behind China's growing trade imbalance with the United States.	[10]
		<p><u>Introduction</u></p> <p><i>China has enjoyed a trade surplus against the United States (US) from 2005 to 2012, with reference to Figure 4.</i></p> <p><u><i>Information from the case material suggests that Chinese yuan may be undervalued hence this is the reason behind China's growing trade imbalance with the United States</i></u></p> <p><i>There is a common sentiment among the producers in the US to request for a major revaluation of the Yuan. This suggests that the Yuan could be undervalued against the US dollar. This would make Chinese exports relatively cheaper in terms of US dollar, while US imports relatively more expensive in terms of Chinese Yuan. Therefore a cheaper Yuan against the</i></p>	

US dollar will allow China to enjoy a balance of trade surplus against the US. This is evident as shown in Figure 4, China's trade surplus against US would continue to increase.

The Chinese Yuan has appreciated since 2005 hence this is not the reason behind China's growing trade imbalance with the United States

However the Yuan had appreciated against the US dollar by almost 30 percent since 2006 (in Figure2). This implies that the Yuan may not be too undervalued against the US dollar. Instead, Chinese exports have increasingly become more expensive in terms of US dollar hence the exchange rate movement is not the reason behind China's growing trade surplus against the US.

In addition, Figure 3 shows that the REER for Chinese Yuan has increased from 2003 to 2012 while Figure 4 shows that China's balance of trade deficit with the world excluding US has increased from 2005 to 2012. This shows that the Chinese Yuan is relatively more expensive vis-à-vis other currencies and the trade deficit with the world excluding US will therefore increase. This shows that China's Yuan may not be undervalued and the growing trade imbalance with the US may not be due to the exchange rate movement.

Other reasons to explain China's growing trade imbalance with the United States – US's high level of consumption of imported goods

There could be other reasons for China's growing trade imbalance with the US. The trade imbalance could be caused by US's high level of consumption and the use of China as a production base.

The US government has implemented expansionary fiscal policy and monetary policy through Quantitative Easing(QE). The expansionary fiscal policy is implemented via a rise in government's expenditure, leading to a rise in AD, resulting in a rise in real national output in the US. The rise in the output has increased the demand for factors of production including labour, leading to a fall in the level of unemployment. As mentioned in Extract 5, the US economy has grown for more than three years and unemployment rates had been falling. The consumers in US are very optimistic that the economy would continue to grow and thus the level of consumer expenditure is likely to rise.

This might lead to a rise in import expenditure from other countries such as China. The two rounds of QE would also encourage the US consumers to purchase more consumer durable goods such as cars, electronic goods and household appliances which are imported from China. Hence this will increase the export revenue of China, at the expense of US, creating China's growing trade imbalance with the US.

Evaluation: However the US government may decide to scale back the fiscal expansion, halt further QE policies and possibly raise the interest rates in the latter half of 2012. This would slow down the rise in the income level of the US consumers, and reduce the consumption of imported goods from China.

Hence this might reduce US's trade deficit with China.

Other reasons to explain China's growing trade imbalance with the United States – China as an export centre

China entered the World Trade Organisation in 2001 and soon became the assembly plant for the world. With abundant supply of labour that process high level of productivity, China has a comparative advantage in the production of manufactured goods, especially goods which are labour intensive. Hence many multinational companies have moved their production plants to China and use China as an export centre to export goods to the rest of the world such as the US. As China exports more goods to US, the trade surplus against US would rise, resulting in China's growing trade imbalance with the US.

Evaluation: As wages rise in China, its role as a production base for East Asia might diminish if firms decide to relocate to another place in Asia such as Vietnam or Indonesia.

Conclusion

In conclusion, it is unlikely that the external value of the Yuan is the major reason behind China's growing trade imbalance with the United States as the Yuan has appreciated against the US dollar since 2005. The trade imbalance is more likely to be caused by the rising import expenditure by the US residents and the establishment of production plants in China due to her comparative advantage.

L3	Balanced and well developed economic analysis, based on the case material. Good economic analysis of how the 3 factors attribute to the changes in trade imbalance.	7-8
L2	Some balance in answer. Able to give some economic analysis in the 3 factors to explain the trade imbalance between China and US.	4-6
L1	Descriptive answer without much reference to economic analysis. Good explanation centered on exchange rate alone, max 3 marks	1-3
E2	Provide good synthesis and a reasoned conclusion.	2
E1	Attempts to synthesize	1

Hwa Chong Institution

2014

H2 Economics

JC2 Prelim Exam

Paper 2 Essays

Answer **three** questions in total.

### Section A

**One or two** of your three chosen questions must be from this section.

- 1 The Singapore economy has grown at an average of 3% in recent years. However, there is growing concern by consumers over the higher prices of food and beverages due to a significant rise in labour and rental costs by approximately 10%.

Discuss how the combination of economic growth and rising costs might affect expenditure by consumers on hawker food and high-end fine dining. [25]

- 2 (a) Using appropriate examples, explain the difference between internal and external economies of scale. [10]  
(b) Discuss how greater free trade and internet advancement might enable a firm to reap the above economies of scale and practise price discrimination. [15]

- 3 In many countries, governments hope that their citizens would unite in cheering for their respective nations for the World Cup. Hence, viewers watch the tournament for free on free-to-air television, or pay a very low price. On the other hand, viewers in countries where pay-TV providers have the exclusive broadcast rights are charged a high price. Besides, productivity is believed to be affected by the month-long season as workers may suffer from prolonged sleep deprivation.

- (a) Distinguish between public goods and private goods and consider whether a TV broadcast signal is a public good. [8]  
(b) Discuss whether governments should intervene in the World Cup TV broadcast market. [17]

### Section B

**One or two** of your three chosen questions must be from this section.

- 4 (a) Explain how equilibrium national income is determined. [8]  
(b) Discuss the view that monetary policy is preferred to fiscal policy in raising national income during a recession. [17]

- 5 In order to raise productivity in Singapore, the Government will spend S\$2.5 billion over the next 5 years on the training of workers and also provide tax incentives to help companies grow their R&D spending. In addition, the government will raise the foreign worker levies and tighten the inflow of foreign workers so as to support companies' innovation and automation efforts.

Discuss the possible trade-offs in economic goals that may arise as the government implements these strategies to raise productivity in Singapore. [25]

- 6 Despite the risks associated with globalisation, many countries are still embracing it. This has resulted in significant changes in the patterns of international trade.

- (a) Explain possible reasons for changes in the pattern of trade between countries. [10]  
(b) Discuss if the size of the economy is the key factor in influencing its ability to gain from globalisation. [15]

**Question 1**

The Singapore economy has grown at an average of 3% in recent years. However, there is growing consumer concern over higher prices of food and beverages due to a significant rise in labour and rental costs by approximately 10%.

Discuss how the combination of economic growth and rising costs might affect expenditure by consumers on hawker food and high end fine dining. [25]

**Introduction**

Higher prices of food and beverages are a result of changes in their demand and supply.

Demand refers to the quantities of a good that consumers are willing and able to purchase at each possible price during a period of time, *ceteris paribus*, while supply refers to the quantities of a good that producers are willing and able to offer for sale at a given set of prices during a period of time, *ceteris paribus*.

Economic growth and rising costs will result in changes in the demand and supply of food and beverages respectively. In this essay we will discuss how these changes will impact consumer expenditure in the markets for hawker food and high end fine dining, using the elasticity concepts of PED and YED.

Consumer expenditure is measured by Equilibrium price multiplied by Equilibrium quantity in the market and Price Elasticity of demand refers to the responsiveness of quantity demanded of a good to a change in its own price *ceteris paribus*, while income elasticity of demand refers to the responsiveness of the demand of a good to a change in consumers' income, *ceteris paribus*.

**Body**

**Demand**

Continued economic growth will lead to an increase in average incomes, purchasing power and hence expenditure on normal goods, both necessities and luxury goods. ( $YED > 0$ )

On the other hand, for inferior goods ( $YED < 0$ ), a rise in average incomes would result in a fall in demand for them.

**Impact on hawker food**

For the upper income class in Singapore, Hawker food is likely seen as an inferior good, especially in comparison to high end fine dining. Hence for this group of people in particular, a rise in income will lead to a fall in demand for hawker food.

However, for the average income Singaporean, the impact of an increase in income on their demand for hawker food is likely be significantly less than on fine dining as they are generally more of necessities to them, especially those who are unable to cook and are unable to afford relatively more expensive dining options. ( $YED < 1$ )

Therefore as average incomes rise, demand for hawker food will rise but less than proportionately to the rise in income.

Therefore leading to a rise in consumer expenditure on hawker food.

**Evaluation**

As economic growth is expected to be modest, impact on hawker food which is a necessity for most will be limited.

In addition, even for the upper income class in Singapore, who see it as an inferior good, the potential fall in demand due to rising income is likely to be insignificant as growth is modest and confidence in the economy still not strong due to uncertainties in Europe and US.

Hence general demand for hawker food unlikely to change significantly and increase insignificantly for the majority.

### **Impact on fine dining**

Demand will rise much more significantly and more than proportionately to rise in income as it's a luxury. ( $YED > 1$ )

Therefore leading to a significant rise in consumer expenditure on fine dining.

### **Evaluation**

However, as growth is still modest and unpredictable, the switch to high end dining may not be as significant in the short run and consumers may be more likely to choose to "upgrade" to mid range restaurants instead.

In addition, consumers are unlikely to change their dining patterns so significantly in the SR, especially with income change is not significant and job security may still not be high. Hence the increase in demand may not be as significant in the SR.

### **Synthesis**

Therefore demand is unlikely to change significantly for either hawker food or fine dining in the short run.

### **Supply**

Rising costs will result in a fall in supply of both types of goods.

In addition, many have been forced to shut down too if they are not able to remain price and cost competitive compared to other competitors.

This can be seen in the increasing closing down of eateries be it hawker stalls or restaurants, including long established eateries in recent times, often due to rising labour and rental costs concerns.

### **Evaluation**

Impact on both hawker stalls and fine dining restaurants have become increasingly significant and difficult for many to absorb the higher costs anymore, leading to rising prices.

Restaurants however, may have other avenues to cut costs to lower overall costs and minimize the impact of higher rental and labour costs better. For example by replacing the need for as much labour by employing technology to take orders or to offer more attractive takeaway menus to replace the need for as much shop space.

### **Synthesis**

Hence the relative impact on the supply of hawker food and fine dining is debatable, depending on the context (as long as student justifies logically)

### **Demand and supply and total expenditure changes**

Hence demand will increase and supply will fall for both types of firms.

### **For hawker stalls**

Increase in demand is likely to be insignificant as demand for the majority of Singaporeans of it is unlikely to change significantly in the SR and hawker food can be seen as a necessity to the average Singaporean when they have to eat out.

Hence demand will rise and consumer expenditure will increase.

Supply will fall as costs of rental, labour and raw materials have generally risen and extent can be rather significant.

PED is likely to be  $<1$  for hawker food as it is largely a necessity and relatively a much smaller proportion of the average Singaporean's income.  
Hence Price is expected to rise and with a less than proportionate change in quantity as hawker food is largely a necessity to the average Singaporean, total consumer expenditure will rise.

Hence Consumer expenditure on hawker food is expected to rise unambiguously as a result of the 2 changes.

Figure 1

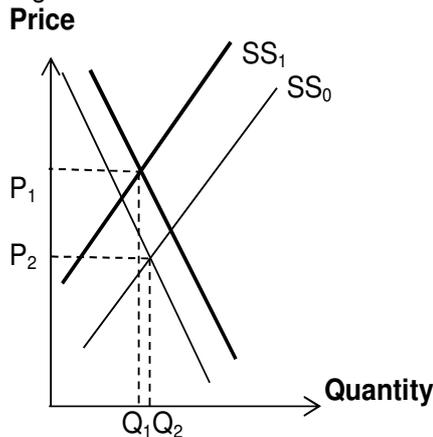


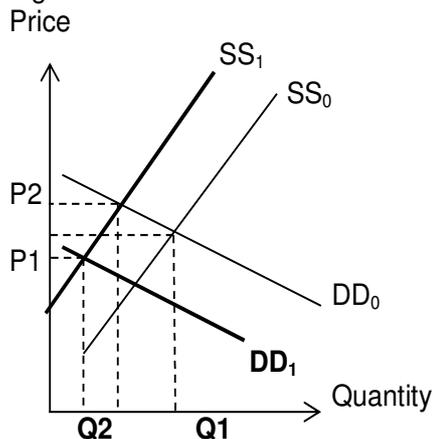
Figure 1 depicts the market for hawker food for the average Singaporean whose demand is likely to be relatively inelastic. A rise in incomes will lead to a rise in demand from  $DD_0$  to  $DD_1$  and rising costs lead to a fall in supply from  $SS_0$  to  $SS_1$ . Hence price will definitely rise but the fall in quantity is less than proportionate as PED is likely to be less than 1. Hence the expenditure of an average consumer on hawker food is expected to rise unambiguously.

However, for the high income earners who see hawker food as an inferior good, as demand falls as incomes rise, this will cause a fall in consumer expenditure.

However, PED is likely to be greater than 1 too for this group of consumers who have many more alternative dining choices available and affordable to them. Hence as supply falls due to rising costs, the price rise is likely to lead to a more than proportionate fall in quantity demanded for hawker food and hence a fall in consumer expenditure.

Hence for this group of consumers, the combined impact of both changes is likely to lead to an unambiguous fall in total consumer expenditure on hawker food.

Figure 2



With reference to Figure 2, for high income earners who view hawker food as an inferior good, demand falls from  $DD_0$  to  $DD_1$  as income rises and rising costs causes Supply to fall from  $SS_0$  to  $SS_1$ . Price will hence definitely rise. As PED is likely to be greater than 1, Quantity falls more than proportionately from  $Q_1$  to  $Q_2$ . Hence as explained above, consumer Expenditure will unambiguously fall.

**For Fine dining restaurants**

In SR, probably rising costs more significant as economic growth is still modest and unlikely to have a great impact in SR, especially with increasing crises in other parts of the world.

Hence significant switch to high end dining is not foreseeable to be significant

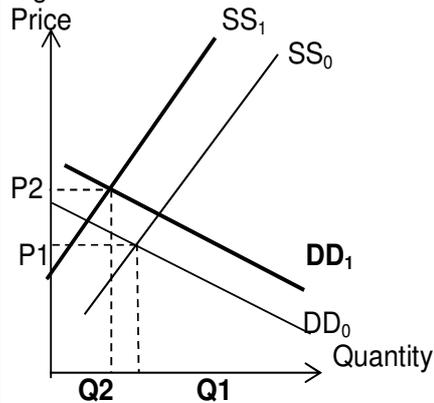
So demand is likely to rise insignificantly and consumer expenditure will hence rise too.

When Supply falls and price increase, because PED is likely to be greater than 1 for this luxury

good, quantity demanded will fall more than proportionately and cause a fall in consumer expenditure.

Therefore the impact on total consumer expenditure is indeterminate.

Figure 3



With reference to Figure 3, demand for high end fine dining rises from  $DD_0$  to  $DD_1$  as income rises. Rising costs causes Supply to fall from  $SS_0$  to  $SS_1$ . Price will hence definitely rise. As PED is likely to be greater than 1, Quantity falls more than proportionately from  $Q_1$  to  $Q_2$ . Hence as explained above, change in consumer Expenditure is indeterminate.

#### Evaluation:

In the SR, consumer expenditure is likely to fall, as the increase in demand is likely to be relatively insignificant compared to the rising costs, including in reality rising labour costs as well.

However, high end restaurants usually cater to the very rich, where fine dining may take up a small proportion of their income and to them may be a necessity for their status. Hence their demand for fine dining may be rather inelastic.

Therefore, a rise in price due to a fall in supply would lead to a less than proportionate fall in quantity demanded and hence total expenditure will rise.

In this case, coupled with the increase in demand, total expenditure for fine dining may actually unambiguously rise too.

#### Conclusion

##### Comparison and evaluation

Therefore consumer expenditure is likely to definitely increase for hawker food but fall for fine dining restaurants in the SR. In the LR, with more people getting affluent and possibly more willing to spend on luxury items as the economy stabilizes too, consumer expenditure may rise for fine dining restaurants too.

In addition, for fine dining, the combined impact on expenditure largely depends on the PED of the demand for fine dining based on the different groups of consumers.

L3 (15-21)	<p>For an answer that</p> <ul style="list-style-type: none"> <li>• Depicts good understanding of question requirements(i.e. explains clearly the overall impact on consumer expenditure for both markets using relevant elasticity concepts)</li> <li>• Provides sufficient rigour/analysis to explain the likely combined impact on consumer expenditure in both markets with enough scope to explain different possible scenarios (For Eg, hawker food being either an Inferior good or necessity to different consumers)</li> <li>• Makes a clear attempt to discuss the extent of impact of the changes on the 2 markets, showing awareness of real world circumstances</li> </ul>
L2(10-14)	<p>For an answer that</p> <ul style="list-style-type: none"> <li>• Lacks in either scope or depth in coverage (Analysis is underdeveloped). Eg does not consider extent of impact but just over generalises combined impact on consumer expenditure or does not explain combined impact of both changes clearly or overgeneralises again</li> <li>• Does not have or inaccurate graphical analysis</li> <li>• Arguments may lack clarity and/or coherence</li> <li>• With some minor conceptual errors</li> </ul>
L1 (1-9)	<ul style="list-style-type: none"> <li>• For an answer that shows little understanding of the impact of economic growth and rising costs</li> <li>• Or uses the wrong framework, for example the Cost revenue framework instead.</li> <li>• Or has major conceptual errors or does not bring in elasticity at all or does not use it appropriately</li> <li>• Or only explains changes in demand and supply and the market but little coherent explanation of impact on PxQ</li> </ul>
E2 (3-4)	<ul style="list-style-type: none"> <li>• For an evaluative judgement based on economic analysis on the <b>relative</b> impact of the changes on the 2 markets</li> </ul>
E1 (1-2)	<ul style="list-style-type: none"> <li>• For a summary of the impact on the 2 markets with minimal judgment/comparison, or one that is not supported by analysis.</li> </ul>

**Question 2**

- (a) Using appropriate examples, explain the difference between internal and external economies of scale. [10]
- (b) Discuss how greater free trade and internet advancement might enable a firm to reap the above Economies of scale and practice price discrimination. [15]

(a)

**Introduction**

Economies of scale refers to the fall in unit costs of production as the scale of production increases

Internal Economies of scale refers to a fall in unit cost of production when the firm increases output by expanding its scale of production while External Economies of scale refers to External economies refer to the fall in unit cost of production experienced by the firm as a result of growth in the industry for every level of output.

**Examples of IEOS due to expansion of the firm**

◆ TECHNICAL (PLANT) ECONOMIES

Technical or plant economies are costs savings arising because of the large size of a factory.

1. Specialisation and Division of Labour

- ◆ As scale of production expands, there is greater scope for specialization of man & machines.
- ◆ Specialization allows the production processes to be broken down into simpler and repetitive processes.
- ◆ With specialisation and division of labour, less training is needed and workers can be more productive in their particular job and there is less time loss in workers switching from one operation to another and thus lowering unit costs.
- ◆ For example, the assembly lines for car manufacturing allow workers to concentrate in simple and repetitive processes which increases efficiency, for example some will specialise in the installations of hood while others in engine and wheels.

2. Indivisibilities

- ◆ Certain machines come only in fixed and large sizes; they are indivisible. Only large firms will be able to utilize these machines more efficiently.
- ◆ The most obvious example is machinery. A firm producing on a large scale will be able to spread the huge capital outlay of the machine over larger output levels, thereby lowering unit costs.

3. Research & Development

- ◆ A large firm will have the resources to support research leading to the development of better products & cheaper techniques of production and with the large scale of production, it is able to spread the huge R&D costs over a large output, thereby lowering unit costs.
- ◆ For example, a supermarket chain such as NTUC Fairprice and Sheng Siong can invest in technology that improves stock control. It might not, however, be viable or cost-efficient for a small grocery shop to buy this technology.

◆ NON-TECHNICAL (NON-PLANT) ECONOMIES

◆ Marketing Economies

1. Bulk Purchase

- ◆ Large firms have bargaining advantage and are given a preferential treatment by their suppliers because they buy raw and processed materials and components in bulk.
- ◆ Bulk buying of raw materials enables a large firm to obtain the goods at lower costs & better terms with respect to quality & delivery, thereby lowering unit costs.
- ◆ A good example would be the ability of the electricity generators to negotiate lower cost when negotiating coal and gas supply contracts. The major food retailers also have buying power when purchasing supplies from farmers and other suppliers.

2. Large Scale Advertising

- ◆ For large firms, although the advertising expenditure may be substantial, the advertising cost per unit may be lower than that for a smaller firm because of the larger output level.
- ◆ For example, a one-page advertisement in the Straits Times could be \$10,000 per day. Big supermarkets such as NTUC Fairprice with 100 outlets in Singapore may put an advertisement for its groceries. The average cost per outlet is \$100. Compared to a small provision store that has to bear the entire cost on its own.
- ◆ Administrative & Managerial Economies
- ◆ Generally, administrative costs will not rise in proportion to the size of an order. For instance, administrative costs will not be much higher for an order of 1000 units compared to an order of 100 units. Thus, the cost of administration per unit of output, spread over a larger output, is much reduced.
- Each managerial role can also be allocated to a specialist in that field. Large firms can buy management services and retain the best management with attractive pay. This would result in higher productivity and lower turnover costs.

◆ Financial Economies

- ◆ A large firm, with a higher sales volume and more assets to offer as collateral, is deemed by lenders to be more credit-worthy compared to a small firm.
- ◆ Hence banking & financial institutions are more willing to offer loans or extend credit to large firms.
- ◆ In addition, large firms also enjoy better terms (lower interest rates) when they borrow large amounts, lowering unit costs.
- ◆ Large firms can also raise funds by issuing shares to the public, which is a cheaper alternative to borrowing from the banks, as no interest payments are incurred.
- ◆ For example, a newly established neighbourhood bubble tea store would have a harder time getting a microloan of \$100,000 at a low interest rate than a large company that is able to get a loan worth a few million dollars.

**External EOS**

Economies of Concentration

These economies arise when many firms carrying out similar activities are located very close to one another, i.e. concentrated together. For example, many chemical firms are located in Jurong Island in Singapore.

### **Trained workforce**

As the industry expands, the demand for labour with the necessary skills increases. Training schools may be set up, which means that a pool of skilled workers is readily available and thus reduce costs that are originally incurred by firms to train their employees.

### **Better Infrastructure**

Due to concentration of industry in the region, facilities such as better transport, banking & telecommunication systems may be set up to serve the needs of the industry, thereby lowering operating costs.

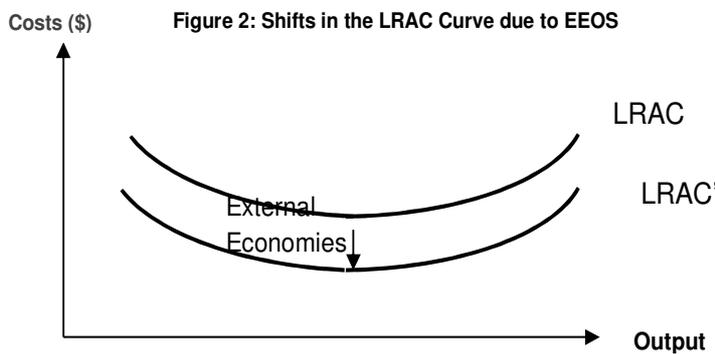
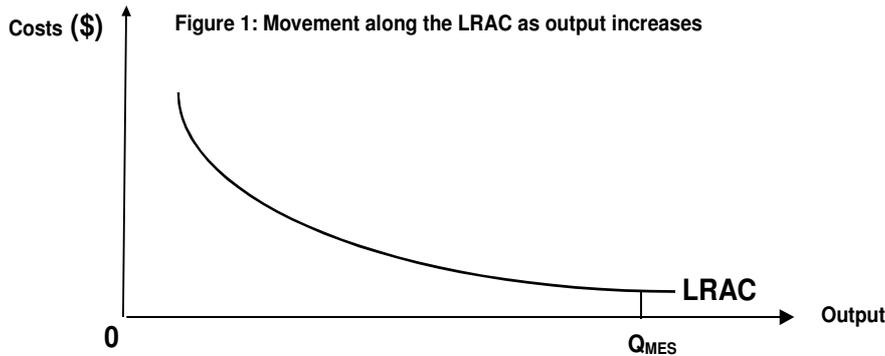
### **◆ Economies of Disintegration**

When an industry is heavily localised, it becomes possible for firms to split up the production process and specialise in a single process or the manufacture of a single component. As the components are mass produced to supply the whole industry, they can be produced and supplied at a much lower costs.

For example, a range of firms can specialise in the production of different inputs for the manufacture of cars, such as seat belts, tyres and exhausts. These firms can provide their output at lower prices to the main (car) industry, because specialisation allows the subsidiary firms to produce at a larger scale and therefore enjoy greater economies of scale.

**Graphical Illustration**

Graphically, IEOS gains by the firm are represented by a downward movement along the firm's LRAC (Figure 1) as the firm increases its output up to its minimum efficient scale quantity,  $Q_{MES}$ , whilst EEOS gains by the firm are represented by a downward shift of its entire LRAC curve as the firm enjoys lower costs regardless of its level of output. (Figure 2).



**Mark Scheme**

LEVELS	DESCRIPTION	MARKS
3	Clearly explains the difference between IEOS and EEOS and provides appropriate examples (3-4) of both IEOS and EEOS With clear graphical illustrations for both	7-10
2	Only either concept well explained with examples or both explained with examples but with conceptual errors or no or inaccurate graphical illustrations <b>Or</b> accurately explained with Graphical illustrations but lacking sufficient appropriate examples (only 1-2)	4-6
1	Major conceptual errors with little coherent explanations No examples at all or examples are irrelevant or inappropriate	1-3

(b)

### **Introduction**

Further on from part (a), we will now discuss the extent to which free trade and internet advancement has either enabled or hindered firms to reap the above EOS as well as practice price discrimination.

Price discrimination is the practice of charging different prices for different groups of consumers for the same product or for different units of it and it is not due to differences in cost.

The aim of the firm is to increase revenue and hence profits in comparison to when a uniform price is charged.

In order to practice price discrimination, the firm must be able to meet 3 conditions:

The firm must have a degree of monopoly power so that consumers who are charged discriminatory prices find it difficult to turn to an alternative supplier who might offer lower prices, it also must be able to segregate the market into separate and identifiable groups. These groups may be separated by geographical boundaries, age group etc. Lastly, Different buyers must have different degrees of willingness to buy a product and this is reflected by their different price elasticities of demand.

	Reap EOS		Practice Price Discrimination	
	(+)	(-)	(+)	(-)
<p><b>Free Trade</b></p> <p>Refers to the scenario of the lowering or absence of trade barriers between trading partners. Eg. Less import tariffs or quotas</p>	<p><b>Opportunity for firms to expand and reap EOS:</b></p> <p>Free trade enables firms to gain access to a larger export market</p> <p>Hence this enables them to increase their scale of production and reap more internal economies of scale</p> <p><b>Industry potentially grows bigger:</b></p> <p>If free trade enables countries to build up a new comparative advantage on certain goods and services and the industry grows as a result,</p> <p>This may enable the firms to enjoy external economies of scale due to the expansion of the industry.</p>	<p><b>Firm may face more competition from foreign producers</b></p> <p>Greater access to imports for consumers may lower their demand for the domestic firms.</p> <p>Hence the domestic firms may have to lower their scale of production or even face the danger of shutting down if they are not able to be competitive in terms of price and quality in the face of increased foreign competition.</p> <p>In addition, free trade has led to different countries either gaining a new Comparative Advantage in certain industries or certain countries losing their Comparative Advantage in their sunset industries, like low end manufacturing in USA and UK for example, as they fail to remain competitive compared to other</p>	<p><b>Opportunity for firm to expand overseas</b></p> <p>If there are fewer substitutes in the new overseas market or the good is of significantly better quality or a lot more popular than the domestic equivalent, then the demand for the good may be relatively more inelastic in the foreign market compared to domestically.</p> <p>Hence potentially enabling the firm to practice price discrimination if they now have 2 markets of different PEDs for their product.</p> <p>As firms reap EOS as per above, they will have lower variable costs and higher output. They may then be able to expand their market share by selling more domestically too due to the now lower price and</p>	<p><b>Harder to segment the markets based on Price elasticity of demand and geographical boundaries</b></p> <p>However, there may also be erosion of monopoly power as firms face more competition due to increase in imported substitutes from foreign producers.</p> <p>This will make their demand more elastic and make it harder for them to practice price discrimination.</p> <p>In addition, with greater exchange of goods and services between countries, it will make it harder for firms to charge different prices by segmenting the market by geographical boundaries as consumers can now have greater access to the good from other countries, making it harder to prevent seepage and practice price discrimination by</p>

		emerging economies in particular. Hence if the sunset industries are shrinking, it may potentially lead to the firm reaping less external economies of scale instead.	higher output. Hence firms can potentially gain more monopoly power better enabling them to practice price discrimination.	geographical boundaries.
<b>Possible evaluation</b>	<p><i>The extent to which free trade enables firms to reap economies of scale, largely depends on the nature of the product as well as the type of market structure the firm operates in.</i></p> <p><i>For example, Natural monopolies that cater entirely to local consumers like Utilities or SMRT are unlikely to significantly benefit from free trade, though they may benefit from relatively cheaper/ greater variety of raw materials from it. Niche markets that only cater to localised demand or do not expand because of their specialised/ customised appeal, again may not be as greatly impacted by free trade and access to foreign markets.</i></p>		<p><i>Again the impact on a firm's ability to practice price discrimination largely depends on the nature of the firm's product and the market structure they are in.</i></p> <p><i>For example for Natural monopolies that are largely controlled by the government, from public utilities to public transport, etc they may not venture into overseas markets in the first place and their prices are largely controlled, hence limiting the change in their ability to practice price discrimination even with free trade. Often, these goods are also not traded between countries.</i></p>	
<p><b>Internet Advancement</b></p> <p>Has led to easier access to information and easier access to consumers and producers worldwide as it practically makes purchase and sale of goods and services borderless if they can be exchanged online</p>	<p><b>Internet advancement</b></p> <p>has made the exchange of goods and services nearly Borderless between consumers and producers across countries.</p> <p>This is likely to increase the demand for firms as they can easily reach out to the worldwide consumer market</p> <p>If this increased demand makes the firms more</p>	<p><b>Firms will face increased competition as consumers have easier access to overseas producers and more substitutes</b></p> <p>Hence this may actually lead to a fall in demand for the firm, potentially leading to firms cutting back on their scale of production instead and hence being less able to reap internal economies of scale.</p>	<p><b>Enables firms to have better identification of the market</b></p> <p>Firms are more able to identify different groups of consumers easily, for example those whose demand is more price-inelastic due to last minute booking or their age simply through their login details that may be auto generated online.</p> <p>Internet advancement</p>	<p><b>Consumers have easier access to rival's products and information</b></p> <p>However, it may be harder to have market segmentation from separation by geographical boundaries across borders/countries, as it is now easier for consumers in one country to sell to another consumer in a different country.</p> <p>Hence the ability of the firm to prevent seepage and hence their</p>

	<p>profitable and more firms are attracted to the industry, leading to an expansion of the industry, the firms may potentially be able to reap external economies of scale too.</p>		<p>also makes it easier to change prices offered relatively effortlessly and instantaneously, enabling the firm to practice price discrimination more easily. For example airlines can pre-set the higher fares for those who book last minute and lower for those who buy the tickets in advance based on their login period.</p>	<p>ability to practice price discrimination may be weakened.</p> <p>In addition, consumers also have much easier access to information of rival companies and can much more easily compare prices and product details online rather than have to travel from shop to shop. Hence Knowledge is less imperfect and easier comparison of prices make it harder for the firm to price discriminate between different groups of consumers</p>
<p><b>Possible evaluation</b></p>	<p><i>The reach of the internet and especially online shopping has definitely increased exponentially over the years as the internet age has taken root over the last 2 decades. With more companies increasing their online presence, the impact of the internet for firms is likely to increase, especially as internet security continues to be tightened.</i></p> <p><i>However, many consumers still prefer the personal touch of face to face purchases. They may also worry about fraud and the inability to test the products before purchase. Hence the extent of the expansion of the internet to benefit firms depends on the nature of the product, as well as how consumers view the security of the internet environment.</i></p>		<p><i>With the extensive use of search engines and many more firms using the online platform to market their products, increased ease of access to information will have an increasingly significant impact on firm's pricing and how they may have to be more aware of their rival's strategies to remain competitive</i></p>	

**Conclusion (Final Judgment)**

The impact that internet advancement and free trade has had on firms ultimately depends on the type of good or service they provide, as well as the type of market structure the firm is in. Generally industries that allow for mass production and easy marketing and transporting across boundaries have seen much growth due to both free trade and internet advancement as many have taken the opportunity to expand overseas or have an internet presence. For example, technological products or standard manufactured goods.

However, there will always be industries that focus on localised demand or the personal touch and hence may not expand despite the increase in free trade or may not see the need for an online presence. For example niche markets like antiques, jewellery or public utilities and many of our natural monopolies.

Therefore, the extent of the impact of free trade and internet advancement varies significantly across different industries.

**Mark Scheme**

LEVELS	DESCRIPTION	MARKS
3	<p>An answer that:</p> <p>Clearly explains the possible impact of both free trade and internet advancement on the firm's ability to reap EOS and practice price discrimination</p> <p>A rigorous and broad analysis of all aspects of the question with realistic examples</p>	8-11
2	<p>An answer that:</p> <p>Only explains either free trade or internet advancement well or looks at the impact of both changes but only links to either reaping EOS or the ability to practice PD well and may be limited in realistic examples</p> <p>May have some minor conceptual errors in some of the key</p>	5-7

	<p>concepts in the question or is very theoretical with minimal realistic examples</p> <p>Or link to reaping EOS or practicing PD not well explained/ clear</p>	
1	<p>Major conceptual errors with little coherent explanations</p> <p>No examples at all or examples are irrelevant or inappropriate</p> <p>Missing link to key concepts in the question</p>	1-4
E2	A conclusion justified with economic analysis	3-4
E1	An unjustified conclusion that does not attempt to explain the extent of the impact of both changes	1-2

**Question 3**

In many countries, governments hope that their citizens would unite in cheering for their respective nations for the World Cup. Hence, viewers watch the tournament for free on free-to-air television, or pay a very low price. On the other hand, viewers in countries where pay-TV providers have the exclusive broadcast rights are charged a high price. Besides, productivity is believed to be affected by the month-long season as workers may suffer from prolonged sleep deprivation.

- (a) Distinguish between public goods and private goods and consider whether a TV broadcast signal is a public good. [8]
- (b) Discuss whether governments should intervene in the World Cup TV broadcast market. [17]

<b>INTRODUCTION</b>
Public goods are those which there are non-rivalry and non-excludability in consumption whereas private goods are rival and excludable.
<b>BODY</b>
<u>Distinguish: Non-rivalry vs rivalry</u>
A public good is non-rivalry in consumption, while a private good is rival in consumption.
Non-rivalry in consumption: an additional person consuming the goods does not diminish the

amount available to others. Hence, the marginal cost of providing the good to one more person is zero. If the marginal cost is zero, the efficient price to charge should be zero ( $P = MC$ ). If a price were charged, there would be a welfare loss to society. But no private firms whom are assumed to be profit-motivated would be willing to supply the good if the price is zero!

Streetlights: an additional person using the streetlight does not mean the light becomes dimmer. On the other hand, a private good like a hamburger, once eaten, there is one less for the next person.

Distinguish: Non-excludability vs excludability

A public good is non-excludable in consumption, while a private good is excludable

Non-excludability in consumption: Once provided, it is not possible / is costly to prevent non-payers from consuming the good, leads to the free-rider problems where consumers would rather not pay.

Streetlights: once street lights are provided, it is not possible / is costly to collect payments from users. Hence, non-payers could also get to enjoy the good. On the other hand, a consumer who refuses to pay for the hamburger can easily be excluded from consuming it.

TV broadcast signal is not a public good due to excludability.

Applying to TV broadcast signal

TV broadcast signals are non-rival since quality of signal is not degraded for additional viewers, but it is excludable, relatively easy for broadcasters to scramble the signal and charge households for a descrambler.

**CONCLUSION**

Since a TV broadcast signal is excludable, it is not a public good.

**Mark Scheme**

Level	Descriptors	Marks
L3	<ul style="list-style-type: none"> <li>• Clear distinction between private and public goods. Use of relevant examples to support analysis.</li> <li>• Thorough analysis of why TV broadcast signal is not a public good</li> </ul>	7-8
L2	<ul style="list-style-type: none"> <li>• Some analysis of why TV broadcast signal is a public or private good, though points are not convincing/inaccurate.</li> <li>• If students did not attempt to distinguish (horizontally), but explained instead (vertically), maxed at 6 depending on quality.</li> </ul>	4-6
L1	<ul style="list-style-type: none"> <li>• Smattering of points, did not use the economic terms non-rival and non-excludable</li> <li>• Descriptive answer.</li> </ul>	1-3

b)

**Introduction**

Allocative efficiency requires production to the point where social welfare is maximized, where the sum of the consumer surplus and producer surplus is at the highest. Market

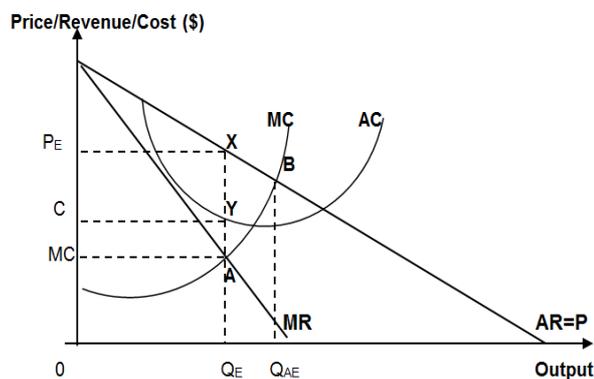
failure occurs when free markets, operating without any government intervention, fail to allocate scarce resources efficiently and hence social welfare is not maximised.

Whether or not the government should intervene in the TV broadcast market for World Cup will depend on whether the free market can satisfy the goals of both efficiency and equity.

**Thesis: Governments should intervene to promote allocative efficiency and equity.**

Body 1: Market dominance

Pay-TV providers, example SingTel in Singapore, have the exclusive broadcast rights, leading to market dominance problem.



- With reference to the diagram below, pay TV providers charge a price higher than marginal cost ( $P_E > MC$ ) at profit-maximising output,  $Q_E$  at  $MR=MC$  where  $MC$  is rising. As a result, they earn high supernormal profits of  $P_EC YX$ .
- Since price is greater than  $MC$ , it means the consumers place a higher value of additional units of the good produced than the opportunity costs of the firms producing it.
- So it is still possible to allocate resources in such a manner as to make someone (the consumer) better off without making someone else (the firm) worse off till the allocative optimum output  $Q_{AE}$  where  $P=MC$ .
- Thus, there is an underproduction of  $Q_E Q_{AE}$  causes a deadweight loss of area of  $ABX$ .
- For this underproduction of  $Q_E Q_{AE}$ , the incremental welfare gain is represented by the area  $BXQ_E Q_{AE}$  while the incremental cost is  $BAQ_E Q_{AE}$ . And benefits outweigh costs, the society suffers from a welfare loss of  $ABX$  for  $Q_E Q_{AE}$  of goods not being produced.

**Type of Government intervention:** Govt can use price regulation, MC pricing, to force the Pay-TV providers to charge  $P = MC$ .

Body 2: Merit good and positive externalities

Watching sporting broadcast is seen as a merit good, especially if your country has qualified for the World Cup since it can improve social unity, leading to greater cooperation among the different racial groups and the entire economy can benefit.

To show depth, students should explain clearly:

- Individual citizen only takes into account her **PMB** and **PMC** of watching, examples of **PMB** would be her own utility in watching.
- However, there is **EMB**, through improvement in social unity; for example, this might lead to greater cooperation among different racial and ethnic groups.
- The amount of watching would be where  $PMB = PMC$ .

- However AE requires  $SMB = SMC$ .
- There would be under consumption of WC TV broadcast, leading to deadweight loss.

Evaluation: Less relevant for Singapore since we did not qualify.

**Type of govt intervention:** Justifies govt subsidies and show how such subsidies lowers PMC through diagram, achieving a more efficient resource allocation.

Body 3 Non rivalry may mean that the govt should intervene so that a zero price can be charged

Non-rivalry means  $MC = 0$  for the additional viewer and hence charging  $P = 0$  helps to achieve AE. Since, private firms are profit maximizers, they will not operate in a market that does not allow her to charge a price.

**Type of govt intervention:** Governments can use tax-payers money to finance.

Body 4: Promoting equity

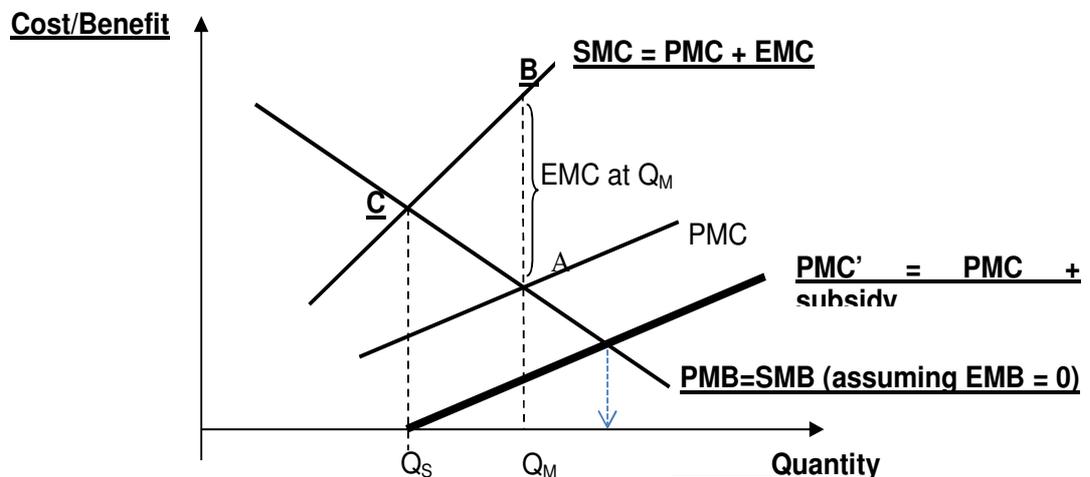
Its socially desirable to have rich and poor able to enjoy sporting events. If dominant firms like Singtel is allowed to charge too high a price, those who are poorer would not be able to signal their wants for WC watching to the market mechanism, leading to an unsatisfactory allocation of resources.

**Type of govt intervention:** Govts can subsidize public viewing, for example, in Singapore, everyone can watch in community centres for free.

**Anti-thesis: Governments should not intervene due to possible govt failure from intervention**

Body 1: Governments may worsen the overconsumption due to possible negative externalities..

In Singapore's case, it may lead to a worsening productivity due to sleep deprivation, if the Singapore govt further subsidize world cup broadcast. *(If students already explained positive externalities in depth in thesis, there is no need to explain negative externalities here with the same level of detail but if they did not, then they can do that here.)*



Body 2: European countries may want to cut government subsidies due to increasing opportunity cost of funding such broadcasts.

Using tax revenue to finance free World Cup viewing takes away government funds for healthcare or the current economic restructuring. In the light of Euro crisis and the need for many of the European countries to undergo austerity, this may be especially important for them.

Body 3: Lack of dynamic efficiency if Sg government intervene to prevent Singtel from charging monopoly prices:

If government sets AC or MC pricing for pay-TV broadcasters like SingTel, it could result in less supernormal profits and hence affect dynamic efficiency. Example, Singtel may not be able to do RnD on viewing WC broadcast on mobile devices.

### Synthesis and conclusion

For Singapore's case, if she views gambling as a serious problem, allowing Singtel to charge a higher price may reduce the viewing of World Cup and hence correct that negative externality (2<sup>nd</sup> best theory). So there may not be a need for further govt intervention in the case of Singapore.

For European countries, even though households may not have to pay for World Cup broadcast, it may not necessarily be due to government subsidies. It could be the firm's profit max decision to only charge for advertisement.

*Allow any well justified conclusion*

### Mark Scheme

Level	Descriptors	Marks
L3	For a well-developed answer, with a clear central structure that is able to explain why governments in some countries may intervene while others may not.	10-13
L2	For an under-developed answer that is able to explain why governments in some countries may intervene while others may not.	
	A balanced discussion with at least 2 sources of market failure well discussed	8-9
	At least 1 source of market failure well discussed	6-7
L1	A smattering of valid points but does not indicated that the meaning of the question has been understood	1-5
E2	For an evaluative assessment based on economic analysis.	3-4
E1	For an unexplained assessment or one that is not supported by economic analysis.	1-2

**Question 4**

- (a) Explain how equilibrium national income is determined. [8m]  
 (b) Discuss the view that monetary policy is preferred to fiscal policy in raising national income during a recession. [17m]

(a)

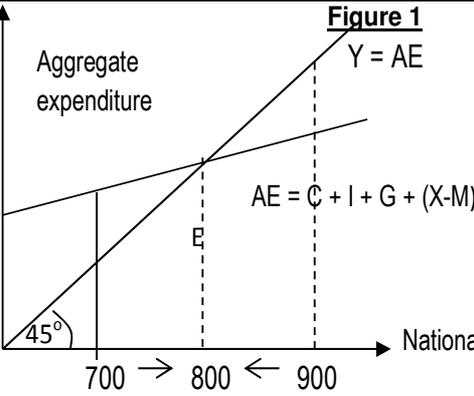
INTRODUCTION	
Define equilibrium level of national income	
BODY	
Approach 1	Approach 2 (Alternative)
Use of $Y=AE$ diagram or numerical table to illustrate concept of equilibrium	Use Circular flow of income in a 4-sector economy to explain how injections and withdrawals interact to achieve equilibrium level of income
CONCLUSION	

**Suggested Answer (Approach 1):**

Explain how equilibrium national income is determined.

[8m]

<b>INTRODUCTION</b>																													
<b>Key Words</b>	Equilibrium national income refers to a situation where there is no tendency for national income to change. It is the level of income when the plans of all economic agents in the economy are fulfilled and consistent with each other.																												
<b>Issue and Approach</b>	<p><b>Approach 1</b></p> <p>The income-expenditure approach to income determination can be use to explain how the economy arrive at the equilibrium level.</p> <p><b>Approach 2* (see appendix for answer)</b></p>																												
<b>BODY (Approach 1)</b>																													
<b>State</b>	The income-expenditure approach to income determination states that in an open economy with a government sector, the equilibrium national income occurs where national income, $Y_e = \text{aggregate expenditure (AE)}$																												
<b>Explain &amp; Elaborate</b>	<p>Aggregate expenditure is the planned total expenditure on goods and services, and in a four-sector economy; this comprise of consumption expenditure, planned investment expenditure, government expenditure and net exports. Investment (I), government expenditure (G) and the value of exports (X) are assumed to be autonomous, i.e. independent of the level of income. The table below provides a numerical example for the determination of equilibrium national income.</p> <p style="text-align: center;"><i>Table 1: National income and components</i></p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th>National Income Y (\$b)</th> <th>Consumption C (\$b)</th> <th>Investment I (\$b)</th> <th>Govt Spending G (\$b)</th> <th>Exports Rev X (\$b)</th> <th>Imports Expenditure (\$b)</th> <th>Agg Expenditure (\$b)</th> </tr> </thead> <tbody> <tr> <td>700</td> <td>475</td> <td>200</td> <td>50</td> <td>100</td> <td>75</td> <td>750</td> </tr> <tr> <td>800</td> <td>537.5</td> <td>200</td> <td>50</td> <td>100</td> <td>87.5</td> <td>800</td> </tr> <tr> <td>900</td> <td>600</td> <td>200</td> <td>50</td> <td>100</td> <td>100</td> <td>850</td> </tr> </tbody> </table> <p>As shown in diagram (Table 1), the equilibrium national income occurs at <math>Y=800</math>, where aggregate expenditure is equal to national income.</p> <p>If national income is at \$700b planned AE exceeds planned output. This means that goods and services are being bought at a faster rate than are being produced. There is a fall in unplanned inventories (stocks) by \$50b. When the firms see this, they will take steps to expand output. They will hire more workers. This will cause output, income and employment to rise. National income will rise until the equilibrium position E is reached when planned AE equals planned output.</p> <p>On the other hand, if national income is at \$900b, the planned output exceeds</p>	National Income Y (\$b)	Consumption C (\$b)	Investment I (\$b)	Govt Spending G (\$b)	Exports Rev X (\$b)	Imports Expenditure (\$b)	Agg Expenditure (\$b)	700	475	200	50	100	75	750	800	537.5	200	50	100	87.5	800	900	600	200	50	100	100	850
National Income Y (\$b)	Consumption C (\$b)	Investment I (\$b)	Govt Spending G (\$b)	Exports Rev X (\$b)	Imports Expenditure (\$b)	Agg Expenditure (\$b)																							
700	475	200	50	100	75	750																							
800	537.5	200	50	100	87.5	800																							
900	600	200	50	100	100	850																							

	<p>planned AE. This means that businessmen find their sales are less than expected. There is a rise in unplanned inventories (stocks) by \$50b. This causes firms to cut back on production and lay off workers. This will result in a drop in income, employment and output. National income will fall until equilibrium level E as shown in Figure 1.</p>
<b>Diagram</b>	<div style="display: flex; align-items: center;">  <div style="margin-left: 20px;"> <p><b>Figure 1</b></p> <p>Aggregate expenditure</p> <p><math>Y = AE</math></p> <p><math>AE = C + I + G + (X-M)</math></p> <p>Equilibrium income is determined where the AE line cuts the 45° line. The 45° line represents all points where income equals planned expenditure.</p> <p>National income (\$b)</p> <p>700 → 800 ← 900</p> </div> </div>
<b>CONCLUSION</b>	

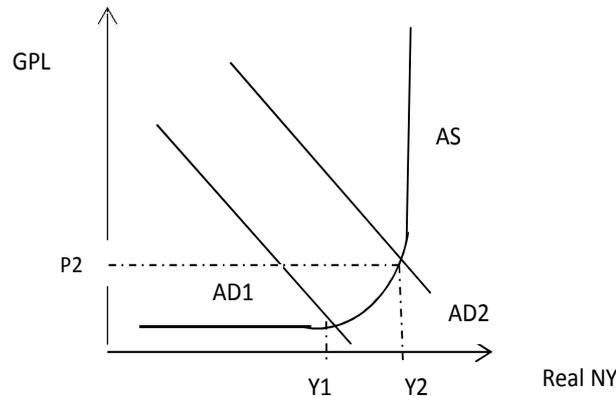
Knowledge, Application, Understanding and Analysis	
<b>Level 1 (1-3)</b>	Largely descriptive or inaccurate explanation of how equilibrium national income is determined. Eg. Just a regurgitation of what circular flow of income is.
<b>Level 2 (4-6)</b>	Application of AE-income analysis to explain for equilibrium but explanation is incomplete.
<b>Level 3 (7-8)</b>	Application of AE-income analysis to explain for equilibrium with clear explanation of adjustment process to equilibrium and the use of a clearly labelled diagram.

(b)

**Discuss the view that monetary policy is preferred to fiscal policy in raising national income during recessions.** [17m]

INTRODUCTION
<p>Recession is where EG is negative for two consecutive quarters.</p> <p>MP is the increase in <math>M_s</math> and / or interest rates in order to fulfil gov't macroeconomic objectives</p> <p>FP on the other hand is the changing of <math>G</math> and <math>T</math> to affect the economy.</p>
<p>Both monetary (MP) and fiscal policy (FP) are demand-management policies. During recessions, government can use either expansionary MP or FP to increase AD to trigger a multiplied increase in national income.</p>
<p><b>BODY</b></p> <p><b>Explain how expansionary MP works:</b></p> <p>Traditionally by cutting interest rate or raising money supply. Reduction of Interest rate will reduce the incentive to save which will lead to an increase in autonomous consumption. Lowering interest rate will also will also lead to more profitable planned investment and cause an increase in investment.</p> <p><b>Explain how expansionary FP works:</b></p> <p>Traditionally, FP works through increasing government spending or reducing direct (personal income and/or corporate) taxes. If personal income tax is reduced, then disposable income of households will</p>

increase and AD will increase via consumption expenditure. A decrease in corporate tax will lead to higher after-tax returns on planned investments resulting in an increase in investment expenditure and AD.



In the diagram, an expansionary MP or FP will shift AD from AD1 to AD2, firms will employ more factor inputs and produce more output and hence pay more factor income to households. The household will spend a proportion of the additional income on consumption, depending on their marginal propensity to consume (MPC). With the increase in C, firms will employ even more factor inputs to produce even more output and hence pay even more factor income to households. This cycle of spending and re-spending on consumption will continue until the increase in income becomes negligible. Hence an increase in AD will lead to a larger increase in national income, from Y1 to Y2. The multiplier,  $k$ , represents how many times the national income increases with respect to the initial change in AE.

<b>Thesis: MP is preferred</b>	<b>Anti-thesis: FP should be preferred</b>
<b>Merits of MP</b>	<b>Merits of FP</b>
<p><b>Ease of implementation</b> Unlike FP which requires policymakers to undergo months of deliberation, the change to interest rates can be easily lowered by Central Bank.</p> <p><b>Secondary effect on ER</b> – reduction in interest rate leading to depreciation of country currency and has a favourable impact on country's BOP</p> <p>If interest rate is lowered, then it will lead to an outflow of hot money. This assumes free capital movement and ER is freely fluctuating, then the ER will depreciate as there will be a fall in demand for the country's currency in the FOREX market. If ML condition is satisfied, then BOP will improve.</p>	<p><b>Direct Impact on AD</b> Unlike <math>i/r</math> centered MP, FP such as increase in G will have a direct impact on AD.</p> <p><b>Reduction in Corporate Tax can be used to attract FDI</b> When the corporate income tax is reduced in periods of recession, the expected after-tax returns on planned investment will rise. This will lead to a possible influx of FDI.</p>
<b>Demerits of FP</b>	<b>Demerits of MP</b>
<b>Inflexibility of changing G and T</b>	<b>Investment &amp; Consumption may be interest</b>

<p>Changing G and T involves a high level of inflexibility as they are subjected to parliamentary debates and approvals which may take from a few months to years before they are implemented. This is also known as decision time lag.</p> <p><b>Possible crowding out effect</b> The crowding out is the effect of an increase in G that result in a decrease in private investment/ consumption expenditure. This is because G if financed from borrowing (and not from taxes) will lead to a competition for funds and drive up interest rates. This will lead to a possible reduction in both C and I.</p> <p><b>Implementation Lag of FP</b> The effect of FP is spread out over time and hence the full effect is realised only a period of several months.</p>	<p><b>inelastic</b></p> <ul style="list-style-type: none"> <li>• MP works indirectly via change in i/r. Interest rate works to increase the level of I and C.</li> <li>• If C and MEI is interest inelastic, then the fall in interest rate must be sufficiently large in order to effect a change in I.</li> </ul> <p><b>Liquidity Trap if interest rate is too low</b> MP may be ineffective in a recession if the interest rate is too low.</p>
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**Synthesis/ Exemplification**

**US:**

The U.S. **subprime mortgage crisis** was a nationwide banking emergency that coincided with the U.S. recession of December 2007-June 2009. It was triggered by a large decline in home prices, resulting in mortgage delinquencies and foreclosures. Declines in residential investment preceded the recession and were followed by reductions in household spending and then business investment.. The crisis had severe, long-lasting consequences for the U.S. with nearly 9 million jobs lost during 2008 and 2009, roughly 6% of the workforce

**Policies by the US Govt**

**1. Lowering of interest and operation of Quantitative Easing (QE)**

1. Federal Reserve (FED) aka as the Central Bank lowered interest rate, called the discount rate, from 5.75% to 2.25%.
2. In December 2008, the Fed further lowered the federal funds rate target to a range of 0–0.25%
3. In addition, the FED undertook, along with other central banks, open market operations to ensure member banks remain liquid.
4. In November 2008, the Fed announced a \$600 billion program to buy bonds from the private sector. This is also known as quantitative easing and was pursued because the interest rate could not be lowered further.
5. In March 2009, the FED further purchased up to an additional \$750 billion of government-sponsored enterprise mortgage-backed bonds, bringing its total purchases of these securities to up to \$1.25 trillion.

**2. Fiscal stimulus package**

- On 13 February 2008, President George W. Bush signed into law a \$168 billion economic stimulus package, mainly taking the form of income tax rebate checks mailed directly to taxpayers.
- On 17 February 2009, U.S. President Barack Obama signed the American Recovery and Reinvestment Act of 2009, a \$787 billion stimulus package with a broad spectrum of spending and tax cuts.
- Over \$75 billion was also specifically allocated to programs which help struggling homeowners. This program is referred to as the Homeowner Affordability and Stability Plan
- The U.S. government continued to run large deficits post-crisis, with the national debt rising from \$10.0 trillion as of September 2008 to \$16.1 trillion by September 2012. The debt increases were \$1.89 trillion in fiscal year 2009, \$1.65 trillion in 2010, \$1.23 trillion in 2011, and \$1.26 trillion in 2012

The US relied on both MP and FP (as fiscal stimulus) to solve the subprime Crisis.

#### **Europe:**

The **eurozone crisis** (often referred to as the **euro crisis** or the **sovereign debt crisis**) is an ongoing crisis that has been affecting the countries of the eurozone since early 2009, when a group of 10 central and eastern European banks asked for a bailout. At the time, the European Commission released a forecast of a 1.8 per cent decline in EU economic output for 2009. The crisis made it difficult or impossible for some countries in the eurozone to repay or refinance their government debt without the assistance of third parties like the European Central Bank or IMF. Banks in the eurozone were undercapitalised and have liquidity and debt problems.

Causes of the crisis varied by country. In several countries, private debts arising from a property bubble were transferred to sovereign debt as a result of banking system bailouts and government responses to slowing economies post-bubble. In Greece, high public sector wage and pension commitments were connected to the debt increase. The structure of the eurozone as a currency union (i.e., one currency) without fiscal union (e.g., different tax and public pension rules) contributed to the crisis and harmed the ability of European leaders to respond.

#### **Policies undertaken by Eurozone Countries**

##### **1. Monetary Initiatives**

The European Central Bank (ECB) has taken a series of measures aimed at reducing volatility in the financial markets and at improving liquidity. In May 2010 it began open market operations buying government and private debt securities reaching €219.5 billion in February 2012.

With the aim of boosting the recovery in the eurozone economy by lowering interest rates for businesses, the ECB cut its bank rates in multiple steps in 2012–2013, reaching an historic low of 0.25% in November 2013. The lowered borrowing rates have also caused the euro to fall in relation to other currencies, which is hoped will boost exports from the eurozone and further aid the recovery

##### **2. Austerity Measures rather than fiscal stimulus**

**Austerity** describes policies used by governments to reduce budget deficits during adverse economic conditions. These policies may include spending cuts, tax increases, or a mixture of the two. Austerity policies may be attempts to demonstrate governments' fiscal discipline to their creditors and credit rating agencies by bringing revenues closer to expenditures

#### **Comparing US & Europe use of MP and FP:**

MP in both countries/ zones involves mainly QE ie buying of bonds rather than interest rate as interest rate is already very low. The MP used in US and Europe involves mainly Quantitative Easing; this involves the buying of bonds by the Government. This is because of the low interest environment that is present in many developed countries. As such, further lowering of interest rate is ineffective in raising I.

For Europe, many of the aid given is tied to their agreeing to austerity measures. This was because many believed that the crisis started due to the fiscal imprudence of these countries hence the bailout packages required countries to undertake concrete steps to reduce G/ reduce budget deficits.

It seems that there was **greater use of MP in Europe** due to the indebtedness of countries such as Greece and the rest of the PIGS economies (government indebtedness).

#### **Singapore:**

Despite an average growth rate of nearly 8 per cent from 2004 to 2007, Singapore was the first East Asian country to fall into a recession from the current global economic crisis after July 2008. The economy contracted by 6.3% in the third quarter, on an annualised seasonally adjusted basis, having shrunk by 5.7% in the second quarter of 2008.

The exposure of Singapore's banks to sub-prime mortgage is limited, due to its well regulated market. The recession came mainly through the fall of the non-oil exports in manufactured goods, induced by

the overall deterioration of economic conditions in the US and Europe. This clearly reflects the greater vulnerability of the Singapore economy to global economic shocks given the openness of its economy. Singapore's economy, which is heavily dependent on exports to the developed world, is one of the first in Asia to be hit by a global economic slowdown. Both Europe and United States are still Singapore's key export destinations, accounting for nearly 33 per cent of the total non-oil exports over the last few years. The ASEAN countries – Indonesia, Malaysia, and Thailand – accounted for nearly 20 per cent and Northeast Asia accounts for around 24 per cent of Singapore's non-oil exports.

### 1. Govt fiscal stimulus with SS side slant

The govt announced a \$20.5 resilience package, financed from its reserves aimed at boosting AD. Of this amount.

**Training :** Of this amount, \$5.1 billion will be spend to save jobs. The jobs credit scheme has been implemented to subsidise company's wage bill for local workers. \$600 million will be set aside for Skills Programme for Upgrading and Resilience (SPUR); programme which pays part of the workers wages while they are undergoing training. The cost of training is lower during a downturn, so the downturn provides a good opportunity to train and retrain productive workers in the economy. CET programmes need to be targeted at specific sectors and upgrading of skills in both generic and technical skills of workers will be equally important. Workers out of the work for an extended period lose part of their human capital and are unable to secure similar paying jobs. Given that the current recession might be a long and a protracted one, workers require extended period of training and upgrading in specific skills. Training grants need to be extended beyond CET training to provide for general education and skills for workers to acquire post-graduate diploma and even university degrees. This will have a stronger impact on re-employment and retaining productive workers in the labour market.

**Tax Concessions:** To ensure business cash flow, there will be 40% rebate for industrial and commercial property in 2009. A reduction of the corporate tax rate to 17%. For individuals, govt will give 20% tax rebate and 40% property tax rebate for owner-occupied residential properties.

**Infrastructural Improvement:** Govt will boost infrastructure spending, which will not only provide jobs but will enhance the country image and destination for FDI. \$4 Billion will be set aside for infrastructural development such as road works, sewage networks, upgrading of health and education infrastructure.

### 2. ER policy

Singapore's central bank, known as the Monetary Authority, shifted its foreign exchange rate policy to a "zero per cent appreciation" of the Singapore dollar from a "modest and gradual appreciation" in a bid to boost the competitiveness of the country's exports. A strong Singapore dollar has been quite detrimental to growth, especially manufacturing hence it was much better to take a risk with inflation and deal with growth by making the Singapore dollar weaker and support exports.

### 3. Wage Policy

In the current downturn, companies should be encouraged to make wage adjustments rather than quantity adjustments in terms of retrenchment. In 2004, the government introduced the wage restructuring policy and the key objective of the policy is to increase the flexibility of the labour market to external shocks by allowing greater flexibility in wages.

**Evaluation:** In Spore, traditional demand management policies are not effective in itself due to our small multiplier size. Even when we do use expansionary FP to pump-prime economy, we use it with supply-side slant. The government's fiscal stimulus is also unlikely to have little impact on the growth, given the small share of the domestic demand to total demand, although it should provide some relief for vulnerable households in the lower income group.

Instead focus is on use of exchange rate centred monetary policy (Importance of trade to drive

growth) AND ss-side policies to ready itself for the economic upturn.

**Evaluation/ Synthesis**

- Effectiveness of Demand Management Policies dependent on size of multiplier
- Recession may create pessimism and despite the lowering of interest rate and reduction in taxes, consumption and investment expenditure may not rise corresponding
- For Spore, not appropriate and effective to use FP or MP; instead more dependent on ER policy and SS-side policies in face of recession

**CONCLUSION**

Whether monetary or fiscal tool is preferred and chosen depends on many factors such as ability of the government, nature of the economy or the state of the economy as seen in the discussion above. However, the effectiveness of demand-management policies depends on the multiplier size of the economy.

And more often than not, countries find themselves having to depend not only on demand management policies but also supply side policies to re-structure and improve supply side capabilities to raise competitiveness or trade policies to influence the external sector to revive growth.

**Mark Scheme**

<b>L1 (1-5)</b>	An answer that shows some <u>incomplete or inaccurate attempts</u> to explain how the policies work to increase national income.
<b>L2 (6-9)</b>	For an answer that shows how policies work through multiplier process to increase national income and some evaluation of the policies.  Explanation may not be clear or fully elaborated.  <u>Lop-sided response</u> where students only explains why 1 policy is preferred without weighing against the other.
<b>L3 (10-13)</b>	For an excellent explanation and detailed analysis of how both the policies work through the multiplier effect to revive growth. Students demonstrate ability to develop a <u>balanced discussion</u> to highlight <u>other factors</u> that would influence the choice of either fiscal or monetary policies in different countries.
<b>E1 (1-2)</b>	For an unexplained assessment.

<b>E2 (3-4)</b>	For a judgment or evaluative assessment based on sound economic analysis with reference to different economies.
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**Question 5**

In order to raise productivity in Singapore, the Government will spend S\$2.5 billion over the next 5 years on the training of workers and also provide tax incentives to help companies grow their R&D spending. In addition, the government will raise the foreign worker levies and tighten the inflow of foreign workers so as to support companies' innovation and automation efforts.

**Discuss the possible trade-offs in economic goals that may arise as the government implements these strategies to raise productivity in Singapore. [25m]**

**INTRODUCTION**

Government's objectives include micro and macro objectives. Micro objectives include: greater allocative and productive efficiency, reduce income inequality and greater income equity. Macro objectives include: internal stability such as sustainable economic growth, low unemployment, price stability & external stability such as exchange rate stability. Labour productivity refers to the output per worker per hour of work or output per man-hr.

Singapore has a problem of low productivity compared to other developed countries. Labour productivity growth can be achieved by improvement in the quality of labour resources through measures such as subsidy on education & training to equip workers with new knowledge/skills, tax

<p>incentives/subsidies to encourage firms to mechanise &amp; do R&amp;D etc. The Singapore government has been also tightening the supply of foreign labour policy is to achieve productivity driven growth. Affected industries are mainly the labour intensive types such as cleaning companies, transport companies, F&amp;B industry etc.</p>	
<p><b>BODY – THESIS (TRADEOFF IN ECONOMIC GOALS)</b></p>	
<p><b>Trade off 1</b></p>	
<b>Strategy (State)</b>	Spending of \$2.5 million on training to produce skilled workers
<b>Explain / Exemplification</b>	<ul style="list-style-type: none"> <li>Government is adopting SS-side policy in the training and education of workers to assume higher skilled jobs. This is because the Spore economy is re-structuring our economy to a knowledge-based / productivity based economy.</li> <li>Whilst cutting down the inflow of cheap foreign workers, it must be noted that the govt is encouraging the flow of skilled workers into Spore to supplement and add to the pool of skilled workers.</li> </ul>
<b>Tradeoff MicroEcon Goal - Greater income inequality</b>	<ul style="list-style-type: none"> <li>In the 21<sup>st</sup> Century where there is a global competition for resources, skilled workers are highly valued and command higher wages.</li> <li>As the Spore economy restructure and transform to become a more knowledge-based economy, there will be a segment in society that may not be as well-trained. These unskilled and semi-skilled workers may not be able to command high salary and hence may widen the income gap in society.</li> <li>In fact, Spore Gini coefficient has been raising in recent years and Singapore has the second highest income gap between the rich and the poor, as indicated by the Gini coefficient, among the 38 countries with very high human development, according to the 2009 United Nations Development Report.</li> <li>Only Hong Kong has a higher income gap. Singapore, according to the 2009 UN report, had a Gini coefficient of 42.5, exceeded only by Hong Kong (43.4) among the countries with very high human development.</li> </ul>
<b>Evaluation</b>	<ul style="list-style-type: none"> <li>Training and education require workers to be receptive</li> <li>Long gestation period of supply-side policies</li> <li>Spore govt need to be careful because too much reliance on foreign talent can backfire. This is because they are highly mobile and if they find Spore no longer attractive, the mass exodus of such workers will have a destabilising effect on the economy</li> <li>In addition, there is the opportunity cost of using G (\$2.5 billion) to support training, could have been used to provide healthcare / education =&gt; However, it should also be noted that this is not a big problem as the Spore Govt has strong reserves and is already spending a substantial amount on healthcare</li> </ul>
<p><b>Trade off 2</b></p>	
<b>Strategy (State)</b>	Raising of workers levies and tightening the inflow of foreign workers into Singapore.
<b>Explain Tradeoff MacroEcon Goal – Inflation</b>	<ul style="list-style-type: none"> <li>As labour becomes scarce due to tightening of foreign labour, its price (wages) will rise.</li> <li>Firms are also forced to hire more expensive domestic labour to replace the cheaper foreign workers.</li> <li>This increase in wage cost is a necessary part of the restructuring process and will feed through in a general increase in prices for a range of consumer services such as healthcare, cooked foods and hospitality that previously depended heavily on foreign labour.</li> </ul>

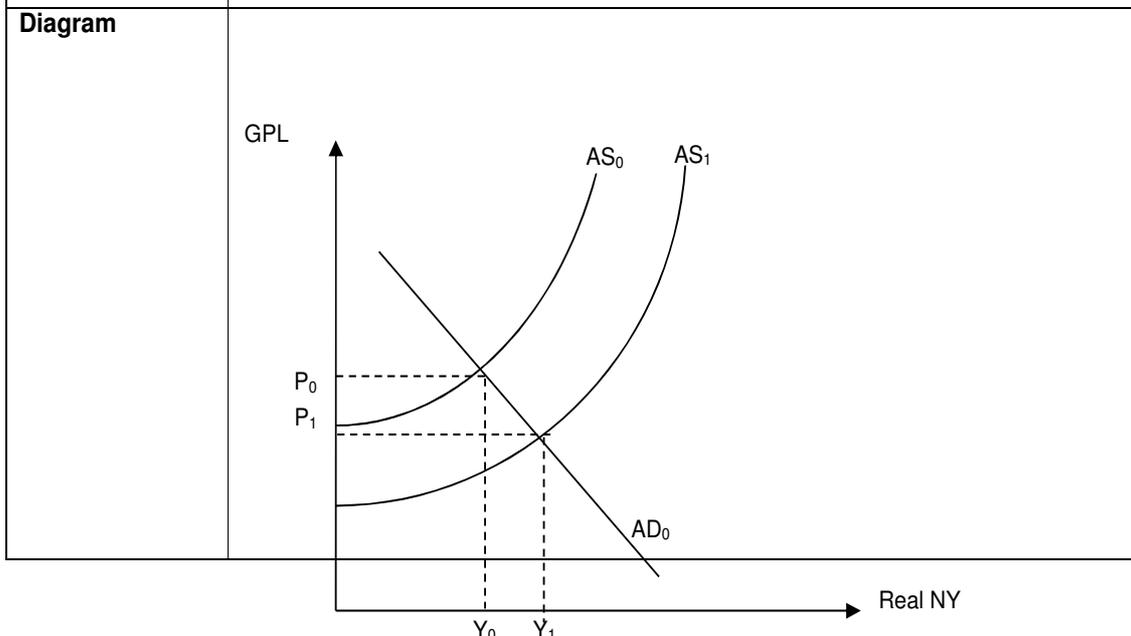
	<ul style="list-style-type: none"> <li>In the SR, the economy may undergo inflation due to possible wage-push inflation.</li> <li>This is due to the fact that companies need to raise wages in order to attract “scarce” resources.</li> </ul>
<b>Exemplification</b>	<ul style="list-style-type: none"> <li>The effects of restricting flow of labour to Spore have already resulted in higher prices. According to MAS, the Core inflation, which excludes the costs of accommodation and private road transports, inched up to 2.2 percent in July 2014 from 2.1 percent in the preceding month, due to the pickup in service inflation.</li> <li>For 2014, MAS Core inflation is expected to stay elevated at 2-3 percent. In fact, MAS expects the Core inflation to be 1% higher in this decade compared to the last decade. MAS Core inflation is likely to average 2.5% per annum, and CPI-All items inflation at 3%.</li> <li>This compared to the average of 1.3% per annum during 1985-2005.</li> </ul>
<b>Diagram</b>	<ul style="list-style-type: none"> <li>In the diagram below, the increase in wages will lead to a leftward shift of the AS from AS1 to AS2 resulting in higher prices, from P1 to P2.</li> </ul>
<b>Evaluation</b>	<ul style="list-style-type: none"> <li>The govt must manage inflation expectation and communicate to the people that in the short to medium term, inflation is likely to be higher.</li> <li>In addition, as the economy transit to a more productivity-based economy, support and subsidies must be given to companies (SMEs) to innovate.</li> <li>In the last few govt Budgets, there has been a strong emphasis on granting funds for companies to innovation in the form of Productivity and Innovation Credit (PIC). The amount that companies can claim for deductions is raised from \$400,00 to \$600,000 over the years.</li> <li>The Culture of innovation requires time to take root. During this transition which will take a few years, the growth-inflation trade-off will likely to worsen.</li> </ul>
<b>Trade off 3</b>	
<b>Strategy (State)</b>	Automation of firm's production.
<b>Explain Tradeoff</b>  <b>MacroEcon Goal – unemployment</b>	<ul style="list-style-type: none"> <li>As the govt raise the foreign workers levies and tighten the inflow of foreign workers into Singapore, so as to encourage automation, companies will be prompted to adopt labour-saving technologies.</li> <li>In terms of production methods companies will also be forced to utilise less labour so as to “economise” on the use of labour which is now more expensive.</li> <li>Higher wages and lack of workers may cause labour intensive companies to close down</li> <li>Technological and Structural unemployment will rise as the economy restructure to a more productivity-based economy.</li> </ul>

	<ul style="list-style-type: none"> <li>This will also lead to a fall in national income due to the rise in unemployment. The SOL of Sporeans will be adversely effected.</li> <li>During this time, the government will face itself with falling tax revenue to the rising unemployment.</li> <li>It is imperative for workers to be trained for the new economy as the longer a person remains unemployed, he / she loses touch of the skills and knowledge he once possessed.</li> </ul>
<b>Exemplification</b>	<ul style="list-style-type: none"> <li>The Spore govt has been active in providing grants/ subsidies to companies to help workers upgrade/ re-skill themselves for the new productivity-based economy.</li> <li>The Workforce Development Agency (WDA) which runs the Continuing Education and Training Centers (CET) helps workers gain the necessary skills for the workforce.</li> </ul>
<b>Evaluation</b>	<ul style="list-style-type: none"> <li>The limitations of the training lies in the attitude, aptitude and age of the workers. Without a good learning attitude, an aptitude and flair for new learning, the training will not be internalise and the higher level of productivity may not materialise.</li> <li>This problem is compounded in Spore becos of our ageing population and the fact that older workers are more resistant to change.</li> <li>In addition, the cost of providing and subsidizing training can impose a burden on govt budget.</li> </ul>

**BODY – ANTITHESIS (NO TRADEOFF IN ECONOMIC GOALS)**

**ANTITHESIS PARA 1**

<b>Strategy (State)</b>	impact of labour productivity growth on both ST/ LT economic growth
<b>Explain / Exemplification</b>	<ul style="list-style-type: none"> <li>↑ in labour productivity eg through training/upgrading of skills → ↑ in the capacity of the economy to produce output i.e. more output can be produced at full employment level</li> <li>↑ in potential economic growth which is broad-based across industries &amp; create employment opportunities for the wide age range in the labour force → inclusive economic growth.</li> </ul>



<b>ANTITHESIS PARA 2</b>	
<b>State</b>	positive impact of labour productivity growth on <b>both employment &amp; income</b>
<b>Explain / Exemplification</b>	<ul style="list-style-type: none"> <li>• <math>\uparrow</math> in labour productivity <math>\rightarrow</math> lower per unit labour cost <math>\rightarrow</math> lower cost of production <math>\rightarrow</math> more attractive to FDI, which is important to Singapore because of our heavy reliance on FDI for capital <math>\rightarrow</math> inflow of FDI creates employment opportunities <math>\rightarrow</math> increase in employment level <math>\rightarrow</math> reduce income inequality &amp; When the supply of foreign labour is tightened, the supply of unskilled &amp; semi-skilled workers (domestic + foreign workers) will be decreased further reducing income inequality</li> <li>• In the short run, when the PED for labour is price inelastic, more domestic labour will be employed when the foreign labour supply is tightened.</li> <li>• In the long run, with the sustained economic growth attainable, more resources will be employed.</li> <li>• The inflow of FDI also increases productive capacity (<math>\uparrow</math> in AD and LRAS) if they bring with them better technology/management practices etc. <math>\rightarrow</math> higher actual and potential economic growth.</li> <li>• When the firms experience an <math>\uparrow</math>COP, they may choose to automate, mechanize and re-organize in the long run. They can also send the workers for more training to increase their productivity. These enabled the productivity driven growth causing an increase in productive capacity in the economy, illustrated by an outward shift of the LRAS curve <math>\rightarrow</math> higher potential economic growth.</li> </ul>
<b>Evaluation</b>	<ul style="list-style-type: none"> <li>• However, if productivity growth is achieved through automation/mechanization, less labour will be employed.</li> </ul>
<b>ANTITHESIS PARA 3</b>	
<b>Strategy (State)</b>	labour productivity growth allows the economy to <b>grow without causing inflationary pressure</b>
<b>Explain / Exemplification</b>	<ul style="list-style-type: none"> <li>• Explain how Persistent <math>\uparrow</math> in AD without corresponding <math>\uparrow</math> in LRAS will lead to DD-pull inflation (GPL increases from P0 to P1)</li> <li>• Labour productivity growth <math>\rightarrow</math> <math>\uparrow</math> in LRAS (rightward shift of AS from AS0 to AS1) <math>\rightarrow</math> Eases the inflationary pressure when AD continues to <math>\uparrow</math> while the economy operates near or at full employment. (GPL decreases from P1 to P3 &amp; real NY increases from Y1 to Y2)</li> <li>• The lower cost of production also helps mitigate any cost-push inflation which the economy may be facing.</li> <li>• With higher productivity, workers can be paid higher wages without employers encountering rising unit labour costs <math>\rightarrow</math> inclusive economic growth.</li> </ul>
<b>Diagram</b>	



- The policy may lead to short term conflicts in objectives, but in the long run will be compatible with many of the government's objectives.
- This reduction on the reliance of foreign workers to promote productivity growth may be a more sustainable measure. The cheap foreign labour can be more costly in the future,
- In the short run, it looks like the group of domestic unskilled and semi-skilled workers is the only one to gain in terms of higher wage level. But in the long run, most will stand to gain.
- Ageing population will pose a problem as Spore faces a fall in its labour force in the coming years
- Possible solution is to raise the retirement age and encourage more women to rejoin the workforce. Flexible work arrangement has also been adopted in bid to overcome the shrinking labour force.
- Need for micro-policies such as income policy to reduce gap; seen in latest round to raise wages of unskilled workers such as security guards and cleaners
- Possible policy options include min wage; however, may create unemployment. In Spore, overcome disadvantage of min wage through Workfare supplement – reward those that remain the workforce

**Mark scheme**

Knowledge, application, understanding, analysis		
L1	<ul style="list-style-type: none"> <li>• Lack use of economic framework/concepts in analysis</li> <li>• Lack scope and depth- one sided answer only</li> <li>• Irrelevant answer</li> </ul>	1-9
L2	<ul style="list-style-type: none"> <li>• Use of relevant framework/ concepts such as AS/AD framework in analysis</li> <li>• Explanation of concepts is sketchy/ underdeveloped or lacks rigor</li> <li>• Made attempt to link to productivity driven growth to conflict but analysis is weak and poorly developed.</li> </ul>	10-14
L3	<ul style="list-style-type: none"> <li>• Good use of relevant concepts/ framework such as AS/AD to support analysis</li> <li>• Good application to the Singapore economy</li> <li>• Cover productivity growth, cover both conflicting and compatible attainable macro and micro objectives</li> </ul>	15-21
Evaluation		
E1	<ul style="list-style-type: none"> <li>• An unexplained judgment , one that is not supported by analysis</li> </ul>	1-2
E2	<ul style="list-style-type: none"> <li>• Evaluative assessment supported by economic analysis</li> <li>• Excellent synthesis and is able to justify and arrive at a convincing stand</li> </ul>	3-4

**Question 6**

Despite the risks associated with globalisation, many countries are still embracing it. This has resulted in significant changes in the patterns of international trade.

- (a) Explain possible reasons for changes in the pattern of trade between countries. [10]
- (b) Discuss if the size of the economy is the key factor in influencing its ability to gain from globalisation. [15]

- (a) Explain possible reasons for changes in the pattern of trade between countries. [10]

**Introduction:**

Key term- Define pattern of trade

The pattern of trade refers to the composition of a country's **exports and imports** as well as her **trading partners**. In other words, in the context of international trade it is about "who sells what to whom". Typically there are 2 distinctive pattern of trade -**Inter-industry and intra-industry trade**. These patterns of trade depend on factors such as a country's factor endowment, taste and preference and government policies.

**Development:**

<b>State</b>	First and foremost, for inter-industry trade, the POT is best explained by using the theory of comparative advantage (CA). According to the theory of CA, a country should export products in which it has a CA and imports those products in which it does not have a CA. CA refers to the ability to produce a good or product at a <b>lower opportunity cost</b> .
<b>Explain</b>	CA differs amongst countries due to the fact that <b>factor/resource endowment</b> differs across countries. Some countries have factors/resources that are better suited to produce agricultural goods (e.g. plentiful land, suitable climate) whilst others have resources that are better suited for manufacturing.

**Example of 2 countries Singapore and Thailand, producing 2 goods rice and microchips with equal allocation to each good**

Country	Rice (units)	Microchip (units)	Opportunity Cost of Producing 1 Unit of R	Opportunity Cost of Producing 1 Unit of M
Spore	120	480	<b><math>480/120=4 \text{ units of M}</math></b>	<b><math>120/480=0.25\text{unit of R}</math></b>
Thailand	100	100	<b><math>100/100 = 1 \text{ unit of M}</math></b>	<b><math>100/100 = 1 \text{ unit of R}</math></b>
Total	220	580		

To produce a unit of microchip, Thailand has to give up 1 unit of rice while Singapore has to give up 0.25 unit of rice. Likewise to produce rice, Singapore and Thailand have to give up 4 units and 1 unit of microchip(s) respectively. As a result, Singapore has comparative advantage in producing microchip as it incurs a lower opportunity cost than Thailand while Thailand has comparative advantage in producing rice as it incurs a lower opportunity cost as compared to Singapore.

### **Changing CA due to Globalisation**

**Define:** Globalisation

**Globalisation refers to the integration or inter-connectedness of national economies through trade of goods and services, foreign direct investment, capital flows, spread of technology and labour migration.**

#### **1.) Increased off-shoring**

Increasing globalisation might be one of the main reasons for changes in a country's trade pattern. With greater integration into world markets, developed countries might find that the production of low cost goods or services which they used to have comparative advantage in might now shift to lower cost countries (off-shoring). With such a shift, the country will no longer produce such goods or service and would most likely produce and export higher end products and import the goods that they used to produce domestically. *For example how many US manufacturing plants outsourced their production to cheaper cost countries such as China and Vietnam etc. To add, the opening up of domestic markets in closed economies like China would not only increase the exports of countries that could provide the goods and services which they lack but also increase the number of trading partners that China would have.*

#### **2.) Changes in technology and increased innovation (or any other example of resources such as labour flows)**

This may change the types of goods being traded by a country. With increased technology and innovation in the country, the productive capacity and production structure might change and result in the gaining of comparative advantages in different goods. *For example, with the development of the knowledge based economy in Singapore, the goods that are traded evolved from low end manufactured electronics to higher end products such as semi-conductors and micro-chips.*

#### **3.) Government policies eg. trade policies which could include regional blocs, FTA or even protectionism**

*Elaboration (depends on choice of policies analysed)*

Countries would also have a change in their main trading partners when a Free Trade Agreement (FTA) is signed. This will lead to the removal of tariffs for exports and imports between the signatories of the FTA and affect the countries that a nation trades with. With the relatively cheaper imports and competitive exports, there will be

increased trading activities (**trade creation**) between these 2 countries. *In Singapore, globalization has also altered the composition of our trade partners.*

*Eg. Singapore- Traditionally, the major advanced economies like US and EU and regional economies like ASEAN have been our key trade partners. Today, due to the growing network of FTAs, trade has extended to emerging economies like China, India as well as non-traditional trade partners like Peru, Panama, Russia and some Middle Eastern Countries like Jordan. The forging of FTAs has been prompted by the need to diversify our markets (e.g. decoupling) to cushion the economy against the threat of contagion and protectionism in a globalised world.*

There might also be **trade diversion** from other countries that do not have such agreements as their goods or services might be now relatively more expensive due to tariffs. Thus a country will end up trading relatively more with those countries whom they have signed such agreements than those who have not.

*For example, post NAFTA: Mexico's alleged increased shares of U.S. imports apparently at the expense of several Asian countries.*

**Other possible reasons**

- Changing factor endowments – depletion of natural resources
- Economic conditions – economic development of other trading partners
- Changes in taste and preferences etc.

**Mark scheme (6a)**

L1 (1-3)	An answer that shows some awareness of trade patterns and mainly listing of possible reasons that could change it without economic rigour.
L2 (4-6)	Incomplete or insufficient economic explanation of the possible reasons affecting trade patterns. Answers are often not well exemplified.
L3 (7-8)	Able to clearly explain at least 3 factors (it must include a globalisation discussion) with exemplification, covering both changes in trading partners and type of goods traded. CA must be explained.

(b) Discuss if the **size of the economy** is the key factor in influencing its ability to gain from globalisation. [15]

Suggested plan:

<p><b>Introduction:</b></p> <ul style="list-style-type: none"> <li>- Size of economy usually measures in terms of its domestic market size typically through indicators such as the country's Gross Domestic Product (GDP).</li> <li>- Eg of some smaller economies like Hong Kong and Singapore while larger economies would be USA, UK, China etc.</li> </ul>	
<p><b>Development</b></p>	
<p><b>Thesis:</b> The size of the economy is the key factor influencing a country's ability to gain from globalisation.</p> <p>NB: "Influencing ability to gain" : Could be both positive and/or negative</p>	<p><b>Anti-thesis:</b> The size of the economy is not the key/only factor influencing a country's ability to gain from globalisation.</p>
<p>1. Size of domestic market</p> <p>Small domestic market</p> <ul style="list-style-type: none"> <li>- Cannot depends on its domestic factors (domestic consumption and investment especially) to drive growth so <b>small economies need to embrace globalisation and maximise its net benefits to survive/thrive</b></li> <li>- Therefore the ability to export to the rest of the world (<b>X-M</b>) and <b>FDI</b> is significant to these counties to increase AD and therefore raise national income and employment → improving standard of living. Increase in FDI increased both AD and AS → bring about both actual and potential growth. <i>(Students should draw diagram if this is the main benefit discussed)</i></li> <li>- Therefore, the <b>government policies</b> of small economies such supply-side policies are focused on improving trade and foreign investment to maximise the gains of globalisation. Eg. Singapore,</li> </ul>	<p><i>While it is true that smaller economies tend to be more open, the <b>degree of "openness" could be autonomous from its size.</b></i></p> <p><i>Eg. UK is a large economy but it is open as an economy.</i></p> <p>Explanation (some <u>other</u> possible advantages not covered in thesis): An open economy will gain by trading based on its areas of CA by gaining exports revenue that will increase growth and employment. The economy will be able then to enjoy a bundle of goods outside its PPC. Being able to off-shore could lower their cost of production substantially. <b>Even for a larger economy, the gains of globalisation are just as substantial.</b></p> <p><i>Evaluate: The degree of how open an economy is however subjective. Economists look at various indicators such as (x+m) as % GDP or the degree of use of protectionist measures</i></p> <p><i>In recent years due to the various crisis-</i></p>

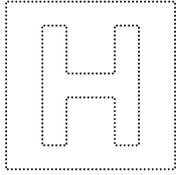
<p>Hong Kong going for export-oriented growth model</p> <p><b>In contrast,</b> Large domestic market</p> <ul style="list-style-type: none"> <li>- Has the option to turn to domestic factors (C and domestic I) to drive growth</li> <li>- Eg. China could turn to rebalancing as an option during recession. China can choose to be less dependent on globalisation.</li> </ul> <p><b>However,</b></p> <p>The smaller economy i.e Singapore is also therefore more susceptible to the negative impacts such as “<b>contagion effects</b>” during global recession. Eg in the recent global financial crisis in recent years, the falling world income has caused our exports demand and revenue to fall significantly as the demand of our exports tend to be income elastic. This has results in a recession in 2009 with a reduction in national income and rise in unemployment.</p>	<p><i>subprime/global financial/EU crisis however, it is observed that many LOE (Large open economies) like US or UK have increasingly been turning to protectionist measures. They are said to be practising “gated globalisation” which is not to totally avoid it but to selectively use protectionist measures.</i></p>
<p>2. Amount of resources in economy</p> <p>Small → Lack of resources</p> <ul style="list-style-type: none"> <li>- Benefit from the inflow of cheaper factors of production from the rest of the world</li> <li>- Not just raw material but also benefit from inflow of labour (Boost economic growth both actual and potential, lower COP etc.) eg. Singapore with its ageing population. The ability to have inflow of labour will help to reduce unit cost of production and increase our productive capacity.</li> <li>- However, its small labour force and lack of natural resources are also the reasons why we do not</li> </ul>	<p>It is not just about the quantity and type of resources but it’s also about the <b>quality of the resources.</b></p> <p>For Singapore to gain fully from globalisation, a skilled, well-educated work force is necessary so that the economy remain dynamic and responsive to changes brought about by globalisation. The workforce must be able to continuously adapt to the changing areas of comparative advantage which is increasing in high-tech areas such as biomedical industries.</p>

<p>have certain areas of CA in labour intensive industry and therefore we are unlikely to gain in those areas.</p> <p>Evaluate: <i>Sweden for example is considered a relatively smaller economy (compared against the many larger European economies but for your own information: it is the largest Nordic economy though) but it is resource-rich (eg copper, gold, iron ore etc). Even then, with the value of exports amounting to about one-third of its GDP, Sweden is still highly dependent on free international trade to maintain its living standard.</i></p> <p>Large economy → Tend to be more abundant in resources (especially natural resources)</p> <ul style="list-style-type: none"> <li>- Depending on the resources available, they will gain their respective areas of comparative advantage eg. China with rare earth has given her an edge in the manufacturing of high-tech goods. Her large pool of labour has also attracted FDI into the country.</li> </ul> <p><b>However,</b></p> <p>That also implies that the smaller economy is also more susceptible to the negative impacts such as <b>imports-price push inflation and brain drain</b>. <i>Just as Singapore enjoys labour inflows, many of her own skilled talents have migrated to other economies affecting her productive capacity.</i></p>	
<p>Other possible point/s:</p> <ul style="list-style-type: none"> <li>- <i>Inability to influence world price due to insignificant contribution to overall world demand/supply)</i></li> </ul>	<p>Other possible point/s:</p> <ul style="list-style-type: none"> <li>- <i>Role of <b>government policies</b> would influence the ability to benefit from globalisation eg. supply-side polices would help discover areas of CA, help in the</i></li> </ul>

	<p><i>restructuring of the economy to gain from free trade. This also depends on the <b>ability of the government</b> eg. this is the current difficulty U.S and U.K have due to its budget deficit- ability to spend to aid/hasten the process of restructuring</i></p> <ul style="list-style-type: none"> <li>- <i>Not only about small Vs large economy but also</i> <ul style="list-style-type: none"> <li>i.) <b>Nature/State of economy</b></li> <li>ii.) <b>Developed Vs Developing economies</b></li> </ul> </li> </ul>
<p><b>Conclusion/Synthesis:</b></p> <p>The size of the economy is an important factor influencing an economy's ability to gain from globalisation. While it does not equate to the degree of openness, it is often tied to it. That is why economists have coined the term SOE (Small, open economies) to refer to this group of economies. The SOEs typically depend greatly on the external economy and have much to gain from it. However, it is really a multitude of factors that will influence the ability of countries to gain from globalisation and therefore whether they would choose the alternative which is to turn to protectionism. As observed, whether small or large, most economies could gain substantially from globalisation.</p>	

**Mark scheme (6b)**

L1 (1-5)	Listing of some benefits and costs of globalisation
L2 (6-8)	<p>Incomplete analysis (AD/AS analysis to show impact on some macro-economic goals) with some reference to size of economy</p> <p>Cap at 8 m for answers that only considered large OR small economies but with good anti-thesis</p> <p>Cap at 7 m for lopsided answers that only considered size of economy</p>
L3 (9-11)	Detailed and balanced discussion with economic analysis of the varying impact globalisation will bring in consideration of the size of the economy and at least 2 other factors.
<b>E1 (3-4)</b>	Ability to make a justified stand to the issue with comparison of economies
<b>E2 (1-2)</b>	Unsubstantiated evaluation



INNOVA JUNIOR COLLEGE  
JC 2 PRELIMINARY EXAMINATION 2  
in preparation for General Certificate of Education Advanced Level  
**Higher 1**

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## ECONOMICS

**8819/01**

Paper 1

**17 September 2014**

**3 hours**

Additional Materials: Writing Paper and Cover Page

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### READ THESE INSTRUCTIONS FIRST

Write your name and class on all the work you hand in.  
Write in dark blue or black pen on both sides of the paper.  
You may use a soft pencil for any diagrams, graphs or rough working.  
Do not use staples, paper clips, highlighters, glue or correction fluid/tape.

#### Section A: Case Study

Answer **all** questions.

#### Section B: Essays

Answer **one out of two** questions.

At the end of the examination, fasten all your work securely together.  
You are to submit your answers for Section **A** and Section **B separately**.  
The number of marks is given in brackets [ ] at the end of each question or part question.  
You are advised to spend several minutes reading through the data before you begin writing your answers.  
You are reminded of the need for good English and clear presentation in your answers.

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This document consists of **9** printed pages and **1** blank page.



**Section A**

Answer **all** questions in this section.

**Question 1 Rare Earths Market**

Rare earths are a group of 17 chemical elements that are used widely in high-technology and clean-energy products because they impart special properties of magnetism, luminescence, and strength. Some of these products include magnets, lasers, nuclear reactors, plasma TVs, energy-saving light bulbs, wind turbines, hybrid cars and even guided missiles.

**Extract 1: Rare earths prices**

The demand for rare-earths is rising rapidly as they are increasingly being used in a wide range of high-technology products. Production of wind turbines is expected to climb sharply amid the clamour for cleaner energy alternatives that reduce dependence on fossil fuels blamed for global climate change.

China, supplier of 95% of the 17 elements known as rare earths, has shut-down many of its rare earths mining sites and cut its export quotas of rare earths. The government may further reduce export quotas.

Hitachi Metals Ltd, which uses rare earths to make magnets used in hybrid cars, said that it has become increasingly difficult to procure rare earths. Toshinori Hata, a spokesman for Hitachi Metals, said that the company would have no choice but to pass on some of its costs to the consumers.

Adapted from Bloomberg, 17 June 2011

**Figure 1: Rare Earths Price Index: 2002 – 2010**



Source: The Economist

**Extract 2: The Chinese consolidate the industry**

Beijing authorities are creating a single government-controlled monopoly, Bao Gang Rare Earth, to mine and process ore in northern China, the region that accounts for two-thirds of China's output. The government is ordering 31 mostly private rare earths processing companies to close this year in that region and is forcing four other companies into mergers with Bao Gang.

Chinese officials say that the government is worried about the external costs from the rare earths industry such as polluted water, polluted air and radioactive residues, particularly among many small and private companies, some of which operate without the proper licenses. While rare earths themselves are not radioactive, they are always found in ore containing radioactive thorium and require careful handling and processing to avoid contaminating the environment.

Rare earths ore has to be refined before it can be used commercially. The waste generated from this process is both acidic and radioactive. The refining process leaves behind a radioactive sludge laced with toxic chemical compounds that is stored in artificial lakes. Due to lax regulations, this radioactive waste material often seeps into the water supply, adversely affecting the health of residents in the area.

Adapted from The New York Times, 15 September 2011

**Extract 3: The Chinese government steps-up regulation on the rare earth industry**

The local governments of three regions where most of China's light rare earths metals exist will jointly crack down on the illegal exploration and production of light rare earths, the Ministry of Land and Resources said in a statement on its website. The operation aims to "promote the protection and rational development of the country's rare earths resources and further regulate their production," said the ministry.

The country has stopped issuing new licenses for rare earths mining. It has also imposed production caps, enforced export quotas and announced tougher environmental standards for rare earths production in order to control environmental damage and protect the resources. The taxes and quotas China had in place to restrict rare earths exports caused many companies to move their factories to China from the United States and Europe so that they could secure a reliable and inexpensive source of raw materials.

Earlier this year, the government released a statement announcing that it would impose a tax on rare earths minerals. According to the statement released, the tax rate of mined light rare earths would be 60 yuan (US\$ 9.1) per tonne, while that of medium and heavy rare earths would be set at 30 yuan (US\$ 4.5) per tonne. The government will use the tax to support research on rare earths processing, set up environmental compensation funds and build rare earths reserves.

Adapted from China Daily, 27 September 2011

**Extract 4: Will China continue to dominate the rare earths market?**

China has only 37% of the world's proven rare earths reserves but accounts for 95% of global production. This is not only due to the country's good geographical location but also its willingness to do dirty, toxic and often radioactive work that the rest of the world has long shunned.

Even so, the costs of mineral extraction are increasing because of lower ore grades and increasing capital costs. China's costs of production are likely to rise as environmental and social costs and the potential for rising labor costs begin to be incorporated into China's rare earths production and processing operations. China would likely be unable to increase production significantly to drive prices down.

While limited production and processing capacity for rare earths currently exists elsewhere in the world, additional capacity is expected to be developed in the United States, Australia, and Canada within two to five years, according to some experts. 34 Chinese producers are also seeking to expand their production capacity or seek long-term supply agreements in areas around the world, particularly in Africa and Australia. There are only a few exploration companies that develop the resource, and because of long lead times needed from discovery to refined elements, supply constraints are likely in the short term.

Adapted from The New York Times, 29 October 2010

**Questions:**

- (a) (i) With reference to Figure 1, describe the trend in the world price for rare earths between 2002 and 2010. [2]
- (ii) Explain how the trend in world price for rare earths would impact the market for hybrid cars. [4]
- (b) (i) With reference to Extract 2, explain how the existence of 'external costs' leads to market failure. [4]
- (ii) With reference to Extract 3, explain how China can reduce these 'external costs' through the imposition of a tax on rare earths minerals. [6]
- (c) Assess the impact of export quota of rare earths on China's Balance of Payments. [6]
- (d) Using information from the data where appropriate, discuss what may happen to the world price of rare earths in the future. [8]

**[Total 30 marks]**

**Question 2 Korea's Performance, Prospects and Lessons****Table 1: Some economic statistics for South Korea over the period 2008-2012**

	2009	2010	2011	2012
Current account balance, % of GDP	3.6	2.7	2.2	3.5
Consumer Price inflation, % per year	2.8	3.0	4.0	2.2
Unemployment, % of labor force	3.6	3.7	3.4	3.2
GDP growth, % per year	0.7	6.5	3.7	2.3
Gross Savings (% of GDP)	33	35	35	35
Imports of Goods and Services (% of GDP)	43	46	54	54

Source of Table 1: World Bank

**Extract 1: South Korea lowers its growth forecast**

The finance ministry has forecast a growth of 3% for 2013, down from its earlier projection of 4.3%. The sovereign debt crisis in the eurozone has hurt demand for South Korean exports from the region. Meanwhile, the economic recovery in the US - another key market for its exports - has also remained fragile and consumer demand there has not picked up drastically. The slowdown in demand for exports has hurt growth in Asia's fourth largest economy. South Korea's economy grew at its slowest pace in three years in the July to September quarter, expanding at an annual rate of 1.6%.

South Korea's exports, which account for almost half of its overall economy, have been hit by slowing demand from markets such as the US and eurozone. "Growth next year will be better than this year, although there are significant downside risks," said the finance ministry's Choi Sang-mok. "Nevertheless, the strength of the recovery won't be strong enough for the economy to catch up to its potential growth rate."

Source: *BBC*, 27 December 2012**Extract 2: South Korea unveils \$5.2bn stimulus**

South Korea is to spend \$5.2bn on fiscal stimulus measures, as it seeks to boost a flagging economy hit by slowing global exports. The finance ministry has announced steps including a temporary easing of taxes on consumption and property transactions, and an increase in state credit for small businesses. The measures, effective from this month, will cost \$4.07bn this year and \$1.15bn in 2013.

Bahk Jae-wan, the finance minister, had previously indicated a reluctance to conduct large-scale stimulus, citing the need to preserve ammunition in case of a more serious deterioration in the economy. Like a \$7.5bn package announced in June, the stimulus will not involve an expansion of this year's government budget, and it is far smaller than the March 2009 stimulus of \$21.6bn. A senior government official said it is expected to boost gross domestic product by just 0.06 per cent this year and 0.1 per cent next year.

However, the stimulus is larger than economists had expected, reflecting policy makers' concern at a string of data indicating ebbing momentum in the economy. Exports – the main driver of South Korea's economy – fell 6.2% last month, while growth in industrial production has turned negative and confidence is declining among both consumers and businesses.

Source: *Financial Times*, 10 September 2012

### **Extract 3: China, South Korea Start Talks on Free-Trade Pact**

Since 2003, South Korea has signed several trade agreements with partners including US, EU and ASEAN. It is now pursuing entry to the US-led Trans-Pacific Partnership group as well as a trade pact with China. Currently China and South Korea are starting discussions toward reaching a free-trade agreement. The two countries' goal is to lift trade to \$300 billion in 2016. Asia's biggest and fourth-biggest economies would form a market with annual trade that rose 19% in 2011 to \$246 billion. A free trade accord is strategic from both economic and political standpoints, given the proximity to North Korea. Both can gain much for economic growth and closer ties will help beef up regional security. The world economic recovery is sluggish as the global financial crisis endures. Trade protectionism is rising. Exports to China, South Korea's largest market, increased 14.9% to \$134.2 billion in 2011 from a year ago, which accounted for 24.1% of South Korea's total exports last year.

For South Korea, makers of cars, electronics, chemicals and petrochemical products will benefit most from a trade pact while farmers and small manufacturers will be hit hard. China buys mostly cars and electronics from South Korea while selling mainly mineral products and electronic parts to South Korea. A free trade deal with China would boost South Korea's economic growth by as much as 3 percentage points and create as many as 330,000 jobs over a decade. South Korea's Finance Minister Bahk Jae Wan said that the nation should take advantage of China's efforts to generate more growth from domestic demand.

Source: *Bloomberg*, 2 May 2012

### **Extract 4: South Korea cuts interest rates in a bid to spur growth**

South Korea's central bank has cut interest rates for the second time in the space of four months amid concerns about a slowdown in its economy. The bank cut its key rate to 2.75% from 3% in a bid to spur growth. South Korea's exports, one of its biggest drivers of growth, has been hurt by slowing demand from key markets such as the US and the eurozone. At the same time, domestic demand continues to remain subdued, further hurting economic growth.

With the eurozone continuing to struggle with its debt crisis and the recovery in the US remaining weak, South Korea may need to cut its borrowing costs even further in the coming months. South Korea's export-driven economy will have difficulty picking up if the global economy continues to struggle to grow.

Source: *BBC*, 11 October 2012

### Questions

- (a) Using the information in Table 1, identify and explain the relationship between unemployment and inflation rate in South Korea between 2008 and 2011. [3]
- (b) (i) Using AD/AS analysis, explain why, in South Korea, 'the finance ministry has forecast a growth of 3% for 2013, down from its earlier projection of 4.3%', as stated in Extract 1? [3]
- (ii) Using the information in Table 2 and 3, how far does the multiplier help to explain the economic recovery of South Korea? [4]
- (c) Use the concept of circular flow of income to explain how the fiscal stimulus measures suggested in Extract 2 will affect the equilibrium level of national income in South Korea in 2013. [6]
- (d) According to Table 1 and Extract 3, explain the possible effects of a China-South Korea Free-Trade Pact on the economy of South Korea. [6]
- (e) Discuss the policy options outlined in Extract 2 and Extract 4 for promoting actual economic growth rate. (reducing export sector) [8]

**[Total: 30]**

**Section B**

Answer **one** question from this section.

- 3 As a consequence of trade liberalization, the economy specialize growingly in activities that it has a comparative advantage. However a trade-driven growth may also lead to undesirable effects such as environmental degradation.
- (a) Explain why countries embrace free trade. [10]
- (b) Discuss the policy option for a government in correcting for market failure arising from an export-led growth. [15]
- 4 In December 2012, the Federal Reserve announced that it will keep interest rates suppressed as long as it does not achieve its unemployment target rate of 6.5%.
- (a) Explain why high unemployment is undesirable for an economy [10]
- (b) Discuss the view that interest-rate centred monetary policy is, more often than not, the best option to achieve the macroeconomic objectives of a government. [15]

**-End of Paper-**

**Section A**

Answer **all** questions in this section.

**Question 1**

**The Shale Revolution**

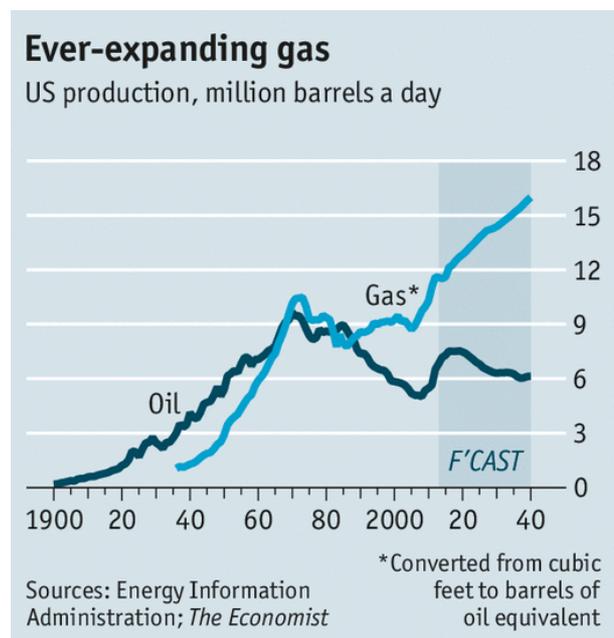
**Extract 1: Shale Energy Revolution in US**

Extracting gas from shale rock through hydraulic fracturing has transformed the US energy landscape as natural gas can be extracted. The shale energy revolution is likely to shift the tectonic plates of global power in ways that are largely beneficial to the West and reinforce U.S. power. Shale gas offers the means to vastly increase the supply of fossil fuels for transportation, which will ease the rising demand for oil, fueled by China’s economic growth.

The shale extraction technology of hydraulic fracturing can be employed in producing natural gas as a form of energy sources. America will be more energy self-sufficient and more importantly in the consequent displacement of world oil markets by a sharp reduction in U.S. imports and will put additional downward pressure on global oil prices. The second factor is the potential to use natural gas for transportation. They are overlooking the immense advantage that natural gas has as a transportation fuel in America and Europe, which have both developed a natural gas infrastructure in urban areas that takes piped natural gas into homes, offices and supermarkets. The incentives to develop natural gas are very great. But so far, the United States has only experienced the first stage of low natural-gas prices and the revival of energy intensive industries such as chemicals and steel because of low gas prices.

Source: *The New York Times*, 25 December 2012

**Figure 1: US Production of Oil and Gas**



Source: Energy Information Administration (EIA)

### **Extract 2: Environmental Benefits of the Shale- Natural Gas Industry**

According to the Environmental Protection Agency, natural gas-fired electricity generates half the carbon dioxide of coal-fired production. The EIA projects that carbon dioxide emissions will remain below their 2005 level (just under 6 billion metric tons) through 2040 - in some part because of increased reliance on renewables but in large part because of substitution of coal by natural gas.

*Source: American Enterprise Institute, 4 April 2013*

### **Extract 3: Tightening regulation in the Shale Gas Industry**

Though some US states have updated historic oil and gas regulations to encompass hydraulic fracturing and shale gas work more generally, many lag behind and lack enough qualified people to enforce regulations properly, the researchers said. Scientists found "little or no evidence" to support claims that hydraulic fracturing had contaminated aquifers, but recommended that states do more to prevent accidents, such as spillages, underground leaks and gas explosions.

More stringent rules and better surveillance of well construction could prevent cases of houses exploding after methane from fracked wells seeped along underground fractures and collected beneath homes. A handful of high-profile blasts have been traced to shale gas wells in Ohio, Colorado and other states. Hydraulic fracturing uses high pressure water mixed with particles and chemicals to break gas-rich shale rocks apart more than a kilometer underground. Critics have blamed the technique for a range of undesirable effects, from air pollution and contaminated water to minor earthquakes.

*Source: The Guardian, 16 Feb 2012*

### **Extract 4: Economic Benefits of the Shale- Natural Gas Industry**

This year America is expected to overtake Russia and Saudi Arabia to become the world's largest producer of oil and gas combined. In the next few years the benefits of hydraulic fracturing will become more visible in other industries, especially those, such as chemicals firms, that consume a lot of energy or use raw materials derived from hydrocarbons. European industry pays around three times as much for its gas as its American counterpart, and Japanese firms pay more than four times as much.

A report this week by the International Energy Agency, predicts that by 2015 America's energy-intensive firms will have a cost advantage of 5-25% over rivals in other developed countries. The aluminium, iron and steel industries are also taking advantage of cheap gas supplies. Recently 19 new or expanded plants have been announced by firms including US Steel, Alcoa and Arcelor Mittal. Nucor is rebuilding on a site in Louisiana, whose original plant was dismantled and shipped to Trinidad nearly a decade ago, when gas prices were rising in America. Makers of such things as cement and tyres are heavy consumers of energy, too, and thus stand to benefit from cheap gas.

*Source: The Economist, 16 November 2013*

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**Extract 5: Rising Foreign Direct Investment**

In early 2013, Sinochem, a Chinese company, entered into a \$1.7 billion joint venture with Pioneer Natural Resources to acquire a stake in the shale industry in West Texas. This investment highlights a renewed trend toward foreign joint ventures in the shale industry. Since 2008, foreign companies have entered into 21 joint ventures with United States, investing more than \$26 billion in tight oil and shale gas market.

Investment in shale industry in the United States totaled \$133.7 billion between 2008 and 2012, as part of 73 deals. Joint ventures by foreign companies accounted for 20% of these investments. The rest of the investments were either part of outright acquisitions—such as the Australian BHP Billiton oil company's acquisition of Petrohawk Energy Corp.—or were joint ventures among American companies (such as Hess and Noble Energy with Consol Energy) and financial institutions.

Source: *Energy Information Administration*, 8 April 2013

**Questions**

<b>(a)</b>	<b>(i)</b>	<p>Using Figure 1, compare the changes in the production of oil and natural gas in US from 1940 to 2010.</p> <p>Similarities: Both Increase Differences: Rate of increase of natural gas was higher than oil</p>	[2]
	<b>(ii)</b>	<p>With the help of a demand and supply diagram, explain the likely impact of the shale revolution on the price of oil.</p> <p>1m: Increase Supply (Shale Revolution) 1m: Decrease in demand for oil (Substitute) 1m: Diagram with graphical analysis</p>	[3]
<b>(b)</b>		<p>Using AD/AS analysis, explain how the shale energy revolution in Extract 1 might have affected the US economy in the short run.</p> <p>SRAS: Decrease in Unit COP Extract 3: Addition shale energy as a substitute for factor input will put additional downward pressure on global oil prices. The potential to use natural gas for transportation in America and Europe will be able to reduce transportation cost and decrease the unit cost of production.</p> <p>AD: Increase Investment/ Increase in net export Extract 3: United States has only experienced the first stage of low natural-gas prices and the revival of energy intensive industries such as chemicals and steel because of low gas prices. Attract more Investments into US, in turn increasing AD.</p>	[6]

		<p>America will be more energy self-sufficient and more importantly in the consequent displacement of world oil markets by a sharp reduction in U.S. imports The decrease in import expenditure would increase net export and increase AD.</p> <p>L1 (1-3m) Only one sided Analysis L2 (4-6m) Considers both AD and AS analysis, relates to the extract with extract information, GRAPHICAL ANALYSIS is required</p>	
(c)	(i)	<p>Using Extract 2, explain the case for government encouraging the development of shale gas industry despite it generating negative externality.</p> <p>1m: Compare the diff extent of MEC (Lesser DWL) 2m: Graphical Illustration 2m: Graphical Analysis and how it is a decrease in the (DWL)</p>	[5]
	(ii)	<p>Extract 3 mentions about the tightening of regulation in the shale gas industry. Comment on the effectiveness of regulations in reducing the market failure in the shale gas industry.</p> <p>L1 (1-3m): One sided analysis of how the regulation works. L2 (4-6m): Regulation should reduce the MEC or increase the MPC in the production of energy from Shale (Both analysis accepted)</p> <p>Extract 3: States do more to prevent accidents, such as spillages, underground leaks and gas explosions. Critics have blamed the technique for a range of undesirable effects, from air <u>pollution</u> and contaminated water to minor earthquakes. (Insufficient regulation will worsen the MEC to third party) Reduction in MEC: With more regulation, it reduces the probability of accidents, reducing the possibility of third part cost. Increase in MPC:</p> <p>Relate to the difficulties in the regulation of the industry</p> <ul style="list-style-type: none"> <li>- Imperfect Information</li> <li>- Lack of skilled manpower in the regulating</li> <li>- Time Lag</li> <li>- Corruption</li> <li>- Cost of regulations (Restriction of free market development environmental benefit vs economical cost)</li> </ul> <p>Extract 3: Though some US states have updated historic oil and gas regulations to encompass hydraulic fracturing and shale gas work more generally, many lag behind and lack enough qualified people to enforce regulations properly</p>	[6]

(d)	<p>Discuss how the development of the shale gas industry in Extract 1 and 3 would affect the US Balance of Payment. [8]</p> <p><b>BENEFITS</b>  <u>Capital and Financial Account</u>                  Greater FDI (Capital inflow)                  Extract 5: Investment in shale industry in the United States totaled \$133.7 billion between 2008 and 2012, as part of 73 deals.  <u>Current Account</u>                  Trade balance improve due to decreasing dependence on oil imports                  Extract 1: America will be more energy self-sufficient and more importantly in the consequent displacement of world oil markets by a sharp reduction in U.S. imports and will put additional downward pressure on global oil prices.</p> <p><b>EVALUATION</b>                  Despite the improvement in BOP, US has been in a recession since the WFC, the increase in FDI from the shale industry might be insufficient on improving the entire account in BOP.                  US had been dependent on imports for basic consumption and necessities. Despite the reduction in the reliance on oil imports, it could only be just an improvement of the deficit in the trade balance of the current account in the BOP, it might be insignificant.</p> <p><b>COSTS</b>  <u>Long Run</u>                  Worsens Income balance of the current account in the BOP                  Profits earned from the FDI will be transferred to the own domestic economy. Worsens Trade Balance of the current account in the BOP                  Increase in employment and income level will increase purchasing power in the long run. Increase in consumption of imports, Worsens Trade Balance</p> <p><b>EVALUATION</b>                  Dependent on firm's decision to re-invest. Dependent on the types of goods imported, if they are mostly inferior, luxury or necessities. The extent of change in the demand of the imports would be different.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;">Level</th> <th style="width: 60%;">Description</th> <th style="width: 30%;">Marks</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">1</td> <td>1 sided analysis. Mere Listing of BOP accounts.</td> <td style="text-align: center;">1-3</td> </tr> <tr> <td style="text-align: center;">2</td> <td>2 sided clear economic analysis with evidence from extract that links to different components of the BOP.</td> <td style="text-align: center;">4-6</td> </tr> <tr> <td style="text-align: center;">3</td> <td>Balanced View with reasoned judgement demonstrated in the analysis of the development on the different accounts of BOP.</td> <td style="text-align: center;">7-8</td> </tr> </tbody> </table>	Level	Description	Marks	1	1 sided analysis. Mere Listing of BOP accounts.	1-3	2	2 sided clear economic analysis with evidence from extract that links to different components of the BOP.	4-6	3	Balanced View with reasoned judgement demonstrated in the analysis of the development on the different accounts of BOP.	7-8
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3	Balanced View with reasoned judgement demonstrated in the analysis of the development on the different accounts of BOP.	7-8											

[Total: 30 marks]

**Question 2 Korea's Performance, Prospects and Lessons**

**Table 1: Some economic statistics for South Korea over the period 2008-2012**

	2009	2010	2011	2012
Current account balance, % of GDP	3.6	2.7	2.2	3.5
Consumer Price inflation, % per year	2.8	3.0	4.0	2.2
Unemployment , % of labor force	3.6	3.7	3.4	3.2
GDP growth, % per year	0.7	6.5	3.7	2.3
Gross Savings(% of GDP)	33	35	35	35
Imports of Goods and Services (% of GDP)	43	46	54	54

Source of Table 1: World Bank

**Extract 6: South Korea lowers its growth forecast**

The finance ministry has forecast a growth of 3% for 2013, down from its earlier projection of 4.3%. The sovereign debt crisis in the eurozone has hurt demand for South Korean exports from the region. Meanwhile, the economic recovery in the US - another key market for its exports - has also remained fragile and consumer demand there has not picked up drastically. The slowdown in demand for exports has hurt growth in Asia's fourth largest economy. South Korea's economy grew at its slowest pace in three years in the July to September quarter, expanding at an annual rate of 1.6%.

South Korea's exports, which account for almost half of its overall economy, have been hit by slowing demand from markets such as the US and eurozone. "Growth next year will be better than this year, although there are significant downside risks," said the finance ministry's Choi Sang-mok. "Nevertheless, the strength of the recovery won't be strong enough for the economy to catch up to its potential growth rate."

Source: *BBC*, 27 December 2012

**Extract 7: South Korea unveils \$5.2bn stimulus**

South Korea is to spend \$5.2bn on fiscal stimulus measures, as it seeks to boost a flagging economy hit by slowing global exports. The finance ministry has announced steps including a temporary easing of taxes on consumption and property transactions, and an increase in state credit for small businesses. The measures, effective from this month, will cost \$4.07bn this year and \$1.15bn in 2013.

Bahk Jae-wan, the finance minister, had previously indicated a reluctance to conduct large-scale stimulus, citing the need to preserve ammunition in case of a more serious deterioration in the economy. Like a \$7.5bn package announced in June, the stimulus will not involve an expansion of this year's government budget, and it is far smaller than the March 2009 stimulus of \$21.6bn. A senior government official said it is expected to boost gross domestic product by just 0.06 per cent this year and 0.1 per cent next year.

However, the stimulus is larger than economists had expected, reflecting policy makers' concern at a string of data indicating ebbing momentum in the economy. Exports – the main driver of South Korea's economy – fell 6.2% last month, while growth in industrial production has turned negative and confidence is declining among both consumers and businesses.

Source: *Financial Times*, 10 September 2012

### **Extract 8: China, South Korea Start Talks on Free-Trade Pact**

Since 2003, South Korea has signed several trade agreements with partners including US, EU and ASEAN. It is now pursuing entry to the US-led Trans-Pacific Partnership group as well as a trade pact with China. Currently China and South Korea are starting discussions toward reaching a free-trade agreement. The two countries' goal is to lift trade to \$300 billion in 2016. Asia's biggest and fourth-biggest economies would form a market with annual trade that rose 19% in 2011 to \$246 billion. A free trade accord is strategic from both economic and political standpoints, given the proximity to North Korea. Both can gain much for economic growth and closer ties will help beef up regional security. The world economic recovery is sluggish as the global financial crisis endures. Trade protectionism is rising. Exports to China, South Korea's largest market, increased 14.9% to \$134.2 billion in 2011 from a year ago, which accounted for 24.1% of South Korea's total exports last year.

For South Korea, makers of cars, electronics, chemicals and petrochemical products will benefit most from a trade pact while farmers and small manufacturers will be hit hard. China buys mostly cars and electronics from South Korea while selling mainly mineral products and electronic parts to South Korea. A free trade deal with China would boost South Korea's economic growth by as much as 3 percentage points and create as many as 330,000 jobs over a decade. South Korea's Finance Minister Bahk Jae Wan said that the nation should take advantage of China's efforts to generate more growth from domestic demand.

Source: *Bloomberg*, 2 May 2012

### **Extract 9: South Korea cuts interest rates in a bid to spur growth**

South Korea's central bank has cut interest rates for the second time in the space of four months amid concerns about a slowdown in its economy. The bank cut its key rate to 2.75% from 3% in a bid to spur growth. South Korea's exports, one of its biggest drivers of growth, has been hurt by slowing demand from key markets such

as the US and the eurozone. At the same time, domestic demand continues to remain subdued, further hurting economic growth.

With the eurozone continuing to struggle with its debt crisis and the recovery in the US remaining weak, South Korea may need to cut its borrowing costs even further in the coming months. South Korea's export-driven economy will have difficulty picking up if the global economy continues to struggle to grow.

Source: *BBC*, 11 October 2012

Questions

- (a) Using the information in Table 1, identify and explain the relationship between unemployment and inflation rate in South Korea between 2009 and 2012. [3]

<b>Identify</b>	A direct correlation. [1]
<b>Explain</b>	A rise in GDP growth rate → higher returns of investment → reduction in unemployment rate → rise in disposable income and consumption → at excess capacity, rise in inflation at a slower rate. [2]

- (b) (i) Using AD/AS analysis, explain why, in South Korea, 'the finance ministry has forecast a growth of 3% for 2013, down from its earlier projection of 4.3%', as stated in Extract 6? [3]

'Explain why' → Give reasons

<b>Topic Statement</b>	The forecast growth is down to 3% → eurozone and US economies have not recovered completely.
<b>Theory</b>	<p>General Price Level</p> <p>Figure 1</p> <p>South Korea's exports Eurozone debt crisis → fall in economy purchasing power → fall in demand for South Korea's exports. US weak recovery → slow rise in demand for South Korea's exports. In Figure 1, slower rise in AD → AD forecast down from AD<sub>4.3%</sub> forecast to AD<sub>3%</sub> forecast → real national income rises from 0Y<sub>1</sub> to 0Y<sub>2</sub> instead of 0Y<sub>3</sub> → %change in growth will be smaller [2]</p>
<b>Evidence (Case Study)</b>	<p>Extract 6 Para 1:</p> <ul style="list-style-type: none"> <li>• Sovereign debt crisis hurt demand for South Korean exports</li> <li>• US weak economic recovery, slow rise in consumer demand</li> <li>• South Korea exports, almost half of its overall economy [1]</li> </ul>
<b>Conclusion</b>	South Korea forecast economy growth will fall.

- (ii) Using the information from the extract, how far does the multiplier help to explain the economic recovery of South Korea? [4]

'How far' → Thesis vs Antithesis

<b>Topic Statement (Thesis)</b>	The multiplier → generates multiple increases in nominal national income and actual economy growth and recovery.
<b>Theory</b>	Given $\Delta J \times k = \Delta NY$ → due to tax reduction on consumption and property, the proportion of each extra dollar of income taken by the South Korean government falls → based on \$5.2bn autonomous expenditure → at the first round, the multiplier generates the maximum amount of nominal national income. At subsequent rounds, the rise in nominal income falls till it reaches

	a final and higher equilibrium national income and growth. [2]
<b>Evidence (Case Study)</b>	<p><u>Extract 7 Para 1:</u></p> <ul style="list-style-type: none"> <li>temporary easing of taxes on consumption and property transactions</li> <li>\$5.2bn on fiscal stimulus measures</li> </ul>
<b>Topic Statement (Antithesis)</b>	Rising trend in MPS and MPM and negative outlook may negate the effectiveness of the multiplier.
<b>Theory</b>	<p>Table 1 across 2009-2012 → rising trend in Gross Savings (% of GDP) and Imports of Goods and Services (% of GDP). In addition, negative outlook → force firms to cut back on investment → withhold planned inventories. Due to job instability → consumers save a greater proportion of total income earned.</p> <p>Overall, if the fall in MPT does not exceed the rise in MPM and MPS → bigger MPW → smaller multiplier → slower rise in economy recovery. [2]</p>
<b>Evidence (Case Study)</b>	<p><u>Table 1:</u></p> <ul style="list-style-type: none"> <li>Gross Savings (% of GDP)</li> <li>Imports of Goods and Services (% of GDP)</li> </ul> <p><u>Extract 7 Para 2:</u></p> <ul style="list-style-type: none"> <li>growth in industrial production has turned negative</li> <li>confidence is declining among both consumers and businesses</li> </ul>
<b>Conclusion</b>	The multiplier helps to explain the economic recovery of South Korea through raising government spending and nominal national income however the rate of economic recovery could be hindered by the declining value of the multiplier.

- (c) Use the concept of circular flow of income to explain how the fiscal stimulus measures suggested in Extract 7 will affect the equilibrium level of national income in South Korea in 2013.

[6]

'Explain how → Step by step explanation of the process

'Increase in state credit' → Increase in investment expenditure

<b>Topic Statement</b>	Fiscal stimulus measure will raise the equilibrium level of national income in South Korea in 2013.
<b>Theory</b>	<ul style="list-style-type: none"> <li>Rise in Government spending</li> <li>Fall in tax revenue due to easing of taxes</li> </ul> <p>→ Overall, increases injections relative to withdrawals, creating a net injection into the circular flow.</p> <p>Assume that there is no change in the other components of injections and withdrawals and to keep it simple:  <u>Government spending to rise by \$4.07bn</u></p> <ul style="list-style-type: none"> <li>Gross Savings (% of GDP) = 35 → MPC = 0.65 since MPC+MPS=1 → MPW= 0.35</li> </ul> <p>Firms' revenue in South Korea rises by \$4.07bn. The rise in AD → firms raise production and inventories to optimal level → raise in demand for factors of production as they are derived demand → factor income paid out rises by \$4.07bn.</p> <p>South Korean household income rises by \$4.07bn → rise in household purchasing power and induced consumption. This consumption however does not rise by the full extent of the rise in income. Given MPC=0.65, induced consumption rises by only \$2.65bn [4.07*0.65]</p>

	<p>with the rest of the shortfall (\$1.42bn) coming from cut backs in savings, taxes and imports.</p> <p>The rise in induced consumption of \$2.65bn → further rise in revenue of firms in South Korea → with another round of rise in AD → further rise in small businesses' production and inventories → rise in factor income disbursed. Rise in Korean household income of \$2.65bn leads to yet more expansion in induced consumption (\$1.72bn), savings, taxes and imports (\$0.93bn).</p> <p>Each subsequent round of expansion in induced consumption gets smaller as the withdrawals after each subsequent round (cutbacks in S, T and M) help reduce the extent by which induced consumption has to rise to balance the income and spending of Korean households. The process continues until the total rise in withdrawals = initial rise in injections = \$4.07bn → new equilibrium achieved at a higher level of national income.</p> $\text{Multiplier, } k = \frac{1}{1 - MPC_d} = 2.86$ $\Delta Y = k \Delta J = 2.86 \times (+\$4.07\text{bn}) = +\$11.6\text{bn}$ <p>An increase in government spending of \$4.07bn, working through the multiplier process, will cause nominal national income to rise by \$11.6bn.</p>
<b>Evidence (Case Study)</b>	<p><u>Extract 7 Para 1:</u></p> <ul style="list-style-type: none"> <li>• Will cost \$4.07bn this year</li> <li>• temporary easing of taxes on consumption and property transactions</li> </ul>
<b>Conclusion</b>	Hence the equilibrium level of national income will rise.

Level	Descriptors	Marks
L2	Thorough explanation to explain the concept of circular flow of income using numbers or diagrams.	5-6
	Explanation of circular flow of income with no reference to data on taxes.	4
L1	Wrong use of other economic framework e.g. AD/AS	1-3
	Lop-sided analysis with little / no reference to data	
	Answer did not address requirements of the question, i.e. does not know what question is about OR had no economic framework	

(d) According to Table 1 and Extract 8, explain the possible effects of a China-South Korea Free-Trade Pact on the economy of South Korea. [6]

<b>Cause</b>	A China-South Korea Free-Trade Pact on the economy of South Korea		
<b>Rationale</b>	World economic recovery is slow due to eurozone debt crisis and US slow recovery → trade protectionism is rising		
<b>Consequence</b>	Reduction in trade barriers e.g. tariffs on South Korea's exports into China → South Korea's exports e.g. cars, electronics parts, higher competitive advantage → raise quantity demanded of exports and export revenue by more than proportionate due to price elastic demand.		
<b>Topic Statement</b>	<b>Positive</b>	<b>Negative</b>	
	It would have positive externalities	It would have negative	

	on South Korea's <ul style="list-style-type: none"> <li>• BOP &amp; Inflation</li> <li>• Unemployment &amp; EG rate</li> </ul>	externalities on South Korea's <ul style="list-style-type: none"> <li>• Efficiency and Equity</li> </ul>
<b>Theory</b>	Given China's EG rate and high demand for imports from South Korea → rise in demand for South Korea's exports → boost trade in goods account, ceteris paribus, widen the current account surplus [% of GDP] and yuan reserves in Bank of Korea. Raise market contestability → boost business investment by products makers e.g. cars, chemicals → boost risk bearing EOS, cp → inflation rate will rise at a slower rate as $\uparrow AD > \uparrow LRAS$ .  Boost demand for factors of production including export workers → reduce cyclical unemployment rate, below 3.4% in the long run. Via the upward multiplier, would boost AD and South Korea's NY multiple times → rise in actual EG above 3.7% in the long run. [4]	Market competition → higher opportunity cost of production e.g. electronics on farmers and small firms while the product makers enjoy comparative advantage as they have a lower opportunity cost in capital intensive production modes. Profits may fall → small firms may raise price and reduce output → rise in inequity in income and accessibility while at the same time, rise in welfare loss due to allocative inefficiency as $P > MC$ .  Rise in structural unemployment. [2]
<b>Evidence (Case Study)</b>	<u>Extract 8 Para 1, 2, Table 1:</u> <ul style="list-style-type: none"> <li>• lift trade to \$300 billion in 2016</li> <li>• create as many as 330,000 jobs over a decade</li> <li>• EG grow as much as 3% points</li> <li>• Products makers will benefit</li> <li>• Take advantage of China's efforts to generate growth</li> </ul>	<u>Extract 8 Para 2:</u> <ul style="list-style-type: none"> <li>• Farmers and small manufacturers will be hit hard</li> </ul>
<b>Conclusion</b>	Using the PPC framework, assume South Korea is at full employment level of output, PPC shift outwards → higher level of output for production and consumption → higher profits and more choices [imports] → rise in SOL	

Level	Descriptors	Marks
L2	Thorough explanation of both negative and positive effects of the China-South Korea Free-Trade Pact on South Korea economy.	5-6
	Some explanation of either positive or negative effects but not grounded in terms of economic framework. Attempts at showing a balance. Some / little reference to case study material.	4
L1	Max 2-Limited explanation of 1 goal e.g. economic growth  Answer did not discuss or totally disregarded the given problems  Lop-sided analysis with little / no reference to data  Answer did not address requirements of the question, i.e. does not know what question is about OR had no economic framework	1-3

(e) Discuss the policy options outlined in Extract 7 and Extract 9 for promoting actual economic growth rate.

<b>Problem</b>	GDP growth rate across 2009-2012 → average 3.3%	
<b>Cause</b>	Pessimistic market outlook, caused by EU and US	
<b>Rationale</b>	Promote actual economic growth rate in South Korea by at least 3.3%	
<b>Policy</b>	<b>Fiscal Stimulus Measures</b>	<b>Cut interest rate</b>
<b>Topic Statement</b>	Fiscal stimulus measures would promote actual economic growth	South Korea CB cut interest rate to boost actual economic growth
<b>Theory</b>	<p>Temporary taxes reduction on consumption e.g. sales tax → rise in disposable income → rise in consumption.</p> <p>Temporary taxes reduction on property → reduces unit cost of production of housing developers in South Korea → rise in post-tax profits and investment.</p> <p>Increase in state credit → rise in investment</p>	<p>Reduction in unit cost of borrowing, cp → raises unit profits → a rise in investment, more than proportionate. Consumers who are interest rate sensitive → a reduction in unit cost of borrowing may spur borrowing → rise in consumption, more than proportionate.</p>
	<p>Take note: State credit is government loan to small firms that are credit worthy but are not able to obtain loans from private sector to expand output and create jobs.</p> <p>Rise in C, I → Rise in AD, cp → via the upward multiplier, raises national output and NY multiple times → raises actual EG rate</p>	
<b>Evidence (Case Study)</b>	<p><u>Extract 7 Para 1:</u></p> <ul style="list-style-type: none"> <li>temporary easing of taxes on consumption and property transactions</li> <li>increase in state credit for small businesses</li> <li>\$5.2bn on fiscal stimulus measures</li> </ul>	<p><u>Extract 9 Para 1:</u></p> <ul style="list-style-type: none"> <li>The bank cut its key rate to 2.75% from 3% in a bid to spur growth</li> <li>South Korea may need to cut its borrowing costs even further</li> </ul>
<b>Evaluation</b>	<p>Proportion of cost of fiscal stimulus, approx. a cut of 75% as compared to budget 2009 and small multiplier → fiscal policy little impact on NY and growth rate</p> <p>Rise in financial opportunity cost</p>	<p>Pessimistic market outlook → for big firms, MEI is interest inelastic → nominal interest rate need to lower further → as inflation is 2.2% (2012), real interest rate will fall or become negative → outflow of hot money initially disguised as long term investment → render interest rate cut policy ineffective.</p> <p>For small firms, policy could be more effective as <math>MEI &gt; 1</math>.</p>
<b>Conclusion</b>	<p>In theory, these policies should boost jobs and economic growth rate. In reality, the South Korean government should raise the fiscal stimulus substantially and de-regulate markets to encourage FDI and investment, not neglecting the consumption market.</p>	

Level	Descriptors	Marks
L2	Thorough explanation using relevant economic policies. Provided a justified stand.	5-6
	Some explanation of relevant policies but not well-grounded in terms of economic framework. Attempts at showing a balance. Some / little reference to case study material	4
L1	Limited explanation of relevant policies	1-3
	Answer did not discuss or totally disregarded the given problems	
	Lop-sided analysis with little / no reference to data	

	Wrong use of policies Answer did not address requirements of the question, i.e. does not know what question is about OR had no economic framework	
	<b>Evaluation</b>	
E1	Judgment with analysis	+2

[Total: 30]

<b>Q3.</b>	<b>As a consequence of trade liberalization, the economy specialize growingly in activities that it has a comparative advantage. However, trade-driven may also lead to undesirable effects like environmental degradation.</b>	
	(a) Explain why countries embrace free trade.	[10]
	(b) Discuss the policy options for a government in correcting the market failure arising from an export-led growth.	[15]

**Suggested Solutions:**

(a) Explain why countries embrace free trade. [10]

**Introduction:**

Free trade is the exchange of goods and service between individuals, regions of the country or between countries, where there are no presence of barriers to trade like that of trade tariffs or quota restrictions. Trade activities has become an integral part of most, if not all economies in the globalised world today. Since the 2000s, world exports have increased by close to 200%, while world imports have grown by approximately 180%. Clearly, there are strong reasons for embracing free trade as countries become more closely interrelated through the exchange of goods and service.

**Body:**

1a) Free trade with specialisation increases world output and consumption according to the theory of comparative advantage\*.

- Define Comparative Advantage. Define Specialisation.
- Explain how differences in relative opportunity costs of producing the goods and services enable countries to reap gain from specialisation and trade.
- Mutually beneficial trade can take place whenever opportunity cost ratio differs.
- Draw tables showing PPCs of two countries before and after trade, to illustrate gains from trade.
- Highlight that trade can be mutually beneficial even if a country has absolute disadvantage in production of certain goods as compared to another country. It depends on the terms of trade.
- Conclude that total world production increases; both countries consume combination of goods outside their production possibility curve.

1b) There is wider variety of goods and services available for consumption.

- Explain that a wider variety of goods and services consumed raises standard of living in both small and large economies.
- Especially important for small economies which lack natural resources although large economies can still benefit from international trade.

\*Theory of comparative advantage has assumptions which must be mentioned.

2) International free trade expands market size which brings about cost savings(EOS).

- International trade allows expansion of market for products from domestic markets to international market.
- Explain that in expanding production, firms can achieve internal economies of scale.
- Explain the links between cost savings, lower international price, increased competitiveness and greater export revenue.
- Both consumers and producers will benefit.

3) Trade as an 'engine of growth'.

- Explain how can trade as a component of aggregate demand can bring about actual economic growth
- Reinforce by explaining the benefits of economic growth.

**Conclusion:**

Indeed, benefits from free trade encourages economies to continue advocating free trade. However, the gains from trade may not be equally distributed in the economy and may even bring about negative impacts on an economy. Growth brought about by increased trade could lead to negative

externalities such as environmental degradation. As such, government needs to intervene to correct for the resulting market failure, which would be address in (b).

**Level of Response Marking Scheme (LORMS)**

<b>Knowledge, Understanding, Application, Analysis</b>		
<b>L3</b>	For an answer where valid reasons are thoroughly explained, one of which is based on theory of comparative advantage. (i.e. considered assumptions, concept of opportunity cost, gains from trade before and after trade.) OR Incomplete CA + 2 well explained supporting point (Max 7m) OR Complete CA + 1 well explained supporting point (Max 8m)	<b>7 - 10</b>
<b>L2</b>	For an answer where valid reasons are underdeveloped, <b>without</b> reference to the theory of comparative advantage(i.e. other reasons including wider variety of goods and services, EOS and increased competition). OR Mere explanation of theory of Comparative Advantage without any other supporting reasons (Max 6m)  Three reasons other than Comparative Advantage, very well explained (Max 7m).	<b>5 - 6</b>
<b>L1</b>	For an answer that is largely descriptive without economic analysis. (E.g. Merely stating reasons without any explanation)	<b>1 - 4</b>

(b) Discuss the policy options for a government in correcting the market failure arising from an export-led growth. [15]

**Introduction:**

- Identify the case of market failure as negative externality in production.
- Define and explain market failure in general.
- Establish the link between export-led growth and negative externalities in production in the contextual discussion of environmental degradation stated in the preamble. For example, air pollution and deforestation from the production of goods countries have comparative advantage in.

**Body:**

- 1) Government can correct for the negative externality through **taxation**.
  - a. Indirect taxation
    - Explain the case of market failure with a specific example.
    - Explain the case of market failure including a diagrammatic analysis clearly identifying the dead weight loss to the society.
    - Highlight the case of overproduction and negative externalities generated which results in welfare loss to the society.
    - Explain how taxation can correct for the market failure by influencing producers to internalize the external cost and reduce production to the social optimal output.

Evaluate on the effectiveness of indirect taxes to reduce over-production.

- Limited information on the value of marginal external cost in order to set a tax that is equal to MEC and accurately attain the socially optimal quantity  $Q_s$ . Social welfare may improve with indirect taxation, but may not fully remove the social welfare loss.

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- Difficulty in implementation and enforcement of taxes due to limited financial resources(especially common in developing countries where legal system is underdeveloped and regulatory mechanisms are weak).
  - Government can use tax revenue earned to fund other projects to deal with the costs of the externality. For example, reforestation.
- 2) Government can correct for market failure through **regulation**.
- Explain how regulation can correct for market failure where compliance involves firms investing in equipment to treat their emissions, which are negative externalities in production.
  - Similarly, this results in producers internalising the external cost and reducing production to the social optimal output.

Evaluate on the effectiveness of regulation to reduce over-production.

- Difficulty in setting up strong regulatory body to ensure compliance due to limited financial resources.
- 3) Government can correct for market failure through implementation of **tradeable permits**.
- Explain how tradeable permits correct for market failure where firms are require to attain a permit in order to emit a certain quantity of pollutant.
    - o Limited supply of permits may be auctioned. The price will hence be determined by the demand for permits by firms and the limited supply by government.
    - o As firms who pollute are paying a price for the permit, they are internalizing the external costs of their actions, and hence production is reduced to the socially optimal level of output.

Evaluate on the effectiveness of tradeable permits to reduce over-production

- Limited information to set the right amount of permits which allow production to be at the socially optimal level to maximise social welfare.
- Limited funds to maintain a tradeable permit system and monitor firms that pollute within the amount permitted and impose punitive measures if there is any non-compliance.

Additional evaluation across policies

- Taxes and tradeable permits, are efficient, market-based solutions where measures are imposed on per unit emissions and not on the firm per se. In real life, firms do not face the same cost of reducing pollution. Taxes hence give them an option of doing so or not based on their own cost structures. Only firms whose cost of reducing pollution is greater than paying the tax, will pay the tax.
- But they might be more difficult to design and enforce as compared to regulation. Government just needs to set a regulatory limit and ensure that all firms comply with the regulations. That having said, problem of inefficiency and inflexibility arises with regulation because the same regulation is imposed on all firms. Different firms face different cost of reducing pollution as mentioned, and firms who can reduce pollution at a lower cost will have no further incentive to do so once they have complied with the standards set by the government.

**Conclusion:**

Summary of ideas and personal insights

**Level of Response Marking Scheme (LORMS)**

<b>Knowledge, Understanding, Application, Analysis</b>		
<b>L3</b>	For a well-developed answer that considers both the advantages and disadvantages of policies listed. Policies are thoroughly explained and addresses the problem of over-production.	<b>9 - 11</b>
<b>L2</b>	For an underdeveloped answer that only regurgitates the	<b>6 - 8</b>

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2014 Preliminary Examination

September '14

	mechanics of policies without application. OR An underdeveloped answer that only explains the merits of policies stated and not consider the limitations.	
<b>L1</b>	For an answer that is largely descriptive without economic analysis. (E.g. Merely stating policies without any explanation)	<b>1 - 5</b>

<b>Allow up to 4 additional marks for Evaluation</b>		
<b>E2</b>	Judgements supported by analysis(i.e. weighing based on criteria in the question context).	<b>3-4</b>
<b>E1</b>	Unsubstantiated Judgements.	<b>1-2</b>

- 4 In December 2012, the Federal Reserve announced that it will keep interest rates suppressed as long as it does not achieve its unemployment target rate of 6.5%.
- (a) Explain why high unemployment is undesirable for an economy. [10]
- (b) Discuss the view that interest-rate centred monetary policy is, more often than not, the best option to achieve the macroeconomic objectives of a government. [15]

(a) Explain why high unemployment is undesirable for an economy. [10]

Explain concept of unemployment.

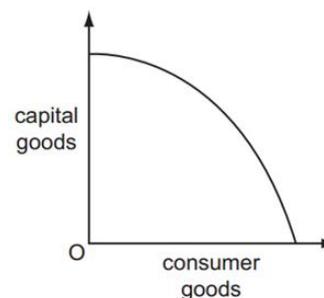
- Define unemployment: arises when people who are willing and able to work are unable to be gainfully employed
- The unemployment rate of an economy is the proportion of the labour force that is unemployed.
- Unemployment rate = no. of unemployed workers / labour force x 100%, where the labour force refers to those who are employed and unemployed but are actively seeking work.

1. Explain high unemployment

- While unemployment rates of an economy are typically never at 0%, an economy seeks to attain low unemployment. Even countries considered to be at full employment still have a positive, but low unemployment rate.
- High unemployment on the other hand occurs if the economy is experiencing unemployment levels significantly higher than its full employment rate of unemployment.
- Examples: Spain (25.6% in 2014), United States (8% in 2012)
- When this happens, the economy has a **sizeable** proportion of the workforce that are willing to work but are without job.
- This is undesirable both from an economic and social point of view.

2. Explain economic costs of unemployment: output loss

- Unemployed constitute a valuable part of labour force → could be used to produce something valuable for society
- But without gainful employment the unemployed are unable to contribute to the production of goods and services society needs and wants.
- In terms of the PPC (ref to PPC diag.), the economy could have been producing higher levels of output at point A if all its resources are fully and efficiently utilised. But because resources such as labour are not fully employed, it is instead producing within the PPC at point B, which enjoys less amounts of capital and consumer goods.
- → lower output
- (Furthermore, **high and persistent cyclical unemployment** can translate into more stubborn structural unemployment when workers who remain unemployed over a long time lost their skills and employability → harder to lower this kind of unemployment by simply creating demand. In long run, these workers might turn discouraged and leave the workforce → lowering productive capacity)
- **The higher the unemployment, the more the output loss.**



3. Explain economic costs of unemployment: revenue loss to the government, extra expenditure
  - Government collects tax revenue for a variety of purposes, including funnelling funds into improvements in infrastructure, transfer payments, and its operations.
  - When there is higher unemployment → more people are not earning an income → tax base shrinks → government receives less income tax  
(at the same time, higher unemployment usually also occurs together with falling income levels → people pay less income tax → fall in tax revenue)
  - Unemployed cut down on income-induced spending on goods and services ( $C = a + bY_d$ ) → government tax revenue collected on goods and services consumed (VAT/GST) falls.
  - (For countries with unemployment benefits like UK, US) Higher unemployment → more number of people receiving unemployment benefits → government expenditure rises
  - The **higher the unemployment, the more likely the government budget will move into a worsened position**
  - The loss in tax revenue and the possible increase in expenditure means that governments might have to choose to sacrifice certain areas of expenditure thus incurring opportunity costs.
  
4. Explain economic/social costs of high unemployment: lower standard of living
  - With the output loss from having labour resources unemployed → lower material SOL
  - With worsened government budget position, the government might have to compromise spending on certain merit goods like healthcare and education that lower non-material and material SOL
  - Furthermore economies with high unemployment rates are typically found to have a higher incidence of theft, robbery, alcoholism, depression, etc → lower non-material standard of living. Also, this causes social and political instability → lower investor confidence → further affecting economic growth and employment levels

Other possible points: worsened income inequality in society

LORMS:

Level	Descriptors	Marks
3	For a well-developed explanation of at least 3 negative consequences of HIGH unemployment in an economy, well-supported with relevant examples.	9-11
2	For an under-developed answer of some consequences of unemployment in an economy.	6-8
1	Smattering of points about the negative consequences of unemployment in an economy. Conceptual errors present.	1-5

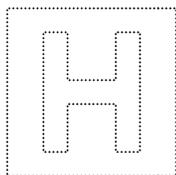
(b) Discuss the view that interest-rate centred monetary policy is, more often than not, the best option to achieve the macroeconomic objectives of a government. [15]

<ul style="list-style-type: none"> <li>Interest-rate centred monetary policy – manipulation of interest rate as a tool to controlling money supply and the level of consumption and investment and thus AD in the economy</li> <li>Macroeconomic objectives – high and sustainable economic growth, low inflation rate, low unemployment, healthy BOP.</li> <li>Explain transmission mechanism: expansionary monetary policy → lower interest rates using open market operations to increase money supply → lower cost of borrowing to firms → increase expected profitability of lower-end investments → increase in interest-sensitive investments. At the same time, lower cost of borrowing to consumers → cheaper cost of credit → increased consumption on big-ticket consumer items that require borrowing to finance. Overall, the increase in C and I → higher AD</li> </ul>		
Economic Objective	<b><i>T: Interest-rate centred monetary policy is a better way to achieve macroeconomic objectives</i></b>	<b><i>AT: There are other better ways of achieving the macroeconomic objectives of the government</i></b>
Economic Growth	<p>E.g. for a country (e.g. US) experiencing recession and high unemployment that would like to increase economic growth and lower unemployment</p> <ul style="list-style-type: none"> <li>Use expansionary monetary policy → higher AD → help to boost economic growth and lower cyclical unemployment through the multiplier effect.</li> </ul>	<p>Supply side policy should be used for countries which want to pursue sustainable economic growth in the LR, in order to match increases in AD with corresponding capacity upgrades. <i>Explain appropriate SS-side policy.</i></p>
Low Unemployment	<p>Better because...</p> <ul style="list-style-type: none"> <li>Affects both consumers and firms' expenditure</li> <li>Good especially for countries with large fiscal deficits (which makes fiscal expansion difficult) like UK</li> </ul> <p>Limited because...</p> <ul style="list-style-type: none"> <li>For countries with already very low interest rates (e.g. Japan, US) they are facing the liquidity trap → unable to further lower interest rates (unless they make it negative) to stimulate AD</li> <li>Depends on the effectiveness of the transmission mechanism – whether banks are willing to lend and firms and consumers willing to borrow, since these are inherently risky ventures. During downturns, esp the recent financial crisis in the US, the transmission mechanism can break down due to banks hoarding cash instead of loaning it out → limited use in stimulating C &amp; I &amp; AD</li> </ul>	<p>Expansionary monetary policy is better to lower cyclical unemployment, but is not the best in the case of structural unemployment. In that case, supply side policy that facilitates retraining and skill-upgrading of workers is a better option.</p>

<p>Low Inflation</p>	<p>For countries facing high inflationary pressure e.g. China:</p> <ul style="list-style-type: none"> <li>• Use contractionary monetary policy → lower <math>i/r</math> → lower AD → economy near full capacity will cool down competition for limited resources left → lower demand-pull inflation</li> </ul> <p>Better because...</p> <ul style="list-style-type: none"> <li>• Increasing interest rates work on cooling off first the high-valued investment and consumption as these are the ones likely to be dependent on financing and will be more interest-sensitive. Since these are also high-valued → have an emphasised impact on AD</li> </ul> <p>Limited because...</p> <ul style="list-style-type: none"> <li>• During times of high confidence (e.g. in China in 2000's), investors might continue making investment decisions not so much based on interest rates but based on animal spirits(herd sentiment) which limits the extent AD falls by</li> <li>• Compromises economic growth as AD cools, hurts economy and SOL</li> </ul>	<p>Explain some other policy that might be better at achieving low inflation.</p> <p>Raising productive capacity might be better at times where inflation is caused by demand-pull factors → explain SS-side policy</p> <p>Appreciation of currency could be a better policy than interest-rate centered monetary policy because:</p> <ol style="list-style-type: none"> <li>1. Inflation could be imported cost-push in nature (e.g. oil price spikes)</li> <li>2. Lack of control of interest rates but there is control over exchange rates</li> </ol>
<p>Healthy BOP</p>	<p>For a country with current account deficits:</p> <ul style="list-style-type: none"> <li>• Use contractionary monetary policy → lower <math>i/r</math> → lower AD → economy near full capacity will cool down competition for limited resources left → lower demand-pull inflation → cheaper exports → boost export competitiveness → assuming <math>PED_x &gt; 1</math>, increases X revenue. At the same time, lower AD → lower economic growth → lower demand for imports. Overall, BOT improves.</li> </ul> <p>Limited because...</p> <ul style="list-style-type: none"> <li>• Compromises economic growth as AD cools, hurts economy and SOL</li> </ul>	<p>For a country that encounters BOP deficits which are not due to its BOT deficit or because of structural problems, then interest-rate centered monetary policy might not be the best option.</p> <p>Instead then, supply-side policies to develop new areas with potential comparative advantage should be used → explain such policies.</p>
<p>General</p>	<p>Limited ability to use interest rates:</p> <ul style="list-style-type: none"> <li>• Countries like Singapore which is very open to capital flow and chooses to manage exchange rates → unable to control interest rates and is interest-rate taker</li> </ul> <p>Countries such as PIGS (Portugal, Italy, Greece and Spain) who are bound by the economic union to ECB interest rates</p>	

Level	Descriptors	Marks
3	For a balanced answer supported with well-developed economic analysis on whether interest-rate centred monetary policy is the best policy for governments to achieve the macroeconomic objectives. Answer shows consideration of various macroeconomic objectives and different countries' governments. Policy alternatives are also discussed.	9-11
2	For an under-developed answer or a one-sided discussion on whether interest-rate centred monetary policy is the best policy for governments to achieve the macroeconomic objectives.	6-8
1	Smattering of points about interest-rate centred monetary policy and its use in achieving macroeconomic objectives of the government. Conceptual errors present.	1-5

Level	Descriptors	Marks
2	For insightful evaluative comment well-substantiated by economic analysis and judgement.	3-4
1	For unsubstantiated evaluative comment.	1-2



INNOVA JUNIOR COLLEGE  
JC 2 PRELIMINARY EXAMINATION 2  
in preparation for General Certificate of Education Advanced Level  
**Higher 2**

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**ECONOMICS**

**9732/01**

Paper 1

**17 September 2014**

**2 hours 15 minutes**

Additional Materials: Writing Paper and Cover page

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**READ THESE INSTRUCTIONS FIRST**

Write your name and class on all the work you hand in.  
Write in dark blue or black pen on both sides of the paper.  
You may use a soft pencil for any diagrams, graphs or rough working.  
Do not use staples, paper clips, highlighters, glue or correction fluid/tape.

Answer **all** questions.

At the end of the examination, fasten all your work securely together.  
The number of marks is given in brackets [ ] at the end of each question or part question.

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This document consists of **8** printed pages.



Answer **all** questions.**Question 1****London Olympics 2012****Table 1: Visitors to London**

	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
Total Visits (000s)	14,753	14,211	14,706	15,289	15,461
Total Nights (000s)	90,815	85,686	90,318	91,498	94,300
Total Expenditure (£)	8,126	8,238	8,741	9,411	10,075

Source: Office for National Statistics

**Table 2: Price of Tennis Olympics Tickets**

<i>All values in £</i>	<b>Category 1</b>	<b>Category 2</b>	<b>Category 3</b>	<b>Category 4</b>
Preliminary	85	65	55	40
Quarter-Final	115	75	65	45
Semi-Final	115	75	65	45
Final	225	150	110	95

Source: [www.ticketslondon2012.com](http://www.ticketslondon2012.com)**Extract 1: The battle of the Sportswear market**

It is not only the athletes that will be competing for first place at next summer's Olympic Games. Adidas, the German sportswear brand, plans to use the games as a springboard to overtake its arch rival Nike as the biggest sportswear company in the UK.

Nike is currently market leader in the UK with an 18 percent share of the ultra-competitive £4.3bn sportswear market. Adidas is in second place with a 15 percent share, but hopes that its status as official sportswear partner of the Games will help it achieve its goal of overtaking Nike by 2015 at the latest. As well as kitting out the athletes in 25 of the 26 Olympic sports – equestrianism requires very specialised equipment – Adidas will dress the 70,000 Olympic volunteers, provide the outfits for the pre-games torch relay and create clothing for the athletes to wear in the Olympic Village.

Adidas is also the Games' official clothing licensee, and will sell Olympic-themed and branded clothes through its own stores and third-party retailers, such as Tesco and Asda. On top of this, it has appointed Stella McCartney, the designer and daughter of Sir Paul, as the creative director of Team GB. She will provide the team with garments such as their signature tracksuits and has also designed more fashionable "capsule" ranges that will be available on the high street. There will be a big sustainable and environmentally-friendly element to the clothing, Adidas said. It is not inconceivable that some of the athletes' kit will be at least partially made from recycled plastic drinks bottles.

Adidas has invested around £100m in the 2012 Olympics. This figure is split between the cost of becoming an official partner, the cost of manufacturing the clothes for the athletes, the volunteers and the retailers and the cost of marketing the ranges and the company. Even if the company achieves its desired top line sales of £100m, it will only go some way to paying off the £100m bottom-line investment. Mr Hainer admitted that if looked at purely on a profit and loss basis, the investment is a "big loss". However, he said that the positive benefits to Adidas's brand and standing in the UK are manifold.

Source: *The Telegraph*, 29 May 2011

### **Extract 2: Olympic Tickets**

The International Olympic Committee has launched an inquiry into allegations that Olympic officials and agents have been caught selling tickets for the London 2012 Games on the black market. The IOC has held an emergency meeting of its ruling executive following an undercover newspaper investigation. It has referred the allegations to its independent ethics commission, which could lead to a review of how Olympic tickets are distributed among member countries in the future.

*Sunday Times* reporters posing as envoys of a Middle Eastern ticket tout claim to have found 27 officials and agents representing 54 countries who were willing to breach the rules on selling tickets. One, from Serbia, offered 1,500 tickets for £80,000, while China's official ticket agency agreed to sell the best seats in the stadiums for up to £6,000 each, according to the newspaper.

Adapted from: *The Observer*, 17 June 2012

### **Extract 3: Olympic athletes could be impaired by London Pollution**

Olympic runners, cyclists, swimmers and even sailors arriving in London on Monday could be taken ill or see their performances impaired by air pollution, health experts have warned. According to Keith Prowse, respiratory consultant and medical adviser to the British Lung Foundation, a summer smog like any of the five already experienced this year in the capital could lead to some athletes needing medication and experiencing chest pains, sore throats and shortness of breath.

The effect of air pollution on athletes came to the fore during the 1984 Los Angeles Olympics, where British middle-distance runner Steve Ovett collapsed with respiratory problems after the 800-metres final, citing air pollution as a major trigger for his "exercise-induced" asthma. At the Beijing Olympics in 2008, China banned half the cars in the city and closed down hundreds of polluting factories to avoid medical problems from air pollution. Official advice to the public during smog incidents is to reduce physical exertion, and stay indoors.

Air pollution experts say levels of Nitrogen Dioxide (NO<sub>2</sub>) in London are comparable to those in Beijing before it banned 50% of the cars. But rather than ban traffic for the duration of the games, Mayor Boris Johnson has opted to try to keep people and cars out of the city with a campaign to encourage them to work from home. A recording of Johnson warning of long delays and congestion is now being played over public address systems at many commuter stations and on the London Tube.

Transport for London has said it will wash the busiest streets with a machine similar to a road dust sweeper and then spray a solution of calcium magnesium acetate that literally sticks the particulate matter to the carriageway and prevents it recirculating in the air. Fears that the 600 miles of Olympic lanes will increase pollution by shifting traffic to other roads have been largely dismissed by Transport for London, which predicts that some areas may see "a slight and

temporary increase" in Nitrogen Dioxide emissions. "Changes to road management during the Games are likely to have "broadly neutral impact on air quality," said a spokesman.

Adapted from: *The Guardian*, 16 July 2012

#### **Extract 4: Post-Olympics Surge in Tourism**

The Britians have had some good economic news to celebrate over the past few months. Unemployment is falling, house prices in England hit a record high in July and economic output appears to be growing at its fastest pace since 2010.

At first glance Britain's tourism industry appears to be contributing to the economic bounce. Data released this month by the Office for National Statistics suggest that there has been a big increase in foreign tourists visiting Britain since London hosted the Olympics last year. In the first seven months of 2013, foreign visitor numbers rose by 4%, compared with the same period in 2012, and spending was up 12%. In July 2013 foreign visitors spent 30% more than in July 2012, setting a new record.

Hotels and attractions nationwide say they are benefiting from the unexpected boost in the tourist trade. According to data produced by STRGlobal, a consultancy, hotel-occupancy rates rose in nearly every English region in the first half of 2013. London, in particular, has seen a surge in foreign tourists since the Olympics ended: hotel-occupancy rates in the capital jumped by seven percentage points to 89% in June compared with a year earlier.

The government has been quick to attribute the tourism boom to the Olympics, in an effort to justify some of the £8.9 billion (\$14.3 billion) spent staging them. There may be some truth in this. Visits from countries keen on the Olympics increased the most: up by 24% from Latin America and 11% from China, compared with growth of 1% from Europe and a fall of 4% in visitors from North America, according to VisitBritain, a tourism quango.

Adapted from: *The Economist*, 28 September 2013

#### **Questions**

- (a) Compare the trends between total visits and total expenditure of Visitors in London between 2008 and 2012. [2]
- (b) What can you conclude from the evidence in Table 2 about the existence of price discrimination in the tennis matches? [2]
- (c) Using a diagram, explain why black markets exist for the tickets in London Olympic. [4]
- (d) Explain the impact of the London Olympics on UK's Balance of Payments. [4]
- (e) Discuss Mayor Boris Johnson's decision to try to keep people and cars out of the city with a campaign to encourage them to work from home, rather than to ban traffic for the duration of the game. [8]
- (f) Assess why Adidas decide to invest £100m in the 2012 Olympics even though it is regarded that "the investment is a big loss" [10]

**[Total 30 marks]**

Question 2

Differing Policy Responses to Anaemic Economic Growth

Table 3: Unemployment Rate (%)

	2006	2007	2008	2009	2010	2011	2012
China	4.1	4	4.2	4.3	4.1	4.1	4.1
Japan	4.1	3.8	3.9	5.1	5	4.6	4.3
United Kingdom	5.5	5.4	5.7	7.7	7.9	8.1	8.0

Table 4: Real GDP Growth (%)

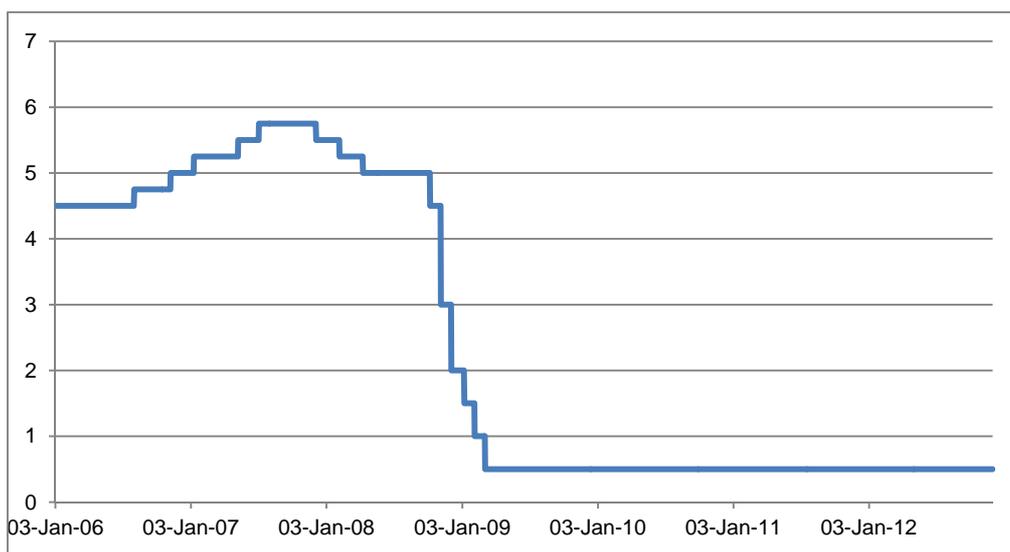
	2006	2007	2008	2009	2010	2011	2012
China	12.7	14.2	9.6	9.2	10.5	9.3	7.7
Japan	1.7	2.2	-1.0	-5.5	4.7	-0.5	1.5
United Kingdom	2.8	3.4	-0.8	-5.2	1.7	1.1	0.3

Table 5: Inflation Rate (%)

	2006	2007	2008	2009	2010	2011	2012
China	1.5	4.8	5.9	-0.7	3.3	5.4	2.7
Japan	0.2	0.1	1.4	-1.3	-0.7	-0.3	-0.0
United Kingdom	2.3	2.3	3.6	2.2	3.3	4.5	2.8

Source: IMF & World Bank

Figure 1: Bank of England Interest Rates (%)



Source: Bank of England

**Extract 5: Creeping protectionism in EU trade policy**

Developing countries stand to lose out from trade reforms that are pushing the EU towards more protectionist policies, according to a report by the Overseas Development Institute (ODI).

The first reform of the Generalised System of Preferences<sup>1</sup> (GSP) in 30 years, said the report, will see richer developing countries such as India and Vietnam lose trade concessions of up to €257m (£201m). Since 1971, the GSP has ensured that exporters from developing countries pay lower duties on some or all of what they sell to the EU, giving them vital access to European markets. With reform of the GSP, the EU is likely to impose more trade barriers on a range of products and countries where there isn't a reciprocal free-trade agreement with the union.

"Upper-middle-income countries will still be eligible for preferential access to the EU market, but only if they agree to free-trade agreements, not by virtue of their WTO status as developing countries," said Stevens.

The new EU trade policy also has a glaring omission, the EU's common agricultural policy, in which European farmers receive €50bn in subsidies. Such payments and export subsidies aimed at boosting the production and income of EU farmers tend to reduce world prices and the attractiveness of the European market for developing countries.

"Designing a trade strategy in times of economic and financial crisis always carries a risk, and there will inevitably be winners and losers," said Dirk Willem te Velde, head of the ODI's international economic development group. "The clear protectionist trend in the EU's new strategy will not only damage the developing world, but also European economies and consumers."

Source: [www.theguardian.com](http://www.theguardian.com), 27 Jul 2012

**Extract 6: Japan's economic growth slows**

Japan's economy grew at a slower-than-expected annualised rate of 1.4% in April-June, adding to worries over the global outlook, as consumer spending flagged following an earlier rebound from last year's earthquake and tsunami.

The eurozone crisis also took a heavy toll as feeble demand hit Japan's export sector. Although the pace of growth dropped sharply from a revised 5.5% in the previous quarter, the economics minister, Motohisa Furukawa, struck an upbeat tone, saying in a statement that the economy "continues in an uptrend, led by domestic demand".

However, Nishioka, an economist at RBS Japan Securities, said the risk of worsening deflation was a "pessimistic result" that might prompt Japan's central bank to consider further easing of monetary policy to support growth. Deflation is a chronic problem for Japan and can be a drag on economic growth.

Consumer spending makes up more than half of Japan's economic activity. After the 11 March disaster last year, many Japanese held back on spending and excursions, adding to damage from disruption to manufacturing after many automotive and electronics plants ground to a halt in north-eastern Japan.

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<sup>1</sup> The EU Generalised System of Preferences offers generous tariff reductions to developing countries. Practically, this means partial or entire removal of tariffs on two thirds of all product categories.

Robust public investment in reconstruction of housing and other buildings in the devastated region is likely to wane in coming months, further reducing momentum.

Meanwhile, the strong Japanese yen has clobbered exports, and costs for importing fuel to offset lost generation capacity from closed nuclear power plants have mounted.

Japan's economy grew 0.3% in the quarter ending in June, from 1% in January-March. That was lower than economists' forecasts of more than 2%, and translates to a 1.4% expansion in annualised terms.

Source: [www.theguardian.com](http://www.theguardian.com), 13 Aug 2012

### **Extract 7: End of inflation targeting?**

Mark Carney, the next governor of the Bank of England, mused on the need for central banks to be creative in the post-crisis world. Growth has been so slow that Carney, said that in certain circumstances policymakers might need to ditch inflation targets and embrace nominal GDP targets instead.

Here's why. In most years, the value of all the goods and services produced in an economy goes up. This is the increase in nominal gross domestic product. Part of that increase is due to the fact things cost more than they did last year, and this is stripped out by statisticians to find how much the economy has really grown.

In the UK and in many other countries, the job of the central bank is to prevent prices from rising too quickly. The Bank of England is obliged by law to try to hit a 2% inflation target. Inflation targeting is straightforward, at least in theory. The Bank of England forecasts the future path of inflation; the forecast is compared with the target inflation rate (the inflation rate the government believes appropriate for the economy); the difference between the forecast and the target determines how much monetary policy has to be adjusted.

Since the slump of 2008-09, this relationship between price stability and economic growth has broken down. The annual increase in the cost of living has tended to be higher in recent years thanks to rising global commodity prices, higher VAT and the depreciation of the pound. The assumption is that if inflation is under control, the economy will expand at its long-term trend rate of growth, which is in the region of 2-2.5%. If you add real growth of 2.5% to 2% inflation then nominal GDP should rise by, say, 4.5% a year.

The Office for Budget Responsibility is forecasting nominal GDP will rise by just 2.2% this year and, with inflation running at 2.3%, that means, the economy is predicted to shrink by 0.1%. Inflation is under control but the economy is struggling.

Now assume the government switches to a nominal GDP target of 4.5%. The Bank would have to adopt a more expansionary monetary policy – perhaps by increasing the size or scope of its quantitative easing programme – in order to boost the value of economic output. Crucially, the split between inflation and real output would not matter: in theory the whole of the 4.5% increase in nominal GDP could be the result of higher prices.

Academics have been discussing the merits of nominal GDP targeting for some time. Carney's intervention suggests policymakers are starting to take notice of the debate. To an extent, this reflects the lacklustre recovery, but there is also a sense that inflation targeting only works well when economic conditions are benign.

Adapted: [www.theguardian.com](http://www.theguardian.com), 12 Dec 2012

**Questions**

- (a) (i) With reference to Table 3 and 4, explain how recession affect unemployment rate.[2]
- (ii) Explain how you might use unemployment rate and real GDP growth to compare economic performance of China with that of Japan. [4]
- (b) (i) Explain the meaning of deflation. [1]
- (ii) Using AD/AS analysis, explain why deflation is a chronic problem for Japan. [3]
- (c) Explain how 'strong Japanese yen has clobbered its exports'. [2]
- (d) With reference to the case study and your own relevant knowledge, do you think central bankers should 'ditch inflation targets and embrace nominal GDP targets'? [8]
- (e) Assess the view expressed in Extract 5 that the 'clear protectionist trend in the EU's new strategy will not only damage the developing world, but also European economies and consumers'. [10]

**[Total: 30 marks]**

**-End of Paper-**

Answer **all** questions.

**Question 1**

**London Olympics 2012**

**Table 1: Visitors to London**

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Source: Office for National Statistics

**Table 2: Price of Tennis Olympics Tickets**

*All values in £*

	<b>Category 1</b>	<b>Category 2</b>	<b>Category 3</b>	<b>Category 4</b>
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Semi-Final	115	75	65	45
Final	225	150	110	95

Source: [www.ticketslondon2012.com](http://www.ticketslondon2012.com)

**Extract 1: The battle of the Sportswear market**

It is not only the athletes that will be competing for first place at next summer's Olympic Games. Adidas, the German sportswear brand, plans to use the games as a springboard to overtake its arch rival Nike as the biggest sportswear company in the UK.

Nike is currently market leader in the UK with an 18 percent share of the ultra-competitive £4.3bn sportswear market. Adidas is in second place with a 15 percent share, but hopes that its status as official sportswear partner of the Games will help it achieve its goal of overtaking Nike by 2015 at the latest. As well as kitting out the athletes in 25 of the 26 Olympic sports – equestrianism requires very specialised equipment – Adidas will dress the 70,000 Olympic volunteers, provide the outfits for the pre-games torch relay and create clothing for the athletes to wear in the Olympic Village.

Adidas is also the Games' official clothing licensee, and will sell Olympic-themed and branded clothes through its own stores and third-party retailers, such as Tesco and Asda. On top of this, it has appointed Stella McCartney, the designer and daughter of Sir Paul, as the creative director of Team GB. She will provide the team with garments such as their signature tracksuits and has also designed more fashionable "capsule" ranges that will be available on the high street. There will be a big sustainable and environmentally-friendly

element to the clothing, Adidas said. It is not inconceivable that some of the athletes' kit will be at least partially made from recycled plastic drinks bottles.

Adidas has invested around £100m in the 2012 Olympics. This figure is split between the cost of becoming an official partner, the cost of manufacturing the clothes for the athletes, the volunteers and the retailers and the cost of marketing the ranges and the company. Even if the company achieves its desired top line sales of £100m, it will only go some way to paying off the £100m bottom-line investment. Mr Hainer admitted that if looked at purely on a profit and loss basis, the investment is a "big loss". However, he said that the positive benefits to Adidas's brand and standing in the UK are manifold.

Source: *The Telegraph*, 29 May 2011

### **Extract 2: Olympic Tickets**

The International Olympic Committee has launched an inquiry into allegations that Olympic officials and agents have been caught selling tickets for the London 2012 Games on the black market. The IOC has held an emergency meeting of its ruling executive following an undercover newspaper investigation. It has referred the allegations to its independent ethics commission, which could lead to a review of how Olympic tickets are distributed among member countries in the future.

*Sunday Times* reporters posing as envoys of a Middle Eastern ticket tout claim to have found 27 officials and agents representing 54 countries who were willing to breach the rules on selling tickets. One, from Serbia, offered 1,500 tickets for £80,000, while China's official ticket agency agreed to sell the best seats in the stadiums for up to £6,000 each, according to the newspaper.

Adapted from: *The Observer*, 17 June 2012

### **Extract 3: Olympic athletes could be impaired by London Pollution**

Olympic runners, cyclists, swimmers and even sailors arriving in London on Monday could be taken ill or see their performances impaired by air pollution, health experts have warned. According to Keith Prowse, respiratory consultant and medical adviser to the British Lung Foundation, a summer smog like any of the five already experienced this year in the capital could lead to some athletes needing medication and experiencing chest pains, sore throats and shortness of breath.

The effect of air pollution on athletes came to the fore during the 1984 Los Angeles Olympics, where British middle-distance runner Steve Ovett collapsed with respiratory problems after the 800-metres final, citing air pollution as a major trigger for his "exercise-induced" asthma. At the Beijing Olympics in 2008, China banned half the cars in the city and closed down hundreds of polluting factories to avoid medical problems from air pollution. Official advice to the public during smog incidents is to reduce physical exertion, and stay indoors.

Air pollution experts say levels of Nitrogen Dioxide (NO<sub>2</sub>) in London are comparable to those in Beijing before it banned 50% of the cars. But rather than ban traffic for the duration of the games, Mayor Boris Johnson has opted to try to keep people and cars out of the city with a campaign to encourage them to work from home. A recording of Johnson warning of long delays and congestion is now being played over public address systems at many commuter stations and on the London Tube.

Transport for London has said it will wash the busiest streets with a machine similar to a road dust sweeper and then spray a solution of calcium magnesium acetate that literally

sticks the particulate matter to the carriageway and prevents it recirculating in the air. Fears that the 600 miles of Olympic lanes will increase pollution by shifting traffic to other roads have been largely dismissed by Transport for London, which predicts that some areas may see "a slight and temporary increase" in PM10 and NO2 emissions. "Changes to road management during the Games are likely to have "broadly neutral impact on air quality," said a spokesman.

Adapted from: *The Guardian*, 16 July 2012

#### Extract 4: Post-Olympics Surge in Tourism

The Britians have had some good economic news to celebrate over the past few months. Unemployment is falling, house prices in England hit a record high in July and economic output appears to be growing at its fastest pace since 2010.

At first glance Britain's tourism industry appears to be contributing to the economic bounce. Data released this month by the Office for National Statistics suggest that there has been a big increase in foreign tourists visiting Britain since London hosted the Olympics last year. In the first seven months of 2013, foreign visitor numbers rose by 4%, compared with the same period in 2012, and spending was up 12%. In July 2013 foreign visitors spent 30% more than in July 2012, setting a new record.

Hotels and attractions nationwide say they are benefiting from the unexpected boost in the tourist trade. According to data produced by STRGlobal, a consultancy, hotel-occupancy rates rose in nearly every English region in the first half of 2013. London, in particular, has seen a surge in foreign tourists since the Olympics ended: hotel-occupancy rates in the capital jumped by seven percentage points to 89% in June compared with a year earlier.

The government has been quick to attribute the tourism boom to the Olympics, in an effort to justify some of the £8.9 billion (\$14.3 billion) spent staging them. There may be some truth in this. Visits from countries keen on the Olympics increased the most: up by 24% from Latin America and 11% from China, compared with growth of 1% from Europe and a fall of 4% in visitors from North America, according to VisitBritain, a tourism quango.

Adapted from: *The Economist*, 28 September 2013

#### Questions

- (a) Compare the trends between total visits and total expenditure of Visitors in London between 2008 and 2012. [2]
- (b) What can you conclude from the evidence in Table 2 about the existence of price discrimination in the tennis matches? [2]
- (c) Using a diagram, explain why black markets exist for the tickets in London Olympics. [4]
- (d) Explain the impact of the London Olympics on UK's Balance of Payments. [4]
- (e) Discuss Mayor Boris Johnson's decision to try to keep people and cars out of the city with a campaign to encourage them to work from home, rather than to ban traffic for the duration of the game. [8]
- (f) Assess why Adidas decide to invest £100m in the 2012 Olympics even though it is regarded that "the investment is a big loss" [10]

[Total 30 marks]

**Suggested Answers**

<b>(a)</b>	<b>(i)</b>	Compare the trends between total visits and total expenditure of Visitors in London between 2008 and 2012. [2]
		<p>Both have increased [1 mark]                  However, total expenditure increased at a faster rate. [1 mark]</p> <p>1m: Similarity                  1m: Difference</p>
	<b>(ii)</b>	What can you conclude from the evidence in Table 2 about the existence of price discrimination in the tennis matches? [2]
		<p>Price Discrimination refers to the charging of different prices to different consumers that is not due to cost differences. [1 mark]</p> <p>For the Tennis matches, the price of the Preliminary Matches in Preliminary and Finals are different, and it is unlikely that it is driven by cost differences. Hence, it is evident that there is price discrimination in the tennis matches. [1 mark]</p> <p>1m: Definition of Price Discrimination                  1m: Application of Concept</p>
	<b>(c)</b>	Using a diagram, explain why black markets exist for the tickets in London Olympics. [4]
		<p>The tickets in London Olympics have been set below the price in the free market to protect consumers and to allow the lower income consumers to attend the Olympic events. [1 mark]</p> <p>With reference to Figure 1, the government will set a price ceiling (<b>maximum price</b>) at <math>P_{max}</math> and it has to be <b>below the equilibrium price</b>. Producers are allowed to set a price at or below the maximum price. However, at the minimum price <math>P_{max}</math>, quantity demanded is greater than quantity supplied (<math>OQ_D &gt; OQ_S</math>), creating a shortage. At price <math>P_{max}</math>, consumers pay a lower price than equilibrium price <math>P_e</math>. [2 marks with well explained diagram]</p> <div style="text-align: center;"> </div> <p><b>Figure 1: Price ceiling</b></p>

	<p>However at <math>P_{max}</math>, quantity demanded exceeds the quantity supplied (<math>0Q_D &gt; 0Q_S</math>) and a shortage is created. A black market may emerge to fulfill the needs of people who do not get the goods since at output <math>0Q_S</math>, some consumers are willing to pay up to price <math>P_b</math>. [1 mark]</p> <p>1m: State the reason for price being below free market outcome                  2m: Explain the diagram of price ceiling                  1m: Explain the impact of shortage and black markets</p>
(d)	<p>Explain the impact of the London Olympics on UK's Balance of Payments. [4]</p> <p>With an increase in tourists and athletes entering London, there will be an improvement in service balance, and consequently Current Account. This is because there will be an increase in visits to Tourist Attractions, as well as transportation via the London Tube.</p> <p>There will be an increase in Foreign Direct Investments and consequently, Capital and Financial Account. This is because foreign investors would be keen to build hotels and other infrastructure in anticipation of the influx of tourists and athletes taking part in the London Olympics.</p> <p>1m: State the impact of 1 component in the BOP                  1m: Elaborate the above impact</p> <p>1m: State the impact of 1 <b>other</b> component in the BOP                  1m: Elaborate the above impact</p>
(e)	<p>Discuss Mayor Boris Johnson's decision to try to keep people and cars out of the city with a campaign to encourage them to work from home, rather than to ban traffic for the duration of the game. [8]</p>
	<p><b><u>PCCP Framework:</u></b></p> <p><b><u>Problem with excessive people and cars in the city:</u></b>                  Marginal External Cost (MEC) exist                  → lead to Negative Externalities                  → output is not socially optimal and subsequently, deadweight loss in the economy (<i>Elaborate with diagram</i>)</p> <p><b><u>Policy</u></b>  <i>Thesis: Encourage to work from home, rather than ban traffic</i>  <i>Anti-Thesis: Ban Traffic, rather than work from home</i></p> <p><b><u>Policy 1: Encourage them to work from home</u></b>                  Moral Suasion → Encourage Output to be at <math>Q_s</math>. Whether Output can be at <math>Q_s</math> depends on the responsiveness of the people</p> <p><i>Link back to the diagram to show the differing deadweight loss due to the different output level being achieved</i></p>

	<p><b><u>Policy 2: Ban Traffic</u></b>                  Ban traffic for the duration of the game → Output = 0, lead to deadweight loss if MEC is not very high.</p> <p>Hence, banning of traffic is not recommended unless MEC is huge</p> <p><i>Draw diagram to show the impact of the differing deadweight loss due to the different MEC.</i></p> <p><b><u>Conclusion</u></b>                  The best policy depends on how successful is the Government able to persuade people to work from home, as well as the size of the MEC.</p> <p><b><u>Other evaluative Comments</u></b></p> <p>Other policies such as taxation could be more appropriate as taxes are a form of efficient, market-based solution. In addition, the government could earn tax revenue to offset the expenditure in the Olympics.</p> <p><b><u>Marking Scheme</u></b></p> <table border="1" data-bbox="343 896 1396 1254"> <thead> <tr> <th>Level</th> <th>Description</th> <th>Mark</th> </tr> </thead> <tbody> <tr> <td>3</td> <td>A balanced view with reasoned judgment demonstrated between the different policies in solving market failure</td> <td>7-8</td> </tr> <tr> <td>2</td> <td>Highly analytical in terms of market failure that exist due to traffic congestion. However, there is little comparison between the different policies.</td> <td>4-6</td> </tr> <tr> <td>1</td> <td>Mere listing of points. No attempt to link back to market failure and the relevant policies involved.</td> <td>1-3</td> </tr> </tbody> </table>	Level	Description	Mark	3	A balanced view with reasoned judgment demonstrated between the different policies in solving market failure	7-8	2	Highly analytical in terms of market failure that exist due to traffic congestion. However, there is little comparison between the different policies.	4-6	1	Mere listing of points. No attempt to link back to market failure and the relevant policies involved.	1-3
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(f)	<p>Assess why Adidas decide to invest £100m in the 2012 Olympics even though it is regarded that “the investment is a big loss” [10]</p>												
	<p><b><u>Marginal Thinking Framework:</u></b></p> <p><b><u>Objectives of Adidas:</u></b></p> <p>Profit Maximization in the context of an oligopolistic market structure.</p> <ul style="list-style-type: none"> <li>→ Define Profits = TR-TC</li> <li>→ Elaborate that strategies such as non-price competition is pivotal in this market structure</li> </ul> <p><b><u>Benefits: Elaborate reasons for investment in Olympics</u></b></p> <ol style="list-style-type: none"> <li>1. Increase Demand (AR shift outwards)</li> <li>2. Increase Brand Loyalty : Demand more price inelastic</li> <li>3. Improve reputation: Non-Price Competition</li> <li>4. Increase Cost Savings : Reap EOS due to higher market share</li> </ol>												

**Costs: Cost of Investment is immaterial in the decision making**

1. Investment is a fixed cost (will only affect AC, NOT MC, AVC etc)
2. Short run pain vs Long run gain

**Conclusion:**

Adidas conducted Cost-Benefit Analysis and must have concluded that the potential benefits outweigh the cost involved.

**Marking Scheme**

Level	Description	Mark
2	Evaluative assessment of Adidas' decision making processes using the oligopolistic market structure. Clear diagrams showing how Adidas is able to earn super-normal profits in the long-run.	5-6
1	Little attempt to relate to question. Lack of economic analysis and did not use economics framework to explain profits in the long-run.	1-4
Level	Evaluation	Marks
E2	Well-justified evaluation	3 - 4
E1	Some attempt to evaluate but may not be supported by sound economic reasoning	1 - 2

Question 2

Differing Policy Responses to Anaemic Economic Growth

Table 1: Unemployment Rate (%)

	2006	2007	2008	2009	2010	2011	2012
China	4.1	4	4.2	4.3	4.1	4.1	4.1
Japan	4.1	3.8	3.9	5.1	5	4.6	4.3
United Kingdom	5.5	5.4	5.7	7.7	7.9	8.1	8.0

Table 2: Real GDP Growth (%)

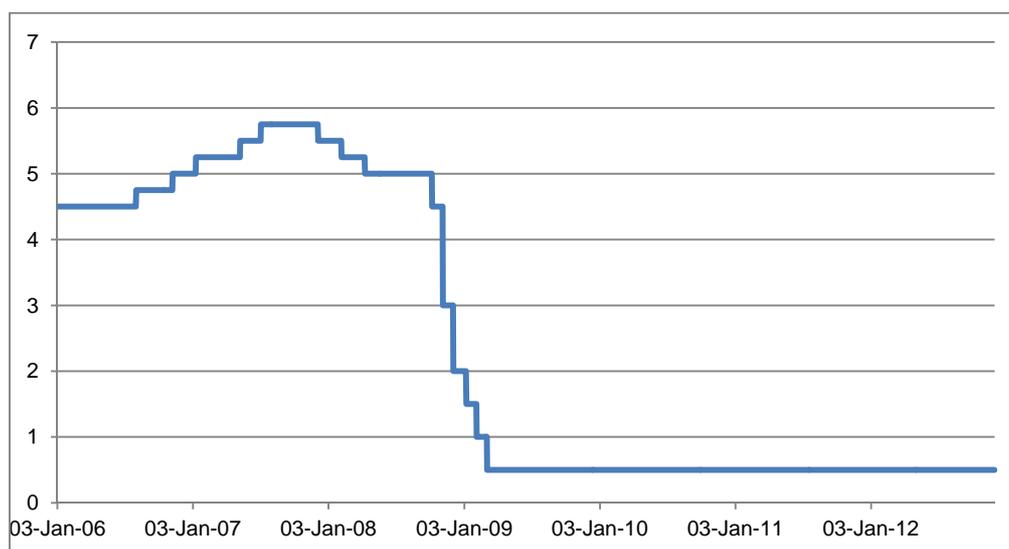
	2006	2007	2008	2009	2010	2011	2012
China	12.7	14.2	9.6	9.2	10.5	9.3	7.7
Japan	1.7	2.2	-1.0	-5.5	4.7	-0.5	1.5
United Kingdom	2.8	3.4	-0.8	-5.2	1.7	1.1	0.3

Table 3: Inflation Rate (%)

	2006	2007	2008	2009	2010	2011	2012
China	1.5	4.8	5.9	-0.7	3.3	5.4	2.7
Japan	0.2	0.1	1.4	-1.3	-0.7	-0.3	-0.0
United Kingdom	2.3	2.3	3.6	2.2	3.3	4.5	2.8

Source: IMF & World Bank

Figure 1: Bank of England Interest Rates (%)



Source: Bank of England

### Extract 1: Creeping protectionism in EU trade policy

Developing countries stand to lose out from trade reforms that are pushing the EU towards more protectionist policies, according to a report by the Overseas Development Institute (ODI).

The first reform of the Generalised System of Preferences<sup>1</sup> (GSP) in 30 years, said the report, will see richer developing countries such as India and Vietnam lose trade concessions of up to €257m (£201m). Since 1971, the GSP has ensured that exporters from developing countries pay lower duties on some or all of what they sell to the EU, giving them vital access to European markets. With reform of the GSP, the EU is likely to impose more trade barriers on a range of products and countries where there isn't a reciprocal free-trade agreement with the union.

"Upper-middle-income countries will still be eligible for preferential access to the EU market, but only if they agree to free-trade agreements, not by virtue of their WTO status as developing countries," said Stevens.

The new EU trade policy also has a glaring omission, the EU's common agricultural policy, in which European farmers receive €50bn in subsidies. Such payments and export subsidies aimed at boosting the production and income of EU farmers tend to reduce world prices and the attractiveness of the European market for developing countries.

"Designing a trade strategy in times of economic and financial crisis always carries a risk, and there will inevitably be winners and losers," said Dirk Willem te Velde, head of the ODI's international economic development group. "The clear protectionist trend in the EU's new strategy will not only damage the developing world, but also European economies and consumers."

Source: [www.theguardian.com](http://www.theguardian.com), 27 Jul 2012

### Extract 2: Japan's economic growth slows

Japan's economy grew at a slower-than-expected annualised rate of 1.4% in April-June, adding to worries over the global outlook, as consumer spending flagged following an earlier rebound from last year's earthquake and tsunami.

The eurozone crisis also took a heavy toll as feeble demand hit Japan's export sector.

Although the pace of growth dropped sharply from a revised 5.5% in the previous quarter, the economics minister, Motoshisa Furukawa, struck an upbeat tone, saying in a statement that the economy "continues in an uptrend, led by domestic demand".

However, Nishioka, an economist at RBS Japan Securities, said the risk of worsening deflation was a "pessimistic result" that might prompt Japan's central bank to consider further easing of monetary policy to support growth. Deflation is a chronic problem for Japan and can be a drag on economic growth.

Consumer spending makes up more than half of Japan's economic activity. After the 11 March disaster last year, many Japanese held back on spending and excursions, adding to damage from disruption to manufacturing after many automotive and electronics plants ground to a halt in north-eastern Japan.

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<sup>1</sup> The EU Generalised System of Preferences offers generous tariff reductions to developing countries. Practically, this means partial or entire removal of tariffs on two thirds of all product categories.

Robust public investment in reconstruction of housing and other buildings in the devastated region is likely to wane in coming months, further reducing momentum.

Meanwhile, the strong Japanese yen has clobbered exports, and costs for importing fuel to offset lost generation capacity from closed nuclear power plants have mounted.

Japan's economy grew 0.3% in the quarter ending in June, from 1% in January-March. That was lower than economists' forecasts of more than 2%, and translates to a 1.4% expansion in annualised terms.

Source: [www.theguardian.com](http://www.theguardian.com), 13 Aug 2012

#### **Extract 4: End of inflation targeting?**

Mark Carney, the next governor of the Bank of England, mused on the need for central banks to be creative in the post-crisis world. Growth has been so slow that Carney, said that in certain circumstances policymakers might need to ditch inflation targets and embrace nominal GDP targets instead.

Here's why. In most years, the value of all the goods and services produced in an economy goes up. This is the increase in nominal gross domestic product. Part of that increase is due to the fact things cost more than they did last year, and this is stripped out by statisticians to find how much the economy has really grown.

In the UK and in many other countries, the job of the central bank is to prevent prices from rising too quickly. The Bank of England is obliged by law to try to hit a 2% inflation target. Inflation targeting is straightforward, at least in theory. The Bank of England forecasts the future path of inflation; the forecast is compared with the target inflation rate (the inflation rate the government believes appropriate for the economy); the difference between the forecast and the target determines how much monetary policy has to be adjusted.

Since the slump of 2008-09, this relationship between price stability and economic growth has broken down. The annual increase in the cost of living has tended to be higher in recent years thanks to rising global commodity prices, higher VAT and the depreciation of the pound. The assumption is that if inflation is under control, the economy will expand at its long-term trend rate of growth, which is in the region of 2-2.5%. If you add real growth of 2.5% to 2% inflation then nominal GDP should rise by, say, 4.5% a year.

The Office for Budget Responsibility is forecasting nominal GDP will rise by just 2.2% this year and, with inflation running at 2.3%, that means, the economy is predicted to shrink by 0.1%. Inflation is under control but the economy is struggling.

Now assume the government switches to a nominal GDP target of 4.5%. The Bank would have to adopt a more expansionary monetary policy – perhaps by increasing the size or scope of its quantitative easing programme – in order to boost the value of economic output. Crucially, the split between inflation and real output would not matter: in theory the whole of the 4.5% increase in nominal GDP could be the result of higher prices.

Academics have been discussing the merits of nominal GDP targeting for some time. Carney's intervention suggests policymakers are starting to take notice of the debate. To an extent, this reflects the lacklustre recovery, but there is also a sense that inflation targeting only works well when economic conditions are benign.

Adapted: [www.theguardian.com](http://www.theguardian.com), 12 Dec 2012

**Questions**

- (a) (i) With reference to Table 1 & 2, explain how recession affects unemployment rate. [2]
- (ii) Explain how you might use unemployment rate and real GDP growth to compare economic performance of China with that of Japan. [4]
- (b) (i) Explain the meaning of deflation. [1]
- (ii) Using AD/AS analysis, explain why deflation is a chronic problem for Japan. [3]
- (c) Explain how 'strong Japanese yen has clobbered its exports'. [2]
- (d) With reference to the case study and your own relevant knowledge, do you think central bankers should 'ditch inflation targets and embrace nominal GDP targets'? [8]
- (e) Assess the view expressed in Extract 1 that the 'clear protectionist trend in the EU's new strategy will not only damage the developing world, but also European economies and consumers'. [10]

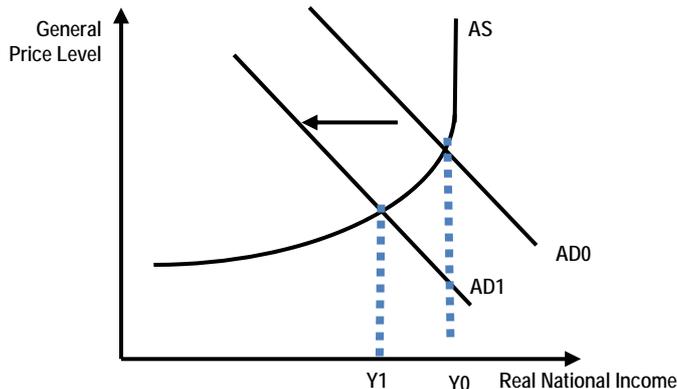
**[Total: 30 marks]**

**Suggested Answer**

- (a) (i) With reference to Table 3 & 4, explain how recession affects unemployment rate. [2]

The real GDP growth of both Japan and United Kingdom shrunk from 2008 to 2009. Thus, these economies experienced worsening recession during the time period.

- ➔ ↓ in production
- ➔ ↓ in investment
- ➔ ↑ in cyclical unemployment (as reflected in the unemployment statistics in Table 3)



Marks allocation

1 mark – Stating that recession results in a rise in cyclical unemployment

1 mark – Explain the above using AD/AS model

- (ii) Explain how you might use unemployment rate and real GDP growth to compare economic performance of China with that of Japan. [4]

Unemployment rate in China – fluctuates within a narrow band (0.2%)

Whereas the variations in unemployment rate is greater in Japan

- ➔ Residents in China experiences a more stable standard of living
- ➔ Better labour utilization rate in China, in general ➔ facilitates greater planning of labour training and development

Strong Real GDP growth in China (>9% throughout the period)

- ➔ Strong economic growth, sustained increased in household income ➔ increased material standard of living
- ➔ Also means that government tax revenue ↑ ➔ can lead to increase in infrastructure development ➔ Rise in productive capacity

Anemic economic growth in Japan

- ➔ country losing comparative advantage ➔ ↓ in investment opportunities

Marks allocation

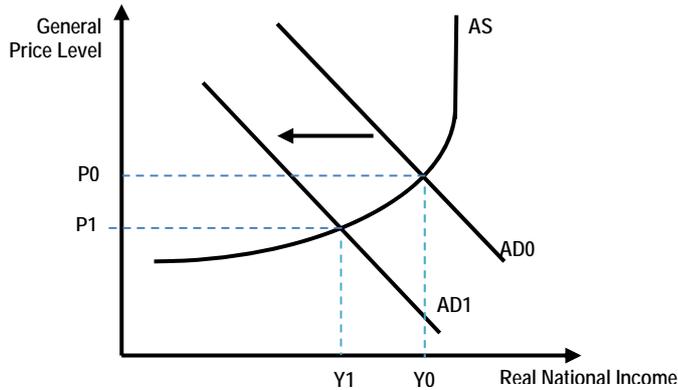
2 marks – Use the economic indicator – unemployment rate – to compare the relative economic performance of China and Japan

2 marks – Use the economic indicator – real GDP growth – to compare the relative economic performance of China and Japan

- (b) (i) Explain the meaning of deflation. [1]

A sustained decline in general price level over a given time period, usually a year.

- (ii) Using AD/AS analysis, explain why deflation is a chronic problem for Japan. [3]



Japan experienced deflation from 2009 to 2011

Over this time period, Japan also suffered from negative output gap (actual real GDP growth < full employment real GDP growth) in 2009 and 2011

- negative consumer and investor confidence level
- ↓ in C (consumers postpone demand as they expect prices to fall further in future)
- ↓ in I (Lower prices can mean reduced revenues and profits for businesses) → higher cyclical unemployment as firms seek to reduce their costs by shedding labour
- Severely limits the effectiveness of any fiscal stimulus
- Economy continued to be trapped in this vicious cycle.

- (c) Explain how 'strong Japanese yen has clobbered its exports'. [2]

Strong Japanese yen

- Yen appreciated
- ↑ in price of Japanese exports
- As Japanese exports are price elastic, this will lead to a more than proportionate ↓ in quantity demand for exports
- Severe ↓ in exports revenue

Marks allocation

- 1 mark – Impact of strong Japanese yen on price of exports
- 1 mark – Impact of strong Japanese yen on exports revenue

(d) With reference to the case study and your own relevant knowledge, do you think central bankers should 'ditch inflation targets and embrace nominal GDP targets'? [8]

Marking Scheme

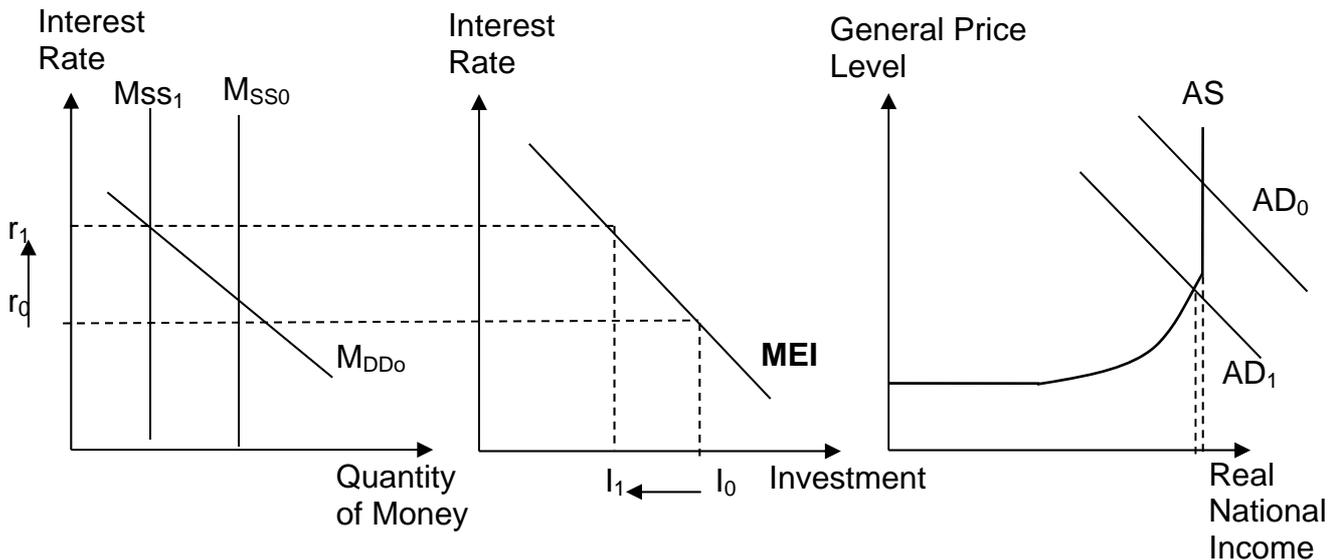
Thesis: Central bankers should 'ditch inflation targets and embrace nominal GDP targets'	
<i>Economic Analysis</i>	<i>Evidence</i>
<p>The relationship between price stability and economic growth has broken down</p> <p>For instance, Central Bank of UK adopted expansionary monetary policy</p> <ul style="list-style-type: none"> <li>➔ lowered interest rates sharply in 2008, maintained near zero interest rates from 2009 to 2012</li> <li>➔ inflation rates was under control (hovered around 2-4%)</li> <li>➔ However, UK economy still suffered from a recession in 2008 &amp; 2009. Anaemic real GDP growth from 2010 onwards (range from 0.3% to 1.7%)</li> </ul> <p>Thus, though inflation is under control, real GDP growth is dismay.</p> <ul style="list-style-type: none"> <li>➔ Nominal GDP targets will be more suitable for developed economies like UK &amp; Japan</li> <li>➔ Enable Central Bankers to adopt a more expansionary monetary policy than current inflation target</li> </ul>	<p>Extract 7, para 4, line 1-2</p> <p>Figure 1</p> <p>Table 5</p> <p>Table 4</p> <p>Extract 7, para 6, line 2</p>
Anti-Thesis: Central bankers should continue to focus on inflation targets rather than embrace nominal GDP targets'	
<i>Economic Analysis</i>	<i>Evidence</i>
<p>Explain why countries with strong economic growth &amp; low unemployment, should continue to focus on inflation targets</p> <ul style="list-style-type: none"> <li>➔ Continuous <math>\uparrow</math> in AD</li> <li>➔ Demand-pull inflationary pressures</li> </ul> <p>General Price Level</p> <p>0 <math>Y_0</math> <math>Y_f</math> Real National Income</p>	<p>Table 4 &amp; 3</p>

Price stability is critical for sustained real GDP growth

Use the Keynesian Transmission Mechanism to explain the benefits of inflation targeting.

Eg: Case of China: In 2011, inflation rate is at 4.5% → Central Bank in China should adopt contractionary monetary policy to control the rate of inflation in order to sustain real GDP growth

Table 5



Highlight that if inflation is under control such as China in year 2006 China should conduct expansionary monetary policy to encourage greater economic growth.

Table 5

Level	Description	Mark
3	A balanced view with reasoned judgment & strong reference to the case context.	7-8
2	One-sided discussion with some attempt to relate to case materials.	4-6
1	Existence of conceptual errors. Did not address the requirements of the question.	1-3

- (e) Assess the view expressed in Extract 5 that the ‘clear protectionist trend in the EU’s new strategy will not only damage the developing world, but also European economies and consumers’. [10]

Marking Scheme

<p>Explain briefly what is EU’s new strategy</p> <ul style="list-style-type: none"> <li>• Trade reforms –             <ul style="list-style-type: none"> <li>○ Reform of the Generalised System of Preferences                 <ul style="list-style-type: none"> <li>- reduction in trade concessions for richer developing countries such as India &amp; Vietnam (Extract 5, Para 2, line 2)</li> <li>- Imposition of trade barriers for countries with no reciprocal free-trade agreement with EU</li> </ul> </li> </ul> </li> <li>• Continued implementing the EU’s common agricultural policy – EU farmers receive €50bn in subsidies</li> </ul>
<p>Thesis: Clear protectionist trend in the EU’s new strategy will damage the developing world, but also European economies and consumers</p>
<p><b>Economic Analysis &amp; Evaluation</b></p>
<p>Reduction in trade concession to richer developing countries such as India &amp; Vietnam (Extract 5, para 2, line 2-3)</p> <ul style="list-style-type: none"> <li>➔ Increase in prices of exports</li> <li>➔ Reduction in exports volume, ceteris paribus, fall in exports revenue as ddx is price elastic</li> <li>➔ Fall in production ➔ ↓ trade surplus &amp; ↑ in unemployment</li> <li>➔ Damaging to richer developing countries in terms of adverse impact on Economic Growth, Employment opportunities and slows down the rate of increase in productive capacity</li> </ul>

Increase in prices of imports in EU

- Reduce consumers' surplus & increase cost of living for EU consumers
- Fall in material standard of living esp lower & middle income households

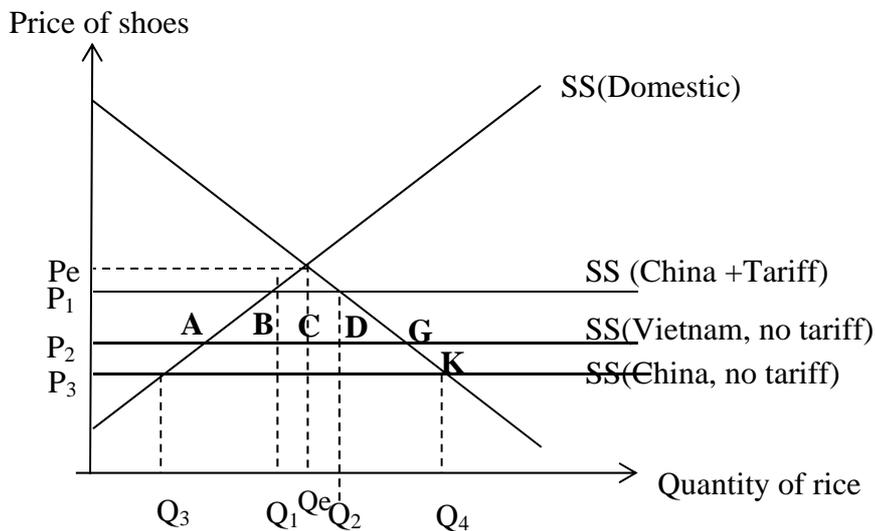
Evaluation

Depends on product category

In cases where richer developing countries have significant comparative advantage in, the impact will be insignificant.

Reciprocal free-trade agreement with the union (Extract 5, para 2, line 6)

- Leads to trade diversion between FTA countries and non-FTA countries
- Welfare loss to society



Assume the most efficient shoe manufacturer in the world is China. Before signing FTA with Vietnam, EU has identical GSP on shoe with developing countries, making shoes made in China relatively cheaper than those of Vietnam. After signing of FTA with Vietnam, the removal of tariff makes Vietnam's shoes relatively cheaper than Chinese made ones. Consumers switch to the now cheaper Vietnam's shoes.

Even though consumer surplus has increased by area (A+B+C+D) due to FTA, level of consumer surplus is still lower than that of when market price of rice is at  $P_3$  by an area of  $P_2GKP_3$  – when there is GSP on shoes.

Anti-Thesis: Clear protectionist trend in the EU's new strategy will just damage the developing world, but benefit the European economies and consumers

***Economic Analysis & Evaluation***

European economies will benefit as removal of trade concession enable domestic producers to compete in a more level playing field.

- SR - ↑ in domestic production & employment opportunities

Longer run – Domestic firms can use the excess economic profits earned to

conduct R&D → lower of opportunity cost in producing the costs → Rise in comparative advantage

Benefits EU consumers too as there is now greater employment opportunities → higher SOL for some households

Benefits EU government as unemployment benefits ↓ → ↓ G

Evaluation

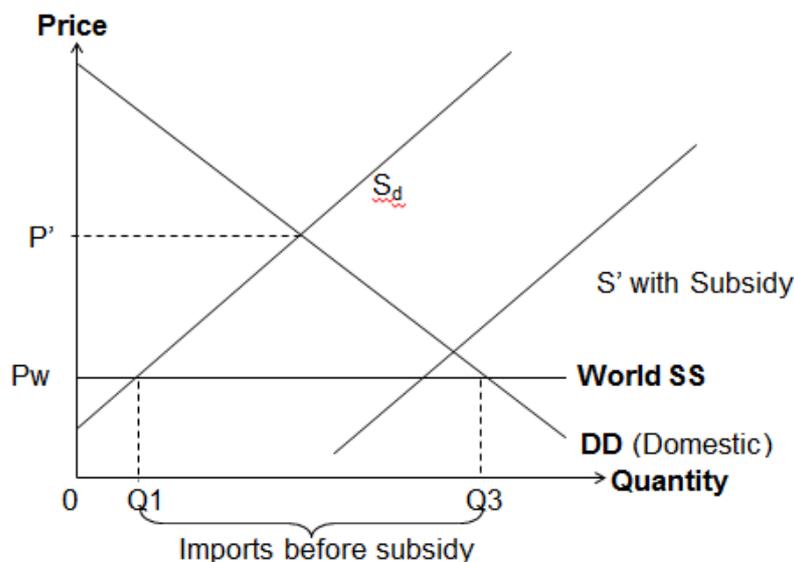
May not address the root cause (could be a lack of international competitiveness)

- Should revise and restructure its economy so as to improve EU international competitiveness.
- Might invite retaliation from trading partners in the long run.
- Make trading partners poorer (in terms of loss of export revenue as a result of protectionism)

Gains from the EU's new strategy – uneven across member countries

(The following pt can be either a Thesis or Anti-Thesis pt)

Continued implementing the EU's common agricultural policy – EU farmers receive €50bn in subsidies



Thesis: Damaging to European economies and consumers

Society: Taxpayers are burdened by the cost of the subsidy which is equal to PpABPw

But Consumers: Pay same prices; Same quantity consumed

Anti-Thesis: Benefitting to European economies

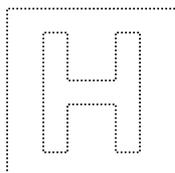
Domestic Producers: Artificially increase firms' Price Competitiveness

Higher price received = Pw + Per Unit Subsidy granted

Higher qty supplied

Increase in Total Revenue = TR (fr Crs) + Subsidy

Level	Description	Mark
2	Evaluative assessment of whether protectionist trend in EU is beneficial or damaging to both European and developing economies.	5-6
1	Little attempt to relate to question. Largely listing of protectionistic stance without clear reference to the both European and developing economies.	1-4
Level	Evaluation	Marks
E2	Well-justified evaluation	3 - 4
E1	Some attempt to evaluate but may not be supported by sound economic reasoning	1 – 2



INNOVA JUNIOR COLLEGE  
JC 2 PRELIMINARY EXAMINATION 2  
in preparation for General Certificate of Education Advanced Level  
**Higher 2**

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**ECONOMICS**

**9732/02**

Paper 2: Essay Questions

**23 September 2014**

**2 hours 15 minutes**

Additional Materials: Writing Paper and Cover Page

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**READ THESE INSTRUCTIONS FIRST**

Write your name and class on all the work you hand in.  
Write in dark blue or black pen on both sides of the paper.  
You may use a soft pencil for any diagrams, graphs or rough working.  
Do not use staples, paper clips, highlighters, glue or correction fluid/tape.

Answer **three** questions in total, of which **one** must be from Section A, **one** from Section B and **one** from either Section A or Section B.

At the end of the examination, fasten all your work securely together.  
The number of marks is given in brackets [ ] at the end of each question or part question.  
You are advised to spend several minutes reading through the data before you begin writing your answers.

You are reminded of the need for good English and clear presentation in your answers.

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This document consists of **3** printed pages and **1** blank page.



Answer **three** questions in total.

**Section A**

**One or two** of your three chosen questions must be from this section.

- 1** The world economy experienced subdued growth for a second year in 2013. In addition, a rising number of low cost airlines exited due to high fuel costs. These have impacts on both national carriers and low cost airlines.

Explain how the above changes will affect the world market for air travel and assess the usefulness of elasticity concepts in determining the likely impact on different types of airline carriers. [25]

- 2** As the growth of online shopping continue, shoppers are focused on purchasing electronics, books, music, apparel and sporting goods. On the other hand, the markets for food and beverages, supermarkets, luxury fashion and healthcare tend to be less affected by the shift towards online retail and continue to perform well.

**(a)** Explain how economies of scale determine the type of market structure in different industries. [10]

**(b)** Discuss how far the market structure of the firms in different retail industries will affect their profitability when faced with the growth in online shopping. [15]

- 3** As more countries are facing economic difficulties and an ageing population, some governments have sought to increase competition within the healthcare sector to reduce its cost while others are reducing subsidies to prevent their healthcare spending from escalating.

Discuss the economic case for the different approaches mentioned above. [25]

**Section B**

**One or two** of your three chosen questions must be from this section.

- 4 In 2012, the Singapore government announced enhancements in measures to improve labour productivity and increase general living standards in Singapore. More grants were given to SMEs to invest in its workers and its operations.
- (a) Explain the main macroeconomic indicators that can be used to compare changes in living standards across countries. [10]
- (b) Assess the extent to which an improvement in labour productivity is beneficial to the standard of living in Singapore. [15]
- 5 With the use of fiscal policy to reduce cyclical fluctuations, some economies like the USA, have been improving steadily despite facing fiscal drag.
- (a) Explain why governments aim to reduce cyclical fluctuations. [10]
- (b) Discuss the extent to which fiscal drag limits the effectiveness of using fiscal policy in managing cyclical fluctuations in an economy. [15]
- 6 Discuss the view that signing more free trade agreements is the best approach to sustained economic performance in an economy. [25]

- 1 The world economy experienced subdued growth for a second year in 2013. In addition, a rising number of low cost airlines exited due to high fuel costs. These have impacts on both national carriers and low cost airlines.

Explain how the above changes will affect the world market for air travel and assess the usefulness of elasticity concepts in determining the likely impact on different types of airline carriers. [25]

Introduction:

Subdued growth (means slower economic growth) in 2013, increasing unit cop and no. of sellers will cause the demand and supply of air travel to change thus causing a change in equilibrium prices and quantity. Thus in view of these changes, the use of elasticity concepts can help to determine the impact on different airline carriers such as national and budget ones.

Body:

1. Subdued economic growth (slower economic growth)  $\rightarrow$  increase dd due to rising income but slow rate  $\rightarrow$  increase purchasing power  $\rightarrow$  demand for more luxurious gds such as holidays  $\rightarrow$  short hauls (by prefer to take by train/ship)  $\rightarrow$  dd for air travel increase  $\rightarrow$  dd shift right
2. Falling no of sellers  $\rightarrow$  due to higher unit cop  $\rightarrow$  lower rate of profitability  $\rightarrow$  exit industry  $\rightarrow$  fall in ss
3. Simultaneous shift  $\rightarrow$   $\uparrow$ dd <  $\downarrow$ SS  $\rightarrow$  price increase, qty fall (due to low cost carriers may not have super normal profits to sustain the higher unit cost of production)

Accept any other well-explained judgment on the outcome for the air travel market.

Transition to next part of essay

Explain that the above factors may have differing impact on different airline carriers and it might be useful to determine the impact on them by using elasticity concepts such as price, cross, income elasticity of demand and price elasticity of supply.

**Thesis:**

		Price Elasticity of demand	Cross Elasticity of demand	Income Elasticity of demand	Price elasticity of Supply
Exit of low cost carriers airlines due to rising fuel cost	Low cost carriers:	Fall in ss less competitors → dd more price elastic (caters to lower to middle income consumers which air travel takes up a larger proportion of their household income) → more than proportionate decrease in qty dd → TR decrease	Relatively more ex when ss fall as price increase hence qty dd fall → TR fall.	-	-
	National carriers:	Overall fall in ss of airline carriers, price of air travel increases, demand is relatively more price inelastic, qty dd decrease less than proportionately → TR increase	Increase in demand as consumers switch to relatively cheaper substitute → increase dd → TR increase	-	-
Subdued economic growth	Low cost carriers:	-	-	Demand for low cost carriers is income elastic for low-middle consumers → more than proportionate increase in demand good → TR increases	Supply relatively less price inelastic due to lack of excess spare capacity due to budget and low headcount.
	National carriers:	-	-	Demand for full-service airlines is income inelastic for middle-high income consumers → increase in TR	Supply relatively more price elastic due to existence of spare capacity (larger fleet of aircrafts and high manpower)

**Judgment:**

Students need to assess the usefulness of each concept to explain the likely impact on different airline carriers.

Student has to judge which of the elasticity concepts and why they are more useful to determine the impact of the above events on P, Qty and TR of national carriers and low cost airline.

Anti-thesis:

Elasticity concepts might not be useful as:

1. Real world ceteris paribus condition may not hold, unable to determine clearly on the impact when there is simultaneous shift or more than one change in the market.
2. Different types of consumers hence may not see national carriers and low cost airlines as very close substitutes. Difficulty in obtaining the values thus it may not be useful for different airlines to determine the impact???

Conclusion:

Students need to make a judgment on how useful were the elasticity concepts in helping to determine the impact on each these airlines.

Level	Descriptor	Marks
3	For an answer that is also well-developed with detailed analysis to explain the impact of slow economic growth and falling no of low cost airlines due to rising fuel cost. The answer should also contain good application with reasoned assessment of the usefulness of elasticity concepts in determining the different impact on different airline carriers such as budget and national ones. There should be a <b>proper</b> conclusion to the question.	18-21
	For an answer that is well developed with detailed analysis of how the slow economic growth, fall in no of low cost carriers due to rising fuel cost had impacted the air travel market and has a clear structure to answer the question. The answer also must contain clear statements that are supported by <b>some reasoned</b> arguments on assessing the usefulness of using elasticity concepts to determine the impact on different types of airline carriers and there should be <b>some</b> attempt to a conclusion to the question.	15-17
2	For an answer that has <b>more thorough relevance</b> as to the question requirement by explaining how market forces affect the market for air travel and has <b>some assessment</b> on the extent of usefulness <b>a few elasticity concepts</b> and its impact on <b>one or some</b> type of airline carriers.	12-14
	For an answer that shows some relevance to the question requirement with an ability to identify and explain some facts that links to market forces <b>OR</b> elasticity concepts, have some ability at drawing accurate graphs and <b>fair</b> ability to apply concepts to the context of the question. Most of the analysis is <b>accurate</b> but <b>undeveloped</b> with ideas not organized properly to answer to the question directly. (Meaning one-sided either answer the part a or part b of the question).	10-11
1	For an answer that shows some knowledge about demand supply and elasticity concepts but does not indicate that the meaning of the question has been properly grasped. The answer also contains basic conceptual errors or has an inadequate development of analysis.	6-9
	For an answer that is mostly irrelevant and contains only a few valid points made incidentally.	1-5

**Allow up to 4 additional marks for Evaluation**

<b>E2</b>	For a valid evaluation that is well justified.	3-4
<b>E1</b>	For an unexplained judgment or one that is not supported by analysis.	1-2

### IJC 2014 H2 Prelim 2 Paper Question 2

As the growth of online shopping continues, shoppers are focused on purchasing electronics, books, music, apparel and sporting goods. On the other hand, food and beverages, supermarkets, luxury fashion and healthcare tend to be less affected by the shift towards online retail and continued to perform well.

- (a) Explain how economies of scale determine the type of market structure in different industries. [10]

#### Suggested Outline:

- Define economies of scale, minimum efficient scale. Explain that the extent of economies of scale reaped by firms determine the size of firms and hence the type of market structure.
- Firm where MES is small relative to industry demand means that the optimal size of the firm is small and thus there are many small sized firms in the industry. These firms will experience lowest average costs at a low level of output only and are thus remain small in size. For example, fashion boutique and barber shop. Hence, such industries are likely to exist in monopolistic competition where there is a large number of small firms.
- Firm where MES is large relative to industry demand means there may be room for only one or a few large sized firms. These industries tend to have high capital cost and is more likely to exploit technical economies of scale. Examples of such industries include telecommunication, public utilities and aircraft production. In these industries, there is no possibility of competition from within the country. Even if a firm were large enough to produce the whole output of the industry in the country, it would still not be large enough to experience the full potential economies of scale. As a result, the LRAC curve falls continuously over the entire output range sufficient to supply the entire market. Such industries are likely to be oligopolistic, with a few large firms dominating the market. In the extreme case, with only one firm in the market it might exist as a monopoly.
- In some industries, the firms' LRAC curve may have a horizontal portion due to constant returns to scale. These firms can enjoy lowest average costs over a range of output. It is possible for small and large firms to be equally cost efficient and co-exist in the same industry. For example, in the retail industry, there exist small grocery stores and large supermarkets. Hence firms in these industries can be either oligopolistic (e.g. supermarket chains) or monopolistic competitive (e.g. grocery stores).

**Marking Descriptor**

Level	Descriptor	Marks
L3	Clear attempt to address question. Well-developed analysis of how economies of scale determine the size of firms, number of firms and market structure in different industries with the good use of relevant examples.	7-10
L2	Some attempt to address question. Less developed analysis of how economies of scale determine the size of firms, number of firms and market structure in different industries. Answer is generally descriptive or lacking in scope in terms of type market structures considered and examples.	5-6
L1	Answer mostly irrelevant or contains only a few valid points made incidentally without any attempt to address question.	1-4

- (b) Discuss how far the market structure of the firms in different retail industries will affect their profitability when faced with the growth in online shopping.  
[15]

**Suggested Outline:**

With growth in online shopping, the retail industries are impacted in different ways

Growth in online shopping → greater competition for existing traditional firms due to more producers in the market

Extent to which existing traditional firms' profits are affected depends on market structure firms operate in

- Retail industries with monopolistic competitive features
  - E.g. fashion boutiques
  - Lack of excess profits due to freedom of entry and exit industry
  - Growth in online shopping → fall in demand → some firms might be making subnormal profits eventually → exit the industry in the long run
- Retail industries with oligopolistic features
  - E.g. supermarkets
  - Able to maintain supernormal profits due to substantial barriers to entry which prevent firms from entering
  - Growth in online shopping → falling demand → fall in revenue but might still be able to maintain supernormal profits if reduction in revenue is not drastic

In comparison, the impact might be more favourable for online retail industries

Growth in online shopping → rising demand as consumers switch to online retail firms which are substitutes of traditional retail firms

Extent to which it favours these industries might also depend on the market structure firms operate in

- Retail industries with oligopolistic features
  - E.g. large internet firms
  - Ability to maintain high barriers to entry → prevent new firms from entering → supernormal profits can be maintained in the long run
  - Greater ability to use supernormal profits to innovate, differentiate, advertise → raise barriers in the industry → raising market power and profits further
- Retail industries with monopolistic competitive features
  - E.g. blog shops
  - Growth in online shopping rising demand → rising revenue → rise in profits → supernormal profits earned in the short run
  - However, monopolistic competitive industries have freedom of entry and exit of firms → attract new firms into the industry → fall in demand and demand becoming more elastic with presence of more substitutes → supernormal profits competed away → normal profits earned in the long run

Market structure is not the only factor affecting firms' profitability. When faced with growth in online shopping, firms' profitability can be dependent on other factors:

- (i) Ability of firms to adopt competitive strategies:
- Product Differentiation

When faced with growth in online shopping, if retailers are able to differentiate their products in terms of range, designs and quality, they may be able to make their products less substitutable and thus the demand for their products becomes more price inelastic. With that, such retailers may be able to earn higher profits

- Firms changing strategy by tapping on growth potential in online shopping, especially for those products experience favourable growth in sales online, such as some products like electronics, books, music, apparel and sporting goods

(ii) Nature of product

- Products that are highly specialised, requiring more personalised service less likely to be impacted by growth in online shopping  
E.g. in the market for food and beverage, apparels, consumers with greater affluence and purchasing power often places a high premium and value on variety, personalized services and choices such as unique dining experience or high-end luxury fashion serving a niche market
- Goods that are perishable and have more limited shelf life, e.g. those in supermarkets, profitability less impacted by the growth in online shopping

Conclusion:

Market structure of firms in retail industries can affect their profitability when faced with growth in online shopping to some extent, but other factors like competitive strategies that firms adopt and nature of product might prove to be important affecting their profitability as well

**Marking Descriptor**

Level	Descriptor	Marks
L3	Clear attempt to address question. A balanced discussion with well-developed analysis of how market structure and other relevant factors can affect retail firms' profitability when faced with growth in online shopping.	9-11
L2	Some attempt to address question. Less balanced and developed analysis of how market structure and other relevant factors can affect retail firms' profitability when faced with growth in online shopping.	6-8
L1	Answer mostly irrelevant or contains only a few valid points made incidentally without any attempt to address question.	1-5
E2	Evaluation that is supported by economic reasoning.	3-4
E1	Some evaluation but may not be supported by sound economic reasoning.	1-2

- 3 As more countries are facing economic difficulties and an ageing population, some governments have sought to increase competition within the healthcare sector to reduce its cost while others are reducing subsidies to prevent their healthcare spending from escalating.

Discuss the economic case for the different approaches mentioned above. [25]

#### Suggested outline

i) Explain up to 3 sources of market failure in healthcare market

- positive externality in consumption with diagram
- imperfect information
- the market dominance, equity or factor immobility

\*clear explanation on how each causes lead to market failure

\*government failure in resolving efficiency caused by fiscal deficit and debt is acceptable

ii) Objectives of government intervention

iii) Body 1: Case for increase in competition

- rising healthcare cost attributable to inefficiencies in the SS of healthcare. Inefficiencies could arise from market dominance by private firms e.g. likely operate under oligopoly → possibility of collusion among healthcare providers → exploitations → welfare loss → inefficient allocation of resources or cause by red-tape in government-run healthcare providers. These made a competitive market an effective solution.
- rising healthcare cost due to DD factors but is significant enough to have secondary impact on + increasing fiscal deficit → need to cut spending → further contractionary impact on economy → worsen economic growth and employment + reduce tax revenue → vicious cycle + inaccessibility of healthcare by lower income group

Although caused by demand factors, it is a long term DD problem. Hence, a more competitive supply could help curb the problem of rising healthcare cost.

- Trend of ageing population → continue to strain the fiscal balance of countries → government spending need to be managed or face the consequence of large debt. Hence, between the two policies, subsidies need to be reduced or controlled. However, might lead to other serious issue of lack of access to healthcare of lower income group or a less productivity workforce.

iv) Body 2: Case for reducing subsidies

- effectiveness of subsidy over policies to promote of a more competitive market especially where there exist significant conflicts with equity
- if fiscal deficit due to excessive spending in other social aims e.g. overly generous unemployment benefits → should tackle root cause and not reduce subsidy on healthcare
- harmful effect of excessive competition (argument from Monopolistic Competition)
- high MES → likely operate under oligopoly → possibility of collusion among healthcare providers → high exploitation or higher unit cost if operate on a smaller scale.
- increasing competition under situation of imperfect knowledge by consumers might lead to exploitation by healthcare providers to maintain profits

v) Possible Evaluation

- Considers differing fiscal balance and causes of fiscal deficit among countries → policy response differs. In many developed countries that relied mostly on 3rd party healthcare payment e.g. insurance or common pool of public funds, there exist excessive demand for healthcare that significantly outpace supply. Either increasing competition or reducing subsidies might not lead to a better outcome. Alternative policy such as regulation that requires patients to co-pay for healthcare treatments might be more effective.

- To tackle of imperfect information, government could regulate to improve make information of treatment and cost more readily available to patients is more effective.

Level	Knowledge, Application, Understanding and Analysis	Marks
L3	For a well-developed answer that explains a range of causes of market failure associated with healthcare as well as the use of economic analysis to explain differing reasons on a possible change in policies.  Max. 15m for an in-depth but limited range of causes and reasons.	15-21
L2	For an underdeveloped answer that explains causes of market failure and reasons on a possible change in policies.  Max 9m for a one-sided answer that covered either approaches.  Max 12m for an answer that covered causes and both policies that are relevant to healthcare market but limited attempt made to answer the question.	9-14
L1	For a brief answer that covered causes and policies related to healthcare market but contained several conceptual errors.	1-8
<b>Evaluation</b>		
E2	Economic justification on the different criteria / factors that influence policy responses.	3 – 4
E1	Unexplained judgement.	1 – 2

- 3 As more countries are facing economic difficulties and an ageing population, some governments have sought to increase competition within the healthcare sector to reduce its cost while others are reducing subsidies to prevent their healthcare spending from escalating.

Discuss the economic case for the different approaches mentioned above. [25]

**Suggested outline**

i) Explain up to 3 sources of market failure in healthcare market

- positive externality in consumption with diagram
- imperfect information
- the market dominance, equity or factor immobility

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\*government failure in resolving efficiency caused by fiscal deficit and debt is acceptable

ii) Objectives of government intervention

iii) Body 1: Case for increase in competition

- rising healthcare cost attributable to inefficiencies in the SS of healthcare. Inefficiencies could arise from market dominance by private firms e.g. likely operate under oligopoly → possibility of collusion among healthcare providers → exploitations → welfare loss → inefficient allocation of resources or cause by red-tape in government-run healthcare providers. These made a competitive market an effective solution.
- rising healthcare cost due to DD factors but is significant enough to have secondary impact on + increasing fiscal deficit → need to cut spending → further contractionary impact on economy → worsen economic growth and employment + reduce tax revenue → vicious cycle + inaccessibility of healthcare by lower income group

Although caused by demand factors, it is a long term DD problem. Hence, a more competitive supply could help curb the problem of rising healthcare cost.

- Trend of ageing population → continue to strain the fiscal balance of countries → government spending need to be managed or face the consequence of large debt. Hence, between the two policies, subsidies need to be reduced or controlled. However, might lead to other serious issue of lack of access to healthcare of lower income group or a less productivity workforce.

iv) Body 2: Case for reducing subsidies

- effectiveness of subsidy over policies to promote of a more competitive market especially where there exist significant conflicts with equity
- if fiscal deficit due to excessive spending in other social aims e.g. overly generous unemployment benefits → should tackle root cause and not reduce subsidy on healthcare
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- high MES → likely operate under oligopoly → possibility of collusion among healthcare providers → high exploitation or higher unit cost if operate on a smaller scale.
- increasing competition under situation of imperfect knowledge by consumers might lead to exploitation by healthcare providers to maintain profits

v) Possible Evaluation

- Considers differing fiscal balance and causes of fiscal deficit among countries → policy response differs. In many developed countries that relied mostly on 3rd party healthcare payment e.g. insurance or common pool of public funds, there exist excessive demand for healthcare that significantly outpace supply. Either increasing competition or reducing subsidies might not lead to a better outcome. Alternative policy such as regulation that requires patients to co-pay for healthcare treatments might be more effective.
- To tackle of imperfect information, government could regulate to improve make information of treatment and cost more readily available to patients is more effective.

Level	Knowledge, Application, Understanding and Analysis	Marks
L3	<p>For a well-developed answer that explains a range of causes of market failure associated with healthcare as well as the use of economic analysis to explain differing reasons on a possible change in policies.</p> <p>Max. 15m for an in-depth but limited range of causes and reasons.</p>	15-21
L2	<p>For an underdeveloped answer that explains causes of market failure and reasons on a possible change in policies.</p> <p>Max 12m for an answer that covered causes and both policies that are relevant to healthcare market but limited attempt made to answer the question.</p> <p>Max 7m for a one-sided answer that covered either approaches without causes of market failure.</p>	9-14
L1	<p>For a brief answer that covered causes and policies related to healthcare market but contained several conceptual errors.</p>	1-8
<b>Evaluation</b>		
E2	<p>Economic justification on the different criteria / factors that influence policy responses.</p>	3 – 4
E1	<p>Unexplained judgement.</p>	1 – 2

In 2012, the Singapore government announced enhancements in measures to improve labour productivity and increase general living standards in Singapore. More grants were given to SMEs to invest in its workers and its operations.

- (a) Explain the main macroeconomic indicators that can be used to compare changes in living standards across countries. [10]
- (b) Assess the extent to which an improvement in labour productivity is beneficial to the SOL in Singapore. [15]

Suggested Answer Outline

- (a) Explain the main macroeconomic indicators that can be used to compare changes in living standards across countries. [10]**

Question Requirements:

- Explain what SOL is
- Explain significance of comparing changes in SOL across countries
- Explain indicators that can be used to compare such changes

1. Explain SOL

- Standard of living: level of well-being and comfort enjoyed
- 2 aspects of SOL: material and non-material SOL
- Material SOL: quantity and quality of goods and services available to be enjoyed
- Non-material SOL: quality and affordability of housing, hours of work required to purchase necessities, gross domestic product, inflation rate, number of holiday days per year, affordable (or free) access to quality healthcare, quality and availability of education, life expectancy, incidence of disease, etc.

2. Explain significance of comparison of changes in SOL across countries

- Changes in SOL show how the population in the country become better off over time and shows the progress of the economy
- Comparing changes in SOL across countries allows economists to assess how well economies and governments are doing, relatively, in improving living standards in their countries

3. Explain real GDP

- Gross Domestic Product: measures the final value of all goods and services produced within the geographical confines of an economy within a given period of usually a year.
- To measure changes within a country across a period of time → need to compensate for inflation (i.e. the sustained, inordinate increase in general price levels) → use real GDP in order to take into account inflation.

4. Explain real GDP PER CAPITA

- Different countries have different population sizes → need to account for differences in population sizes → to make numbers comparable, divide real GDP by population size to obtain real GDP per capita
- 

5. Explain real GDP per capita, PPP adjusted

- For comparison across countries, there is a need to use the same base currency for fair comparison → typically use exchange rate to convert into the same currency, usually USD.

- Due to various reasons like differences in stage of development, there are differences in purchasing power of one dollar.
- Despite using exchange rates to convert real GDP per capita into the same base currency, it is not sufficient to use it as a proxy comparison for differences in material SOL due to differences in purchasing power
- E.g., US\$100 can buy a different amount of a basket of goods and services in the US vs. in Mexico.
- To compensate for that, PPP adjusted real GDP per capita is used.
- PPP: the exchange rate that allows say \$100 of a country's currency to buy the same basket of goods and services in another country
- Therefore, using real GDP per capita, PPP adjusted, the year-on-year % change can be calculated for each country to be compared.
- The higher the % change, the more marked the improvement in material SOL in a country compared to another.

6. Unemployment rate

- Higher unemployment rate → smaller proportion of population working → lower income levels → lower mat SOL & lower income tax revenue paid. Lower consumption → lower corporate tax paid. → government tax revenue falls → unable to spend as much on provision of merit goods for public → lower non-material SOL
- Higher unemployment rate → higher amount of social unrest, inequality, instability, etc → lower non-material SOL

Level	Descriptors	Marks
3	For a well-developed explanation of how macroeconomic indicators can be used to compare changes in SOL across countries.	7-10
2	For an under-developed answer of how macroeconomic indicators can be used to compare changes in SOL across countries. For lack of consideration of comparison across countries For lack of consideration of changes in SOL	5-6
1	Smattering of points about the use of macroeconomic indicators in comparing changes in SOL across economies. Conceptual errors present	1-4

(b) Assess the extent to which an improvement in labour productivity is beneficial to the Standard of living in Singapore. [15]

Question requirements:

- Explain impact of improvement in labour productivity in SG on SOL – positive and negative, material and non-material
- Weight impact

<p>Explain improvement in labour productivity                  Backdrop: Singapore economy faces tight labour market → to attain sustainable, non-inflationary growth, need to increase productive capacity. Since gvmt is unable to increase size of labour force much further (political, social instability; infrastructure unable to cope) the better alternative is to improve productivity of each worker.                  Examples of measures: STEP, SPUR, CET, etc. Even PIC can help to improve labour productivity though enabling workers to work with faster and more efficient equipment</p>	
<p><b>T: Improvement in productivity in SG is beneficial to SOL</b></p>	<p><b>AT: Improvement in productivity in SG is not beneficial to SOL</b></p>
<p><b>Impact on workers</b></p> <ul style="list-style-type: none"> <li>• Improved material SOL through higher wages</li> <li>• Wages ought to be paid according to productivity level of the worker (because demand for worker and his/her skills increases)</li> <li>• Higher productivity → higher wage as fair payment</li> </ul>	<ul style="list-style-type: none"> <li>• For workers who do not upgrade themselves → increase in no. of workers in that particular labour market → higher supply → depressed wages</li> </ul>
<ul style="list-style-type: none"> <li>• Worker productivity can be enhanced not only through skills enhancement, but also through the use of better and more labour-efficient technology and machines</li> <li>• If it is through the latter → fewer people needed to fulfil the same purpose and produce the same output</li> <li>• E.g. pre-fabrication of housing units has decreased the amount of labour needed in the construction industry to piece together a house brick by brick, steel bar by steel bar.</li> <li>• Those who are able to upgrade themselves &amp; are sufficiently adaptable to handle the changes will remain employed and can enjoy higher compensation → higher SOL</li> </ul>	<ul style="list-style-type: none"> <li>• However there will be a significant amount of people who risk being laid off because technology has replaced them → structural unemployment.</li> </ul>
<p><b>Impact on firms</b></p> <ul style="list-style-type: none"> <li>• LR: when labour productivity rises and translates into lower costs/higher revenue/higher profits for the firms, firms are able to pass these on to the workers in terms of higher pay</li> </ul>	<ul style="list-style-type: none"> <li>• SR: if firms bear the cost of the improvement in labour productivity (e.g. training courses) → higher cost of production incurred → might lower profits in the SR → might be unable to afford passing on pay increases immediately to worker until results are</li> </ul>

	seen. ev: Especially so for SMEs with tight manpower numbers and budget constraints and lack of proper staff training programs
<p><b>Impact on economy</b></p> <ul style="list-style-type: none"> <li>• With higher labour productivity → each worker can produce more if fully and efficiently employed → productive capacity increases → LRAS rises</li> <li>• In face of rising AD in SG close to full cap., this allows SG to experience potential and sustainable actual growth → rise in real income levels across SG (give AD/AS analysis)</li> <li>• In face of rising cost-push pressures from labour crunch shortages which has been translating into significantly higher prices (especially in the F&amp;B industry, tourism industry, construction industry), this allows firms to have some respite from the rising costs of production and consumers from the rising costs of living</li> </ul>	
<ul style="list-style-type: none"> <li>• With productivity improvement schemes specifically targeted at the lower-skilled groups (SPUR), this can also improve income mobility and lower income disparity → improve SOL</li> </ul>	

Level	Descriptors	Marks
3	For a well-developed discussion of whether and how improvements in labour productivity in Singapore can improve SOL.	9-11
2	For an under-developed / one-sided answer of whether and how improvements in labour productivity in Singapore can improve SOL. For lack of consideration of context of Singapore	6-8
1	Smattering of points about whether and how labour productivity improvements can improve standard of living. Conceptual errors present.	1-5
E2	For insightful evaluative comment well-substantiated by economic analysis	3-4
E1	For unsubstantiated evaluative comment	1-2

- 5 With the use of fiscal policy to reduce cyclical fluctuations, some economies like the USA, have been improving steadily despite facing fiscal drag.
- (a) Explain why governments aim to reduce cyclical fluctuations. [10]
- (b) Discuss the extent to which fiscal drag limits the effectiveness of using fiscal policy in managing cyclical fluctuations in an economy. [15]

Reasons:

1. Better for governments to predict economic outcomes and come up with/formulate suitable economic policies.
2. Be attractive to foreign firms (FDI) and they can make better investment and output decisions.
3. Consumer confidence level on the economy (during boom may have over-stated confidence on the economy, bust need to restore confidence ,, people are not rational and relies too much on animal spirit)
4. Consumers and producers may face unanticipated inflation during boom time incur negative consequences.
5. Consequences of high unemployment when there is a bust.
6. Smooth out cyclical fluctuations to achieve stable and sustainable economic growth otherwise might have negative consequences.

Level	Descriptor	Marks
3	For an answer that has well developed and detailed analysis of at least 3 reasons why different governments aim to reduce cyclical fluctuations.	7-10
2	For an under developed answer that contains brief explanation why governments aim to reduce cyclical fluctuations.	5-6
1	For an answer that contains conceptual errors or just smattering of some valid points.	1-4

**Part b**

Introduction:

State the stand or consider other factors that will limit the use of fiscal policies besides fiscal drag (such as crowding out effect, size of multiplier, current govt/public debt issue faced) which will limit the effectiveness of FP.

Body:

Explain that government may use expansionary FP (increase G, reduce T) to smooth out the cyclical fluctuations → AD increases to reduce the negative impact of recession.

Explain how non-discretionary FP (automatic stabilizers) will result in fiscal drag and reduce the effectiveness of FP (eg fall into higher income tax bracket thus pay more tax and do not receive unemployment benefits, resulting in disposable household Y lesser, impact of the expansionary FP is limited)

- Provide judgment on the extent to which limiting the effectiveness depends on the amount of tax. Eg some countries have high taxes and high unemployment benefits.

Explain and discuss how other factors and the extent to which it will limit the effectiveness of FP.

1. Size of multiplier (big and relatively closed economy vs small and open economy)
2. Financial crowding out effect (availability of funds of the government whether it is in high public debt and have past reserves to tap on) High debt countries vs countries with accumulated past reserves.

Conclusion: Give a valid judgment

Level	Descriptor	Marks
3	For an answer that is well developed on the extent of fiscal drag and other factors that may result in limiting the effectiveness of using fiscal policies to reduce cyclical fluctuations.	9-11
2	For an answer that is under developed but contains some analysis and discussion on the extent of how fiscal drag and other factors that will limit effectiveness of using fiscal policy to reduce cyclical fluctuations.	6-8
1	For an answer that contains conceptual errors and smattering of valid points.	1-5

Evaluation:

Allow up to 4 additional marks for Evaluation		
E2	For a valid evaluation and judgement that are well justified.	3-4
E1	For an unexplained judgment or one that is not supported by analysis.	1-2

STAGE 1: 5Cs to A APPROACH

Discuss the view that signing more FTAs is the best approach to sustain economic performance in an economy [25]

Thinking Map:

Stage 1: Understanding Question Requirements	
<u>Question 6:</u>	
Command Word	Discuss which requires thesis and anti thesis on whether signing FTA is the best approach to sustain economic performance in an economy.
Content Word	Signing FTA Sustained economic performance
Context Word	Policies must be contextualised to different economies
Comparison	Best – implies a need to compare with other policies to suit different economies

	<b>Introduction</b>
	<p>A Free Trade Agreement (FTA) is a legally binding agreement between two or more countries to reduce or eliminate barriers to trade, and facilitate the cross border movement of goods and services between the territories of the Parties.</p> <p>Sustained economic performance could imply sustained achievement of macroeconomic goals over time. It could mean sustained rate of growth which can be maintained without trade-offs with other goals of the government.</p>
<b>Thesis</b>	<p>Yes, signing more FTAs is the best approach to sustain economic performance in an economy</p> <ul style="list-style-type: none"> <li>- The pursuit of free trade policy, such as signing of FTAs could be the best approach to sustained economic performance in small and open economies such as Singapore.</li> <li>- These economies are import dependent (relies on imports for survival) as well as export driven (relies on X for growth). Hence</li> </ul>

expanding trade linkages with rest of the world promotes connection to **new markets** and firms in these countries investors stand to enjoy a myriad of benefits like tariff concessions, preferential access to certain sectors and faster entry into these new markets. This promotes sustained economic performance with the achievement of macroeconomic goals such as healthy BOP, economic growth, low cyclical unemployment etc to be achieved. Especially necessary for small economy with a small domestic market like Singapore based firms to invest overseas in order to gain access to a larger foreign market and earn more revenue.

- Best approach in sustaining economic performance when existing trading economies such as US and EU are suffering from debt problems and recession. Trade expands new markets, **mitigate exposure of these economies to external economic risks** with **diversifying of trading partners** (decoupling effect) → thereby enjoying sustained demand for X and incoming FDI → macroeconomic goals achieved.
- Using free trade diagram and AD/AS analysis, explain how
  - FTA reduces trade barriers such as tariffs → increases exports of exporting country to importing country → increase in X → increases AD → increases actual growth → reduces cyclical unemployment.
  - FTA expands domestic, regional and international markets → enable investment and sharing knowledge, increasing trade opportunities and improving the competitiveness of enterprises unlocks new areas of growth As an advanced developing economy, Singapore is still developing the SMEs, FDI from other countries are necessary to drive competition in the industries and to enhance technological transfer which enhances the fixed capital investment simultaneously.
  - Small economy with a lack of natural resources, only equipped with human resources. Therefore essential to ensure long term growth via fixed capital investments. This will ensure that not all resources will be fully utilized in the short run, both the current and future goals sustained. Furthermore with more fixed capital investments from improved access by capital, it encourages an improvement in productivity that enhances an increase in output in the long run and reduces unit cost of production in the short run.
  - AD increases in SR, SRAS falls in SR and LRAS in LR → sustained economic performance
  - Also, BOP is improved with increase in X and FDI.
- Eg: GULF COOPERATION COUNCIL-SINGAPORE FREE TRADE AGREEMENT (1 Sep 2013 enters into force)
  - Gulf Cooperation Council (GCC), consisting of six countries

	<p>in the Middle East – Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and the United Arab Emirates (UAE)</p> <ul style="list-style-type: none"> <li>○ Singapore is the first non-Middle East country to have a FTA with the GCC</li> <li>○ <b><u>Benefits ( Increase TRADE)</u></b> <ul style="list-style-type: none"> <li>▪ Approximately 95% of all GCC tariff lines will qualify for tariff-free concessions. An additional 2.7% of tariff lines will qualify for the same tariff-free concessions by 2018.</li> <li>▪ S\$3.98 billion worth of Singapore goods will qualify for immediate tariff-free treatment, while S\$49.1 million worth of Singapore goods will qualify after 2018. Major sectors that will benefit from the elimination of tariffs are telecommunications, electrical and electronic equipment, petrochemicals, jewellery, machinery and iron and steel-related industries.</li> </ul> </li> <li>○ <b><u>Benefits ( Increase INVESTMENT)</u></b> <ul style="list-style-type: none"> <li>▪ Services: The GSFTA allows Singapore-based companies, Singapore Nationals and Permanent Residents to hold majority stakes in key sectors of the GCC markets. In particular, Singapore gained enhanced access in UAE, Saudi Arabia and Qatar for construction services, computer and related services, environmental services and professional services, such as legal, architectural, engineering, urban planning.</li> <li>▪ Singapore has Investment Guarantee Agreements (IGAs) in force with five out of six GCC countries, giving stronger protection to investments made in the markets on both sides. Singapore is currently negotiating an IGA with Qatar.</li> </ul> </li> </ul>
<p><b>Evaluation</b></p>	<ul style="list-style-type: none"> <li>- Time lag as policy is carried out in phrases and development takes time. Hence medium term policy.</li> <li>- Selected sectors so impact could be limited to them</li> <li>- Impact depends on closeness to the economies in terms of trade and investment linkages i.e GCC is an important trading partner to Singapore as The GCC is currently Singapore's fifth largest trading partner and accounts for 35% of Singapore's oil imports.</li> <li>- More FTA may not be good. They should be focused on regions that are emerging and developing and beneficial to the economy.</li> <li>- Persistent development in the fixed capital investments without improving on the skills of the labour may also lead to structural unemployment especially when FTA brings about changes in comparative advantage of the economy. This is especially true in the case of Singapore as an open economy with exposure to rapid industrial evolutions.</li> </ul>

<p><b>Anti the sis – Other policies are needed to enhance benefits of FTA to achieve sustained economic performance</b></p>	<p>FTA improves access to markets in terms of trade and capital but other policies are needed for the benefits of FTA to be realized and economic performance to be sustained. For example, with rising competition by emerging economies and the enhanced mobility of capital investment, FDI will be attracted to wherever the profits are and would not persistently stay and contribute to growth in the economy. → other policies could affect firm's profitability and are needed to ensure continued competitiveness of the economy.</p> <ul style="list-style-type: none"> <li>- Fiscal Policy             <ul style="list-style-type: none"> <li>o Increase in G to improve infrastructure to facilitate incoming FDI and trade</li> <li>o Competitive tax rates to attract FDI</li> <li>o Explain FP using AD/AS framework</li> </ul> </li> <li>- Exchange rate policy             <ul style="list-style-type: none"> <li>o Explain either depreciation during recession or appreciation during recovery in Singapore's case.</li> </ul> </li> </ul>
<p><b>Anti the sis 2- Other policies needed to manage conflicts of goals brought about by FTA.</b></p>	<p>Excessive increase in AD brought about by X and FDI can pose risks of demand pull inflation and structural unemployment to economies growing at a fast pace.</p> <ul style="list-style-type: none"> <li>- Supply side policy needed in the long run to manage             <ul style="list-style-type: none"> <li>o Structural unemployment (retraining policies )</li> <li>o Demand pull inflation (PIC to enhance innovation and technology in Singapore)</li> </ul> </li> <li>- Microeconomic policies             <ul style="list-style-type: none"> <li>o Taxes on pollution</li> </ul> </li> </ul>
<p><b>Evaluation</b></p>	<p>Supply side policy might not be effective as the skills taught might not be relevant to the particular industry or work that was done resulting in no improvement in the productivity of the labour.</p> <p>Time lag (LR policy)</p>
<p><b>Conclusion</b></p>	<p>Generally, FTA could be the best approach for sustained economic performance for open economies that are reliant on trade and FDI for growth. However,</p> <p>(Any Conclusion that is logical and makes economic sense can be accepted)</p>

Level	Descriptor	Marks
3	For an answer that is well-developed and balanced, with detailed analysis and contained application to relevant situations with examples on the view that signing more FTAs is the best approach to sustain economic performance in an economy.	18-21
	Answer has a clear structure to answer the question. The answer also must address how economic performance can be sustained and which economies has FTAs as the best approach to achieving it.	15-17
2	For an answer that has underdeveloped analysis on a balanced view that signing more FTAs is the best approach to sustain economic performance in an economy. At least one other policy explained.	12-14
	Most of the analysis is accurate but underdeveloped with ideas not organized properly to answer to the question directly.  Max 10 for one sided answer	10-11
1	For an answer that shows some knowledge but does not indicate that the meaning of the question has been properly grasped. This answer contains basic conceptual errors or has an inadequate development of analysis.	6-9
	For an answer that is mostly irrelevant and contains only a few valid points made incidentally.	1-5

Levels	Evaluative Descriptor	Marks
2	Judgement based on the analysis, relating to the context and the core question requirement.	3-4
1	Mainly unexplained judgment with a lack of relation to the context.	1-2



**JURONG JUNIOR COLLEGE  
PRELIMINARY EXAMINATION 2014**

**ECONOMICS**

**Higher 1**

**8819/01**

**1 September 2014**

**3 hours**

**READ THESE INSTRUCTIONS FIRST**

Write your name and class on all the work you hand in.  
Write in dark blue or black pen on both sides of the paper.  
You may use a soft pencil for any diagrams, graphs or rough working.  
Do not use staples, paper clips, highlighters, glue or correction fluid.

Section A  
Answer **all** questions.

Section B  
Answer **one** question.

**Start each question on a new piece of paper.**

Fill in the necessary information on the cover sheet.

At the end of the examination, fasten all your work securely with **the cover sheet at the top.**

The number of marks is given in brackets [ ] at the end of each question or part question.

This document consists of **8** printed pages.

**[Turn Over**

**Section A**

Answer **all** questions in this section

**Question 1****Use of Shale Gas in UK and Environmental Issue****Extract 1: Global market is pushing up gas prices**

UK energy bills are set to go up by 2020 as the country becomes more dependent on imported gas, says energy regulator Office of Gas and Electricity Markets (Ofgem). In 2009, 45% of the natural gas used in the UK was imported, and this figure is expected to reach 69% by 2019. This growing dependence on imports makes it vulnerable to shifts in supply and demand, as well as shocks in supply countries. The recent power outage at a Norwegian gas plant was the main reason for the price jump, further exacerbated by a leaking crude oil pipeline in Scotland blocking the supply of natural gas from fields further up the production chain.

According to Ofgem, while UK needs more gas, world demand for gas is set to rise while domestic supplies are predicted to fall by another 28% by 2020. Asia is set to become the fastest-growing gas consumer. China's consumption alone will grow at 20 per cent per year as the country experience rising GDP growth.

So without measures to reduce dependence on imported gas, higher prices are inevitable. Clare McNeil, PPR's senior research fellow tells Carbon Brief that exposure to volatile international energy prices would be a real problem for consumers, particularly households on low incomes who cannot afford the extra costs. Between 2011 and 2012, domestic gas bill has increased by 11.8% when the price of gas rose by 13.1%.

Source: *The Carbon Brief*, 19 February 2012

**Extract 2: Carbon pollution**

Experts from three climate bodies conclude there are sound reasons to burn natural gas instead of coal in the country's power stations in the short term. The reason is that gas-powered plants emit less than half the carbon dioxide per kilowatt hour of coal-fired stations. Of all the greenhouse gases that scientists say are heating the planet to potentially dangerous levels, carbon dioxide is the main one caused by both industrial and human activities.

Source: *Financial Times*, 18 March 2013

**Extract 3: A carbon tax by any other name**

The headlines last week were dramatic: Australia abandons its carbon tax. The move seemed to confirm suspicions that putting a price on carbon dioxide emissions is politically toxic. By next July, the country will shift from its controversial carbon tax system to a cap-and-trade system, which is a different way of limiting greenhouse gas emissions.

Carbon taxes control emissions by establishing a fixed price that polluters must pay. High prices discourage pollution. By contrast, cap-and-trade systems limit amounts of carbon emissions, leaving the market to determine the price for polluting. Economists and policy makers like to argue over which method is best. But both seek the same goal.

Although carbon taxes, with their fixed prices, are easier to implement than cap-and-trade systems, but critics of Australia's announcement, who include the country's Green Party, have a point. Switching to the cap-and-trade system will allow Australian industries to pay less to reduce pollution. That is because the trading system, unlike the tax, will link into a similar system in Europe. In Europe, abundant pollution permits have dramatically reduced the market price of carbon emissions. Hence, Australian industries will be able to take advantage of those low prices to access the pollution credits more cheaply, and ahead of schedule.

Another key question raised by Australia's situation is whether the concept of a carbon tax is too politically treacherous for nations seeking to combat climate change. The Australian government price carbon at A\$23 per ton in July 2011. Despite the fact that the tax does not cover agricultural and fuel used by passenger and light commercial vehicles which constitute a total of 30% of carbon emissions in the country, airlines, miners and industries warned that the tax would force major industry to slash production and jobs. Polls have shown voters are resistant to the tax, which is expected to raise consumer prices by 0.7%.

In Australia now, "it will be possible for the government to say that it has removed a 'tax,' and avoid the unpopularity of that word," Mr. Pannell said. "The opposition is arguing that the new system will still be effectively a tax by another name. But the political effect of their arguments is diminished."

Source: *New York Times*, 24 July 2013

#### **Extract 4: UK cannot afford to miss out on shale gas**

There will not be "a lot more" onshore wind turbines in the UK, David Cameron has said, as he signaled that hundreds of gas fracking wells could be drilled across the country.

If we don't back this technology, we will miss a massive opportunity to help families and businesses with their bills and make our country more competitive. Without it, we could lose ground in the tough global race. In fact, one recent study predicted that 74,000 jobs could be supported by a thriving shale-gas industry in this country. It's not just those involved in the drilling, there would be a whole supply chain of new businesses, more investment and fresh expertise. A similar shale gas boom to the one in the US has transformed the country's energy landscape, driving down gas prices and prompting hopes of energy independence.

Cameron further said that he would never sanction something that might ruin their landscapes and scenery. Shale gas pads are relatively small – about the size of a cricket pitch and international evidence shows there is no reason why the fracking process should cause contamination of water supplies or other environmental damage, if properly regulated. And the regulatory system in this country is one of the most stringent in the world. If any shale gas well were to pose a risk of pollution, then we have all the powers we need to close it down.

But pursuing a new "dash for shale gas" policy in the UK could be dangerous in the long term as it could discourage low carbon investment. Hence, it would make it harder – and more expensive – to meet the UK's mandatory 2050 target of cutting greenhouse gases by at least 80 per cent from 1990 levels. According to the *New Scientist*, it says that if the UK's shale gas reserves are not as large as Chancellor Cameron thinks, UK could be locked into a carbon intensive strategy that remains vulnerable to rising gas import prices. To provide the UK with greater energy security, investment in renewable technologies should not be neglected.

Source: *The Telegraph*, 11 August 2013 and *Financial Times*, 18 March 2013

**[Turn Over**

**Table 1: Fuel Price Components of the Retail Price Indices (RPI) relative to all items RPI, Jan 1987=100**

Year	Coal & Smokeless Fuel	Gas	Electricity
2006	95.7	90.1	84.6
2007	99.1	120.0	102.2
2008	103.6	100.9	93.7
2009	136.1	152.5	122.1
2010	131.6	138.3	108.4
2011	127.5	130.2	104.8
2012	131.5	147.2	112.1
2013	135.2	171.5	124.6

Source: Various

**Questions**

- (a) Compare the prices of gas and coal & smokeless fuel in the UK between 2008 and 2013. [2]
- (b) Using information in Extract 1, explain one demand and one supply factor causing the price of gas to rise in the UK. [4]
- (c) According to Extract 1, UK consumers' domestic gas bill increased by 11.8% when the price of gas rose by 13.1% between 2011 and 2012. Comment on what this might imply for the price elasticity of demand for gas. [4]
- (d) Using economic analysis, explain why economists would support the burning of natural gas rather than coal in a country's power station. [4]
- (e) Discuss the policy measures adopted by the Australian government to correct market failure resulting from carbon emissions. [8]
- (f) Do you agree with the view that UK's "dash for shale gas" policy (Extract 4) would bring about more benefits than costs to the UK economy? [8]

[Total:30]

**Question 2****The Global Recovery****Extract 5: A case of austerity or stimulus for Europe**

Spending cuts and tax increases have helped to reduce fiscal debts across the 17 EU countries that use the euro, but the region's debt to GDP burden ratio rose after economic growth flat lined and fewer companies and households paid taxes. Calls for a more growth-led approach dominated last week's informal EU summit. The debate over the future of the eurozone continues to veer between two extremes: stimulus or austerity. "You cannot spend your way out of a debt-fuelled recession", shout those on one side of the divide. Others respond that economic recovery is not possible without a major influx of public spending.

It has become painfully obvious that simply downsizing bloated public sectors does not work if there are no jobs for people to turn to as seen across Europe, 40 million people are now unemployed, causing a vicious, downward spiral of recession. The International Monetary Fund also added that it had underestimated the effects of fiscal tightening as the previously assumed fiscal multiplier did not consider the effects of unemployment on savings.

But the state is no silver bullet for economic growth either without austerity. Restoring confidence is highly needed as providing employment opportunities by ploughing money back into the public sector would provide only temporary respite, and would push countries even further into unsustainable debt.

Source: *The Guardian* and *Daily Telegraph*, June 2012 and October 2012

**Extract 6: US stirred a currency war**

The World Trade Organisation (WTO) has recently detected a steady rise in trade barriers. The restrictions range from higher tariffs to costly import licences or a competitive devaluation, in which many policymakers all over the world lower their exchange rates in order to increase their competitive advantage. Governments often justify these steps as short-term remedies responding to the global downturn.

Competitive devaluations started with the Fed keeping US interest rates near zero until 2013. This will affect capital flows and lead to a prolonged devaluation of the dollar. For export nations, the temptation is to fight back by pushing their own currencies lower to make their exports more competitive. A weaker currency might also encourage foreign investment due to lower costs. However, competitive devaluations are futile and would delay the recovery of US, turning a global slowdown into dreaded stagflation.

Source: *Reuters*, August 2012

**Extract 7: UK's productivity**

Productivity is not everything, but in the long run it is almost everything. In Britain especially, though not uniquely within Europe, productivity growth has been extremely poor and highly concerned, as it ranked way below the average of other G7 industrialised nations. On this basis, average of UK worker would have to work ten hours to produce the same output a worker in the US could produce in eight hours.

[Turn Over

The UK's productivity gap has been attributed to poor labour productivity as well as poor capital productivity. This creates disadvantages compared with other countries, notably a relative failure to invest or innovate, technological backwardness, lack of entrepreneurship and trade distortions.

As such, there is serious and rapidly mounting pressure on the government to come up with more reforms and measures to boost business investment and productivity given the economy's current lack of scope for fiscal stimulus.

Source: *The Guardian*, September 2012

### **Extract 8: Economic self-interest jeopardises recovery for all**

In an economically integrated world, there is increased recognition that despite the virtues of an open market that include trade specialization and foreign investment jump; it leaves economies vulnerable to changes in opportunity costs of production, currency values and even higher gini-coefficient. Protectionism hence has been a traditional way to deal with these pressures.

The WTO has recently expressed concerns on one of the protectionist measures European governments often justify, to slap dumping on the Chinese goods. According to WTO rules, the claim that targets China's cheap-labour-intensive exports can be more lax in its criteria to determine dumping. On the same note, the WTO has also advised US to reconsider its protectionistic tax. Although US has long reported the need of the tax to neutralize China's export subsidies that has stolen its factories, jobs and created a chronic trade deficit, the WTO believes that the tax would only distort markets and in the long run, it could be economically self-defeating.

The WTO recommended that some policies should be changed in order to reduce the high trade deficits in Europe and US. European governments should work on reducing funding on state-subsidised agricultural industry which still absorbs nearly half their budgets, while improving funding on infrastructure, education, skills and innovation. Investing heavily in education and training for the unemployed and giving incentives to businesses to hire and train new workers would be a far more worthwhile investment. Huge potential could also be unleashed when liberalisation in competitive sectors has been combined with continuing state involvement in more vulnerable areas of the economy, helping to develop latent comparative advantages.

If economies start closing markets or blocking trade, their prospects will be pushed down even further in a downward economic spiral most are in already. Policymakers should instead be ahead of the game to take advantage of those changes. Germany for instance, has positioned itself well to ride on a third wave of globalisation, characterised by rapid growth in a number of developing countries.

Source: *The Economist and BBC News*, June 2012 and September 2012

**Table 2: Fiscal Balances (% of GDP)**

	2007	2008	2009	2010	2011	2012
Euro area (15 countries)	-0.7	-2.1	-6.3	-6.2	-4.1	-3.3
UK	-2.8	-5.0	-10.9	-10.1	-8.3	-6.6
United States	-2.9	-6.6	-13.3	-11.4	-10.2	-8.5

Source: *International Monetary Fund: World Economic Outlook*

**Questions**

- (a) (i) Using Table 2, compare the change in fiscal balances of the UK, US and Euro area between 2007 and 2012. [2]
- (ii) With reference to the data, discuss whether spending cuts and tax increases are the most appropriate for Europe's recovery. [8]
- (b) Explain the impact of near-zero interest rates (Extract 6) on employment in the US. [2]
- (c) Explain possible effects on the balance of payments of the US when its currency weakened. [4]
- (d) Comment on how a low productivity growth in UK will affect its economy. [6]
- (e) Using the evidence in the data and your own knowledge, assess the validity of countries practising protectionism. [8]

[Total: 30]

[Turn Over

**Section B**

Answer **one** question from this section.

- 3** Globalisation can result in an influx of cheaper imports but the intense foreign competition may force inefficient domestic firms to close down.
- (a) Analyse the benefits and costs of globalisation. [10]
- (b) Discuss the impact of the abovementioned effects of globalisation on domestic steel and car markets. [15]
- 4** The Singapore government is moving to reduce its reliance on foreign workers and increase productivity. This includes support to upgrading efforts by businesses and subsidising training for local workforce.
- (a) Explain why governments aim to achieve economic growth and full employment. [10]
- (b) Discuss the extent to which a reduction in the reliance on foreign workers would slow down growth in Singapore. [15]



**JURONG JUNIOR COLLEGE**

**2014 JC2 ECONOMICS 8819 (H1)**

**PRELIMINARY EXAMINATION**

**ANSWER BOOKLET**

**Answers to 2014 Preliminary Examination Case Study Question 1**

- (a) Compare the prices of gas and coal & smokeless fuel in the UK between 2008 and 2013. [2]**

The price of gas and coal and smokeless fuel rose in UK between 2008 and 2013. The price of gas rose by 70% much faster than the rise in price of coal & smokeless fuel which rose 30.5% in the same period.

- (b) Using information in Extract 1, explain one demand and one supply factor causing the price of gas to rise in the UK. [4]**

China has experienced rising GDP growth and this implied that there is a rise in purchasing power of the population. This will lead to a rise in demand for goods and services which in turn encourage production. Firms' demand for gas as an input in production will increase leading to a rise in the price of gas price.

The power outage at a Norwegian gas plant and the leaking crude oil pipeline in Scotland blocking the supply of natural gas from fields further up the production chain reduce the supply of gas which in turn raise the price of gas in the UK.

- (c) According to Extract 1, UK consumers' domestic gas bill increased by 11.8% when the price of gas rose by 13.1% between 2011 and 2012. Comment on what this might imply for the price elasticity of demand for gas. [4]**

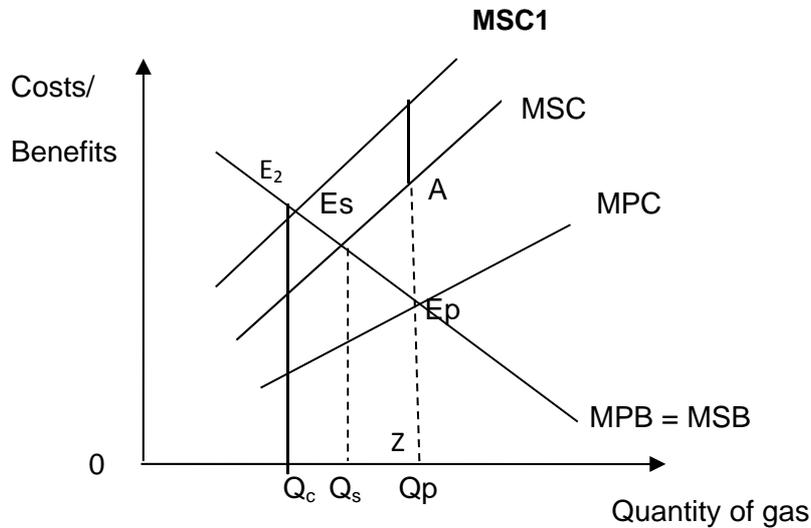
The demand for gas is price inelastic. This means that when the price of gas increased, there will be a less than proportionate fall in quantity demanded for gas. Consumer expenditure on domestic gas rose as the percentage increase in price is greater than the percentage fall in quantity demanded.

But the ceteris paribus assumption may not hold. The rise in consumer expenditure on domestic gas bill could be brought about by a rise in demand for gas. This could be due to longer period of winter which could use a lot of gas to heat homes.

- (d) Using economic analysis, explain why economists would support the burning of natural gas rather than coal in a country's power station. [4]**

As mentioned in extract 2, the burning of natural gas rather than coal in a country's power station is preferred by environmentalists as gas-powered plants emit less than half the carbon dioxide emitted compared to coal-fired plants. This implied that the amount of external costs generated in production by gas-powered plants could be reduced.

Carbon emission by gas-powered plants could pollute the environment and cause a deterioration of air quality. Residents staying within the surrounding area could likely fall sick and subject to rising medical costs. The presence of external costs in production is indicated by the MSC curve that lies above the MPC curve.



The figure above shows that the gas-powered station will equate MPC to MPB and will produce  $Q_p$  gigawatts of gas. The producer ignores the external costs generated from production equal to  $AE_p$  amount. The socially optimum level of production should be at  $Q_s$  gigawatts of gas where  $MSC=MSB$ . Hence, the presence of external costs leads to overproduction and welfare loss of area  $E_sAE_p$  as the total costs to society for the production of  $Q_sQ_p$  amount exceeds total benefits to society.

As external costs generated by gas-powered plant is lesser than a coal-powered plant, which is  $ZA$  amount in the figure above, the welfare loss of the former is indicated by area  $E_2ZE_p$  which is lesser than the latter given by area  $E_2ZE_p$ .

**e) Discuss the policy measures adopted by the Australian government to correct market failure resulting from carbon emissions. [8]**

Carbon tax priced at A\$23 per ton in July 2011 was introduced in Australia. It has the effect of raising firms' cost of production by an amount equal to the  $MEC= AE_p$  amount and shift their MPC curve upwards to coincide with the MSC curve shown in figure 1 (part d of the answer). Firms are forced to internalise the external costs generated on others and they will reduce production level to  $Q_s$  as they equate  $MPC_1$  to MPB to reach the socially optimum level of production as greenhouse gas emission is reduced.

As mentioned in extract 3 the carbon tax is easier to implement as the authority needs merely to attach a fixed price to be charge to each unit of the good produced. However, it is difficult to estimate the amount of external costs generated as the intangible costs like the deterioration of the quality of the environment could be difficult to quantify. The over and underestimation of the amount of external costs generated may lead to over and underestimated of the welfare loss. In addition, since the carbon tax does not cover agricultural and fuel used by light commercial vehicles and passenger that constitute 30% of carbon emission (extract 3), the adverse impact of rising costs on firms that lead to the slash of production and jobs could be kept lower.

The cap-and-trade system involves the Australian government to determine the maximum amount of carbon emissions allowed per year. Government will issue permits to firms which allow them to pollute up to the quota specified. Those firms that exceeded their quota will have to buy excess credits while those with excess credits can sell them to increase their revenue.

There is more certainty on the results of this policy as Australian government could better control the level of carbon emissions. While firms that pollute above the quota could trade for more permits in the market, it acts as a disincentive for them to innovate and be more efficient in energy usage particularly if the rising costs could be passed on to consumers in the form of higher prices.

Carbon tax could be a better policy in the short run and if target at specific sectors that emit highest amount of carbon emissions, its adverse impact of rising costs on firms and subsequently households on the economy could be reduced. It also provide firms and households time to adjust to increase their usage of eco-friendly sources of energy. In the longer time, cap-and-trade policy could replace carbon tax as in the case of Australia which target at all polluting agents. It would be effective provided Australian government does not issue abundance of pollution permits like the case in Europe that could dramatically reduce the price of the permit and render the policy ineffective as polluting firms are not encourage to switch to green energy.

**(f) Do you agree with the view that UK's "dash for shale gas" policy (Extract 4) would bring about more benefits than costs to the UK economy? [8]**

UK's "dash for shale gas" policy will help reduce the country's high dependence on imported gas. The discovery and successful exploration of shale gas would help to drive down gas prices, just like the United States (extract 4). As gas is used for heating purposes at home, households domestic gas bill may not rise which benefit the lowest income group the most and to some extent help prevent rising cost of living.

The extract mentioned that 74,000 jobs are created in the shale-gas industry. As workers are employed in the shale-gas industry, they will spend on consumer goods and result in a spill-over beneficial effects on other sectors in the economy via the multiplier effect. The country's real GDP will increase. Businesses will also experience lower cost of production as gas prices fall. This will be translated into export competitiveness. As demand for export is elastic, export revenue will increase. As UK import lesser amount of natural gas, import expenditure may fall. The rise in export revenue and fall in import expenditure will lead to a surplus in the current account.

However, there are costs to the economy as gas drilling process may cause contamination of water supplies or other environmental damage (extract 4, paragraph 3). External costs could be generated as the contamination of water supplies could increase residents chances of falling sick and facing rising medical costs. As producers ignore the external costs generated in the drilling process, market fails and welfare loss arise. Natural landscape and scenery would be ruin and bring about a deterioration in the environment and qualitative aspects of life could worsen.

UK "dash for gas" policy is likely to bring more benefits than costs to the economy as the external costs generated from drilling process could be minimised with the UK having one of the most stringent regulatory system in this world (extract 4). Meanwhile, it should continue to invest in renewable energy to encourage low carbon investment. If UK's shale gas reserves are large enough, her dependence on imported gas could be reduce to below 69% by 2019 (extract 1). This will help to reduce the UK vulnerability to gas price volatility and bring about more benefits to both households and the economy.

### Answers to 2014 Preliminary Examination Case Study Question 2

#### 2014 J2 H1 (8819) Economics Prelim Case Study Question 2 (H1 Answers)

- (a) (i) **Compare the change in fiscal balances of the UK, US and Euro area between 2007 and 2012.** [2]

In general, all UK, US and Euro area are having fiscal deficits (negative values) throughout 2007 to 2012. (1m)

The proportion of fiscal deficit to GDP has increased the least in Euro area. OR

The proportion of fiscal deficit to GDP has increased the most in the US. (1m)

- (ii) **With reference to the data, discuss whether spending cuts and tax increases are the most appropriate for Europe's recovery.** [8]

Europe's recovery is to achieve economic growth and higher employment.

- Thesis: Austerity measures more appropriate for Europe

Austerity measures are a combination of direct tax rates increase and reductions in government expenditure in the European economies to cut budget deficits and restore confidence (Extract 5). With higher confidence (higher MEC and expected returns), investment would increase therefore stimulating the level of aggregate demand (AD), increasing national income multiple and increasing the overall level of economic activity and employment in the European economies. In addition, in the long run, a higher level of investment brings about potential growth since quantity of capital increases. Thus leading Europe to recover from the current problems of negative growth and unemployment.

*Limitations:* However, the use of austerity measures (decreasing G and increasing T) can result in a short run fall in AD and decreases NY multiple times, hindering actual growth. Moreover, the contraction of national income is worsened with the multiplier size being larger than assumed (Extract 5). This is due to the prolonged unemployment, causing savings in most of the European economies to deplete, resulting in a relatively lower marginal propensity to save. Therefore with smaller leakages and a bigger k, the impact of austerity measures on NY, production and hence unemployment will be larger, making it difficult for the government to restore confidence to achieve economic growth and recovery.

- Anti-Thesis: Stimulus measures or other policies more recommended for Europe

On the other hand, the European governments could adopt stimulus (EFP or supply-side policies) instead of austerity measures.

The government can use expansionary fiscal policy by increasing government expenditure

(G) on infrastructure or reducing taxes like personal income tax or corporate tax. The reduction in personal income tax results in an increase in disposable income, purchasing power and ability to afford goods and services, hence leading to an increase in consumption (C). Next, the fall in corporate tax increases after-tax profits, thus giving firms a greater incentive to invest so investment (I) is encouraged. The increase in C, I and G would increase aggregate demand (AD), and thus national income will increase by a multiple via the multiplier process, resulting in actual economic growth. The increase in AD and production will create jobs and reduce cyclical unemployment. Additionally, if the government spent on areas such as skills training and upgrading its workforce or improving the efficiency of infrastructure in the economy (Extract 8), it will help increase productivity and hence increase the productive capacity of the economy, achieving potential economic growth, bringing recovery.

*Limitations:*

According to a(i), the European economies have increasing high fiscal deficits which needed the high tax revenue to pay for those public debts. As such they might not be willing to lower the tax rates. Additionally, Extract 1 stated that further spending will accumulate the debt and it is only a short term measure. Moreover, the business confidence will be low due to the 'flat lined' growth (Extract 5) thus lowering tax rates may not increase I as business outlook is poor. Hence the increase in G and I might be limited, restricting the recovery process.

- Anti-Thesis (II) Any other policy (besides G & T) more recommended for Europe

In addition, Europe could adopt

- exchange rate policy - depreciates Euro dollars, (Extract 6) competitive devaluation but must note that all 17EU countries must agree to a depreciation. A country itself cannot depreciate the Euro dollar.
- trade policy – embrace globalization and strengthen comparative advantage (Extract 8)

*\*monetary policy is not acceptable as it is not mentioned in data*

- Conclusion

In conclusion, the use of austerity measures might be the most appropriate for the European economies currently to recover their growth and employment. This is due to the existing economic situation in which there is a lack of other policies to promote growth. This is primarily because the government has no ability to implement or complement this with other policies. In addition, external demand is very weak due to the weak global economy (Extract 6). There is thus no scope for devaluation to restore competitiveness too.

Lastly, austerity measures short run impact of dampening growth could be reduced if the government could practice reducing expenditure only on selective unproductive industries such as agricultural subsidies and spend on increasing productivity instead (Extract 8). This could decrease their fiscal debts without much compromising on growth.

L3	Well-developed explanations and limitations of 2 policies that the	6 - 8
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	European governments can use to achieve growth and employment with reference to the case study evidence.	
L2	Under-developed explanation of policies that the European governments can use to achieve growth and employment with reference to the case study evidence.	3 – 5
L1	Smattering of valid points.	1 – 2

**(b) Explain the impact of near-zero interest rates (Extract 2) on employment in the US. [2]**

A near-zero interest rate decreases borrowing costs for consumption and investment.

- Consumption expenditure increases because a lower interest rate may divert savings into current consumption since the opportunity cost of consumption becomes lower.
- It decreases the cost of borrowing for financing consumption. Consumers are encouraged to borrow from banks to finance their consumer durables especially the bigger ticket items.
- Likewise, investment spending increases because marginal investments that were marginally unprofitable before now become profitable with the fall in borrowing costs.

(1m for any one of the explanations above)

The increase in investment and consumption expenditure stimulates aggregate demand (AD) and causes a multiple increase in national income through the multiplier effect. Production thus increases and more factors of production are employed, increasing employment in the US. (1m)

**(c) Explain possible effects on the balance of payments of the US when its currency weakened. [4]**

Effects on current account (2m)

With a weakened USD, the price of the US exports will be lower in foreign currencies and the price of imports will be higher in domestic currency. Assuming that the Marshall-Lerner condition holds where the sum of the price elasticities of demand for exports and imports is more than 1, net exports earnings would increase. This leads to an improvement in the current account balance. BOP therefore improves, ceteris paribus.

Effects on capital account (2m)

ST Capital

A weakened USD will lead to an outflow of hot money (Extract 6) as speculators anticipate a further depreciation of the currency. The weakened USD will also lead to a decrease in short term capital inflow. The increase in short term capital outflow and decrease in short term

capital inflow will worsen the KA balance and ceteris paribus, worsens the BOP.

Or

#### LT Capital

As seen in Extract 6, a weaken USD might encourage foreign investment due to lower costs as it would be cheaper in the eyes of the foreigners to invest in the US since they need to convert less of their currency to the USD. Hence, this would result in an increase in foreign direct investments, thereby resulting in an increase in long term capital inflow. This will result in an improvement in KA balance and ceteris paribus, improves the BOP.

The overall effect on the US's BOP will depend on the extent of depreciation, especially in comparison to that of the other countries. The relative importance of the different accounts of BOP will also affect the overall effect.

#### **Comment on how a low productivity growth in UK will affect its economy.**

(d) From Extract 7, UK's low productivity growth could be a result of poor labour or capital productivity. [6]

#### Internal

Poor labour productivity could result in higher costs of production, higher per unit cost, since longer hours (more wages to be paid) are needed to produce the same output. As such, wage growth increases faster than productivity growth, UK firms suffer higher average cost; they might pass on the increased cost to consumers in terms of higher prices, thereby discouraging consumption. The increase in the cost of production for firms also results in lower profit margins and less incentives for firms to produce. Short run aggregate supply thus falls resulted in higher general price level (price instability) and lower output level, dampening UK's economic growth. The decrease in production will cause UK firms to retrench labour, resulting in a decrease in employment.

Poor labour productivity will also lead to the lag in wage increment as firms cannot afford higher wages when their labour is inefficient. As such, consumers who already suffer increased in cost of living will suffer a lower standard of living with stagnating wages.

Poor capital productivity would mean capital equipment (machineries) become less efficient, stagnate UK's economic growth since the growth of productive capacity, LRAS is dampen.

#### External

The higher cost of production due to poor productivity growth will also mean UK exported goods and services are less price-competitive in comparison to its trading partners, especially the G7. Given that demand for UK's exports are price elastic due to the availability of substitutes, the relative more expensive exports will cause a more than proportionate decrease in the quantity demanded. This will result in a decrease in UK's export revenue. Similarly with higher prices domestically due to higher cost being passed on, UK consumers might switch from domestic goods to relatively less expensive imports. The demand for imports will thus increase, resulting in an increase in import expenditure in UK. The decrease in export revenue and increase in import expenditure will cause the current account balance to worsen.

The fall in export earnings and rise in import expenditure will also lead to a decrease in demand for Pound and an increase in supply of Pound, causing the external value of the Pound to depreciate. Depreciation in the Pound has serious repercussions on the UK economy as it will invite imported inflation; further increase the costs of production.

In addition, since UK firms earn lesser profits, they will not have the ability to have excess funding for R&D (research & development), innovation and technological advances (Extract 7). Therefore, not only will UK exports become less price-competitive, its quality will not improve too.

The higher cost of production also deters FDI or causing an outflow of long term capital. This will cause a worsening of KA balances. With both CA and KA balances worsening, BOP might suffer a deficit.

Conclusion / Extent

The poor productivity growth is likely to have significant negative impacts on the macroeconomic goals. Moreover, the relative lower labour productivity when compared to other countries, ranked way below (Extract 7) implies that the fall in I, FDI and therefore real NY may be significantly much more.

However, the extent of the above impact eventually also depends on other factors such as strength of UK's exchange rate, prevailing economic outlook and existence of effective government policies that may be more important in determining the impact of macroeconomic objectives.

Lastly, there might be difficulties when measuring and comparing productivity accurately. There is a continuous change in the price of inputs and outputs creating challenges in measuring productivity. Also, it is very difficult to measure the productivity of service sectors because the output of the service sector is intangible.

L2	Well-developed explanation of both the effects on internal and external economy with extent and strong use of case study evidence.	4 – 6
L1	Under-developed explanation of the effects on internal and external with some use of case study evidence.	1 – 3

**(e) Using the evidence in the data and your own knowledge, assess the validity of countries practising protectionism. [8]**

Protectionist measures are policies which distort market forces in order to give a competitive advantage to the domestic industry of an economy.

Thesis: Countries practise protectionism is valid

- European countries to protect against dumping.

Dumping occurs when overseas firm sells its product in another country below its marginal cost of production. This causes domestic industries in EU to face unfair competition from China that results in a reduction in domestic output and employment (Extract 8). Furthermore, if China firms are practicing predatory dumping to gain monopoly power and then raise prices later, it will exploit the EU consumers. Hence the EU government practises of protectionism to protect their local industries from such unfair competition is valid.

#### Limitations

However, the validity is limited because in the real world, it is difficult to assess dumping. EU claim on protectionism may be too strict on cheap-labour-intensive imports from China as seen in Extract 8 raised by WTO. In fact, China may have the comparative advantage in labour-intensive products due to their abundant supply of cheap unskilled labour and resources, and extensive economies of scale enjoyed from mass production; and hence are able to enjoy lower costs of production, that can be passed on to consumers in terms of lower prices, hence increasing their welfare.

- US to protect against unfair competition due to Chinese currency manipulation

In addition, China has “suppressed the yuan” to keep Chinese products artificially inexpensive Extract 6, hence causing several domestic products to be less competitive, and cause domestic consumers to switch their expenditure away from domestic products to the cheaper foreign imports. Hence, the deliberate “Chinese currency manipulation” would be a means of unfair competition, rather than as a result of China’s comparative advantage in labour-intensive products.

Hence, protectionism by the US may actually be valid under such circumstances since it would “neutralize China's currency subsidies that steal economies factories and jobs” and act as a means of self-defense against unfair competition from China.

#### Limitations

However, besides the undervalued yuan, there is also a possibility that economies’ products are less competitive than China imports due to domestic inefficiency by local producers (such as the UK weak productivity growth, Extract 7) and such protectionist measures would only perpetuate domestic inefficiency and lead to a misuse of resources, rather than address the lack of export competitiveness. US Governments could have instead offered incentives or subsidies to encourage domestic firms to upgrade their industries to regain their competitive edge. In addition, such protectionism would also have resulted in the loss of consumer welfare caused by higher prices, lower qualities and smaller variety of the local products. Hence protectionist measure is valid to certain extent.

- US to reduce trade deficit (and hence protect domestic production and employment)

For the US, who is experiencing a chronic trade deficit, (Extract 8), the government may resort to protectionism to reduce imports and thus improve the balance of trade, thereby protect domestic production and employment against the competition from cheaper

Chinese imports. Hence, protectionism is justified.

Limitation

Nonetheless, protectionism is a short term measure to correct a trade deficit as protectionism does not address the root cause of the deficit which maybe a lack of export competitiveness. In fact US suffering from trade deficit should instead restructure its economy or adopt supply side policy (Extract 8) as mentioned by WTO so as to improve international export competitiveness. Furthermore, protectionism might invite retaliation from trading partners in the long run. Therefore, protectionism may only be justified in the short-run to buy time to allow the country to restructure its economy more gradually, hence ensuring greater economic stability.

Anti-Thesis: Countries practise protectionism is not valid

On the other hand, embracing globalisation instead of protectionism brings about many benefits that an economy, such as Germany (Extract 8) enjoys as it integrates into the international economy due to the freer flows of trade, capital, labour migration and spread of technology.

As Germany rode on the wave of globalization, it benefitted from an increase in exports revenue with a larger world market as it specializes in producing their quality goods in which it incurs a lower opportunity cost and has comparative advantage over. Additionally, more foreign direct investment (FDI) will inflow into Germany and thus enjoy an increase in economic growth, employment and living standards. Hence protectionism in the EU and US will deprive these economies to enjoy such gains.

Conclusion / Evaluation

All in all, to a large extent, countries practice protectionism is not valid as it is just a short-run measure with doubtful gains and high costs.

Although protectionism may be valid should unfair trade practices occur, or adjustment of time needed, it cannot be sustained in the long run due to the inefficiency that it can bring and the overall lower welfare for all countries.

More importantly, as EU and US are major economic powerhouse in the global economy, it is important for these governments to work together to embrace globalisation and not practise protectionism as protectionism will only hold back economic growth for all countries.

L3	Well-developed explanation of both protectionism can be valid and invalid for the EU, US and Germany, with strong use of reference to case study data.	6 – 8
L2	Under-developed explanation of both protectionism can be valid and invalid for the EU, US and Germany, with some use of case study evidence.	3 – 5
L1	Smattering of valid points.	1 – 2

**Answers to 2014 Preliminary Examination Essay Question 3**

Globalisation can result in influx of cheaper imports but the intense foreign competition may force inefficient domestic firms to close down.

a) Analyze the benefits and cost of globalisation. [10]

b) Discuss the impact of the abovementioned effects of globalisation on domestic steel and car markets. [15]

**Part A**

<b>Mark Scheme</b>		
<b>L3</b>	Well-developed analysis of benefits and cost of globalisation supported by real life examples.	<b>7 - 10</b>
<b>L2</b>	Under-developed explanation of both benefits and cost of globalization. OR Developed explanation of either benefits or cost of globalisation.	<b>4 - 6</b>
<b>L1</b>	For a descriptive knowledge of benefits and cost of globalisation	<b>1 - 3</b>

**Part B**

<b>Mark Scheme</b>		
<b>L3</b>	Well-developed analysis of combined effects of globalisation on the domestic steel and car markets, using both PED & PES concepts.	<b>9 - 11</b>
<b>L2</b>	Under-developed explanation of combined effects of globalisation on the domestic steel and car markets, using both PED & PES concepts. OR Developed explanation of either combined effects of globalisation on either the domestic steel or car markets, using both PED & PES concepts.	<b>6 - 8</b>
<b>L1</b>	For a descriptive knowledge of effects of globalisation on the domestic steel and car markets.	<b>1 - 5</b>
<b>Evaluation</b>		
<b>E2</b>	For an evaluative assessment based on economic analysis	<b>3 - 4</b>
<b>E1</b>	For an unexplained assessment or one that is not supported by economic analysis.	<b>1 - 2</b>

## Part A

### Introduction

Globalisation is the increased integration of national economies into the global economy. Globalisation results in greater flow of goods and services, capital and factor resources among different economies which leads to greater interconnectedness and interdependence.

### Benefits of globalisation

#### **Enlargement of the world market**

A small and open economy like Singapore exploited the theory of comparative advantage and tapped on the opportunities presented by globalisation to expand their exports market beyond her national boundaries. This resulted in specialisation in producing goods and services where their area of comparative advantage lies in and also expansion of their scale of production. As such, firms in Singapore would be able to enjoy economies of scale leading to lower unit costs of production. This in turn enabled them to make their exports more price competitive. Ceteris paribus, rising net exports earnings would increase the AD leading to an increase in the national income via the multiplier effect. This rise in national output would be fuelled by greater production and expansion plans which would lead to higher employment and living standards.

Globalisation also provides more opportunities for sourcing cheaper and better quality imports from other countries. This would help to curb imported inflation and in turn raise export competitiveness since many of the exported goods from a small economy like Singapore for instance, use imported raw materials. Thus greater ease in flow of goods and services would imply a cheaper and a wider variety of imports to choose from.

#### **Increase in foreign direct investments**

The educated, skilled workforce and positive investment climate in Singapore attracted many foreign direct investments (FDIs). The ease of inflow of FDIs helped improve economic growth, employment and balance of payment position of Singapore. Besides, the technological transfer from the transnational corporations has helped Singapore to enhance the productivity of their production, distribution and marketing processes, together with greater sharing of technical and managerial skills, knowledge and experience. This increase in FDIs and productivity levels has boosted the long run potential growth of the economy.

#### **Increased mobility of labour**

Countries which are agricultural based tend to have higher population. With a freer movement of labour, smaller economies including Singapore with limited manpower are now better able to utilize workers from other economies to fill up the vacancies requiring lower level of skills. For instance, Singapore imports a lot of low skilled foreign workers from South-east Asia and South Asia like India, China, Malaysia and Philippines to work in the construction sector and as domestic maids.

### Costs of globalisation

#### **Increased threat from global integration**

The downside of being a small and open export oriented economy, such as Singapore and Hong Kong which have large trade sectors, is its increased vulnerability to external shocks. This makes them more vulnerable to changes in world conditions. The 2009 Global Financial Crisis affected Singapore adversely and caused her to slip into recession. When more markets become more open, competition will get stiffer. Stiff foreign competition and influx of cheap imports hurt domestic firms' profitability can force some inefficient domestic firms out

of business. The increase in competition also applies in the service industries. For instance, Singapore airport and Singapore Airline has faced increasing competition from regional countries and the Middle East.

**Worsening income inequality**

Globalisation results in rising income inequalities between the skilled and the unskilled workers. With greater mobility of labour, the unskilled workers face stiff competition from foreign workers. With an increased supply the wages for unskilled workers fall. On the other hand there is a shortage of skilled workers whose supply is limited however the demand for their services is high. This situation leads to rising wages for the high skilled workers.

**Conclusion**

Globalisation can bring about both benefits and costs. Ultimately, it is up to an economy to seize the opportunities it offers, and turn the threats into opportunities by managing the challenges.

**Part B**

**Introduction**

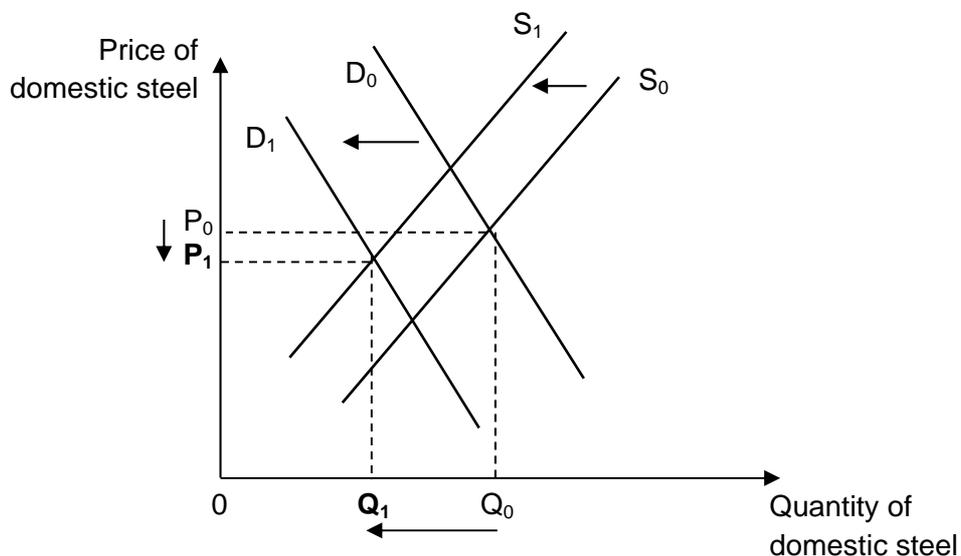
The price elasticity of demand (PED) measures the responsiveness of a change in the quantity demanded of a good to a given change in the price of the good itself, ceteris paribus. The numerical value of the price elasticity of demand is always negative, which means that the price and quantity demanded of a good have an inverse relationship.

**Body 1**

**Explain how effects of globalisation (influx of cheaper imports and foreign competition forced inefficient domestic firms to close down) affect the domestic steel and car markets respectively**

As mentioned in the pre-amble, one of the effects of globalisation is the influx of cheaper imports. The imports of both cheaper imported steel pose challenges to the domestic steel market. As these foreign imports are substitutes to domestic steel, the influx of cheaper imported steel will cause a fall in demand of domestic steel.

The other effects of globalisation mentioned in the pre-amble is how foreign competition forced inefficient firms to close down. The closure of these domestic steel firms will cause a fall in supply of domestic steel.

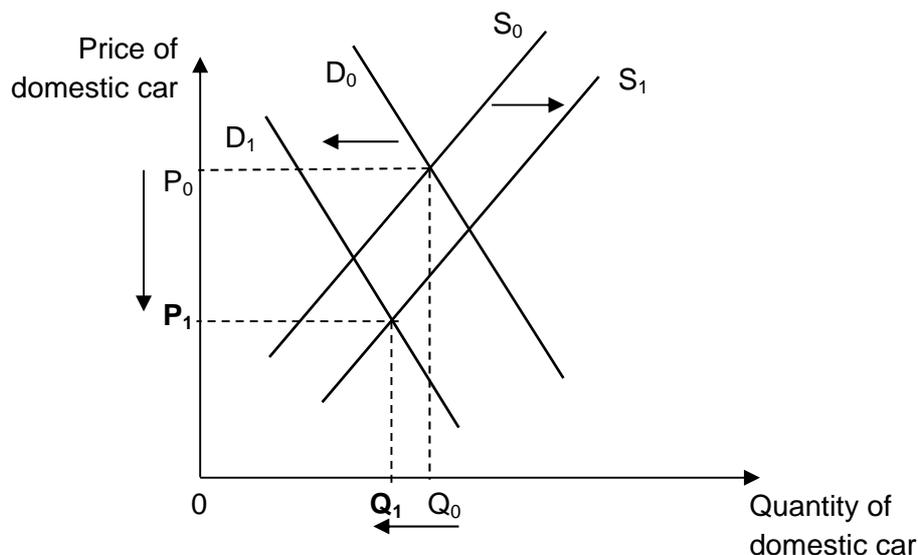


Hence, when demand falls and supply falls, the demand curve will shift leftwards from  $D_0$  to  $D_1$  and the supply curve will shift leftwards from  $S_0$  to  $S_1$ . It will result in a fall in quantity of domestic steel from  $Q_0$  to  $Q_1$ . However, the outcome on price is indeterminable. If the fall in demand is larger than the fall in supply, there will be a net fall in the price of domestic steel from  $P_0$  to  $P_1$ .

This is likely the case for US steel markets which is reported to face its worst import crisis in more than a decade putting up to half a million US jobs in the domestic steel industries at risk. This due to significant global excess steel capacity from steel producing countries like China, South Korea and India which results in exports of these surplus at below-market rates.

Similarly, the influx of cheaper imported cars will cause a fall in demand of domestic cars. However, despite the fact that foreign competition forced inefficient firms to close down leading a fall in supply of domestic car, the domestic car market may actually benefit from the globalisation.

The imports of cheaper imported steel allows domestic car market to enjoy a lower cost of production should they switch from using domestic steel to cheaper foreign imported steel. As steel is a major factor input for the production of car, car producers can greatly benefit from the lower cost of production, resulting in higher profits and greater incentive to supply. Therefore, despite the closure of domestic car firms due foreign competition, there is still a net increase in supply for the car market.



Hence, when demand falls and supply increase, the demand curve will shift leftwards from  $D_0$  to  $D_1$  and the supply curve will shift rightwards from  $S_0$  to  $S_1$ . It will result in a fall in the price of domestic car from  $P_0$  to  $P_1$ . However, the outcome on quantity is indeterminable. If the fall in demand is larger than the increase in supply, there will be a net fall in the quantity of domestic car from  $Q_0$  to  $Q_1$ .

This is likely the case for US car markets where there are rising concerns over the quality of cheaper imported Japanese cars. Over the years 2009 to 2011, Toyota, Honda and Nissan recalled more than millions of car involving defective air-bag inflators, faulty ignition switches and unintended acceleration. Toyota is now up to 10.1 million recalls worldwide, while General Motors has called back almost 14 million in the US alone.

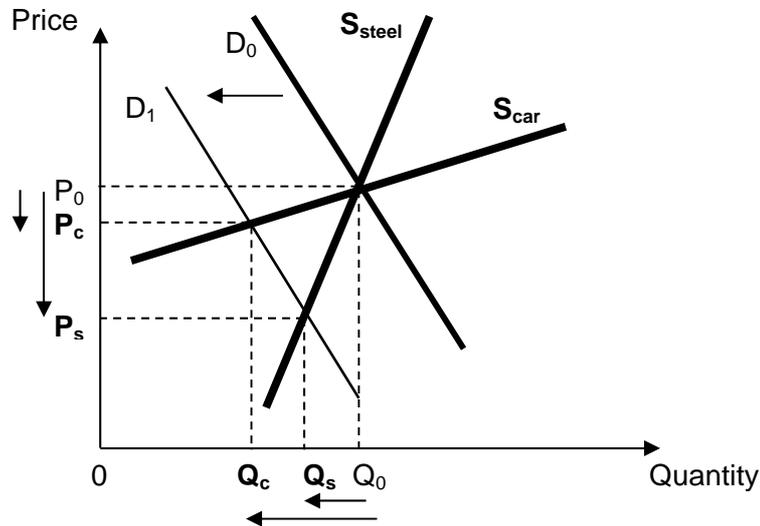
**Body 2**

**Explain how effects of globalisation (influx of cheaper imports) affect the domestic steel and car markets, using elasticity concepts**

As explained earlier, the influx of cheaper imported steel and car will cause a fall in demand of domestic steel and car markets. However, the outcome of price and quantity changes of the domestic steel and car markets will differ due to their different PES value.

The supply for domestic steel market is likely to be price inelastic. This is because the steelmaking process takes a substantial amount of time and effort - from mining raw iron ore to the steelmaking process which converts liquid iron into steel.

On the other hand, the supply of car market tends to be price elastic. This is because car being a manufactured good has a relatively greater ease in factor input mobility compared to the steel market.



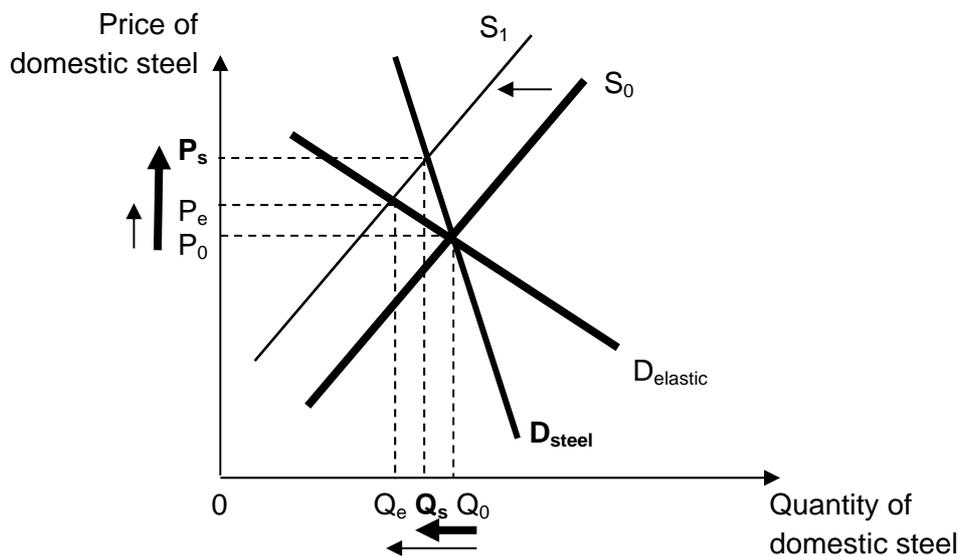
Hence, when demand falls, shifting the demand curve leftwards from  $D_0$  to  $D_1$ , for the domestic steel market which has an inelastic supply curve, it will result in a more significant fall in the price of steel from  $P_0$  to  $P_s$  and a less significant fall in the quantity of steel from  $Q_0$  to  $Q_s$ .

In comparison, for the domestic car market which has an elastic supply curve, it will result in a less significant fall in the price of car from  $P_0$  to  $P_c$  and a more significant fall in the quantity of car from  $Q_0$  to  $Q_c$ .

**Body 3**

**Explain how effects of globalisation (foreign competition forced inefficient domestic firms to close down) affect the domestic steel market, using elasticity concepts**

As explained earlier, foreign competition forced inefficient firms to close down causing a fall in supply of domestic steel market. Due to the lack of available substitutes for steel as a raw material, the demand for domestic steel market is likely to be price inelastic. As a result, the outcome of price and quantity changes of the domestic steel market will differ compared to a market with an elastic demand value.



Hence, when supply falls, shifting the supply curve leftwards from  $S_0$  to  $S_1$ , for the domestic steel market which has an inelastic demand curve, it will result in a more significant rise in the price of steel from  $P_0$  to  $P_s$  and a less significant fall in the quantity of steel from  $Q_0$  to  $Q_s$ .

In comparison, for a market which has a more elastic demand curve, it will result in a less significant rise in the price from  $P_0$  to  $P_e$  and a more significant fall in the quantity from  $Q_0$  to  $Q_e$ .

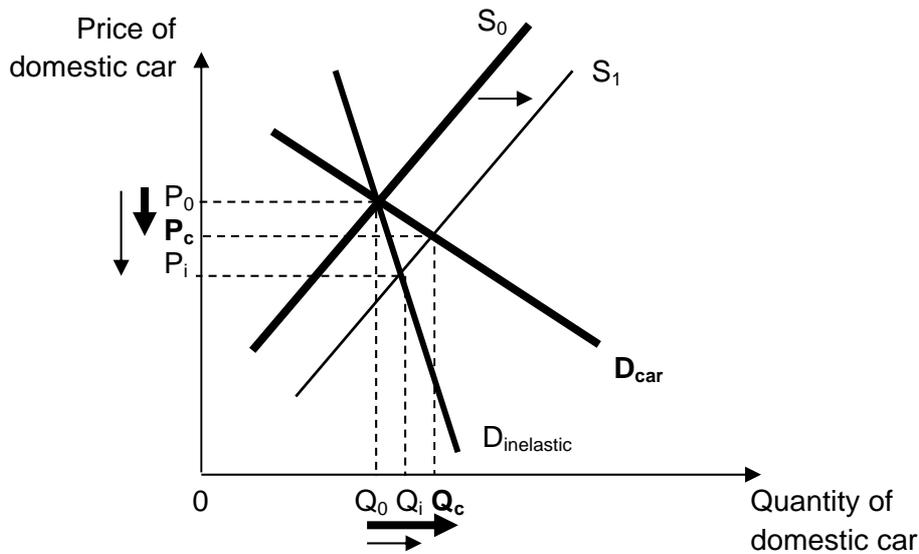
**Body 4**

**Explain the net effects of globalisation on domestic car market, using elasticity concepts (optional)**

On the other hand, as explained earlier, there is a net increase in supply of cars.

The demand of car market tends to be price elastic as there are alternative modes of transportation to cars such as the public transport – buses and trains or cabs. Hence, when supply rises, shifting the supply curve leftwards from  $S_0$  to  $S_1$ , for the domestic car market which has an elastic demand curve, it will result in a less significant fall in the price of car from  $P_0$  to  $P_c$  and a more significant rise in the quantity of car from  $Q_0$  to  $Q_c$ .

In comparison, for a market which has a more inelastic demand curve, it will result in a more significant fall in the price of car from  $P_0$  to  $P_i$  and a less significant rise in the quantity of car from  $Q_0$  to  $Q_i$ .



### Evaluative Conclusion

Nonetheless, the discussion of the effects of globalisation on the domestic steel and car markets can only be done based on the assumption of *ceteris paribus*. However, the *ceteris paribus* assumption does not hold true in real life. Firstly, in reality, the PED and PES values are difficult to collect and as such these data may not be accurate. These data may be outdated and unreliable overtime due to changes in the degree of substitutability between foreign and domestic markets or the discovery of alternative raw materials to replace steel.

In addition, there are various factors that take place simultaneously that may also have affected the price and quantity of these markets. For example, the market outcomes of the domestic steel and car markets can be largely influenced by the objectives of government policies. In response to the call for protectionism, governments may impose protectionism measures against foreign imports such as tariffs and devaluation to distort market forces so as to protect domestic industries and local jobs.

**Answers to 2014 Preliminary Examination Essay Question 4**

**4 The government is moving to reduce its reliance on foreign workers and increase productivity. This includes support to upgrading efforts by businesses and subsidising training for local workers.**

**(a) Explain why government aims to achieve economic growth and full employment.**

**[10]**

**(b) Discuss the extent to which a reduction in the reliance on foreign workers would slow down growth in Singapore.**

**[15]**

Knowledge, Application, Understanding and Analysis		
<b>L3</b>	Well-developed analysis of reasons why government aims to achieve both macroeconomic goals.	<b>7 - 10</b>
<b>L2</b>	Under-developed explanation why government aims to achieve both macroeconomic goals <b>OR</b> an undeveloped explanation that explains why government aims to achieve either goals	<b>4 - 6</b>
<b>L1</b>	Descriptive knowledge of why government aims to achieve both macroeconomic goals	<b>1 - 3</b>

Knowledge, Application, Understanding and Analysis		
<b>L3</b>	Well-developed analysis of how reduced reliance on foreign workers may affect growth furnished with other offsetting factors that may not slow down growth in Singapore	<b>9 - 11</b>
<b>L2</b>	Under-developed analysis of how reduced reliance on foreign workers may slow down growth and may quicken pace of growth	<b>6 - 8</b>
<b>L1</b>	Descriptive knowledge of how a reduced reliance on foreign worker slows down economic growth	<b>1 - 5</b>
Evaluation		
<b>E2</b>	For an evaluative assessment based on economic analysis	<b>3 - 4</b>
<b>E1</b>	For an unexplained assessment or one that is not supported by economic analysis.	<b>1 - 2</b>

4a) Amongst the government's macroeconomic objectives is to achieve economic growth and full employment. Economic growth is defined as the increase in real output in an economy. It consists of both actual and potential growth. An economy's economic growth can be measured by the rate of increase in real GDP. Real GDP measures the annual value of output produced/income earned by an economy within the geographical boundary of a country taking into account the effect of inflation. A healthy and stable economic growth means that an economy is enjoying positive growth with no recession.

The government aim to achieve macroeconomic objective as there are benefits that can be enjoyed when an economy grows. With increase in real GDP, it means that an economy is enjoying positive growth. Firstly, economic growth leads to a higher standard of living if population growth is slower as more goods and services are available for consumption. Therefore, quantitative SOL will improve. Furthermore, with rising income, government will be able to earn higher tax revenues and improve infrastructure of the economy. For example, better quality housing, more efficient transport system and better education opportunities. This would improve qualitative SOL. Moreover, economic growth helps to alleviate poverty and bring about a more equitable re-distribution of income. Since government receive more tax revenue, this tax revenue can be used to channel more resources to help the poor thereby reducing income inequality.

Besides that, economic growth increases firms' and consumers' confidence. Businesses would be more confident of higher expected profits and this encourages them to increase investments. Households are more confident of job security as expectation of higher salaries, hence they will increase their consumption. Increase in investments and consumption will lead to further economic growth and would generate more employment and income.

The government aims to achieve full employment because it means that the maximum output possible with all its resources fully utilised. This means that more workers would be able to earn an income which allows them to spend on goods and services and achieve higher SOL. Since more people are employed, it would imply to higher tax revenue for government. There is lesser burden on the government budget. Instead the government could spend more on public projects and merit goods which may increase the SOL of citizens.

Also, structural unemployment and labour immobility results in higher costs of production in expanding industries. The shortage of labour would lead to upward pressure on wages. The spill-over effect will raise general price level in the economy leading to cost-push inflation. Profit maximising producers will try to protect their profit margins by passing on increase in cost to consumers in terms of higher prices. This may lead to wage-price spiral. Therefore, by ensuring full employment, the government can avoid the costs of unemployment.

Lastly, full employment means that the economy can avoid from facing the problem of de-skilled workers. This is because as workers remain unemployed for long periods, their skills become increasingly outdated especially in the context of an economic restructuring. This reduces the chances of being employed in future. Therefore, refraining from imposing an economic burden on the government.

In conclusion, the government should achieve economic growth and full employment due to the benefits that the economy can enjoy.

#### **4b) Introduction:**

The Singapore government has reduced its reliance on foreign labour by imposing limits on foreign workers. The limits include more levies on firms that employ low-skilled foreign workers, a cut in foreign worker quotas and stricter qualification guidelines. Some examples

of the policy include higher salary and educational requirements and additional foreign worker levies to distinguish foreign skilled from unskilled labour. The purpose of this policy is to encourage businesses to avoid depending on foreign labour to keep costs low. Instead businesses should look into areas that improve productivity to keep cost of production low. The reduced reliance on foreign labour will impact Singapore's economic growth. A slowdown in growth means that real output is increasing at a slower rate.

**Thesis: A reduced reliance on foreign labour would slow down growth in Singapore**

With limits on the foreign labour, the labour force growth will grow at a slower rate since the economy would have to depend heavily on the local workforce for growth. This means that the economy's productive capacity will grow at a slower rate. Therefore, limiting the shift of LRAS. This would result in a slowdown in economic growth since Real GDP will increase at a slower rate.

Besides that, the reduction in foreign workers would mean that supply of labour is limited, especially in the context of a growing economy. Firms require more labour. The rise in demand for labour coupled with the fall in supply of labour would exert upward pressure on wages. The higher wages translates to higher cost of production for firms. Firms will receive lesser profits and would have lesser incentive to produce. Therefore, firms will cut back on production. Firms will relocate to other economies that offer more competitive wages. For example, many small and medium enterprises (SMEs) relocate to the Iskandar region in Johor as it offers lower costs of production. However, not all industries are equally affected by the rise in cost of production that stems from the tight labour market. Industries that are capital-intensive will still continue producing since they rely more on capital than labour for production. This implies that overall SRAS will increase but at a lesser extent since the rising wages hampers the increase in overall production of goods and services.

In addition, the lack of availability of labour would mean that firms will have difficulty expanding production of goods and services. Especially in the services sectors in food and beverage outlets and retail shops since the restriction is more stringent in these industries. The higher cost and lack of availability of labour deters investments consequently leading to a fall in AD. Moreover, with a fall in production, there will be lesser goods and services available for consumption. Besides a fall in investments, there would also be a fall in consumption since there are lesser consumers in the economy, there would be a fall in consumer expenditure. This would hinder AD from increasing as fast.

Overall, the reduction in reliance on foreign workers will offset the increase in AD and the economy will still experience positive growth albeit a slower growth.

**Anti-thesis: However, the reduced reliance on foreign labour may not necessarily lead to a slowdown in economic growth, in fact, it may quicken the pace of economic growth.**

The reduced reliance on foreign labour will encourage firms to be less dependent on foreign labour and instead find ways to upgrade and improve their production processes. The government is supporting the effort at improving the skills of workforce by providing subsidies for skills training. This will result in an increase in LRAS since quality of workers and quantity of capital has increased. Furthermore, by producing more efficiently, overall cost of production falls and businesses gain higher profits. With the rise in profits, businesses have an incentive to expand production. This would lead to an increase in investment, resulting in AD increasing and national income further increasing via the multiplier effect.

Next, the reduced reliance on foreign labour pushes the economy to restructure. This is because by imposing measures that tightens foreign labour through imposing higher salary and educational requirements sharpen the distinction between skilled and unskilled workers. This implies that for firms to hire foreign labour, the foreign labour must be earning income above a certain level and possesses relevant skills. This requirement ensures that the foreign labour hired fuels labour productivity instead of just ensuring lower cost of production for producers.

The stricter measures on foreign labour would mean that industries that depend on unskilled foreign labour will decline while sunrise industries like pharmaceuticals, offshore and marine engineering that require more skilled labour will expand. With the expansion of these capital-intensive industries, Singapore will produce more value-added goods and services. These industries will drive productivity further since it requires more innovation and automation compared to labour-intensive industries. The increase in productivity lowers cost of production leading to an increase in national income. Moreover, economic restructuring increases the productive capacity of the economy since industries expand and engage in more R&D and innovation. With more capital accumulation, it leads to an increase in LRAS and increasing potential growth.

Despite the fall in labour due to a reduction in foreign workers supply, it is offset by a higher labour force participation from women and older workers. In 2013, more females and older workers joined the labour force, raising the labour force participation rate. This is because of the improvement in educational profile over the years. Besides that, it is fuelled by the government's efforts to establish tripartite efforts to improve the older workers employability. For example, the minimum statutory retirement age in Singapore is 62 years old. However, employers have to offer re-employment to older workers that are eligible to work up to age 65.

Therefore, Singapore's productive capacity will continue to expand despite the reduction of foreign workers. Hence, offsetting the impact of a foreign labour restriction therefore, the economy may continue to grow instead of slow down.

### **Evaluative Conclusion**

In conclusion, whether the economy slows down or quickens depends on government's success in raising productivity to offset the increasing cost from the foreign worker restrictions. It also depends on the time period where slower growth can occur in the short run but the economy may experience a faster pace of growth in the long run.



**JURONG JUNIOR COLLEGE  
PRELIMINARY EXAMINATION 2014**

**ECONOMICS**

**Higher 2**

**9732/01**

**Paper 1**

**1 September 2014**

**2 hours 15 minutes**

**READ THESE INSTRUCTIONS FIRST**

Write your name and class on all the work you hand in.

Write in dark blue or black pen on both sides of the paper.

You may use a soft pencil for any diagrams, graphs or rough workings.

Do not use staples, paper clips, highlighters, glue or correction fluid.

Answer **all** questions.

At the end of the examination, tie all your work securely together.

The number of marks is given in brackets [ ] at the end of each question or part question.

This document consists of **8** printed pages.

**[Turn over**

Answer **all** questions.

### Question 1

#### Obesity problem

##### Extract 1: Food for thought

Greater wealth means that bicycles are abandoned for motorbikes and cars, and work in the fields is swapped for sitting at a desk. In rich countries the share of the population that gets insufficient exercise is more than twice as high as in poor ones.

Very importantly, argues Boyd Swinburn of Deakin University in Melbourne, diets change. Families can afford to eat more food of all kinds, and particularly those high in fat and sugar. Mothers spend more time at work and less time cooking. Food companies push their products harder. Richard Wrangham of Harvard University says that heavily processed food may have helped increase obesity rates. Softer food takes less energy to break down and finely milled grains can be digested more completely, so the body absorbs more calories.

In Mexico, unreliable tap water and savvy marketing have helped make the country the world's leading guzzler of Coca-Cola: the average adult consumed 728 servings last year. In America, junk-food calories are often cheaper than healthy ones. In Beijing, teenagers and office workers cram the fast-food restaurants along the street of Wangfujing. Even home-cooked Chinese meals contain more meat and high in fat, sugar, salt and oil than they used to. Doting grandparents shower edible treats on scarce grandchildren.

Many cultures used to view a large girth with approval, as a sign of prosperity. But obesity has costs. It lowers workers' productivity and in the longer term raises the risk of myriad ailments, including diabetes, heart disease, strokes and some cancers; it also affects mental health.

Source: *The Economist*, 15 December 2012

##### Extract 2: Market share

Coca-Cola and PepsiCo control nearly 40% of the world's fizzy-drinks market between them. Sales of soft drinks across the world have more than doubled in the past decade, to \$532 billion; in India, Brazil and China sales of fizzy drinks have more than quadrupled.

Fast-food chains, too, have spread far into developing markets. McDonald's is now in 119 countries. Yum! Brands, owner of KFC, Taco Bell and Pizza Hut, derives 60% of its profit from the developing world, and there is plenty of growth potential left. Yum!'s chief executive, David Novak, explains that the company has 58 restaurants for every 1 million Americans, compared with just two restaurants for every 1 million people in emerging markets.

The green revolution, along with technological improvements to farm equipment, made agribusiness more productive than ever. In addition, agricultural subsidies encourage farmers to grow as much as they could. Inevitably, food prices plummeted. Lower prices meant people started eating out more often. Portions increased in size as the proliferation of fast food

restaurants vied for customers. But even as they are expanding, food companies are keen to show that they take the obesity problem seriously. The International Food and Beverage Alliance has given global promises to make healthier products, advertise food responsibly and promote exercise.

Source: *The Economist*, 19 May 2012

### **Extract 3: Fast food industry**

The US fast food industry is by far the largest in the world, spawning global fast food brands such as McDonald's, Burger King, and Subway. In 2010, the fast food industry generated total revenue of US\$184 billion in more than 300,000 restaurants, employing 3.9 million people. McDonald's was the market leader in the US fast food industry in 2010 with a market share of 12.7%. Yum! Brands, the parent company of Taco Bell, KFC, Pizza Hut, and WingStreet was second with a market share of 9.7%. Other major players include Wendy's, Starbucks, Burger King, and Doctor's Associates, the company behind Subway.

In terms of sales, McDonald's, Starbucks, Subway, Wendy's and Burger King were the leading five quick service restaurant brands in 2013, generating combined sales of over US\$77 million. Not only was McDonald's the largest fast food brand in 2013, it was also the fifth largest brand in the world out of all brands after Google, Apple, IBM and Microsoft. Quick service brands are undoubtedly popular in the US with over 80% of consumers admitting to visiting one at least once a week. That said, they are not necessarily the healthiest option.

Source: The Statistics Portal

### **Extract 4: Obesity update 2012**

The OECD called for strong action against obesity in 2010. Analyses of the health and economic impacts of programmes to improve diet and increase physical activity led to the conclusion that comprehensive prevention strategies are needed, targeting different age groups and determinants of obesity. These would provide an affordable and cost-effective solution, saving hundreds of thousands of deaths from chronic diseases every year in the OECD area.

Governments can help people change their lifestyle by making new healthy options available or by making existing ones more accessible and affordable. Alternatively, they can use persuasion, education and information to make healthy options more attractive. This gentle approach is more expensive, hard to deliver and hard to monitor. A tougher approach, through regulation and fiscal measures, is more transparent but it hits all consumers indiscriminately, so can have high political and welfare costs. It may also be difficult to organise and enforce and have regressive effects.

So far, governments in the OECD area have given priority to initiatives aimed at school-age children, such as changes in school meals and vending machines, better facilities for physical activity, and health education. Many also disseminate nutrition guidelines and health promotion

**[Turn over**

messages. There has been an increasing reliance on partnership with the food and beverage industry in the design and implementation of actions to fight obesity, particularly in product reformulation to avoid unhealthy ingredients, in reducing excessive portion sizes and providing healthy menu alternatives; in limiting advertising, especially to vulnerable groups like children; and informing consumers about food contents.

Several OECD countries introduced taxes on unhealthy food and beverages in 2011 as part of their efforts to counter obesity. Taxes, along with other measures, can improve health by changing eating habits. At the same time, they may generate important revenues, which must have contributed to governments' attraction to these measures at a time of tight fiscal constraints.

Source: OECD

**Table 1: Obesity rate (number of people who are obese as a proportion of population) in Singapore by gender**

Gender	1992 (%)	1998(%)	2004 (%)	2010 (%)
Male	4.1	5.3	6.4	12.1
Female	6.1	6.7	7.3	9.5

Source: National Health Survey

### Questions

- (a) Compare the change in obesity rates of the males with that of the females between 1992 and 2010 in Singapore. [2]
- (b) Using the evidence in the data, explain **two** reasons that cause the change in obesity rates in many countries [4]
- (c) Discuss whether the growth in the size of the fast food industry is desirable. [8]
- (d) Using a diagram, explain why the consumption of unhealthy food and beverages might lead to market failure. [6]
- (e) With reference to the data where appropriate, discuss whether you would recommend the introduction of a tax on unhealthy food and beverages to address the obesity problem. [10]

[Total: 30]

**Question 2****The Global Recovery****Extract 5: A case of austerity or stimulus for Europe**

Spending cuts and tax increases have helped to reduce fiscal debts across the 17 EU countries that use the euro, but the region's debt to GDP burden ratio rose after economic growth flat lined and fewer companies and households paid taxes. Calls for a more growth-led approach dominated last week's informal EU summit. The debate over the future of the Eurozone continues to veer between two extremes: stimulus or austerity. "You cannot spend your way out of a debt-fuelled recession", shout those on one side of the divide. Others respond that economic recovery is not possible without a major influx of public spending.

It has become painfully obvious that simply downsizing bloated public sectors does not work if there are no jobs for people to turn to as seen across Europe, 40 million people are now unemployed, causing a vicious, downward spiral of recession. The International Monetary Fund also added that it had underestimated the effects of fiscal tightening as the previously assumed fiscal multiplier did not consider the effects of unemployment on savings.

But the state is no silver bullet for economic growth either without austerity. Restoring confidence is highly needed as providing employment opportunities by ploughing money back into the public sector would provide only temporary respite, and would push countries even further into unsustainable debt.

Source: *The Guardian and Daily Telegraph*, June 2012 and October 2012

**Extract 6: US stirred a currency war**

The World Trade Organisation (WTO) has recently detected a steady rise in trade barriers. The restrictions range from higher tariffs to costly import licences or a competitive devaluation, in which many policymakers all over the world lower their exchange rates in order to increase their competitive advantage. Governments often justify these steps as short-term remedies responding to the global downturn.

Competitive devaluations started with the Fed keeping US interest rates near zero until 2013. This will affect capital flows and lead to a prolonged devaluation of the dollar. For export nations, the temptation is to fight back by pushing their own currencies lower to make their exports more competitive. A weaker currency might also encourage foreign investment due to lower costs. However, competitive devaluations are futile and would delay the recovery of US, turning a global slowdown into dreaded stagflation.

Suppressing a currency's rise to protect exports, as China has been doing for years, is risky. It means creating more local currency and fuelling inflation. Moreover, the unwanted effects of a strong currency pale next to the damage another US recession would cause. In trying to frustrate the Fed, exporters could find themselves even worse off. By allowing the dollar to fall

**[Turn over**

instead, exporters can speed the kind of rebalancing the US and its trade partners have put off for too long. Painful as it seems, winning the battle for global growth means losing the currency war.

Source: *Reuters*, August 2012

### **Extract 7: UK's productivity**

Productivity is not everything, but in the long run it is almost everything. In Britain especially, though not uniquely within Europe, productivity growth has been extremely poor and highly concerned, as it ranked way below the average of other G7 industrialised nations. On this basis, average of UK worker would have to work ten hours to produce the same output a worker in the US could produce in eight hours.

The UK's low productivity growth has been attributed to poor labour productivity as well as poor capital productivity. This creates disadvantages compared with other countries, notably a relative failure to invest or innovate, technological backwardness, lack of entrepreneurship and trade distortions.

As such, there is serious and rapidly mounting pressure on the government to come up with more reforms and measures to boost business investment and productivity given the economy's current lack of scope for fiscal stimulus.

Source: *The Guardian*, September 2012

### **Extract 8: Economic self-interest jeopardises recovery for all**

In an economically integrated world, there is increased recognition that despite the virtues of an open market that include trade specialization and foreign investment jump; it leaves economies vulnerable to changes in opportunity costs of production, currency values and even higher gini-coefficient. Protectionism hence has been a traditional way to deal with these pressures.

The WTO has recently expressed concerns on one of the protectionist measures European governments often justify, to slap dumping on the Chinese goods. According to WTO rules, the claim that targets China's cheap-labour-intensive exports can be more lax in its criteria to determine dumping. On the same note, the WTO has also advised US to reconsider its protectionistic tax. Although US has long reported the need of the tax to neutralize China's export subsidies that has stolen its factories, jobs and created a chronic trade deficit, the WTO believes that the tax would only distort markets and in the long run, it could be economically self-defeating.

If economies start closing markets or blocking trade, their prospects will be pushed down even further in a downward economic spiral most are in already. Policymakers should instead be ahead of the game to take advantage of those changes. Germany for instance, has positioned itself well to ride on a third wave of globalisation, characterised by rapid growth in a number of developing countries. The WTO therefore remarked on the need for more balanced trade with the rest of the world for Europe and the US.

Additionally, the WTO recommended that some policies should be changed in order to reduce the high trade deficits in Europe and US. European governments should work on reducing funding on state-subsidised agricultural industry which still absorbs nearly half their budgets, while improving funding on infrastructure, education, skills and innovation. Investing heavily in education and training for the unemployed and giving incentives to businesses to hire and train new workers would be a far more worthwhile investment. Huge potential could also be unleashed when liberalisation in competitive sectors has been combined with continuing state involvement in more vulnerable areas of the economy, helping to develop latent comparative advantages.

The WTO reiterated the path of collaborative efforts to reduce both internal and external imbalances before signs of global recovery and quality job creation can be seen. It concluded that on balance, globalisation will remain as a huge source of both opportunity and growth, and that; globalization should be embraced and not feared.

Source: *The Economist and BBC News*, June 2012 and September 2012

**Table 2: Fiscal Balances (% of GDP)**

	2007	2008	2009	2010	2011	2012
Euro area (15 countries)	-0.7	-2.1	-6.3	-6.2	-4.1	-3.3
UK	-2.8	-5.0	-10.9	-10.1	-8.3	-6.6
United States	-2.9	-6.6	-13.3	-11.4	-10.2	-8.5

Source: International Monetary Fund: World Economic Outlook 2012

**Questions**

- (a) (i) Compare the change in fiscal balances of the UK, US and Euro area between 2007 and 2012. [2]
- (ii) With reference to the data, discuss whether austerity measures are the most appropriate for Europe's recovery. [8]
- (b) Explain **one** possible effect on the capital account of the US when its currency weakened. [2]
- (c) Explain how competitive devaluations can lead to a stagflation in an economy. [2]
- (d) Comment on how a low productivity growth in UK will affect its economy. [6]
- (e) Extract 8 suggests that 'globalisation should be embraced and not feared.' [10]  
Assess the validity of countries practising protectionism in view of this.

[Total: 30]



**JURONG JUNIOR COLLEGE  
PRELIMINARY EXAMINATION 2014**

**ECONOMICS**

**Higher 2**

**9732/02**

**Paper 2**

**15 September 2014**

**2 hours 15 minutes**

**READ THESE INSTRUCTIONS FIRST**

Write your name and class on all the work you hand in.  
Write in dark blue or black pen on both sides of the paper.  
You may use a soft pencil for any diagrams, graphs or rough working.  
Do not use staples, paper clips, highlighters, glue or correction fluid.

Answer **three** questions in total, of which **one** must be from Section A, **one** from Section B and **one** from **either** Section A or Section B.

**Start each question on a new piece of paper.**

**Fill in the necessary information on the cover sheet.**

At the end of the examination, fasten all your work securely **with the cover sheet at the top**.  
The number of marks is given in brackets [ ] at the end of each question or part question.

Answer **three** questions in total.

**Section A**

**One or two** of your three chosen questions must be from this section.

- 1 Globalisation has resulted in rising incomes and technological advancement in many countries.  
Discuss how the combination of these recent developments might affect the revenue earned from the sales of different types of goods and services. [25]
- 2 (a) Explain why some markets tend towards oligopoly. [10]  
(b) Discuss the strategies used by oligopolistic firms to increase profits and the effects of these strategies on society. [15]
- 3 In 2012, the Singapore government announced the provision of a subsidy of \$1.1 billion to increase bus capacity and bus service levels under the Bus Service Enhancement Programme. Public Utilities Board has also recently announced its plans to work on about 170 drainage improvement projects island-wide using government allocated funds.  
Discuss whether the use of government funds in the above cases is justified. [25]

**Section B**

**One or two** of your three chosen questions must be from this section.

- 4 As the world economies recover from the economic slowdown in recent years, it is expected that central banks are likely to raise interest rates.  
(a) Explain the possible consequences of a high growth rate on an economy. [10]  
(b) Discuss the extent to which a rise in worldwide interest rates would impact the economic growth of the Singapore economy. [15]
- 5 (a) Explain the causes of a current account deficit in an economy. [10]  
(b) Discuss the extent to which trade-offs between macroeconomic objectives may arise as a result of policies used to reduce a current account deficit in an economy. [15]
- 6 Discuss whether globalisation would help a country achieve its macroeconomic goals and a higher standard of living. [25]



**JURONG JUNIOR COLLEGE**

**2014 JC2 ECONOMICS 9732 (H2)**

**PRELIMINARY EXAMINATION**

**ANSWER BOOKLET**

**Suggested Answers for 2014 J2 H2 (9732) Economics Prelim Case Study Questions**

**Question 1**

- (a) Compare the change in obesity rates of the males with that of the females between 1992 and 2010 in Singapore. [2]

Obesity rates increased for both gender [1]. The obesity rate of the males increased more rapidly than that of the females between 1992 and 2010 [1].

- (b) Using the evidence in the data, explain two reasons that cause the change in obesity rates in many countries. [4]

- ❖ A rise in income increases purchasing power and the ability to purchase goods and services. This has led to an increase in consumption of various kinds of food and a change in diet towards foods that are high in fat and sugar, resulting in a rise in obesity rates.
- ❖ The types of food produced by food manufacturers also contribute towards increasing obesity rates in many countries. Foods that are heavily processed to suit the tastes and preferences of consumers such as finely milled grains, can be easily digested so the body gains more calories from consuming such foods.
- ❖ The aggressive marketing strategies such as serving bigger portions of meals have influenced the tastes and preferences of consumers towards the consumption of more unhealthy foods and beverages. The growing business and prevalence of fast-food chains in many countries have resulted in the increasing obesity rates.

Any 2 of the above reasons, or others, that are explained.

- (c) Discuss whether the growth in the size of the fast food industry is desirable. [8]

The fast food industry has increased in size in terms of sales revenue and market share. This has resulted in both desirable and undesirable effects on different parties in an economy.

Growth in size of fast food industry is desirable

- ❖ External economies of scale refer to the lower average costs that a firm gains from the expansion of the industry as a whole. External economies of scale accrue to all firms in the industry and are independent of the firm's own output. As a result, the LRAC curve shifts downwards (diagram).
- ❖ As the fast food industry grows, external economies of scale can be realised as a result of the geographical concentration of fast food restaurants in a location. All fast-food chains located in the same area of a certain city could benefit from the creation of a better transportation network. This will facilitate the movement of raw materials from suppliers of factor inputs to the restaurants, resulting in a decrease in the average cost of transportation for all fast food restaurants within the industry.
- ❖ Similarly, when several fast food restaurants are located in one place, all of them derive advantage through the training of skilled labour required for the industry, thus reducing the average cost of training skilled labour for the industry.
- ❖ Moreover, support industries may also begin to develop, such as suppliers of raw materials such as styrofoam boxes and serviettes to the fast food industry, dedicated

fast food potato and/or cattle breeding farms, therefore reducing the average cost of all fast food restaurants within the industry.

- ❖ In addition, external economies of scale can also be reaped if the industry reduces the burden of costly inputs by sharing technology or managerial expertise. This spillover effect can lead to the creation of standards within an industry.
- ❖ As indicated in Extracts 2 and 3, the growing fast food industry penetrates the markets of the developing countries and is a lucrative business. In US, US\$184 billion of revenue was generated in 2010 and 3.9 million people were employed. The industry will also hire workers and creates jobs for the supporting industries like transportation and logistics. This will help to lower unemployment rate in an economy.

Growth in size of fast food industry is undesirable

- ❖ However, external diseconomies of scale can also occur. They could stem from inefficient managerial or labour policies and over-hiring by the growing industry. The increase in the demand for factor inputs by the industry will raise the prices of factor inputs such as wages and rental costs, so each fast food restaurant in the industry will experience an increased unit cost. In addition, the growth of the industry in a location may lead to congestion and deteriorating transportation networks. The LRAC curve will shift upwards.
- ❖ (Extract 3) The growth in the size of the fast food industry implies that it is more convenient for people to have meals at the restaurants instead of cooking at homes. The consumption of food and soft drinks that are high in fat, salt and sugar has contributed to the rising obesity rates in many countries, which reduce the productivity of workforce and increase the healthcare costs incurred by the government in treating ailments like diabetes and heart disease.

Conclusion

- ❖ The growth of the fast food industry tends to be desirable to the economy as the industry is labour-intensive and many jobs are created. The cost-savings of external economies of scale also tend to outweigh the external diseconomies of scale as there is much potential for growth of the industry in the developing countries (Extract 2). However, over-consumption of fast food is not desirable to the individuals.
- ❖ As indicated by Extract 4, governments need to educate the public on healthy diet and raise awareness of the consequences of fast food intake. The fast food restaurants should also provide healthier menu to consumers.

L2	<p>7 – 8 M: Will explain whether it is desirable with relevant analysis and due reference to the data.</p> <p>Max 6 M for an under-developed two-sided explanation with some reference to the data.</p> <p>Max 4 M for a well-developed one-sided explanation.</p> <p>Max 4 M for an answer without relevant reference to the data.</p>	4 – 8
L1	Will show understanding of the desirability with limited economic concepts or no relevant reference to the data.	1 – 3

- (d) Using a diagram, explain why the consumption of unhealthy food and beverages might lead to market failure. [6]

Over-consumption due to the presence of negative externalities

- ❖ The private costs of consumption of unhealthy food and beverages refer to the harmful effects on the health of the person in the long term, such as risk of having diabetes and heart disease (Extract 1). The private benefits refer to the enjoyment derived from the consumption.
- ❖ The consumption of unhealthy food and beverages generates negative externalities and external costs are incurred by the third parties. As the consumption leads to rising obesity rates, this reduces the productivity of the workforce (Extract 1), thus affecting economic growth adversely.
- ❖ Therefore, there is a divergence between social costs and private costs due to the presence of external costs, so social costs are higher than private costs.

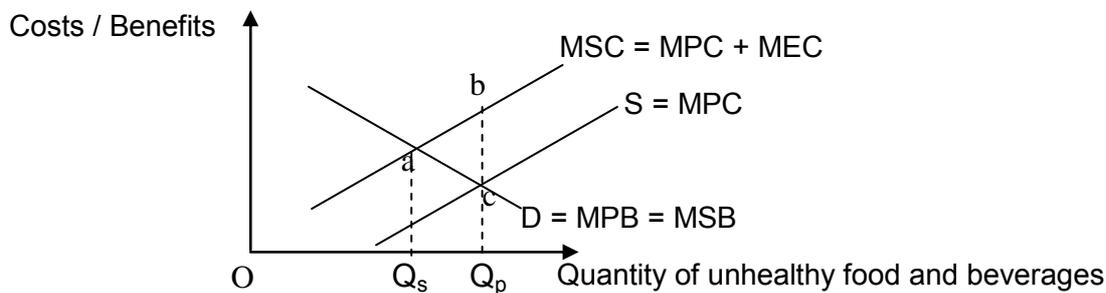


Figure 1

- ❖ Assuming that marginal private benefit (MPB) is equal to marginal social benefit (MSB). Individuals only consider their private costs and private benefits, ignoring the external costs incurred by the third parties. Left to the free market, individuals will consume until  $OQ_p$  level where  $MPB = MPC$  as shown in figure 1.
- ❖ However, the socially optimum level of consumption should be at  $OQ_s$  where  $MSB = MSC$ .
- ❖ The over-consumption of unhealthy food and beverages results in welfare loss as shown by the area  $abc$ , thus leading to market failure.

Over-consumption due to imperfect information

- ❖ Consumers have imperfect information of the external costs. They are not totally aware of how consumption of unhealthy food and beverages would affect the economy adversely. The lack of information leads to over-consumption and allocative inefficiency. Hence, market failure results.
- ❖ In addition, consumers, especially children, may be influenced and misled by advertisement (Extract 4). They do not have perfect knowledge of the nutritional value and benefits derived from the consumption of unhealthy food and beverages. This results in over-consumption of unhealthy food and beverages, thus leading to inefficient allocation of resources and market failure.

Max 5 M for an answer without using a diagram.

- (e) With reference to the data where appropriate, discuss whether you would recommend the introduction of a tax on unhealthy food and beverages to address the obesity problem. [10]

As mentioned in Extract 4, several OECD countries introduced taxes on unhealthy food and beverages in 2011 as part of their efforts to address the obesity problem.

Tax on unhealthy food and beverages

- ❖ The imposition of a tax on unhealthy food and beverages will make consumers internalise the external costs.

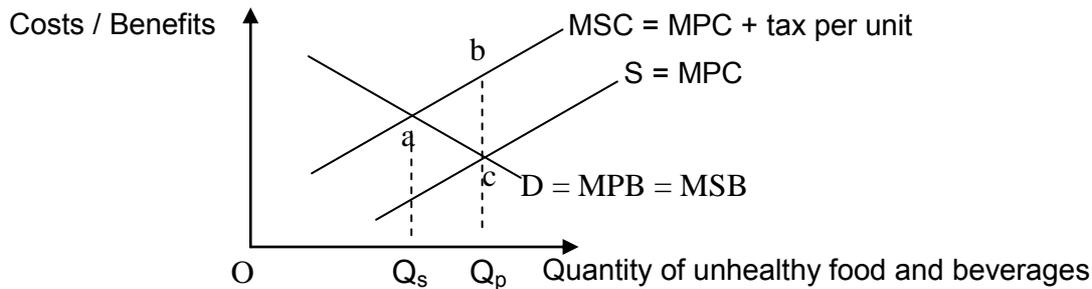


Figure 2

- ❖ Referring to figure 2, the government can charge a tax per unit that is equal to MEC. This will shift the MPC curve towards the MSC curve. If the MEC is calculated accurately, it will shift the MPC curve to where the MSC curve is and hence attaining an efficient allocation of resources at OQs where MSB = MSC.
- ❖ The imposition of a tax on unhealthy food and beverages will increase the cost of production and reduce the profit margin, so the incentive to produce will decrease, resulting in a fall in supply. This method may also provide incentives for the firms to produce healthy food and beverages as they would want to reduce their tax payment. In addition, the tax revenue collected by the government could be used to subsidise the production of healthy food and beverages. During the time of Euro Zone debt crisis, a tax on unhealthy food and beverages also provides a source of revenue for the government (Extract 4).
- ❖ However, it is difficult to measure the monetary value of external costs accurately and hence the amount of tax imposed may not be able to attain an efficient allocation of resources. This is because external costs are difficult to define in monetary terms due to the existence of both tangible and intangible costs – for example, the harmful effects of the consumption of unhealthy food and beverages on the economy in the long term are difficult to quantify. If MEC is underestimated, the government is only moving the equilibrium nearer to the socially optimum level, but not fully eliminating the market failure. If MEC is overestimated, there would be over-correction in the market and resource allocation would still not be efficient. In reality, it is not easy to measure the value of external costs incurred by the third parties.
- ❖ Moreover, the tax could cause a fall in production from major industries and force them to retrench workers leading to unemployment. If the higher cost due to the tax is passed on to consumers, this will cause an increase in the price of their products and inflate food prices, raising inflation rate in the economy. As the price affects all consumers, the lower-income group will be hit more heavily by a tax, so a tax on unhealthy food and beverages tends to be regressive (Extract 4).

Public Education

- ❖ Public education through healthy lifestyle campaign will raise awareness of the nutritional value of the food consumed. This helps consumers to reduce the consumption of unhealthy food and beverages and opt for the healthier alternatives (Extract 4).
- ❖ However, public education incurs high cost in implementation. It is also difficult to monitor whether consumers have changed their consumption pattern (Extract 4). The tastes and preferences of consumers may not be easily changed in the short term.

Regulations

- ❖ The government may impose regulations on the food companies to avoid unhealthy ingredients used, and to encourage the companies to produce more healthier products. This will reduce the negative externalities generated. In addition, there could be limitations on advertising, so consumers, especially children, will be not easily influenced on the consumption of unhealthy food and beverage (Extracts 2 and 4).
- ❖ This requires the firms to act in a responsible way as their profit margins are affected if consumers are not in favour of the more healthier choices. The costs of monitoring and enforcement are also incurred.

Conclusion

- ❖ The introduction of a tax on unhealthy food and beverages makes consumers internalise the external costs but it has its limitations. Therefore, the use of tax is recommended provided it is complemented by other measures to change eating habits and address the obesity problem, so as to improve health (Extract 4), so a combination of measures is required to address the obesity problem. In particular, public education should target the males (Table 1).
- ❖ The imposition of a tax is a short-term measure as the long-term measure to address the root causes of obesity problem includes a change in consumption by individuals towards a more healthy and balanced diet. There should be moderate intake of unhealthy food and beverages. It is also essential to promote physical exercise and have a healthy lifestyle in order to address the obesity problem in many countries (Extracts 2 and 4).

L2	Will provide a balanced argument and include the use of tax and other measures. There are relevant economic concepts and due reference to the data.	4 – 6
L1	Will be one-sided argument with limited economic concepts.	1 – 3

E2	Will apply relevant economic concepts to make a judgement based upon a combination of measures, root causes of the obesity problem and measures required etc.	3 – 4
E1	Will make a judgement but the application of economic concepts will be superficial.	1 – 2

**Question 2**

- (a) (i) **Compare the change in fiscal balances of the UK, US and Euro area between 2007 and 2012.** [2]

In general, all UK, US and Euro area are having fiscal deficits (negative values) throughout 2007 to 2012. (1m)

The proportion of fiscal deficit to GDP has increased the least in Euro area. OR

The proportion of fiscal deficit to GDP has increased the most in the US. (1m)

- (ii) **With reference to the data, discuss whether austerity measures are the most appropriate for Europe's recovery.** [8]

Europe's recovery is to achieve economic growth and higher employment.

- Thesis: Austerity measures more appropriate for Europe

Austerity measures are a combination of direct tax rates increase and reductions in government expenditure in the European economies to cut budget deficits and restore confidence (Extract 5). With higher confidence (higher MEC and expected returns), investment would increase therefore stimulating the level of aggregate demand (AD), increasing national income multiple and increasing the overall level of economic activity and employment in the European economies. In addition, in the long run, a higher level of investment brings about potential growth since quantity of capital increases. Thus leading Europe to recover from the current problems of negative growth and unemployment.

*Limitations:*

However, the use of austerity measures (decreasing G and increasing T) can result in a short run fall in AD and decreases NY multiple times, hindering actual growth. Moreover, the contraction of national income is worsened with the multiplier size being larger than assumed (Extract 5). This is due to the prolonged unemployment, causing savings in most of the European economies to deplete, resulting in a relatively lower marginal propensity to save. Therefore with smaller leakages and a bigger k, the impact of austerity measures on NY, production and hence unemployment will be larger, making it difficult for the government to restore confidence to achieve economic growth and recovery.

- Anti-Thesis: Stimulus measures or other policies more recommended for Europe

On the other hand, the European governments could adopt stimulus (EFP or supply-side policies) instead of austerity measures.

The government can use expansionary fiscal policy by increasing government expenditure (G) on infrastructure or reducing taxes like personal income tax or corporate tax. The reduction in personal income tax results in an increase in disposable income, purchasing power and ability to afford goods and services, hence leading to an increase in consumption (C). Next, the fall in corporate tax increases after-tax profits, thus giving firms a greater incentive to invest so investment (I) is encouraged. The increase in C, I and G would increase aggregate demand (AD), and thus national income will increase by a multiple via the multiplier process, resulting in actual economic growth. The increase in AD and production will create jobs and reduce cyclical unemployment. Additionally, if the government spent on areas such as skills training and upgrading its workforce or

improving the efficiency of infrastructure in the economy (Extract 8), it will help increase productivity and hence increase the productive capacity of the economy, achieving potential economic growth, bringing recovery.

*Limitations:*

According to a(i), the European economies have increasing high fiscal deficits which needed the high tax revenue to pay for those public debts. As such they might not be willing to lower the tax rates. Additionally, Extract 1 stated that further spending will accumulate the debt and it is only a short term measure. Moreover, the business confidence will be low due to the 'flat lined' growth (Extract 5) thus lowering tax rates may not increase I as business outlook is poor. Hence the increase in G and I might be limited, restricting the recovery process.

• Anti-Thesis (II) Any other policy (besides G & T) more recommended for Europe

In addition, Europe could adopt

- exchange rate policy - depreciates Euro dollars, (Extract 6) competitive devaluation but must note that all 17EU countries must agree to a depreciation. A country itself cannot depreciate the Euro dollar.
- trade policy – embrace globalization and strengthen comparative advantage (Extract 8)

*\*monetary policy is not acceptable as it is not mentioned in data*

• Conclusion

In conclusion, the use of austerity measures might be the most appropriate for the European economies currently to recover their growth and employment. This is due to the existing economic situation in which there is a lack of other policies to promote growth. This is primarily because the government has no ability to implement or complement this with other policies. In addition, external demand is very weak due to the weak global economy (Extract 6). There is thus no scope for devaluation to restore competitiveness too.

Lastly, austerity measures short run impact of dampening growth could be reduced if the government could practice reducing expenditure only on selective unproductive industries such as agricultural subsidies and spend on increasing productivity instead (Extract 8). This could decrease their fiscal debts without much compromising on growth.

L2	Top L2 awarded to a reasoned assessment (evaluation) on the policies that European governments should pursue.	7 - 8
	Well-developed explanations and limitations of 2 policies that the European governments can use to achieve growth and employment with reference to the case study evidence.	4 – 6
	Max 4m for answers without reference to case study evidence.	
L1	Smattering of valid points.	1 – 3

- (b) Explain one possible effect on the capital account of the US when its currency weakened. [2]

ST Capital

When the US currency weakened, it led to an outflow of hot money as speculators anticipate a further depreciation of the currency, as seen in Extract 6. Similarly, it will also lead to a decrease in short term capital inflow. The increase in short term capital outflow and decrease in short term capital inflow will worsen the KA balance. (2m)

Or

LT Capital

(Extract 6) A weaker USD might encourage foreign investment due to lower costs as it would be cheaper in the eyes of the foreigners to invest in US. This increase in FDI would result in an increase in long term capital inflow, improving the KA balance. (2m)

- (c) Explain how competitive devaluations can lead to a stagflation in an economy. [2]

According to Extract 2, competitive devaluations is a situation when several countries compete against each other to achieve a relatively low exchange rate for their own currency. When an economy devalues its currency, the price of the exports will be lower in foreign currencies and the price of imports will be higher in domestic currency.

Theoretically, since the demand for exports is price elastic due to close global substitutes, quantity demanded for exports will increase more than proportionately, increasing export revenue and promoting growth. However, such gain is only temporary as other trading partners will compete to devalue as well. As such, export growth might not be gained and thus economic growth might be stagnated. (1m)

In addition, devaluation leads to prices of imports being higher in domestic currency. This will invite imported inflation to the country. (1m)

The economy experiences a fall in national income and inflation at the same time; such a situation is called stagflation.

**Comment on how a low productivity growth in UK will affect its economy.**

- (d) [6]

From Extract 7, UK's poor productivity growth could be a result of poor labour or capital productivity.

Internal

Poor labour productivity could result in higher costs of production, higher per unit cost, since longer hours (more wages to be paid) are needed to produce the same output. As such, wage growth increases faster than productivity growth, UK firms will suffer higher average cost; they might pass on the increased cost to consumers in terms of higher prices, thereby discouraging consumption. The increase in the cost of production for firms also results in lower profit margins and less incentives for firms to produce. Short run aggregate supply thus falls resulted in higher general price level (price instability) and lower output level, dampening UK's economic growth. The decrease in production will then cause UK firms to retrench labour, therefore resulting in a decrease in employment.

Poor labour productivity will also lead to the lag in wage increment as firms cannot afford higher wages when their labour is inefficient. As such, consumers who already suffer increased in cost of living will suffer a lower standard of living with stagnating wages.

Poor capital productivity would mean capital equipment (machineries) become less efficient, hence stagnate UK's economic growth as  $I$  is a component of  $AD$ , and  $I$  (in terms of capital efficiency) could also dampen the growth of productive capacity,  $LRAS$ .

#### External

The higher cost of production due to low productivity growth will also mean UK exported goods and services are less price-competitive in comparison to its trading partners, especially the G7. Given that demand for UK's exports are price elastic due to the availability of substitutes, the relative more expensive exports will cause a more than proportionate decrease in the quantity demanded. This will result in a decrease in UK's export revenue. Similarly with higher prices domestically due to higher cost being passed on, UK consumers might switch from domestic goods to relatively less expensive imports. The demand for imports will thus increase, resulting in an increase in import expenditure in UK. The decrease in export revenue and increase in import expenditure will cause the current account balance to worsen.

The fall in export earnings and rise in import expenditure will also lead to a decrease in demand for Pound and an increase in supply of Pound, causing the external value of the Pound to depreciate. Depreciation in the Pound has serious repercussions on the UK economy as it will invite imported inflation; further increase the costs of production.

In addition, since UK firms earn lesser profits, they will not have the ability to have excess funding for R&D (research & development), innovation and technological advances (Extract 7). Therefore, not only will UK exports become less price-competitive, its quality will not improve too.

The higher cost of production also deters FDI or causing an outflow of long term capital. This will cause a worsening of KA balances. With both CA and KA balances worsening, BOP might suffer a deficit.

#### Conclusion / Extent

The poor productivity growth is likely to have significant negative impacts on the macroeconomic goals. Moreover, the relative lower labour productivity when compared to other countries, ranked way below (Extract 7) implies that the fall in  $I$ , FDI and therefore real  $NY$  may be significantly much more.

However, the extent of the above impact eventually also depends on other factors such as strength of UK's exchange rate, prevailing economic outlook and existence of effective government policies that may be more important in determining the impact of macroeconomic objectives.

Lastly, there might be difficulties when measuring and comparing productivity accurately. There is a continuous change in the price of inputs and outputs creating challenges in measuring productivity. Also, it is very difficult to measure the productivity of service sectors because the output of the service sector is intangible.

L2	Well-developed explanation of both the effects on internal and external economy with extent and strong use of case study evidence.	5 – 6
	Under-developed explanation of the effects on internal and external with some use of case study evidence.  Or Well-developed explanation of the effects on either internal or external economy	3 – 4
L1	Smattering of valid points.	1 – 2

(e) **Extract 4 suggests that ‘globalisation should be embraced and not feared.’ Assess the validity of countries practising protectionism in view of this. [10]**

Protectionist measures are policies which distort market forces in order to give a competitive advantage to the domestic industry of an economy. Globalisation is defined as the process through which an increasingly free flow of labour, goods and services, and capital leading to the integration of economies.

Thesis: US practises protectionism is valid in view of globalisation

Globalisation has led to rising competition for both the US domestic firms and exporters resulting in a loss of their comparative advantage. The lower opportunity cost of production due to cheap labour and land costs in developing countries cause US exporters to face falling export-price competitiveness in low-cost manufactured goods, while domestic firms suffer falling demand of goods and services since consumers switch to cheap foreign imports from emerging countries. Net exports will thus fall, causing AD to fall, signaling to domestic firms to cut production, increasing unemployment and worsening its trade deficit (Extract 8).

In view of such cost, it is valid for US to practise protectionism to reduce imports and thus improve the balance of payments and protect domestic production and employment.

*Limitation*

Nonetheless, protectionism is a short term measure to correct a trade deficit as protectionism does not address the root cause of the deficit which may be a lack of export competitiveness according to WTO (Extract 8). US should instead restructure its economy to improve its international competitiveness. Furthermore, protectionism might invite retaliation from trading partners in the long run hence becoming economically self-defeating (Extract 8). Therefore, protectionism may only be valid in the short-run for the US to buy time to restructure its economy.

Thesis: EU practises protectionism is valid in view of globalisation

Globalisation gives rise to greater opportunities for dumping to occur. Dumping occurs when overseas firm sells its product in another country below its marginal cost of production. This causes domestic industries in EU to face unfair competition from China that results in a reduction in domestic output and employment (Extract 8). Furthermore, if China firms are practicing predatory dumping to gain monopoly power and then raise

prices later, it will exploit the EU consumers. Hence the EU government practises of protectionism to protect their local industries from such unfair competition is valid.

*Limitation*

However, in the real world, it is difficult to assess dumping. According to WTO, the EU criteria on dumping might be too strict (Extract 8). In fact, China may have the comparative advantage in labour-intensive products due to their abundant supply of cheap unskilled labour and resources, and extensive economies of scale enjoyed from mass production; and hence are able to enjoy lower costs of production, that can be passed on to EU consumers in terms of lower prices, hence increasing their welfare.

Anti-Thesis: The practice of protectionism is invalid in view of globalisation

On the other hand, embracing globalisation instead of protectionism brings about many benefits that an economy, such as Germany (Extract 8) enjoys as it integrates into the international economy due to the freer flows of trade, capital, labour migration and spread of technology.

As Germany rode on the wave of globalization, it benefitted from an increase in exports revenue with a larger world market as it specializes in producing their quality goods in which it incurs a lower opportunity cost and has comparative advantage over. Additionally, more foreign direct investment (FDI) will inflow into Germany and thus enjoy an increase in economic growth, employment and living standards. Hence protectionism in the EU and US will deprive these economies to enjoy such gains.

Lastly, the costs of globalisation could be minimized with other policy instead of protectionism such as supply side policy. In Extract 8, WTO recommended the adoption of supply side policy (both interventionist and market oriented) to improve on EU and US productivity and efficiency so as to regain their comparative advantages. Hence, supply side policy allows the benefits of globalisation to be gained while minimize the costs of globalisation, unlike protectionism that blocks off costs as well as gains.

Conclusion / Evaluation

All in all, to a large extent, countries practise protectionism in view of globalisation is not valid as it is just a short-run measure with doubtful gains and high costs.

Although with the increasing degree of interconnectedness of countries, protectionism may be valid should unfair trade practices occur, or adjustment of time needed, it cannot be sustained in the long run due to the inefficiency that it can bring and the overall lower welfare for all countries.

More importantly, as EU and US are major economic powerhouse in the global economy, it is important for these governments to work together to embrace globalisation as protectionism will only hold back economic growth for all countries.

L2	Well-developed explanation of both protectionism can be valid and invalid in view of globalization for the EU, US and Germany, with strong use of reference to case study data.	4 – 6
L1	Under-developed explanation of both protectionism can be valid and invalid in view of globalization for the EU, US and Germany, with some	1 – 3

	<p>use of case study evidence.</p> <p>Or</p> <p>Well-developed explanation of either protectionism can be valid or invalid in view of globalization for the EU, US and Germany, with some use of case study evidence.</p>	
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E2	Substantiated judgment on the degree of validity of protectionism in view of globalisation for the different economies, supported by evidence from case.	3 – 4
E1	Overall judgment not well-supported by evidence from case.	1 – 2

**Suggested Answers for 2014 J2 H2 (9732) Economics Prelim Essay Questions**

**Essay Q1**

Globalisation has resulted in rising incomes and technological advancement in many countries.

Discuss how the combination of these recent developments might affect the revenue earned from the sales of different types of goods and services. [25]

<b>Knowledge, Application, Understanding, and Analysis</b>		
L3	For a well-developed explanation of how the combined effect of demand and supply forces (different extents of shifts in demand and supply) affect sales revenue of different types of goods and services. With consideration of elasticity concepts (i.e. PED and YED), and their relevance in influencing market equilibrium. Analysis is supported with examples.	15 – 21
L2	For an under-developed answer that gives an explanation of how rising incomes and technological advancement affect the demand and supply of different types of goods and services. With consideration of 1-2 elasticity concepts (PED and/or YED) and their relevance in influencing market equilibrium.	9 – 14
L1	For an answer that shows descriptive knowledge of how rising incomes and technological advancement affect the demand and supply of different types of goods and services.	1 – 8
<b>Allow up to 4 additional marks for evaluation</b>		
E2	For an evaluative assessment based on economic analysis.	3 – 4
E1	For an unexplained evaluative assessment, or one that is not supported by economic analysis.	1 – 2

**Introduction**

Sales revenue is calculated as the product of price and quantity. The combination of the effects of rising incomes and technological advancement will affect the demand and supply of different types of goods and services, and hence the sales revenue earned.

**Direction and magnitude of impact due to change in S (use PED)**

Technological advancement leads to an increase in efficiency and productivity, leading to a decrease in cost of production, and an increase in supply for goods and services, shown by a rightward shift in the supply curve from S0 to S1 in Figure 1.

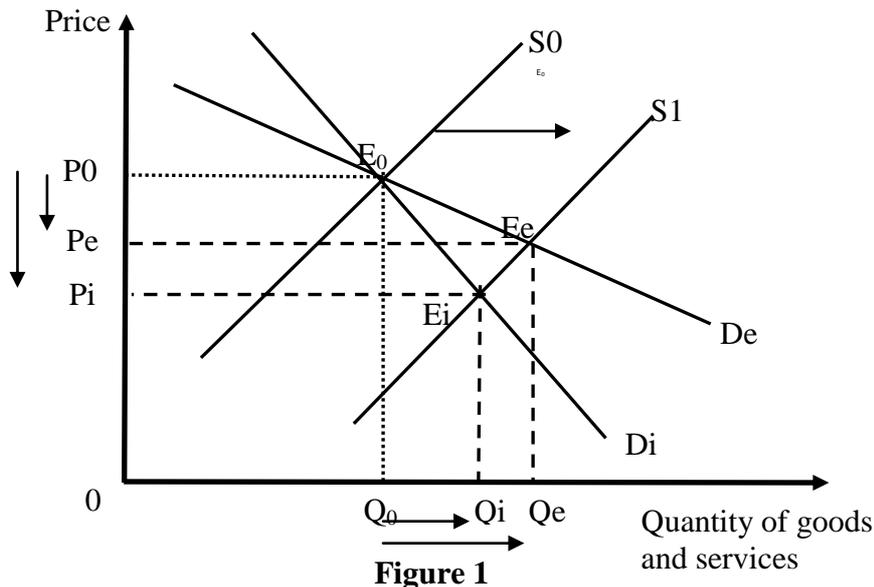


Figure 1

**Consider goods and services with  $PED > 1$**

Sales revenue for goods and services with price elastic demand will increase. Such goods and services have availability of close substitutes. For example, goods such as high-end model Mercedes cars, and services such as first-class SIA flight services, have many other close substitutes, and are also considered as luxury goods and services.

From Figure 1, equilibrium quantity of goods and services with  $PED > 1$  increases more than proportionately from  $Q_0$  to  $Q_e$ , and equilibrium price decreases less significantly from  $P_0$  to  $P_e$ , resulting in an **increase in sales revenue from  $0P_0E_0Q_0$  to  $0P_eE_eQ_e$** .

**Consider goods and services with  $PED < 1$**

Sales revenue for goods and services with price inelastic demand will decrease. Goods such as agricultural produce, and services such as basic hair salon services, have few close substitutes, and are also considered necessities.

From Figure 1, equilibrium quantity of goods and services with  $PED < 1$  to increase less than proportionately from  $Q_0$  to  $Q_i$ , and equilibrium price decreases more significantly from  $P_0$  to  $P_i$ , resulting in an **decrease in sales revenue from  $0P_0E_0Q_0$  to  $0P_iE_iQ_i$** .

**Direction and magnitude of impact due to change in D (use YED)**

The increase in income will increase consumers' purchasing power and their ability to spend, thus increasing the demand for normal goods and services. The demand for normal goods and services has a positive relationship with income.

**Consider goods and services with  $0 < YED < 1$**

For necessity goods and services such as agricultural produce and basic hair salon services, the demand is income inelastic ( $0 < YED < 1$ ) and the increase in demand from  $D_0$  to  $D_1$  due to the increase in level of income is less than proportionate. This leads to an increase in price from  $P_0$  to

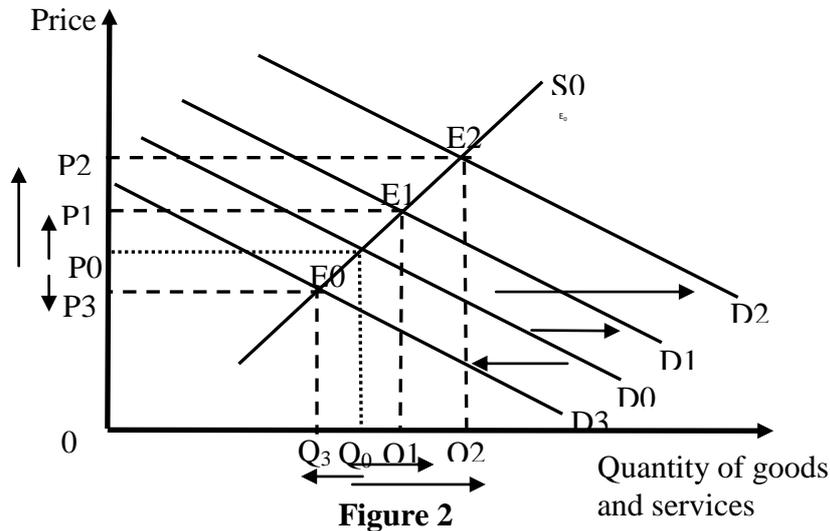
$P_1$  and increase in quantity from  $Q_0$  to  $Q_1$ . Hence, sales revenue **increases from  $OP_0E_0Q_0$  to  $OP_1E_1Q_1$** .

Consider goods and services with  $YED > 1$

For luxury goods and services, such as high-end model Mercedes cars, and first-class SIA flight services, the demand is income elastic ( $YED > 1$ ). The increase in demand from  $D_0$  to  $D_2$  due to the increase in level of income will likely be more than proportionate. This leads to an increase in price from  $P_0$  to  $P_2$  and increase in quantity from  $Q_0$  to  $Q_2$ . Hence, sales revenue **increases from  $OP_0E_0Q_0$  to  $OP_2E_2Q_2$** .

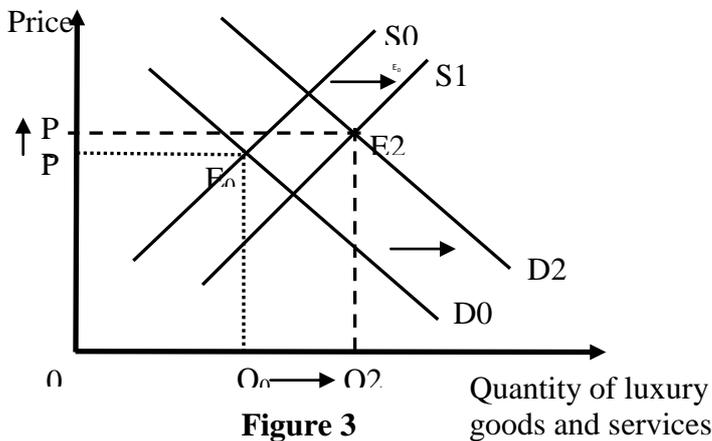
Consider goods and services with  $YED < 0$

For inferior goods and services, such as black-and-white televisions and low-end hair salon services, with negative income elasticity ( $YED < 0$ ), the increase in level of income will cause demand to decrease from  $D_0$  to  $D_3$ . This leads to a decrease in price from  $P_0$  to  $P_3$  and increase in quantity from  $Q_0$  to  $Q_3$ . Hence, sales revenue **decreases from  $OP_0E_0Q_0$  to  $OP_3E_3Q_3$** .



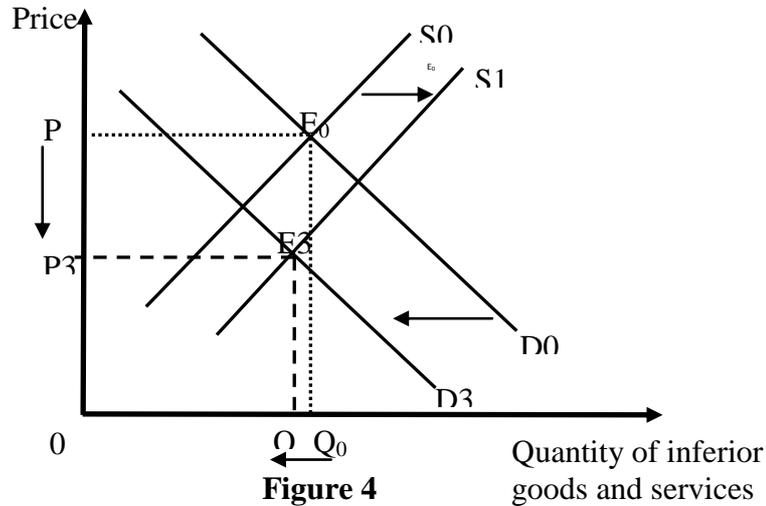
Likely combined impact of recent developments

Luxury goods and services that have availability of close substitutes are price elastic in demand, thus there is an increase in sales revenue when cost of production decreases due to technological advancements. They are income elastic in demand, thus a large increase in sales revenue when income level increases. From Figure 3, assuming increase in demand is more than increase in supply, the likely combined impact is an **increase in sales revenue from  $OP_0E_0Q_0$  to  $OP_2E_2Q_2$** .



Inferior goods and services that have availability of few substitutes are price inelastic in demand, thus there is a decrease in sales revenue when cost of production decreases due to technological advancements. They have negative income elasticity, thus a decrease in sales revenue when income level increases. From Figure 4, assuming decrease in demand is more than increase in

supply from  $S_0$  to  $S_1$ , the likely combined impact is a decrease in sales revenue from  $OP_0E_0Q_0$  to  $OP_3E_3Q_3$ .



Necessity goods and services that have availability of few substitutes are price inelastic in demand, thus a decrease in sales revenue when cost of production decreases due to technological advancements. They are income inelastic in demand, thus an increase in sales revenue when income level increases. Hence the likely combined impact on sales revenue is **indeterminate**.

**Evaluation/Conclusion**

The above analyses are based on the assumption of ceteris paribus. However, in reality, there are other factors that take place simultaneously. In addition, data collected may not be accurate as they may be outdated and unreliable.

**Essay Q2**

- 2a) Explain why some markets tend towards oligopoly. [10]  
 b) Discuss the strategies used by oligopolistic firms to increase profits and the effects of these strategies on society. [15]

**Part (a)**

<b>Knowledge, Application, Understanding and Analysis</b>		
<b>L3</b>	Well-developed explanation of the various reasons why some markets tend towards oligopoly.	<b>7 – 10</b>
<b>L2</b>	Under-developed explanation of the various reasons why some markets tend towards oligopoly.	<b>4 – 6</b>
<b>L1</b>	For an answer that shows a descriptive knowledge of the reasons why some markets tend towards oligopoly.	<b>1 – 3</b>

**Part (b)**

<b>Knowledge, Application, Understanding and Analysis</b>		
<b>L3</b>	For a well-developed answer that shows the strategies for oligopolies to increase profits and the effects of these strategies on society.	<b>9 – 11</b>
<b>L2</b>	For an under-developed answer that shows the strategies for oligopolies to increase profits and the effects of these strategies on society.	<b>6 – 8</b>
<b>L1</b>	For an answer that shows a descriptive knowledge of the strategies to increase profits and its effects on society.	<b>1 – 5</b>
<b>Evaluation</b>		
<b>E1</b>	For an unexplained judgement that is not supported by economic analysis	<b>1 - 2</b>
<b>E2</b>	For an evaluative judgement that is supported by economic analysis	<b>3 - 4</b>

2a) Explain why some markets tend towards oligopoly.

[10]

#### Introduction

Oligopoly is a prevalent market especially in such industries like the aircraft manufacturing industry, petrochemical industry, paint industry, supermarket chains, pharmaceutical industry, telecommunications etc.

Body: Explain why the production of goods and services in some markets tend towards oligopolistic in nature.

#### **High entry barriers**

Some firms tend to have high barriers to entry. This leads to the presence of few large oligopolistic firms. An effective barrier for new firms to enter the industry is substantial economies of scale. The production of some goods involves very high initial fixed costs. Examples are the telecommunications industry and the manufacturing of aircrafts. For the production of such goods, the larger the output the greater is the economies of scale enjoyed by the firm. Since a handful of firms are sufficient to supply the entire market demand, quite naturally, there will only be a few firms in such industries.

The high entry barriers allow such firms to earn supernormal profits in the long run. Having the financial strength would make it easier to block the entry of new firms. Such firms can also adopt limit pricing or predatory pricing to further keep out competitors. Their huge profits allow them to cut prices drastically to drive out competitors. Besides, huge profits allow such firms to spend generously on R&D. Hence the presence of high entry barriers results in some firms becoming oligopolies.

#### **Globalisation**

With increased globalisation, many domestic firms are threatened by the entry of big foreign firms or MNCs. Bigger firms have a competitive advantage in terms of pricing. In order to compete with foreign firms, domestic firms have to merge. A merger would safeguard their survival as well as to allow them to compete more effectively. Hence globalisation has increased the tendency for mergers and the formation of oligopolies.

#### **Changing nature of demand**

Consumers still yield considerable power over what types of goods to be produced. With high purchasing power, firms cannot ignore what are their tastes and preferences, which very often are ever changing. So firms that have the superior financial resources could constantly launch new and better products. Product cycles become shorter and firms too have to spend increasing amount on advertising to lure the customers. Big firms thus have an advantage. Hence some firms tend towards oligopolies as they are able to thrive better in the face of changing nature of demand.

#### **Existence of network goods**

In a knowledge-based economy, the existence of network goods may shift firms towards the oligopoly model. A network good is a good whose value increases as the expected number of units sold increases. Examples of such goods are telephones and software. Owning a telephone is useful only if many others own one as well. An example of a network service is WhatsApp network.

#### **Government Policies**

Lastly, changes in the government's economic policies may sometimes result in firms tending towards oligopolies. Most governments tend to favour oligopolies instead of monopolies as it is believed that firms faced with competition will be more innovative and cost efficient. This has thus resulted in previous monopolies now becoming oligopolistic markets, supporting the point that oligopolies are appropriate to explain the firms in these industries.

#### **Conclusion:**

There are a number of industries which are oligopolistic in nature. Many reasons attribute to the tendency for firms to become oligopoly and these are related to their characteristics of having high barriers to entry and the nature of demand for products in such markets.

**2b) Discuss the strategies used by oligopolistic firms to increase profits and the effects of these strategies on society. [15]**

Discuss the strategies used by oligopolistic firms to increase profits

Oligopolistic firms try to increase their profits and market share by using different strategies to compete with each other. This is generally divided into pricing and non-pricing strategies. The use of such strategies have both positive and negative effects on society, which comprises of producers, consumers and the government.

Pricing strategies involves the use of variations in prices to capture customers from rival firms. One such strategy used is for a firm to lower the price of its product. By doing so, it hopes to attract more customers and capture a larger market share. However, many oligopolistic firms tend not to engage in such pricing competition due to strong mutual interdependence of firms which leads them to lose out when they do so. This can be explained using the case of a competitive oligopolistic firm with the kinked demand curve model. Such a firm prefers not to use pricing strategy. Draw diagram and explain.

Another strategy used by oligopolistic firms to increase profits is to engage in explicit collusion (formal) which is also known as cartel; or tacit collusion (informal).

When the firms in the same industry established a cartel, they are effectively acting like a monopoly. Collectively, they profit maximize when marginal revenue is equal to rising marginal cost. This yield an output  $OQ_0$  and price  $OP_0$  in the following diagram. The members of the cartel will then decide on the allocation of the total market output  $OQ_0$  among them. This is usually based on each firm's current market share.

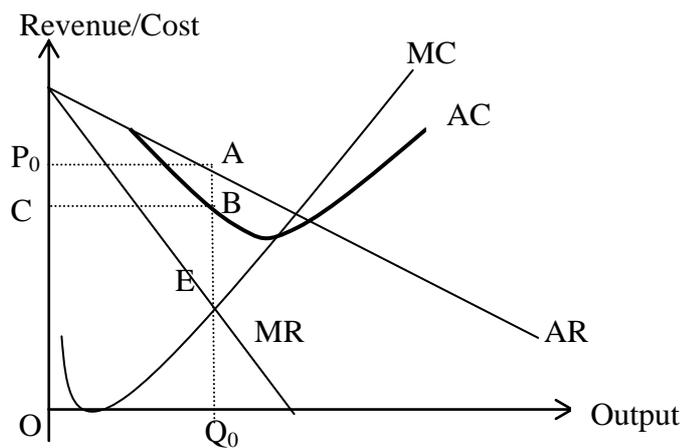


Figure 1: A monopolist making Supernormal Profit

By doing so, firms reduce the uncertainty in terms of competitive price cutting, which will decrease total revenue and therefore profits. However, if one member of the cartel were to cheat by increasing output above its allocated quota, other members of the cartel would follow suit and this pushes the market price down. The cartel will then collapse. In view of this, collusion may not work to increase profits if members tend to cheat.

To increase profits, oligopolistic firms can also engage in non-pricing strategies through greater product differentiation by using either product promotion and/or product development. With product differentiation, the product's differences, be they real or perceived are accentuated when compared with rivals' products. This will not only increase demand and shift the demand curve to the right for the firm, but also make the demand curve less price elastic, as consumers

perceive a lack of substitutes for the product. Product differentiation therefore allows an oligopolistic firm to have greater degree of market power, and to raise prices without losing all its customers.

Discuss the possible effects of different strategies on society

The possible effects of different strategies to compete on society are varied. Price competition, if carried out, usually benefits consumers as it normally results in lower product prices. Consumer surplus hence increases. Producers, however, can be disadvantaged, as they may see lower total revenue, and hence probably lower profit levels. Much depends on the price elasticity of demand for the product. If demand for the good is price inelastic, decreasing price will lead to a less than proportionate increase in quantity demanded causing total revenue to fall. Also, if firms see falling profitability, they might lose the incentive to upgrade their services or innovate, which then disadvantage consumers in the long run.

Collusion generally benefits producers, as it usually results in higher product prices and lower output levels if firms seek to maximise the profits of the group as a whole. Hence, consumer welfare is lessened, but producers earn higher levels of profit.

Oligopolistic firms do not achieve allocative efficiency as price is greater than marginal cost at equilibrium. This means that society's valuation of the last unit of the good is greater than the opportunity cost of producing that unit of good. There is misallocation of resources and society's welfare is not maximized. However a lower price will reduce the allocative inefficiency in society resulting in a more efficient use of resources.

Non-pricing strategies such as product development are generally beneficial for all. Consumers benefit from a wider variety of products or better quality goods, while producers benefit from increasing sales due to such products. This increase in revenue can then be channeled for further research and development, to provide further benefits.

However, while informative advertising can be beneficial to producers, excessive persuasive advertising usually leads to wastage of resources when substantial amounts of resources are spent. Furthermore, persuasive advertising can lead to the exploitation of consumers, who might not have complete information about the market. In addition, excessive competition usually results in a substantial increase in the cost of production, which either decreases the profitability of firms, or disadvantage consumers if these costs are passed on in the form of higher product prices.

Non-pricing strategies among firms often result in greater product promotion and marketing. More jobs in marketing and advertisement are hence generated contributing to greater employment and higher national income for the economy. In addition, such competition helps to raise service standards and product range allowing firms to compete with the best global players in the long run. Thus jobs and employment in the long run are safeguarded.

In conclusion, oligopolistic firms use mainly non-pricing strategies to increase profits due to price-rigidities. These strategies have varied effects on society. Whether there are more benefits than costs depends on the nature of the products and the extent in which costs is passed on to consumers. Much also depends on whether government intervention occurs in minimizing the adverse effects that strategies have on society.

**Question 3**

3. In 2012, the Singapore government announced the provision of a subsidy of \$1.1 billion to increase bus capacity and bus service levels under the Bus Service Enhancement Programme. Public Utilities Board has also recently announced its plans to work on about 170 drainage improvement projects island-wide using government allocated funds. Discuss whether the use of government funds in the above cases is justified. [25]

**Marking Scheme**

Knowledge, Application, Understanding and Analysis		
L3	Well-developed explanation of reasons to support as well as not supporting the use of government funds in both cases.	15-21
L2	Under-developed explanation of reasons to support as well as not supporting the use of government funds in both cases.	9-14
L1	For an answer that shows a descriptive knowledge of the reasons to support as well as not supporting the use of government funds in both cases.	1-8
Evaluation		
E2	For an evaluative assessment based on economic analysis that provide justifications for a stand.	3-4
E1	For an unexplained assessment that is not supported by economic analysis.	1-2

3.

Introduction

- Explain that in the free market, forces of demand and supply interact to achieve an equilibrium level of output that allocates resources efficiently.
- However, sometimes market failure occurs which justify government intervention such as through the use of subsidies.

Body

Explain why use of government funds for improvement in bus services is justified

- One reason for the use of government funds under the Bus Service Enhancement Programme is due to the existence of positive externalities in the provision of bus services.
- Explain that the MPC of producing one more unit of bus service includes operational cost and cost of purchase of buses.
- Explain that the MPB is the gain in additional revenue from providing one more unit of bus service.
- Explain that MPB exist and this includes getting workers to work on time and this helps to contribute to a highly productive workforce which is able to attract investment.
- Due to the existence of positive externalities in providing a good bus transport system, it leads to the divergence between marginal private benefit and marginal social benefit. This is shown in diagram 1 below:

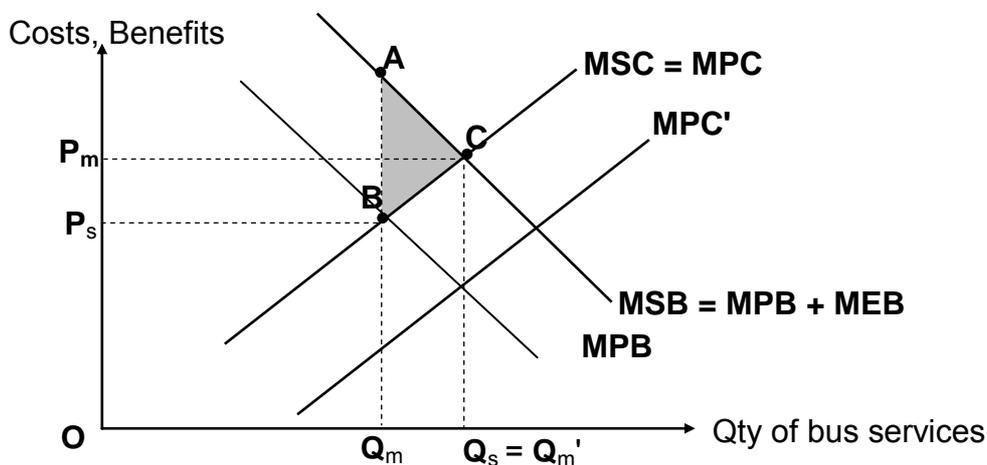


Figure 1: Market Failure due to Positive Externalities

- Explain how under-provision of bus services occurs, leading to an inefficient allocation of resources for bus services and thus the use of subsidy to address this problem.
- Another justification is that in recent years, there have been much complaints about overcrowded buses and MRT stations and MRT breakdowns. These breakdowns cause thousands of workers to be late for work and appointments and a loss in national income. Thus a good alternative and reliable bus transport system could reduce the seriousness of the problem.
- In addition, as bus services is a basic essential service for most working people, for equity reasons and with the government wanting to reduce traffic congestion by discouraging car ownership, bus fares are regulated by the government to ensure that bus fares are capped at affordable prices. This resulted in financial difficulties for bus companies if they were to increase the frequency of bus services and introduce new routes substantially. Thus government is justified to provide the subsidy.

- A one-time subsidy is also justified instead of providing bus services free as the latter can lead to over-consumption and it will also become a heavy burden to the finances of the government. Opportunity cost of government funds would then be too high.

Explain why the use of government funds for improvement in bus services is not justified

- However, the use of government funds may not be justified as such expenditure may be deemed to benefit the shareholders of public bus companies. The subsidy lowers the cost of production for the bus companies allowing them to gain more profits.
- The government can also explore other alternatives such as subsidizing private bus companies to provide alternative routes or allowing more competition to improve standards of bus services without incurring government funds.
- Generally, the use of government funds would incur opportunity cost in terms of projects forgone elsewhere in the economy. Worse still, taxes may be raised to provide funds for the government.
- The use of such funds may also not be justified as measuring MEB accurately in monetary terms is difficult and there may be an overestimation resulting in an over-supply of buses which can worsen traffic congestion and cause greater inconvenience to other road users.

Explain how the use of government funds is justified for anti-flood drainage improvement projects

- In the case of anti-flood drainage improvement projects, it is a public good as it has the characteristics of non-rivalry and non-excludability in consumption. Using the example of drainage improvement system, explain how it fits into the above characteristics. As a result explain how market failure occurs and hence the use of government subsidies for the projects.
- Another reason is that the construction of anti-flood drainage projects requires huge capital outlay. The private sector may find it difficult to raise such a large sum of money to construct and build them and they may not make profits from such an investment. Thus private firms may not be willing to take the risks of building such facilities.

Explain how the use of government funds may not be justified for the use of anti-flooding projects

- However, there is always the question of how far government funding should be used to improve such systems as government funds are limited and flash floods are difficult to avoid in many countries unless one is willing to spend extensively on such projects. Therefore there is a need to weigh the additional benefits of improving existing system with the additional cost that is being incurred.

Conclusion

Whether the use of government funds is justified depends on whether benefits outweigh costs in the use of such funds. Much also depends on the budget position that the Singapore government faces and the seriousness of the problems encountered.

Generally, a reliable and efficient bus transport system not only provides a better travelling experience, it would also ensure that Singapore's workforce remains higher productive. In the long run, it would also encourage people to switch to public transport which would not only reduce traffic congestion but also air pollution. Thus it is felt that the use of government funds is justified.

In the case of drainage improvements projects, the decision to use government funds will depend on whether the government has sufficient funds in their budget and the priority accorded to such projects. Singapore's government generally has a budget surplus in most years and there is much fiscal reserves. Flooding problems have also become worse in recent years and floods have caused disruptions for the economy. To maintain Singapore's reputation

as a country that has a conducive environment for business, it is justifiable for the government to spend on such projects to improve the infrastructure of the country.

**Question 4**

- 4 As the world economies recover from the economic slowdown in recent years, it is expected that central banks are likely to raise interest rates soon.
- (a) Explain the possible consequences of a high growth rate on an economy. [10]
- (b) Discuss the extent to which a rise in worldwide interest rate would impact the economic growth of the Singapore economy. [15]

**Marking Scheme Part (a)**

<b>Knowledge, Application, Understanding and Analysis</b>		
<b>L3</b>	Well-developed explanation of the various positive and negative consequences of a high growth rate on an economy.	<b>7 – 10</b>
<b>L2</b>	Under-developed explanation of the various positive and negative consequences of a high growth rate on an economy.	<b>4 – 6</b>
<b>L1</b>	For an answer that shows a descriptive knowledge of the positive and negative consequences of a high growth rate on an economy.	<b>1 – 3</b>

**Marking Scheme Part (b)**

<b>Knowledge, Application, Understanding and Analysis</b>		
<b>L3</b>	For a well-developed answer that shows the extent in which a worldwide rise in interest rate would impact the economic growth of an economy.	<b>9 – 11</b>
<b>L2</b>	For an under-developed answer that shows the extent in which a worldwide rise in interest rate would impact the economic growth of an economy. Some evaluation of the extent of impact is given.	<b>6 – 8</b>
<b>L1</b>	For an answer that shows a descriptive knowledge of the extent in which a worldwide rise in interest rate would impact the economic growth of an economy.	<b>1 – 5</b>
<b>Evaluation</b>		
<b>E1</b>	For an unexplained judgement that is not supported by economic analysis	<b>1 - 2</b>
<b>E2</b>	For an evaluative judgement that is supported by economic analysis	<b>3 - 4</b>

4 (a) Explain the possible consequences of a high growth rate on an economy. [10]

**Introduction**

Economic growth rate is an indicator of the economic health of the country. A rising and positive growth rate shows that the GDP is increasing and this brings about many benefits to the economy. However, when the growth rate becomes too high, depending on the state of economy, it can also bring about adverse consequences on the economy.

**1.Explain how a high growth rate leads to a higher standard of living**

- A high and positive growth means a large increase in national income (NY). This will lead to greater purchasing power for its citizens, thus generating a higher consumption level. The increase in their ability to afford means that the people can now enjoy more and better goods and services which leads to higher quantitative aspect of standard of living.

**2.Explain how a high growth rate encourages consumption and investment**

- High economic growth increases firms' confidence level. Firms would feel more assured of higher expected profits. This encourages them to expand their businesses and increase their investments. The increase in investments level in an economy would lead to further economic growth as higher production would generate more employment opportunities and hence higher national income. Increase in investment can also help increase the potential growth of the economy and increase its productive capacity.

**3.Explain how a high EG leads to a more equitable income distribution**

- Economic growth enables the government to collect a larger amount of direct tax. Elaborate.
- With higher tax revenue and appropriate government intervention, more funds can be channelled to help the low income families and low wage earners. The government can also subsidise public housing, education and healthcare services, making it more affordable for lower income people.

**However when the growth rate is too high, it can also bring adverse consequences in some countries.**

**1.Explain the opportunity cost of EG on current consumption**

- Firstly, a high growth rate can arise due to a constant **channelling of resources from the consumption goods industries into investments in the capital goods industries**. Thus, current consumption of goods and services is sacrificed. The forgone current consumption in return for more consumption in the future is the main opportunity cost of growth. There is a trade-off. In addition, too high a growth rate can sometimes result in excess capacity in the country. This results in wastage of resources as resources are not fully utilized.

**2.Explain the social and personal costs as a result of EG**

- A high rate of growth through rapid industrialization causes deterioration of the natural environment. Negative externalities such as air and water pollution cause market failure, inefficient resource allocation and society welfare loss. This is made worse if government policies on environmental control are not in place.
- A high growth rate may also come with high personal costs such as increasing the level of stress and anxiety.

**3.Explain how a rapid growth may lead to greater income inequality**

- A high level of growth can come at the expense of greater income inequality. Elaborate. This can reduce the quality of life for its people.

**4.Explain how a rapid growth may lead to inflation**

When an economy experiences high growth rates and the productive capacity of the country cannot increase as fast, this can lead to demand-pull inflation. Inflation can cause investment to fall and worsen the current account.

- **Overall, a high growth rate can be beneficial or harmful to the government depending on the current economic situation in the country and the type of policies in place to minimize its negative impact.**

**(b) Discuss the extent to which a rise in worldwide interest rate would impact the economic growth of the Singapore economy. [15]**

When there is a rise in worldwide interest rate, especially that in US, interest rate in Singapore is likely to rise too. Explain.

**1a. Explain how interest rates affect investment and national income**

- With a rise in interest rate in Singapore, the level of investment will rise as some of the marginal projects whose returns were unprofitable at higher interest rate now become profitable. This increases aggregate demand.

**Evaluation on the extent**

- However, the extent in which the level of investment may increase is dependent on the interest elasticity of the MEI schedule. Elaborate.
- However, a rise in interest rates may not have a significant impact on investment in Singapore because the majority of the investments are from MNCs which are seldom short of funds. Thus they do not need to borrow locally. Instead the MEI schedule depends on the confidence of foreign investors and their expected rate of return (MEC) from their investment.

**2. Explain how a rise in interest rate affects consumption**

- A rise in interest rate increases the opportunity cost of consumption and encourages savings. It also increases the cost of borrowing and hence discourages consumers from borrowing from banks for big-ticket consumer durables. This reduces aggregate demand.

**Evaluation on the extent**

- *In Singapore, consumption expenditure which constitutes about 40% of our GDP is the largest component of our GDP. Hence any rise in interest rate can bring about a substantial fall in consumption especially if the increase in interest rate is substantial. Thus the impact on aggregate demand can also be substantial.*
- Consumption is also dependent on other factors like expectation of future income, wealth and job security. Even if interest rate were to rise, consumption may not decrease if consumers are optimistic about their future income and wealth and the economy is booming.

**3. Explain how a rise interest rate affects net exports**

- A rise in interest rate relative to that of the world can encourage capital inflow into Singapore as funds move in to seek higher returns. This short term capital inflow could bring about a appreciation of the Singapore currency.
- This appreciation of the currency, assuming Marshall-Lerner condition holds, will cause net exports to fall. This decreases aggregate demand in the economy.

**Evaluation on the extent**

- *In Singapore, due to her import dependence, an appreciation of the currency will help to reduce imported inflation and reduces inflation in the country. To some extent, this will help to stimulate exports as inflation falls.*
- Singapore's economy is very dependent on trade and its exports to drive its economy. Most recessions in Singapore however are caused by a fall in exports which is due to a fall in income level of our major trading partners. Thus a rise in world income level can be a more important factor affecting export growth in Singapore rather than interest rate changes.

**4. Explain how a rise in interest rate affects government expenditure programs**

- A rise in interest rate results in an increase in the cost of borrowing. This will not be beneficial to a government who lack funds for economic and social developmental purposes. As a result, government expenditure may fall which in turn reduces aggregate demand.
- In the longer term, such a measure could reduce infrastructural development, education and training hence reducing potential growth too.

**Evaluation on the extent**

- *In Singapore, however, the existence of a prudent government with fiscal surpluses means that government expenditure is less dependent on interest rates changes.*
- Government expenditure in Singapore also does not depend solely on interest rate - the economic situation takes priority in the level and type of government expenditure.

- From the above, it can be seen that a rise in interest rate generally will cause a decrease in the component of AD resulting in a fall in AD. However, the extent of such a fall depends on other factors that affect these components.
- As AD falls, this will reduce national income through the multiplier process leading to a fall in growth in Singapore. Explain how the multiplier works.

### **Evaluation**

#### **Size of multiplier in Singapore.**

In the Singapore economy, the relatively high values of marginal propensity to import (MPM) and marginal propensity to save (MPS) result in a small multiplier (k). Thus the small k implies that any decrease in aggregate demand will not lead to a significant fall in national income.

In addition, when interest rate increases causing investment and government expenditure to fall, this will also lead to a fall in potential growth as the productive capacity falls.

The above explanation is based on an assumption that the Singapore economy is below full employment. However, if the economy of Singapore is suffering from demand-pull inflation, the rise in interest can help to reduce the excessive aggregate demand and hence reduce inflation instead.

### **Conclusion**

When interest rate rises, when economy is below full employment, this adversely affects actual and potential growth.

However, the extent of this impact depends on:

- the characteristics of the economy,- the magnitude of increase in AD, which in turn depends on other factors that affect the components of AD - government intervention policies

**Question 5**

- (a) Explain the causes of a current account deficit in an economy. [10]
- (b) Discuss the extent to which trade-offs between macroeconomic objectives may arise as a result of policies used to reduce a current account deficit in an economy. [15]

**Part (a)**

Knowledge, Application, Understanding and Analysis		
<b>L3</b>	Well-developed analysis of causes of current account deficit supported by real life examples.	<b>7 - 10</b>
<b>L2</b>	Under-developed explanation of causes of current account deficit supported by some real life examples.	<b>4 - 6</b>
<b>L1</b>	For a descriptive knowledge of causes of current account deficit.	<b>1 - 3</b>

**Part (b)**

Knowledge, Application, Understanding and Analysis		
<b>L3</b>	Well-developed analysis of policies used to reduce a current account deficit and the extent to which trade-offs between macroeconomic objectives may arise, supported by real life examples.  <u>Max 9m</u> without addressing extent of trade-offs	<b>9 - 11</b>
<b>L2</b>	Under-developed explanation of policies used to reduce a current account deficit and the extent of trade-offs between macroeconomic objectives.	<b>6 - 8</b>
<b>L1</b>	For a descriptive knowledge of policies used to reduce a current account deficit.	<b>1 - 5</b>
Evaluation		
<b>E2</b>	For an evaluative assessment based on economic analysis	<b>3 - 4</b>
<b>E1</b>	For an unexplained assessment or one that is not supported by economic analysis.	<b>1 - 2</b>

### Part (a)

A current account (CA) deficit occurs when a country's value of import of goods and services outweighs the value of export of goods and services. As such, export earnings are less than import expenditure. There are many reasons that can cause export earnings to fall and import expenditure to rise resulting in a CA deficit.

One main reason for the fall in export earnings is the relatively higher export prices in the economy compared to those from other countries. For example, if the US economy has a higher inflation rate than its trading partners, exports of goods and services become relatively more expensive and therefore less competitive. Assuming an elastic demand for its exports of goods and services, when price of exports of goods and services becomes more expensive, quantity demanded for exports of goods and services falls more than proportionately. This will result in a fall in export revenue of goods and services.

On the other hand, US's imports of goods and services will be relatively cheaper than home-produced goods and thus demand for imports of goods and services increases and her import expenditure of goods and services will rise. The fall in export earnings and rise in import expenditure might lead to a CA deficit.

Inefficiency in production, structural rigidities and labour productivity growth lagging behind wage increment can cause the unit cost of production to increase, causing US's exports of goods and services to be more expensive and hence losing its competitiveness against the goods and services from another country. This can lead to a fall in export earnings of goods and services and thus a CA deficit.

US's CA deficit can be attributed to an undervalued currency of their trading partners. For example, an undervalued Chinese Yuan makes US exports of goods and services to China more expensive in Yuan. If the demand for US's exports of goods and services by China is price elastic, there will be a more than proportionate fall in quantity demanded for US exports of goods and services. This will result in a fall in US export revenue of goods and services.

An undervalued Chinese Yuan makes China's exports of goods and services relatively cheaper in US\$. Similarly, if US demand for China's exports of goods and services is price elastic, it will result in a more than proportionate increase in the quantity demand for China's exports of goods and services by US. Hence, increases in US import expenditure of goods and services. This result in US's CA deficit with China.

Import expenditure can also increase due to rising demand for imports due to changing tastes and preferences for foreign goods or rising national income. Higher national income will increase the willingness and ability of consumers to afford more imported goods and services.

Developing economies which are starting to industrialize will need to import a large amount of raw materials and machinery. Import expenditure will increase for these economies.

Poor quality, design or marketing techniques of exports can cause a fall in demand for exports of a country which will lead to a fall in export earnings.

All of the above factors will lead to a CA deficit.

## Part (b)

### 1. Devaluation

Devaluation refers to the deliberate attempt by a government to reduce the external value of its currency. For example, assume that the US has a CA deficit and its government decides to devalue its currency to solve the deficit problem.

Devaluation of US\$ makes US exports of goods and services cheaper in foreign currency and its imports more expensive in domestic currency (US\$). If the demand for US exports of goods and services is price elastic, the fall in export prices in foreign currency will result in a more than proportionate increase in quantity demanded for exports of goods and services, *ceteris paribus*. Hence, there would be an increase in its export earnings.

At the same time, if the demand for imports of goods and services is price elastic, the higher import prices will lead to a more than proportionate fall in quantity demanded for imports of goods and services, *ceteris paribus*. Hence, there would be a fall in import expenditure.

Therefore, net exports earnings of goods and services would rise, leading to an improvement in the current account balance, *ceteris paribus*.

#### Trade-off and Extent of the Trade-off

Devaluation of US\$ will result in imported inflation and spill over to a cost push inflation if imports are factor inputs. The extent to which trade-off between macroeconomic objectives may arise as a result of the use of devaluation to reduce US CA deficit would be high if US is dependent on foreign imports as raw materials and intermediate goods to aid further production of goods in the domestic economy.

In the long run, the lack of price competitiveness in US will erode their export competitiveness and will hurt their export earnings. This in turn will cause a CA deficit, which is the original macroeconomic problem which US was trying to address in the first place. The falling export earnings will also affect US's economic growth and increase her current unemployment problem.

A devaluation of the domestic currency will also result in hot money outflow leading to a worsening of the capital account and hence balance of payments. If an economy is an international financial hub it will most likely suffer from capital flight. When the economy's international receipt is lesser than international earnings, it will suffer from a BOP deficit.

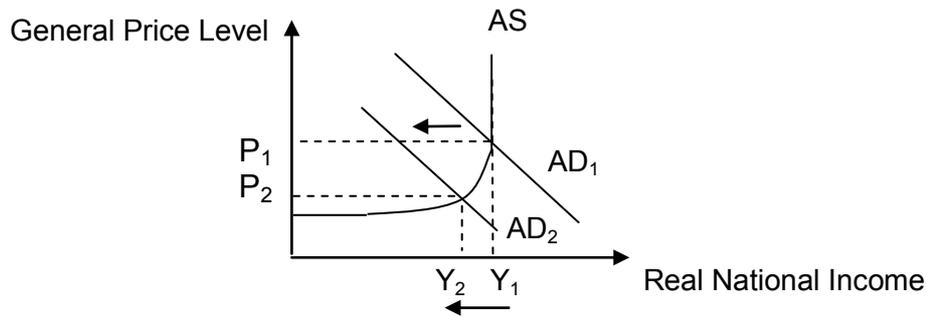
### 2. Expenditure-Reducing Policies

The US government can also consider using expenditure-reducing or contractionary demand management policies such as fiscal and/or monetary policies.

A contractionary fiscal policy involves an increase in taxes and reduction in government expenditure. An increase in personal income taxes will lead to a fall in disposable income. This will lead to a fall in consumption expenditure. An increase in corporate taxes will lead to a fall in post-tax profits which results in a fall in investment expenditure.

A contractionary monetary policy involves an increase in interest rates. Due to rising cost of borrowing, consumers tend to spend lesser on consumer durables such as cars and firms cut back on investment as marginal projects become less profitable. Further, due to rising interest rate, opportunity cost of consumption is higher, hence consumers save more and spend less.

The fall in government expenditure, consumption expenditure and investment expenditure will reduce the level of AD from  $AD_1$  to  $AD_2$ , resulting in a fall in national income from  $Y_1$  to  $Y_2$  and lower the general price level from  $P_1$  to  $P_2$ .



This will induce a fall in demand for imports of goods and services due to lower purchasing power, hence leading to a fall in total import expenditure thus correcting the CA deficit.

### Trade-off and Extent of the Trade-off

If the root cause of the CA deficit is due to higher inflation, then expenditure-reducing policies can help to ease the inflationary pressures of an overheated economy without incurring a trade-off between macroeconomic objectives.

However, for an economy that is operating near full employment, the use of these contractionary demand management policies may conflict with other macroeconomic aims of the governments. An excessive fall AD may lead to a recession given the state of economy. Falling national income and production will lead to cut back on need for workers and cyclical unemployment. Given US's large multiplier, the adverse impact on US economy will be huge.

However, for an economy with a weak multiplier, it will not be affected as much. In fact, domestic firms will have more incentive to sell their exports overseas given a shrinking domestic demand.

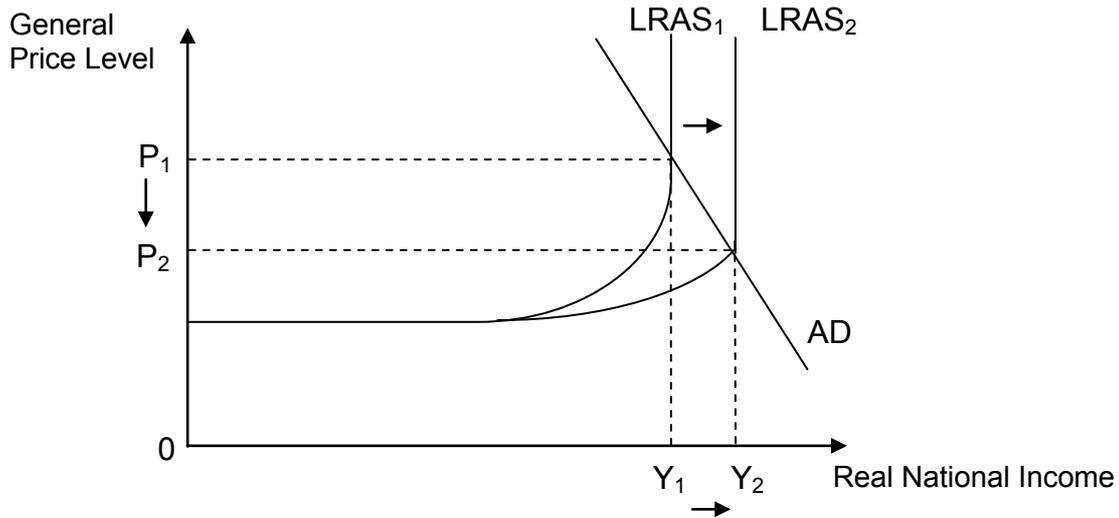
### **3. Supply-side policies**

To reduce the CA deficit, the government can introduce short term and long term measures to lower the costs of production and boost the productivity of the factors of production.

Short-run supply side policies primarily target at reducing business costs. Some of the examples will be price and income policies such as price controls, wage freeze, flexible wage system and temporary cut in the Central Provident Fund (CPF) in the case of Singapore. For instance, employer's CPF contribution rate was reduced from 16% to 13% in 2003 during SARS period. This effectively lowered labour costs. Also, other cost cutting measures like corporate tax rebates, utilities rebates and rent rebates were adopted in 1999 to help firms lower cost of production and stay in the black. This will increase firm's profits and give them greater incentive to increase supply. The increase in SRAS will result in actual growth and lower the general price level.

A lower cost of production can also be achieved with a higher expenditure on training of labour. For example, firms could tap on the Skills Development Fund (SDF), as well as the Skills Programme for Upgrading and Resilience (SPUR) which was implemented during the 2009 Budget. These initiatives provide subsidies to firms who sent their workers for re-training or upgrading courses so as to raise labour productivity. The government can design the education system to meet to the requirements of economic development. For example, more vocational schools and technical colleges should be set up to train more mechanics, foremen and technicians

so as to overcome the problem of a shortage of skilled labour. This will increase labour productivity and increase the productive capacity of the economy. The increase in LRAS from LRAS<sub>1</sub> to LRAS<sub>2</sub> will result in potential growth and lower the general price level from P<sub>1</sub> to P<sub>2</sub>.



When the country's exports become more competitive, exports of goods and services become relatively cheaper. Assuming an elastic demand for its exports of goods and services, when price of exports of goods and services becomes cheaper, quantity demanded for exports of goods and services increase more than proportionately. This will result in a rise in export revenue of goods and services.

On the other hand, imports of goods and services will be relatively more expensive than home-produced goods and thus demand for imports of goods and services fall and her import expenditure of goods and services will fall. The CA deficit can thus be reduced.

#### Trade-off and Extent of the Trade-off

The use of supply-side policies does not create a policy trade-off per se. However, if in the case of a budget constraint, especially for a government that is experiencing a fiscal deficit, the implementation of supply-side policy will be limited in its ability of correct CA deficit.

Furthermore, opportunity cost will occur as lesser funds will be available for other purposes which will limit the government's ability to achieve other macroeconomic aims.

#### **Conclusion / Evaluation**

In reality, there are many causes of a CA deficit. As such, a combination of policies is needed to counter these root causes. The extent to which trade-offs between macroeconomic objectives may arise is also dependent on the degree of government intervention, the state of economy and nature of economy as explained in the earlier analysis.

The extent to which trade-offs between macroeconomic objectives may arise as a result of policies used to reduce a current account deficit depends on the government's ability to adopt complementary policies to address the policy conflicts. A government that is already experiencing a fiscal deficit will have difficulty adopting expansionary fiscal-supply side policies.

**Question 6**

**Discuss whether globalisation would help a country achieve its macroeconomic goals and a higher standard of living. [25]**

<b>Knowledge, Application, Understanding, and Analysis</b>		
L3	For a well-developed answer that gives an explanation of both positive and negative effects of globalisation on macroeconomic goals and SOL. Analysis is supported with real life examples.	15 – 21
L2	For an under-developed answer that gives an explanation of both positive and negative effects of globalisation on macroeconomic goals and SOL.	9 – 14
L1	For an answer that shows descriptive knowledge of the effects of globalisation with limited attempts to link them to macroeconomic goals and SOL	1 – 8
<b>Allow up to 4 additional marks for evaluation</b>		
E2	For an evaluative assessment based on economic analysis.	3 – 4
E1	For an unexplained evaluative assessment, or one that is not supported by economic analysis.	1 – 2

**Introduction**

Globalisation refers to the increased integration of national economies into the international economy through trade, foreign direct investment, capital flows, migration, and the spread of technology. There are four main macroeconomic goals of the government, namely internal price stability, sustained growth, full employment, and healthy balance of payments (BOP). Standard of living (SOL) includes the quantitative and qualitative aspects of living.

**Thesis: Globalisation would help a country achieve its macroeconomic goals and a higher SOL**

**Impact on BOP**

Globalisation enhances the ease of flow of goods and services between countries through the exploitation of comparative advantage. Different countries have different opportunity costs in production of different types of goods and services due to differences in factor endowments. For example, China has an abundance of labour, hence a comparative advantage in labour-intensive goods such as textiles. Singapore has an abundance of skilled labour, and capital, hence a comparative advantage in capital-intensive goods such as pharmaceuticals. As such, Singapore exports high value-added goods and services, and imports low-value added goods and services.

Due to the increased trade from expansion of export market, internal economies of scale are reaped by domestic producers in a country, resulting in a lower unit cost of production, improving price competitiveness of exports. Assuming demand is price elastic due to availability of close substitutes, this will lead to a more than proportionate increase in quantity demanded and hence an increase in export revenue. With higher export revenue, ceteris paribus, net exports increase, and current account improves.

Globalisation encourages capital flows, leading to an increase in long-term FDI inflow into a country. In addition, globalisation allows international financial integration which leads to greater ease of short-term capital inflows into a country. With both increase in ST and LT capital, capital account improves. With both current and capital accounts improving, BOP improves.

### **Impact on growth and employment**

With the increase in net exports and investment (FDI) in a country, AD increases. Assuming the country is below full employment level, the increase in AD leads to a multiple increase in national income via the multiplier effect, resulting in actual growth. The increase in production will lead to an increase in demand for labour, hence a decrease in cyclical unemployment.

The increase in inflow of FDI and technology transfer leads to capital accumulation. In addition, due to higher occupational and geographical labour mobility, there is an increase in number of foreign talents (with advanced management and marketing skills, together with knowledge and expertise) and foreign workers (to fill up vacancies requiring lower level of skills). These lead to an increase in quantity and quality of capital and labour, resulting in an increase in productive capacity. Hence there is an increase in LRAS, achieving potential growth.

### **Impact on internal price stability**

Globalisation provides more opportunities for sourcing cheaper and better quality imports from other imports. In addition, it entails the removal or reduction of trade barriers, such as tariffs on imports due to signing of FTAs, which lead to a fall in prices of imports, curbing imported inflation.

Also with greater competition from imports, domestic firms in a country will place greater emphasis on improving efficiency as they must keep their costs low in order to remain competitive. The increase in foreign workers inflow also helps to keep labour costs low. Together with the cheaper imported raw materials and intermediate goods, these decrease cost of production that leads to an increase in profits hence giving profit-maximising producers more incentive to supply, increasing SRAS (actual growth), and decreasing GPL (curb cost-push inflation).

### **Impact on SOL**

Globalisation increases the quantitative SOL in a country because increased trade based on the theory of CA allows the country to consume at a point outside the PPC, which means a greater quantity of goods and services can be consumed by its people. With increased employment and national incomes, it implies that people have higher purchasing power. Hence the amount of goods and services available for consumption has increased.

Globalisation also increases qualitative SOL due to wider variety and better quality products consumed. Also due to higher growth, government of the country is now able to collect more tax revenue which they can spend on developing public infrastructure, improving the access and quality of healthcare and education etc.

### **Anti-Thesis: Globalisation would not help a country achieve its macroeconomic goals and a higher SOL**

#### **Impact on BOP**

With globalisation, due to more opportunities for sourcing cheaper imports, there is a decrease in price of imports. Assuming demand for imports is price elastic, there will be a more than proportionate increase in quantity demanded, hence increase in import expenditure of a country. This results in current account worsening. Moreover, loss of CA resulting in relocation of industries also means an outward FDI to other countries, hence capital account worsens. As such, BOP may worsen.

#### **Impact on growth and employment**

With globalisation, there can be a loss of CA, and industries in a country will relocate to another one with lower opportunity cost of production. For example, manufacturing firms in Singapore have relocated and outsourced production to low-countries such as Cambodia and China that have

abundance of labour. Retrenched workers then do not have the relevant skills to work in capital-intensive sunrise industries such as biotechnology, resulting in structural unemployment.

Globalisation increases the vulnerability of a small country to external shocks. For example, during the 2008 Global Financial Crisis, Singapore's major trading partner US experiences a recession and a decrease in income level, hence the demand for Singapore's exports decrease, hence export revenue and net exports decrease, ceteris paribus. This resulted in a decrease in GDP, leading to negative actual growth and increase in cyclical unemployment.

#### **Impact on internal price stability**

When a country lacks spare capacity and is near or at full employment level, especially for small and open economies, like Singapore, the increase in net exports and investment, and hence AD will lead to demand-pull inflation.

Small economies, such as Singapore, are highly dependent on imported raw materials due to the lack of natural resources. External shocks such as droughts in US and Middle-East Crisis have led to increase in food and oil prices respectively. These led to Singapore suffering from imported inflation.

#### **Impact on SOL**

As labour becomes more mobile, the lower skilled workers in a country have to compete with the abundant supply of cheap foreign workers, leading to a decrease in wages. Whereas, skilled workers are limited in supply, hence wages increase with the relatively higher demand for them. This results in worsening of income inequality, leading to a decrease in SOL of the low-income workers.

The increase in production of output and consumption and greater use of resources can lead to negative externalities such as greater pollution, increased global warming and degradation of the environment. Hence qualitative SOL deteriorates.

#### **Evaluation/Conclusion**

Globalisation would help a country achieve its macroeconomic goals and a higher standard of living to a large extent. It is especially so for small and open countries such as Singapore that has limited resources and is trade dependent. Such achievements depend on the government's ability to implement policies to maximise the benefits of globalisation and minimise its costs.



MERIDIAN JUNIOR COLLEGE  
JC2 PRELIMINARY EXAMINATION 2014

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## H1 Economics

**8819/01**

Case Study and Essay Questions

**15 Sep 2014**

**3 Hours**

Additional Materials: Writing Paper

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### READ THESE INSTRUCTIONS FIRST

**Do not open this booklet until you are told to do so.**

Write your name, class and register number in the spaces at the top of the answer sheets.

Write in dark blue or black pen.

Do not use staples, paper clips, highlighters, glue or correction fluid.

You are reminded of the need for good English and clear presentation in your answers.

#### **Section A: Case Study (2 Hours 10 Minutes)**

Answer **all** questions.

#### **Section B: Essay (50 Minutes)**

Answer **one** question.

Begin each question on a fresh sheet of paper.

At the end of the examination, fasten all your work securely to the cover sheet with the string provided.

The number of marks is given in brackets [ ] at the end of each question or part of a question.

**[Turn Over]**

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This document consists of **8** printed pages and **3** cover sheets.

**Section A**

Answer **all** the questions in this section.

**Question 1 Present and Future Energy Sources in the Globalised World****Extract 1: Global energy demand seen up 44 percent by 2030**

Most economists agree that globalization provides a net benefit to individual economies around the world, driving world economic growth, increasing competition, limiting military conflicts, and spreading wealth more equally around the world. However, according to Joseph Stiglitz, a former chief economist of World Bank, 'Globalisation today is not working for many world's poor. It is not working for much of the environment. It is not working for the stability of the global economy.' The general public tends to assume that the costs associated with globalization outweigh the benefits; one of its most imminent problems is the soaring energy demand, exhaustion in raw materials and its related pollution concerns.

Global energy demand is expected to soar 44 percent over the next two decades with most of the demand coming from developing countries such as China and Russia. Almost 75 percent of the rise in global energy demand through 2030 will occur in developing countries, particularly China, India, Russia and Brazil, the agency said. The Organization of Petroleum Exporting Countries will continue to provide 40 percent of the world's oil supplies during the period.

With the opening of borders to trade and foreign investment, globalization brings opportunities and pressures for domestic firms in emerging market economies to innovate and improve their competitive position. Many of these pressures and opportunities operate through increased competition from and linkages with foreign firms. This competition gave rise to economies and firms investing heavily in more efficient energy like renewable energy. The competition is certainly intensified when expertise, knowledge and advanced equipment could be easily acquired across borders in a globalized market.

Adapted Tom Doggett and Ayesha Rascoe, *Reuters*, 27 May 2009

**Extract 2: Energy crisis? Fund the renewable solution**

Despite energy being a basic requirement for economic growth and development, the International Energy Agency (IEA) says that 1.3 billion people do not have access to electricity. This mainly applies to people living in rural areas of Asia and sub-Saharan Africa.

Conventional generation of energy through the burning of fossil fuel has created many issues especially in these third world economies. Globalisation has fuelled the accelerating demand of energy, coupled with instability in the Middle Eastern countries, led to volatility in energy prices. Fortunately, renewable energies such as wind, solar or biomass come in small units – solar cells or wind turbines – making construction and maintenance fairly straightforward. Over time, the costs for solar, wind and efficient biomass have reduced significantly, now levelling at the same price, and in some cases cheaper, than fossil fuels.

Some countries have already made significant progress in distributing renewable energy technologies. In Bangladesh, over 80,000 solar home systems are being installed every month and there are already a total of over three million in use in rural, off-grid areas, benefiting over 20 million people. This has had a positive economic and social impact in the country. Since 1996, the renewable energy sector in Bangladesh has created jobs for over 150,000 people.

But elsewhere, despite renewable energy being a great opportunity to accelerate the economic development in the global south, progress has been slow. Creating a reliable environment for investments in renewable energy is one of the biggest challenges for the industry.

Source: Stefan and Dipal, *Guardian*, 5 Jun 2014

### **Extract 3: American solar industry in crisis**

Despite the substantial investments in solar energy, the industry is in turmoil. A number of large American manufacturers such as Solyndra, Evergreen Solar, SpectraWatt, Solar Millennium and Solon fell victim to price pressure from Chinese rivals that helped to halve the cost of photovoltaic modules in 2011.

Not unexpectedly, the industry's poor fundamentals are provoking trade battles. In May, the U.S. Commerce Department found several Chinese solar-panel companies guilty of dumping and imposed 31 percent tariffs on their products. The action came as a result of a complaint filed by the American subsidiary of Germany's SolarWorld AG and a half-dozen other solar-energy companies that said that the Chinese manufacturers are selling solar panels at below-market prices. SolarWorld has now asked the European Union to investigate claims that Chinese rivals have been selling their products at below market value in Europe as well.

Source: Jack Perkowski, *Forbes*, 27 Dec 2012

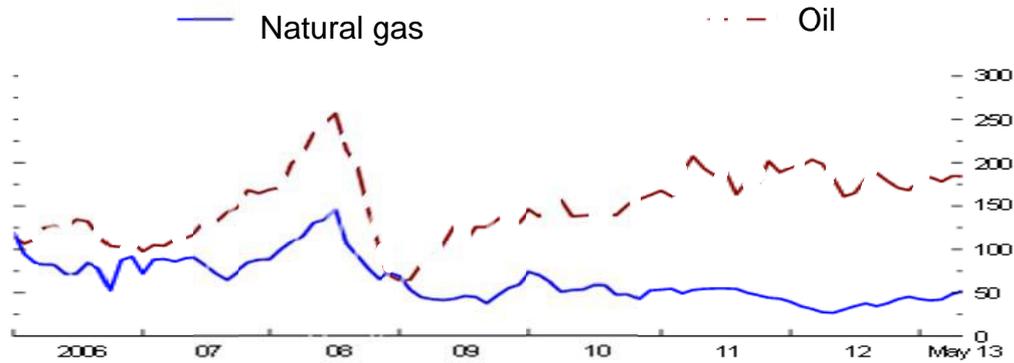
### **Extract 4: Natural gas price in Europe lowest since 2010**

The price of natural gas in Europe has dropped to its lowest level since 2010 as warm weather and high storage levels curb demand for the fuel. Fears of supply disruptions after Russia moved to take control of Crimea saw the price leap to 61.7 pounds a therm last month. Russia supplies about 30 per cent of Europe's natural gas, with almost half of it piped through Ukraine.

However, the price has been in retreat ever since. One factor weighing on prices has been Europe's mild winter. A key use of natural gas is as a heating source. "We have got to the end of the [winter] withdrawal season and stocks are still really high," said Trevor Sikorski, head of natural gas, coal and carbon at Energy Aspects, a consultant. "There's an awful lot of gas in storage."

Source: Neil Hume, *Financial Times*, 3 April 2014

Figure 1: Natural Gas and Oil Prices in United States (2005 =100)



Source: WorldBank, accessed June 2014

### Questions

- (a) Using Figure 1, summarise the variations in the natural gas and oil prices in US. [2]
- (b) Explain how ‘firms investing heavily in more efficient energy like renewable energy’ (Extract 1) affects the demand for oil. [2]
- (c) With reference to Extract 4, how far do demand factors explain the change in natural gas prices in UK? [4]
- (d) (i) With the help of examples, explain how negative externality in production arises in the conventional energy market. [3]
- (ii) Comment on how investment in renewable energy market affects market failure in the conventional energy market. [5]
- (e) Extract 3 indicates that ‘U.S. Commerce Department found several Chinese solar-panel companies guilty of dumping and imposed 31 percent tariffs on their products.’
- Evaluate the case for the imposition of tariffs by the US government. [6]
- (f) Discuss the view that the costs associated with globalisation outweigh the benefits. [8]

[Total: 30]

**Question 2 Charting a course for sustained growth****Table 1: Selected Indicators for China and Singapore**

	2007	2008	2009	2010	2011	2012
<b>China</b>						
Growth in real GDP (%)	14.2	9.6	9.2	10.4	9.3	7.8
Export-to-GDP ratio	38.4	35.0	26.7	29.4	28.5	27.3
<b>Singapore</b>						
Growth in real GDP (%)	9.0	1.7	-0.8	14.8	5.2	1.3
Export-to-GDP ratio	214.7	230.3	191.9	199.3	200.2	195.1

Source: *World Bank*, accessed 21 August 2014

**Extract 5: China's need to 'rebalance' its economy**

China should do more to rebalance its economy from exports and investment to consumption. The World Bank has cut its forecast for China's economic growth next year to 7.5 percent from 9.2 percent after the global financial crisis deepened. More than half of the expansion will come from "government-influenced spending" with China urgently required to rebalance its growth towards domestic demand as it could no longer rely on its consumers overseas to lift it up. With China rebalancing towards domestic consumption, this spells good news for its trade partners with potential increase in their exports to China.

Source: *Bloomberg*, 25 November 2008

**Extract 6: Challenges of the Singapore economy**

Despite the global economy changing as the fear of a return to recession has diminished in most industrial economies, mixed indicators revealed that the expected recovery could falter as the United States Federal Reserve tapering its quantitative easing measures with its monetary policy shift.

Predictions revealed that a recovery in the United States and European economies would boost Singapore's exports, but signs of that filtering through have yet to fully materialize with exports to the European Union down 3.9 percent in June from a year ago. Exports to the United States fell 2.9 percent from a year ago, while shipments to China rose 5.3 percent. A tight labour market could also further weigh down on Singapore's electronics industry, a key driver of Singapore's exports, adding to further weakening of Singapore's comparative advantage in the electronics sector resulting in some of Singapore's exporters relocating.

The services sector may also decelerate in the coming quarters, which will pose a threat to economy given its relatively large contributions to GDP and employment with services making up 68 percent of Singapore's GDP and about 70 percent of total employment.

Source: *Asian Development Bank*, 2013

### **Extract 7: Skills shortages persist as Singapore economy expands**

All-round Accountants, Legal Counsels, and Sales Administrators are just some of the many skills in demand as Singapore's expanding economy continues to create new jobs. Yet a paradox exists. At the same time as the number of long-term unemployed is increasing, so too are the number of vacancies, which suggests that the available labour does not always have the skills employers want.

*Adapted Singapore Business Review, March 2014*

### **Extract 8: A three-pronged approach to deepen incentives for restructuring**

Singapore's next phase of economic restructuring must be driven by transformations in small and medium enterprises (SMEs), readiness for jobs, and social norms, said Deputy Prime Minister Tharman Shanmugaratnam.

Firstly, the Productivity and Innovation Credit (PIC), which gives firms tax deductions or cash grants when firms invest to boost their capabilities through automation, worker training and research and development, will be extended and broadened. Originally implemented in 2010, it will be extended for another three years until 2018.

Secondly, it is the **Lifelong Learning Endowment Fund**, which subsidizes continuing education and training for Singaporeans.

The third front is to bring about a broad shift in societal values. The minister cited two examples where social norms need to change: To have seniors keep working and for consumers to accept self-service as a norm.

If successful, the productivity improvement will account for two-thirds of growth, up from just one-fifth previously. However, it is worrying if Singapore misses its productivity targets as the reduced reliance on foreign labour could cause a labour crunch resulting in slow growth.

*Source: The Straits Times, 25 March 2014*

### **Extract 9: Minimum wage for inclusive growth?**

NTUC Secretary-General, Mr Lim Swee Say, expressed no intention of adopting minimum wage as part of the solution to inclusive growth. He mentions that minimum wage will lead to rising business cost and with the keen global competition, Singapore cannot afford to implement minimum wage. Instead, the introduction of Workfare Income Supplement would circumvent these problems and allow displaced workers to 'buy time to move upward'.

*Source: National Trade Union Congress, 12 January 2011*

### Questions

- (a) Using Table 1, compare the **real** GDP growth in Singapore and China between 2007 and 2012. [2]
- (b) (i) Explain how “government-influenced” spending (Extract 5) can impact the Chinese economy. [4]
- (ii) With reference to Table 1, explain how far the data might show that China has made progress in rebalancing the economy away from exports. [4]
- (c) (i) Define a minimum wage. [2]
- (ii) Explain how a minimum wage is part of the solution to inclusive growth. (Extract 9). [4]
- (d) Explain the types of unemployment that the Singapore economy is likely to face. [6]
- (e) Extract 6 mentions the various challenges faced by the Singapore economy. Discuss the likely effectiveness of the policy of economic restructuring outlined in Extract 8 to address these challenges. [8]

**[Total: 30]**

**Section B**

Answer **one** question from this section.

- 3 (a) Explain, using examples, how public goods and merit goods can lead to inefficiency in resource allocation. [10]
- (b) Discuss the view that the best way for governments to respond to the existence of merit goods is to regulate their production directly. [15]
- 4 The British economy's relentless progress, the growing confidence of British companies and skilled workers demanding higher pay imply the day the Bank of England will raise interest rates to stabilize prices is drawing near.
- (a) Explain the domestic and external factors that cause inflation. [10]
- (b) Discuss the view that the use of exchange rate policy is preferred over interest rate policy to ensure price stability. [15]

**- End of Paper -**



MERIDIAN JUNIOR COLLEGE  
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8819/01

**COVER SHEET**

**H1 ECONOMICS**

**Section A: Case Study Question 1**

Name: \_\_\_\_\_

Civics Group: \_\_\_\_\_

Register Number: \_\_\_\_\_

Tutor: \_\_\_\_\_

**15 Sep 2014**

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Write your name, civics group, register number and tutor's name in the spaces at the top of this cover page and on all the work you hand in.

At the end of the examination, fasten this cover sheet to your answer scripts for Case Study Question 1 with the string provided before submission.

QUESTIONS ATTEMPTED		MARKS
(a)		
(b)		
(c)		
(d)	(i)	
	(ii)	
(e)		
(f)		
<b>TOTAL</b>		<b>/30</b>



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**COVER SHEET**

**H1 ECONOMICS**

**Section A: Case Study Question 2**

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QUESTIONS ATTEMPTED		MARKS
(a)		
(b)	(i)	
	(ii)	
(c)	(i)	
	(ii)	
(d)		
(e)		
<b>TOTAL</b>		<b>/30</b>



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**COVER SHEET**

**H1 ECONOMICS**

**Section B: Essay Question**

Name: \_\_\_\_\_

Civics Group: \_\_\_\_\_

Register Number: \_\_\_\_\_

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**15 Sep 2014**

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At the end of the examination, fasten this cover sheet to your answer scripts with the string provided before submission.

**Circle the question number you have attempted.**

QUESTION ATTEMPTED		MARKS
Question 3	(a)	
	(b)	
Question 4	(a)	
	(b)	
Total		<b>/25</b>

Question 1

Present and Future Energy Sources in the Globalised World

Extract 1: Global energy demand seen up 44 percent by 2030

Most economists agree that globalization provides a net benefit to individual economies around the world, driving world economic growth, increasing competition, limiting military conflicts, and spreading wealth more equally around the world. However, according to Joseph Stiglitz, a former chief economist of World Bank, 'Globalisation today is not working for many world's poor. It is not working for much of the environment. It is not working for the stability of the global economy.' The general public tends to assume that the costs associated with globalization outweigh the benefits; one of its most imminent problems is the soaring energy demand, exhaustion in raw materials and its related pollution concerns.

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Adapted Tom Doggett and Ayesha Rascoe, *Reuters*, 27 May 2009

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Conventional generation of energy through the burning of fossil fuel has created many issues especially in these third world economies. Globalisation has fuelled the accelerating demand of energy, coupled with instability in the Middle Eastern countries, led to volatility in energy prices. Fortunately, renewable energies such as wind, solar or biomass come in small units – solar cells or wind turbines – making construction and maintenance fairly straightforward. Over time, the costs for solar, wind and efficient biomass have reduced significantly, now levelling at the same price, and in some cases cheaper, than fossil fuels.

Some countries have already made significant progress in distributing renewable energy technologies. In Bangladesh, over 80,000 solar home systems are being installed every month and there are already a total of over three million in use in rural, off-grid areas, benefiting over 20 million people. This has had a positive economic and social impact in the country. Since 1996, the renewable energy sector in Bangladesh has created jobs for over 150,000 people.

But elsewhere, despite renewable energy being a great opportunity to accelerate the economic development in the global south, progress has been slow. Creating a reliable environment for investments in renewable energy is one of the biggest challenges for the industry.

Source: Stefan and Dopal, *Guardian*, 5 Jun 2014

#### Extract 3: American solar industry in crisis

Despite the substantial investments in solar energy, the industry is in turmoil. A number of large American manufacturers such as Solyndra, Evergreen Solar, SpectraWatt, Solar Millennium and Solon fell victim to price pressure from Chinese rivals that helped to halve the cost of photovoltaic modules in 2011.

Not unexpectedly, the industry's poor fundamentals are provoking trade battles. In May, the U.S. Commerce Department found several Chinese solar-panel companies guilty of dumping and imposed 31 percent tariffs on their products. The action came as a result of a complaint filed by the American subsidiary of Germany's SolarWorld AG and a half-dozen other solar-energy companies that said that the Chinese manufacturers are selling solar panels at below-market prices. SolarWorld has now asked the European Union to investigate claims that Chinese rivals have been selling their products at below market value in Europe as well.

Source: Jack Perkowski, *Forbes*, 27 Dec 2012

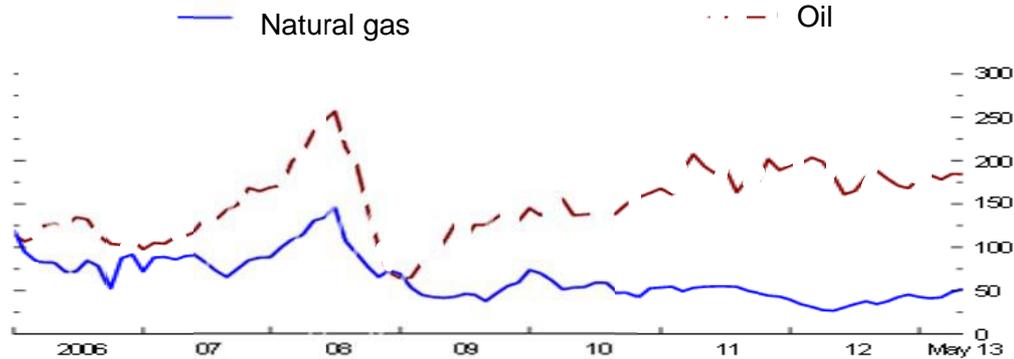
#### Extract 4: Natural gas price in Europe lowest since 2010

The price of natural gas in Europe has dropped to its lowest level since 2010 as warm weather and high storage levels curb demand for the fuel. Fears of supply disruptions after Russia moved to take control of Crimea saw the price leap to 61.7 pounds a therm last month. Russia supplies about 30 per cent of Europe's natural gas, with almost half of it piped through Ukraine.

However, the price has been in retreat ever since. One factor weighing on prices has been Europe's mild winter. A key use of natural gas is as a heating source. "We have got to the end of the [winter] withdrawal season and stocks are still really high," said Trevor Sikorski, head of natural gas, coal and carbon at Energy Aspects, a consultant. "There's an awful lot of gas in storage."

Source: Neil Hume, *Financial Times*, 3 April 2014

Figure 1: Natural Gas and Oil Prices in United States (2005 =100) \*



Source: *WorldBank*, accessed June 2014

### Questions

- (a) Using Figure 1, summarise the variations in the natural gas and oil prices in US. [2]
- (b) Explain how 'firms investing heavily in more efficient energy like renewable energy' (Extract 1) affects the demand for oil. [2]
- (c) With reference to Extract 4, how far do demand factors explain the change in natural gas prices in UK? [4]
- (d) (i) With the help of examples, explain how negative externality in production arises in the conventional energy market. [3]
- (ii) Comment on how investment in renewable energy market affects market failure in the conventional energy market. [5]
- (e) Extract 3 indicates that 'U.S. Commerce Department found several Chinese solar-panel companies guilty of dumping and imposed 31 percent tariffs on their products.'
- Evaluate the case for the imposition of tariffs by the US government. [6]
- (f) Discuss the view that the costs associated with globalisation outweigh the benefits. [8]

[Total: 30]

Answers

(a) Using Figure 1, summarise the variations in the natural gas and oil prices in US. [2]  
From 2006 to May 2013, natural gas prices increased by 75% whereas oil prices fell by 50%. [1] Both natural gas and oil

(b) Explain how 'firms investing heavily in more efficient energy like renewable energy' (Extract 1) affects the demand of oil. [2]

With investment in renewable energy, supply of renewable energy increases, resulting in a surplus causing prices of renewable energy to fall and the quantity of renewable energy to rise.

The fall in price of renewable energy causes a decrease the demand for oil as people turn to renewable energy since the two goods are substitutes and are alternative sources of energy. [1]

(c) With reference to Extract 4, how far do demand factors explain the change in natural gas prices in UK. [4]

Explain the impact of Demand.

According to Extract 4, price of natural gas has fallen to its lowest. The mild weather in Europe has reduced the need to use natural gas as a heating source. Hence, demand for natural gas has fallen

Explain impact of Supply

The large stocks of natural gas made supply relatively price elastic because it is relatively easy for producers to run down its inventories to increase the quantity supplied of natural gas in response to any increase in prices. This will cause a smaller fall in price of natural gas for a given increase in demand

Conclusion : Addressing the direction word 'how far'

Given that the extract mentioned that Natural Gas has fallen to its lowest, this suggests that the fall in price is significant. [1]

OR any comments in regards to demand or supply not being the only factors that affect the prices OR any comments that suggest one factor affect more than the other.

(d) (i) With the help of example, explain how negative externality in production arises in the conventional energy market. [4]

Explain the private cost in production

Cost of fossil fuels, energy generators and wages to employ labour.

Explaining the negative externality in production in context.

The burning of fossil fuels to provide energy for production of goods and services has created negative externalities in production. It resulted in pollution due to the emission of carbon dioxide which causes health problems & hence medical expenses to third parties such as residents staying near energy generators, which they are not compensated by the producers or consumers.

The existence of negative externalities in production causes divergence between the costs curve, where  $MSC > MPC$ .

- (d) (ii) Comment on how investment in renewable energy market addresses market failure in the conventional energy market. [4]

Explain Market Failure

The market equilibrium output,  $Q_e$  determined when  $MPC=MPB$  where producer surplus and consumer surplus are maximised. The socially optimal level of output,  $Q_{se}$  is determined when  $MSC=MSB$  where societal welfare is maximised.

These bring about an overproduction and overconsumption by  $Q_{se}Q_m$ . The total social cost of producing  $Q_{se}Q_m$ ,  $Q_{se}BAQ_e$  outweighs the total social benefit,  $Q_{se}BCQ_e$  resulting to the deadweight loss of ABC. Hence, there is a need to lower the quantity of energy produced through conventional resources

Explain how investment can resolve the market failure [1m]

With investment in renewable energy, demand for conventional energy falls since they are they are substitutes as explained in b). The new market equilibrium output will coincide with the socially optimal level of output.

Address the direction word 'comment'

Comment on impact of the policy.

E.g. The amount of investment (affecting the extent of the fall in demand)

The larger the investment poured into renewable energy in the form of research and development, the larger the increase in supply of energy from renewable, the lower the price of renewable energy. The lower the price in renewable energy, the larger would the fall be in the demand of conventional energy. As supported by Extract 3, some countries have made significant progress in distributing renewable energy, hence the smaller the market failure it results.

Level	Level Marking Scheme	Marks
L2	Candidate demonstrates their ability to analyze and evaluate the effects of investment in renewable energy market on market failure in the conventional energy market in context of case materials.	3-4
L1	Candidates analyze the effects of investment in renewable energy market on market failure in the conventional energy market with the use of economic tools. However, no evaluative comments are demonstrated.	1-2

- (e) Extract 3 indicates that 'U.S. Commerce Department found several Chinese solar-panel companies guilty of dumping and imposed 31 percent tariffs on their products.' [6]

Evaluate the case for the imposition of tariffs by the US government.

Thesis: Case for tariffs

Counter Predatory Dumping

Problem due to Predatory Dumping: Structural Unemployment

Dumping is the practice of selling goods in an overseas market below its marginal costs or below the price charged in home country. If China practices predatory dumping and charges price,  $P_1$ , there will be significant fall in production of solar panels by domestic producers in US which enable China to gain monopoly power in US as shown in Figure 4. The US solar panel industry will not be able to sell its product and shut down. This creates structural unemployment as these labour might not have the necessary skills to find a job in other industries.

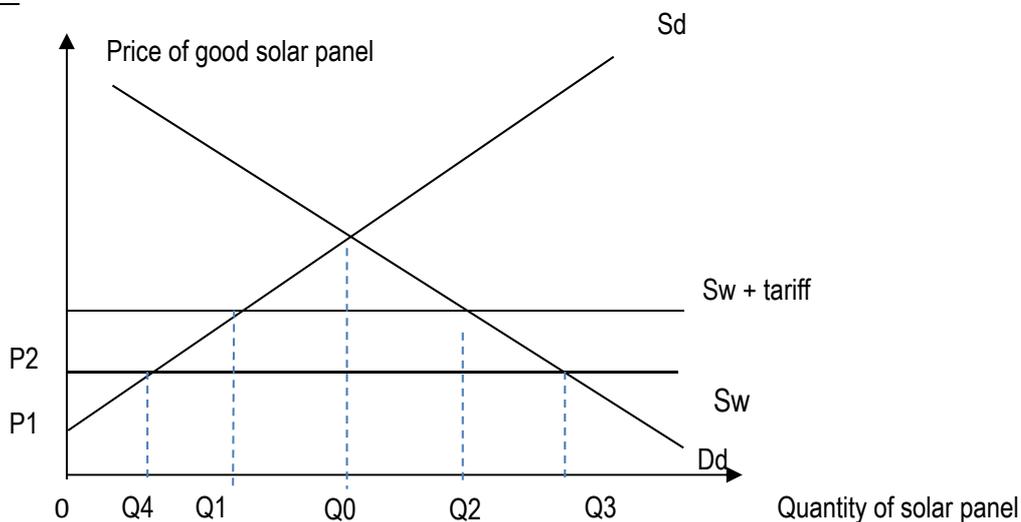
This is supported by Extract 3 where large number of American manufacturers falling victim to price pressures from Chinese rivals.

Moreover, there is a possibility that the Chinese solar panel companies will charge high prices once they established monopoly power, reducing consumer welfare.

**Explain how tariff works**

With tariffs, the unit cost of exporting solar panels increases, this causes a fall in profits of exporters and hence world supply falls from  $SW$  to  $SW + \text{tariff}$ . Quantity of imports falls from  $Q_4Q_3$  to  $Q_1Q_2$ . This cushioned the fall in domestic production from  $Q_0Q_4$  to  $Q_0Q_1$  of solar panels in US, this would mean that the fall in demand of labour in the solar industry would be less, leading to a managed increased in structural unemployment in US and prevent Chinese solar panel companies from charging high prices.

Figure 4



Anti Thesis:Case against Tariffs [2m]

Invite retaliation:

However, the imposition of tariffs may be 'provoking trade battles' as stated in Extract 3. It will invite retaliation from China which will impose tariffs on US's exports, hence reducing the export revenue of US's export oriented industries and hence reducing actual growth in US.

Dumping is difficult to ascertain:

Moreover, China may not be selling solar panels at below market price. China's factor endowment may allow her to possess comparative advantage in producing solar panels and hence producing solar panels at lower prices. The imposition of tariffs will cause prices of solar panel to be higher which reduces consumer surplus. Local consumers are made to pay higher price to protect the local manufacturers who may in the long run become inefficient and complacent.

Conclusion

The imposition of tariffs is justified if it is a case of dumping. However, it is difficult to determine firms' cost of production and hence ascertain if firms are dumping. If foreign firms are able to sustain their lower prices for a long period of time, government should not be protecting its industry so that consumers will enjoy higher consumer surplus and it prevents export-oriented firms from suffering from fall in export revenue due to retaliation. However a temporary protectionist measure is still acceptable if the US government is buying time to retrain workers in these industries which lack comparative advantage so that they can cross over to aid in the production of goods and services which US has a comparative advantage in.

Level	Knowledge, Application, Understanding & Analysis	Marks
L3	For an answer that analyses pros & cons of tariff in the context of the US solar panel industry	6-8
L2	For an answer that analyses pros <u>OR</u> cons of tariff in the context of the US solar panel industry <u>OR</u> For an answer that describes pros & cons of tariffs in the context of the US solar panel industry	3-5
L1	For a description of tariff	1-2

(f) Discuss the view that the costs associated with globalisation outweigh the benefits. [8]

Costs that globalisation bring about.

1. Environmental Concerns affecting SOL and inefficiency issues

As mentioned in Extract 1, one problem of globalisation is the soaring energy demand, exhaustion in raw materials and its related pollution concerns. The increased trade due to globalisation has enabled the developing countries to grow as they produce not only for themselves but also for the world. Hence, non-renewable resources such as primary fuels are heavily used, causing greater carbon emissions and the contribution towards global warming. This lowers SOL as non-material well-being is compromised due to greater pollution, poorer air quality and deterioration of health and hence lower quality of life. EV: In LDCs have the lower production costs as they have little pollution taxes or regulations.

2. Structural Unemployment leading to income disparity

Extract 1 'increased competition from and linkages with foreign firms.' causes more structural unemployment.

Explain how globalisation results in refocusing of an economy towards the production of goods which the country has a relative cost advantage leads to both structural unemployment and income disparity.

EV: With more rapid decline of the traditional industries and more rapid expansion of new product industries, the extent of fall in demand for unskilled labour will be greater causing larger structural unemployment as well as income inequality.

Benefits associated with globalisation.

### Economic Growth

From Extract 1, globalisation opens borders to trade and foreign investment causing economic growth which brings about net benefits to individual economies around the world.

Explain the impact on Actual & Potential economic growth

Globalisation → enlarge the markets for the exports of the world economy causing an increase in net export (X-M) → increase in output.

'globalization brings opportunities and pressures for domestic firms in emerging market economies to innovate and improve their competitive position'.

'when expertise, knowledge and advanced equipment could be easily acquired across borders in a globalized market.'

The transfer of skills and technology improves the productivity of labour → lower unit COP → increase supply of these goods and services → increase AS → potential growth.

Both actual and potential growth **serve** to increase in real output and hence material well-being of residents increases, improving standard of living.

**EV: AD needs to be high enough for economy to actualise potential growth.**

Conclusion:

Judge if the costs outweigh the benefits.

Level	Knowledge, Application, Understanding & Analysis	Marks
L3	Analysis & evaluation of both cost and benefit arguments of globalisation	6-8
L2	Description of both cost and benefit arguments of globalisation Analysis of either cost <b>OR</b> benefit arguments of globalisation	3-5
L1	Mere identification of some cost and benefits of globalisation	1-2

**Suggested answer for 2014 H1 Prelim Case Study Q2**

**(a) Using Table 1, compare the GDP growth in Singapore and China between 2007 and 2012. [2]**

Both GDP growth for China and Singapore was positive with the exception of 2009 where it turned negative for Singapore. OR

The GDP growth for China is persistently higher than Singapore's with the exception of 2010.

**(b) (i) Explain how 'government-influenced' spending (Extract 5) can impact the Chinese economy. [4]**

Clarify term 'govt-influenced' spending

e.g Increase in C due to reduction in PIT

Explain impact:

Increase in  $C_d$  → increase in AD → increase in output and GPL. Illustrate with AD/AS diagram

Production of a larger quantity of goods and services and requires more workers → increase in employment.

[Cite evidence]

Extract 5 mentions that "government-influenced" spending is required to increase domestic consumption ( $C_d$ ) so as to reduce the dependence on external demand to drive economic growth. Hence government induced spending can negate part of the fall in AD due to a fall in external demand (export) and helps to slow down the fall in economic growth.

**(ii) With reference to Table 1, explain how far the data might show that China has made progress in rebalancing the economy away from exports. [4]**

'Rebalancing the economy' refers to attempts by the Chinese government to increase domestic consumption ( $C_d$ ) so as to reduce the dependence on external demand to drive economic growth.

From Table 1, overall China's export-to-GDP ratio has fallen with the exception of 2010 where it increased. With the exception of the huge dip in China's GDP growth between 2007 – 2008 which is likely due to the global financial crisis and in 2012, GDP growth has remained relatively stable across the years. This implies that China's growth could be driven by domestic demand instead of exports.

However, there is insufficient data from the case material as to whether there is indeed an increase in domestic consumption as there could have been increases foreign investment.

**(c) (i) Define a minimum wage. [2]**

A minimum wage is the lowest legally permissible wage. For it to be effective, it must be set above the equilibrium wage rate.

**(ii) Explain how a minimum wage is part of the solution to inclusive growth (Extract 9). [4]**

Economic growth is measured by the increase in **real** GDP.

Meaning of inclusive growth:

Inclusive growth refers to growth that benefits the majority of the labour force and where an increase in income is experienced by all.

Explain how growth can result in widening income gap

Link MW to inclusive growth [2m]

In order to ensure inclusive growth for all, the government may impose a minimum wage that is above the equilibrium wage for the low-skilled workers. This will ensure that all workers will experience an increase in income, hence being part of the solution to inclusive growth.

**(d) Explain the types of unemployment that the Singapore economy is likely to face. [6]**

The Singapore economy is likely to face both demand-deficient unemployment and structural unemployment.

The unemployed refers to people in the working age population who are available for work and are actively looking for a job but cannot find a job.

Demand-deficient unemployment is due to a fall in the demand for labour caused by an economic recession, and wages being sticky downward. As mentioned in extract 6, with the US Federal Reserve tapering its quantitative easing measures, US economic recovery could possibly falter. With an increase in interest rates, consumption in US will fall and therefore Singapore's exports to US will fall as evident in the 2.9% fall from a year ago. Also, Singapore's exports to the EU has also fallen 3.9%. This will mean that net exports for Singapore would have fallen. Ceteris paribus, this will lead to a fall in AD. Given that labour is a derived demand, this will lead to a fall in demand for labour. Since wage, is sticky downwards, a surplus of labour ensues leading to Singapore facing demand-deficient unemployment.

Evaluation: However, this effect is partially negated by rises in Singapore's exports to other parts of the world. Extract 6 mentions shipments to China having rose 5.3%. This could possibly dampen the effects of the fall in AD and therefore demand-deficient unemployment.

At the same time, extract 6 suggests that Singapore suffers from structural unemployment. Structural unemployment is caused by the changing pattern of demand and supply in the economy. This occurs when there is a long term decline in demand for labour in particular industries, workers lose their jobs and are unable to get new jobs due to mismatch between their skills and the requirements of the new job opportunities.

Extract 7 mentions that Singapore's long-term unemployment is increasing with available labour not having the skills that employers want. This will mean that the increase in demand for skilled labour such as accountants, legal counsels and sales administrators is not met. So while job vacancies are available as mentioned in extract 7, electronics workers who lose their jobs are unable to fill existing jobs due to the lack of relevant skills. Hence labour is prevented from transiting between industries and Singapore faces structural unemployment.

Knowledge, Application, Understanding and Analysis		
L2	For an answer that explains both structural and demand-deficient unemployment with close reference to the case material and contains developed analysis.	4-6 m
L1	For an answer with only one form of unemployment making some reference to case material but inadequate economic analysis.	1-3 m

**(e) Extract 6 mentions the various challenges faced by the Singapore economy. Discuss the likely effectiveness of the policy of economic restructuring outlined in Extract 8 to address these challenges. [8]**

Introduction : Clarify the challenges

Loss in competitiveness → slower economic growth, unemployment and greater income inequality.

Extract 8 suggests a three-pronged approach to economic restructuring in Singapore namely PIC, Lifelong Learning Endowment Fund and broad shifts in societal values.

Development : PIC → Incentive for investment → increase in quality and quantity of resources.

Training:

- Increases skills → increase mobility → reduces structural unemployment.
- Increase skills → Increase labour productivity → Increase output per worker → demand for workers → increases wages
- Increase skills → Increase labour productivity → Increase output per worker → Increase quality of labour → raise AS.

Broad shift in societal values:

Through a broad shift in societal values such as to have seniors keep working and to accept self-service as the norm, will dampen the effects of a shrinking labour force by an increase in labour force and through diverting labour to other expanding industries from the former low-value service industry.

These measures can help Singapore regain comparative advantage in certain industries → increase in productivity and therefore fall in opportunity cost of production. These measures will enable the AS to increase. Given that the Singapore economy is near full employment, the increase in AS will lead to actualised growth causing real output to increase. As mentioned in extract 8, if successful, this policy will be effective in accounting for two-thirds of growth compared to one-fifth previously.

Evaluation:

However, the policy of economic restructuring does not solve the cyclical issues that the Singapore economy faces. The Singapore economy also faces falling AD due to the weaknesses in the recovery of the western economies. Singapore may wish to adopt demand management polices to address these issues.

Conclusion:

In conclusion, while economic restructuring takes a long time to take effect and is dependent on the receptivity of the workers undergoing training and on the firms' willingness to invest, the policy is the most appropriate as it targets aggregate supply.

Knowledge, Application, Understanding and Analysis		
L3	For an answer that provides a thorough discussion of the policies with close reference to the case material and contains rigourous analysis.	6-8 m
L2	For an answer that attempts to discuss the policies available and make some/close reference to case material but inadequate economic analysis.	3-5 m
L1	For an answer that is one-sided or lacking in economic analysis.	1-2 m

2014 JC2 Prelim Exams  
Suggested H1 Essay

**Essay Q3: Market Failure**

- (a) Explain, using examples, how public goods and merit goods can lead to inefficiency in resource allocation. [10]
  - (b) Discuss the view that the best way for governments to respond to the existence of merit goods is to regulate their production directly. [15]
- 

**Suggested answers:**

- (a) Explain, using examples, how public goods and merit goods can lead to inefficiency in resource allocation. [10]**

**Introduction**

Public goods and merit goods lead to inefficiency in resource allocation, thereby leading to market failure. Allocative inefficiency occurs when the right amount of the right good is not being produced.

**Development 1: Explain how the market fails in the case of public goods**

Public goods are goods that exhibit characteristics of non-excludability and non-rivalry in consumption, e.g. traffic lights.

Explain how these two features cause underproduction and underconsumption of the goods in the market.

Non-rivalry means the marginal cost of admitting one more user of the good is zero. Since the marginal cost of admitting one more user is zero for a public good and the socially optimal number of users occurs when  $MSB=MSC$ , the socially ideal price to charge each user will be zero. **It will be inefficient to charge a price.**

The free market will not allocate resources for the provision of public goods which are essential for the economic welfare of the society as no profit maximising firms will be willing to supply these goods at zero price. **It will lead to market failure due to a missing market.** Thus, the government has to **intervene to undertake the provision of public goods.**

**Development 2: Explain how the market fails in the case of merit goods**

Merit goods, **such as healthcare and education** are goods that the government believes consumers will buy too few units if provided by the market because of information failure and positive externalities in consumption. In the case of healthcare market, consumers of healthcare underestimate the true private benefits of healthcare services & ignore the positive external → underestimate the demand for the good → underproduction and underconsumption of good

**Conclusion:**

Government intervention in the above two scenarios is required to improve efficiency in resource allocation.

2014 JC2 Prelim Exams  
Suggested H1 Essay

**Mark scheme:**

Level	Knowledge, Comprehension, Application and Analysis	Marks
L3	There is an accurate & developed explanation on the key features that determine the nature of public goods & merit goods on impact on resource allocation. Good use of diagram as an analytical tool.	7-10
L2	Some attempt to respond to the question by making comments on the key features that determine the nature of public goods & merit goods on impact on resource allocation	5-6
L1	The answer is mostly irrelevant and contains only a few valid points made incidentally in an irrelevant context. OR The answer contains a list of relevant points given with key theory/economic ideas identified without explanation. <i>E.g. meaning of public goods, merit goods and market failure</i>	1-4

**(b) Discuss the view that the best way for governments to respond to the existence of merit goods is to regulate their production directly. [15]**

**Development 1: Direct regulation of production of merit goods such as healthcare can be effective in correcting the market failure.**

**[What it is]** Direct regulation is a command and control measure in the form of standards, rules and regulations for compliance.

**[How it works]**

Direct regulation lowers the MPC causing the MPC to shift rightwards resulting in a new market outcome closer to the social optimum outcome. Hence, the under-production and under-consumption is reduced leading to a smaller deadweight loss.

**[How well it works] EV:** The use of laws is a powerful tool because it is mandatory and is useful when the extent of the market failure is big.

**Development 2: The government can consider alternative solutions; e.g. market-based solution such as subsidies, and provision of information to correct the market failure in the market for healthcare.**

**Subsidies**

Subsidies are transfers from the government to the firms (healthcare providers) producing the healthcare service.

The government gives a per unit subsidy → lowers the firm's unit cost of production. Hence, at each possible price, more units will be supplied. Supply rises and the supply curve shifts right. This results in a rise in equilibrium quantity to the socially optimal level, eliminating the welfare loss due to market failure.

EV: **Compared to regulations**, subsidies are easy to implement but accuracy of the measurement of the level of positive externalities is difficult to achieve.

**Provision of information**

2014 JC2 Prelim Exams  
Suggested H1 Essay

The direct provision of information by the government may help to encourage the consumption of merit goods. This can be done through educational campaigns, for example. Once individuals are fully aware of the full private benefits, they would demand more of the good. The demand curve would shift to the right and thus, as the private optimum output increases closer to the social optimum output, the underproduction and underconsumption of healthcare is reduced, thereby reducing the deadweight loss and hence market failure.

**Synthesis and Conclusion:**

Make evaluative assessment based on economic analysis of alternative means that might be adopted to address market failure due to merit goods

Level	Knowledge, Application, Understanding & Analysis	Marks
L3	Analysis of how regulation of production and alternative policies address market failure caused by merit goods	9-11
L2	Analysis of how regulation of production addresses market failure caused by merit goods OR Description of how regulation of production and alternative policies address market failure caused by merit goods	6-8
L1	Description of how regulation of production addresses market failure caused by merit goods	1-5
	<b>Up to 4 additional marks for evaluation</b>	
E2	For an evaluative assessment based on economic analysis of alternative means that might be adopted to address market failure due to merit goods	3-4
E1	For an unexplained assessment or one that is not supported by analysis	1-2

2014 MJC Prelim Exam  
H1 Essay Q&A

**Essay Q4: Inflation – Problem and Policies**

The British economy’s relentless progress, the growing confidence of British companies and skilled workers demanding higher pay imply the day the Bank of England will raise interest rates to stabilize prices is drawing near.

[Source: The Telegraph, 9<sup>th</sup> August 2014]

- (a) Explain the domestic and external factors that cause inflation. [10]
- (b) Discuss the view that the use of exchange rate policy is preferred over interest rate policy to ensure price stability. [15]

**Suggested answers:**

**(a) Explain the domestic and external factors that cause inflation. [10]**

**Introduction:**

- Define inflation: period of sustained and inordinate increase in the general price level.
- 2 main types of inflation: demand-pull and cost-push inflation.

**Development 1: DD-pull inflation: Explaining domestic and external factors**

Explain one external Factor

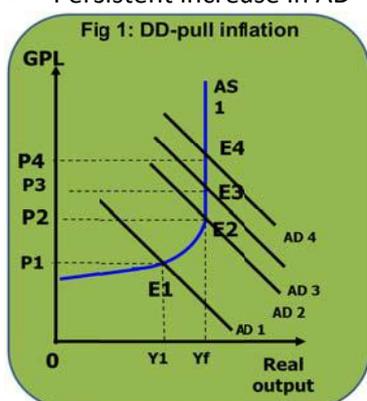
- E.g. Autonomous increase in Exports due to Global recovery → Global recovery will lead to an increase in national incomes of foreign countries and hence an increase in their purchasing power. This would lead to an increase in their DD for imports. . Thus, there will be an increase in the export revenue for UK.  
→ increase in AD

Explain one Domestic Factor

- E.g. Autonomous increase in Consumption:  
UK economy facing positive growth rates creates a positive economic outlook, which in turn boosts consumer confidence. This would lead to an increase in consumption spending given expectation of rising incomes.  
→ Increase in AD

Explain link to demand pull inflation

- Persistent increase in AD → excess demand in the economy at every price level → sustained increase in GPL → Demand pull inflation.



2014 MJC Prelim Exam  
H1 Essay Q&A

**EV: E.g. Extent** of rise in GPL affected by the extent of rise in AD and the state of economy

**Development 2: cost-push inflation: Explaining domestic and external factors**

External causes

- E.g. Increase in imported inflation:  
Higher prices of imported raw materials such as agricultural supplies, oil, metals, etc. from foreign countries (e.g. due to higher inflation rates in the foreign country) would lead to an increase in unit COP in the domestic economy.  
→ upward and leftward shift in AS curve

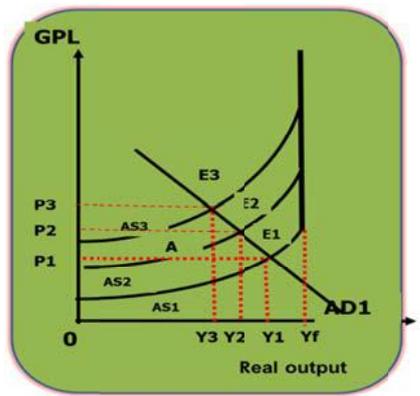
Domestic causes

- E.g. Increase in wages due to tight labour market:  
Tight labour market → workers demand higher pay (as stated in the signpost) → If this increase in wages outweighs the increase in productivity, this would lead to an increase in unit COP of domestic firms.  
→ upward and leftward shift in AS curve

Explain link to cost push inflation:

Short-run AS curve to shift to the left from AS1 to AS2 (i.e. AS falls), GPL rises & real output falls. Persistent rises in wages which causes further ↑ in unit COP and further leftward shift in AS from AS2 to AS3. GPL further ↑ from P2 to P3 etc. The rises in GPL are sustained and cost-push inflation ensues.

Fig 2



**Conclusion:**

Give a reasoned judgement on whether domestic or international factors are more important causes of cost push and demand pull inflation.

2014 MJC Prelim Exam  
H1 Essay Q&A

Mark scheme:

Level	Knowledge, Application, Understanding and Analysis	Marks
L3	For an answer that uses appropriate analysis to discuss whether domestic or international factors are more important causes of cost push and demand pull inflation in the context of UK with reference to the links between the factors mentioned and inflation.	7-10
L2	For an answer that gives a descriptive explanation whether domestic or international factors are more important causes of cost push and demand pull inflation.  or one that only refers to domestic or one that only refers to international factors. For an answer that describes how internal and external factors cause cost push and demand pull inflation.  OR For an answer that analyses ONLY how internal <b>OR</b> external factors cause cost push <u>and</u> demand pull inflation  OR A theoretical answer with NO reference to the stem.	4-6
L1	For an answer that shows knowledge of the domestic and international factors that might affect price stability – this could be in the form of a largely unexplained list .	1-3

**(b) Discuss the view that the use of exchange rate policy is preferred over interest rate policy to ensure price stability. [15]**

**Introduction:**

- **Meaning of price stability :**
- **Benefits of price stability and hence need for govt policies:**

**Thesis: Exchange rate policy is preferred over interest rate policy to ensure price stability**

**(i) Exchange rate policy may be preferred over interest rate policy to ensure price stability if the economy is suffering from imported inflation.**

Revaluation of the currency (e.g. SGD) curbs cost push inflation in the form of imported inflation. Stronger exchange rate leads to lower import prices in SGD and curbs cost push inflation in a number of ways. E.g. It lowers the price that SG residents have to pay for imported final goods and services, which lowers imported inflation directly. In addition, a stronger SGD leads to a fall in the price of imported raw materials, which puts downward pressure on the price level by lowering the costs of production.

**(ii) Exchange rate policy can help to reduce demand pull inflation for an economy that relies heavily on external demand.**

2014 MJC Prelim Exam  
H1 Essay Q&A

Explain how a revaluation of SGD helps to curb demand pull inflation when the Marshall-Lerner condition holds.

**Evaluation:** The Marshall Lerner Condition may not hold in the short term, i.e.  $PEd_x + PEd_m < 1$ , thus revaluation may not reduce demand pull inflation.

**Anti-thesis: Interest rate policy is preferred over exchange rate policy to ensure price stability**

**(i) Interest rate policy can help to reduce demand pull inflation for an economy that relies heavily on domestic demand.**

Higher interest rates lower consumption and investment spending, thereby lowering AD and reducing demand pull inflation.

**Evaluation:** Interest inelasticity of demand for investment limits the effectiveness of interest rate policy.

**Synthesis and Conclusion:**

Make a reasoned judgement on whether the use of exchange rate policy or interest rate policy is the preferred measure to maintain price stability.

**Mark scheme:**

L3	For an answer using <u>appropriate analysis</u> to discuss whether the use of <u>exchange rate policy</u> or <u>interest rate policy</u> is the preferred measure to maintain price stability.	9-11
L2	For an answer that gives a <u>descriptive explanation</u> to discuss whether exchange rate policy or interest rate policy is the preferred measure to maintain price stability. OR For an answer using <u>analysis</u> to explain how exchange rate policy <b>OR</b> interest rate policy is used to maintain price stability. OR A theoretical answer that gives an explanation of different policies to ensure price stability with NO reference to the stem.	6 - 8
L1	For an answer that shows some basic but largely unexplained knowledge of how exchange rate policy and/or interest rate policy is used to ensure price stability with NO reference to the stem. OR For an answer that gives a <u>descriptive explanation</u> of the use of one policy e.g. exchange rate policy OR interest rate policy to ensure price stability with NO reference to the stem.	1- 5
<b><u>Evaluation</u></b>		
E2	For a reasoned judgement supported by relevant economic analysis that either exchange rate policy or interest rate policy is better.	3-4
E1	For an unexplained judgement e.g. a largely unexplained statement that either exchange rate policy or interest rate policy is better.	1-2



MERIDIAN JUNIOR COLLEGE  
JC2 PRELIMINARY EXAMINATION 2014

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## H2 Economics

**9732/01**

Paper 1 Case Study Questions

**15 Sep 2014**

**2 Hours 15 Minutes**

Additional Materials: Writing Paper

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### **READ THESE INSTRUCTIONS FIRST**

**Do not open this booklet until you are told to do so.**

Write your name, class and register number in the spaces at the top of the answer sheets.

Write in dark blue or black pen.

You may use a soft pencil for any diagrams, graphs or rough working.

Do not use staples, paper clips, highlighters, glue or correction fluid.

You are reminded of the need for good English and clear presentation in your answers.

### **Section A : Case Study (2h 15 min)**

Answer **all** questions.

Begin each compulsory case study question on a fresh sheet of paper.

At the end of the examination, fasten all your work securely to the cover sheet with the string provided.

The number of marks is given in brackets [ ] at the end of each question or part of a question.

**[Turn Over]**

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This document consists of 7 printed pages and 2 cover sheets.

Answer all questions.

### Question 1 Issues in Early Childhood Education

#### Extract 1: Tackling Singapore's rising costs of early childhood education

Keen competition among operators for space has pushed up rental rates to as much as \$40,000 from \$20,000 five years ago. "We find it hard to expand because of the lack of suitable sites and trained teachers," said Ms Lurvin Lee, director of a preschool chain. Meanwhile, demand for early childhood education (ECE) services has almost doubled in the past eight years, as more working parents enrol their children in preschools.

The rising cost has led to concerns about quality childcare getting out of reach for the average Singaporean family. Currently, the two anchor operators - NTUC's My First Skool and the PAP Community Foundation - get government help, such as rental subsidies and priority in securing HDB premises for new centres. In exchange, they have to keep fees below the industry median.

Under a new scheme which allows private entities to be anchor operators, they will also be entitled to such goodies but will be required to keep fees below \$720 a month for full-day childcare and maintain quality in their curriculum. "By introducing more competition among the big players, the good-quality programmes are more accessible to the masses. This means greater diversity and more choices for parents," said Dr Khoo, who runs the Preschool for Multiple Intelligences.

But one key concern stands in the way of the Government's efforts to grow the ECE sector: a shortage of good teachers. The low pay and the lack of opportunities for career progression has long been a bugbear in attracting and retaining talent in the industry. "Training teachers, especially good ones, will take much longer than building centres," said Ms Lee.

Source: *The Straits Times*, 16 Oct 2013

**Table 1: Statistics on Childcare Services in Singapore**

	2009	2010	2011	2012
Total enrolment in childcare centres	67,980	77,792	85,790	92,779
Average full-day fees (in S\$)	739	776	809	850

Source: *Early Childhood Development Agency*, 1 December 2013

#### Extract 2: Many in favour of government taking over preschool sector

Mrs Denise Lai has been in the early childhood education business for over 15 years. She is one of the many child education experts who, in recent years, have called for the government to take charge of preschool education and offer it free to all children.

However some experts such as Ms Ho Yin Fong, academic director of the National Trades Union Congress-run Seed Institute, says the government could provide good

preschools for the majority of children. But it could also subsidize and support private operators who have a proven record of providing high-quality education.

There was also a strong call for the Ministry of Education (MOE) to raise the quality of teachers by recruiting and training preschool teachers the way it does for mainstream school teachers through the National Institute of Education (NIE).

But where would that leave current preschool teachers, many of whom are not degree holders? Serene Lim, 48, who switched to preschool teaching a few years ago, said: 'It would be difficult for me to switch careers at my age. I will be out of a job.'

Source: *The Straits Times*, 28 July 2012

### **Extract 3: Plans to increase UK's childcare ratios**

The UK government has plans to relax the staff to child ratios for certain age groups, despite concerns that this would affect the quality of childcare. The government has proposed allowing the ratio of staff to children aged two to three to be raised from one to four, to one to six, enabling providers to reduce their costs. Given that around 70% of costs relate to staff wages, providers should be jumping for joy at the prospect of increasing revenue.

But the government also said the changes are not compulsory and that the flexible ratios would only be more possible where there are highly qualified staff. A spokesman said: "We are reforming the childcare system so that providers have more flexibility when they have highly qualified staff. High quality providers will be able to expand and this will mean parents have more affordable childcare."

Source: *BBC News*, 3 March 2013

### **Extract 4: Benchmarking early education across the world**

Preschool education can ensure that all children get a strong start in life, especially those from low-income or disadvantaged households. "Through extensive research, we know that high quality programmes improve children's readiness for school and life in future. Early childhood contributes to creating the kinds of workforces needed in the twenty-first century which bolsters economic growth," explains Sharon Kagan, a professor of early childhood and family policy at Columbia University in the US.

In an Economist Intelligence Unit (EIU) research programme, preschool environments in 45 countries were ranked based on a weighted index that takes into account quality and inclusiveness of early childhood education\* (ECE). The Nordic countries - Finland, Sweden and Norway top this Starting Well Index, thanks to sustained, long-term investments and prioritisation of early childhood development. UK and Belgium rounded up the top five.

In Finland, preschool refers to a year of free half-day classes, which is complemented with day care for the other half of the day. This builds on a programme that gives parents access to full-day childcare from birth till the age of six, at minimal cost. To ensure quality, teachers have to attain high university qualifications: at least a

bachelor's degree in education, while many complete a master's degree. Wages are reasonably high and class ratios are an average of 11 pupils per teacher.

While wealth is a major factor in a country's ability to deliver preschool services, many high-income countries such as Singapore ranked poorly. Despite having a lower per capita GDP, Chile (ranked 20<sup>th</sup>) outperformed Singapore as a result of concerted government efforts to improve access which includes free preschool education by its public ECE providers. About 85% of four-year olds, and 90% of five-year olds, now attend a preschool.

Source: *The Economist Intelligence Unit*, June 2012

*\*Early childhood education terminology varies across regions. This may include kindergartens, playgroups, preschool and childcare.*

### Questions

- (a) Compare the change in total enrolment in childcare centres between 2009 and 2012 with the change in average full-day fees over the same period. [2]
- (b) What can you conclude from the evidence in Extract 3 about the price elasticity of demand for childcare in UK? [2]
- (c) (i) Explain the likely value of the price elasticity of supply for early childhood education in Singapore. [2]
- (ii) Explain the likely impact of the events in Extract 1 on the market for early childhood education in Singapore. [6]
- (d) Using economic analysis, evaluate the appropriateness of government offering preschool education free to address the market failure in Extract 4. [8]
- (e) Discuss the policy options available to the Singapore government to keep childcare prices down and improve the quality of its early childhood education. [10]

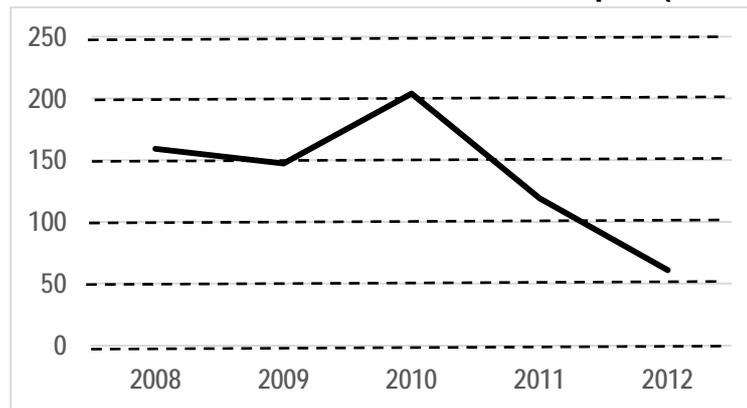
**[Total: 30]**

**Question 2 Japan's Impending Twin Deficits**

**Table 2: Selected economic indicators for Japan over the period 2008-2012**

Economic Indicator	2008	2009	2010	2011	2012
GDP growth rate (%)	-1.0	-5.5	4.7	-0.5	1.4
Central government debt (% of GDP)	153.1	166.8	174.8	189.5	196.5
Gross fixed capital formation (% of GDP)	22.4	20.8	20.0	20.1	21.1
Exports of goods and services (% of GDP)	17.7	12.7	15.2	15.1	14.7
Imports of goods and services (% of GDP)	17.5	12.3	14.0	16.0	16.7

**Figure 1: Balance on current account for Japan (US\$ billion)**



Source of Table 1 & Figure 1: *World Bank*

**Extract 5: After half a century of trade surpluses, Japan may be seeing red**

Japan's merchandise trade moved into the red in 2011—its first annual deficit since 1963. This was partly due to the earthquake and tsunami which disrupted production and exports. Imports were inflated by higher oil prices and larger imports of energy following the shutdown of nuclear-power plants.

But if many plants stay closed, future energy imports will remain high. The stronger yen and weak overseas demand will also keep squeezing exports. The stronger yen and high corporate taxes are also encouraging manufacturers to shift production abroad. JP Morgan forecasts that by 2014, 76% of Japanese car firms' production will be based overseas, up from 49% in 2003. If Japan's trade deficit widens, and net income stays constant, Japan's overall current account is likely to be in deficit by 2015.

Japan's household-saving rate has fallen from 14% of disposable income in the early 1990s to only 2% in the past couple of years. Firms are also unlikely to keep piling up cash as profits are being squeezed and they may invest more abroad.

Even more worrying are the implications for financing Japan's government debt. Japan's debt mountain reflects low taxation as much as unsustainable spending. The government has room to increase taxes, particularly on consumption. If it does not act, a current account deficit and an unsustainably high public debt are the ingredients of a potentially lethal cocktail.

Source: *The Economist*, 14 Jan 2012

### **Extract 6: Hope for Japan, despite trade slump**

Japan posted its worst September trade figures in more than 30 years, as the global slowdown and a dispute with China weighed on the world's third-largest economy.

Tokyo and Beijing have been embroiled in an increasingly bitter territorial dispute over an East China Sea archipelago. Demand dropped for Japan-branded products including industrial machinery and cars, while a broader economic slowdown in China factored into the weak figures. Japan's top three automakers said their sales in China plunged last month, with Toyota posting the biggest drop of 48.9%.

However, Daiju Aoki, an economist at UBS in Tokyo, said China trade was likely to turn around when the world's second-largest economy picks up, regardless of the diplomatic dispute.

The trade slump with China also came at a time of a broader downturn. Weakness in the United States and Europe, two key markets for Japanese products, has also weighed, with US-bound exports up just 0.9% in September, while shipments to debt-hit Europe dived 21.1%.

But Mr Nicholas Weindling, who runs the JP Morgan Japanese Investment Trust, says the Japanese economy is well positioned to take advantage of significant Asian and Pacific trading potential and benefits from Chinese and other emerging-market demand.

“While it is still a challenging market, long-term performance in Japan remains on an improving trend. It has been tough for investors in Japan, but there is a group of companies in Japan which are very strong. It is no longer about the household names such as Sony, Panasonic and Sharp but new, more dynamic, companies in niche sectors such as internet shopping, sheltered housing, health care and robotics.”

“Japan is still a world leader in areas like robotics and factory automation. Wages are going up in China so companies have no choice but to install factory automation,” he said.

Source: *The Telegraph*, 22 Oct 2012

### **Extract 7: Too early to tell if pump-priming works**

Japan's budget deficit in 2012 was more than 10% of GDP. But rather than rushing to reduce the deficit, Japan's new Prime Minister, Shinzo Abe, implemented bold economic policies, dubbed “Abenomics”. These include a pump-priming strategy of spending ¥200 trillion over the next 10 years on public works to improve disaster preparedness and more importantly to create jobs.

Japan's central bank is also committed to raising the inflation rate to 2%. Implicit in this commitment is the notion that the bank will buy up as many Japanese government bonds as needed to reach its inflation target. In other words, the bank is prepared to print lots of money. And with interest rates kept low, the yen has started to weaken.

The government is also attempting to promote private sector investment. These outlays can be stimulated by deregulation, infrastructure investment and tax incentives. Again, there could be some effect on greater government deficits but the government believes it would be a small price to pay.

In short, it is hard to tell a story about how Japan will suffer as a result of the measures its government is taking to boost growth and create jobs. These policies are 180 degrees at odds with the deficit fixation that dominates US policy debates. The US have made enormous progress in reducing the government deficit over the last few years. The 2013 deficit, measured as a share of GDP, is less than 40% the size of the peak deficits in 2009 and 2010. However, the sharp pace of deficit reduction might mean millions of people not having enough money to support themselves and properly care for their children.

Adapted *The Guardian*, 26 August 2013

### Questions

- (a) (i) Describe what happened to Japan's balance on current account from 2008 to 2012. [2]
- (ii) To what extent is Japan's balance on current account affected by the changes in exports and imports of goods and services as shown in Table 2? [3]
- (b) Account for the change in Japan's central government debt between 2008 and 2012. [2]
- (c) Using Keynesian analysis, explain how the change in Japan's household-saving rate will affect the equilibrium level of national income. [5]
- (d) With reference to the data where appropriate, discuss how the Japanese economy might be affected by the developments in Asia. [8]
- (e) Extract 7 suggests that it is too early to tell if "Japan will suffer as a result of the measures its government is taking to boost growth and create jobs".
- In light of the risk of twin deficits, assess the appropriateness of the measures undertaken by the Japanese government. [10]

**[Total: 30]**

- End of Paper -



**MERIDIAN JUNIOR COLLEGE**  
**JC2 PRELIMINARY EXAMINATION 2014**

**9732/01**

**COVER SHEET**

**ECONOMICS HIGHER 2**

**Paper 1: Case Study Question 1**

Name: \_\_\_\_\_

Civics Group: \_\_\_\_\_

Register Number: \_\_\_\_\_

Tutor : \_\_\_\_\_

**15 SEP 2014**

**READ THESE INSTRUCTIONS FIRST**

Write your name, civics group, register number and tutor's name in the spaces at the top of this cover page and on all the work you hand in.

At the end of the examination, fasten this cover sheet to your answer scripts for Case Study Question 1 with the string provided before submission.

QUESTIONS ATTEMPTED		MARKS
(a)		
(b)		
(c)	(i)	
	(ii)	
(d)		
(e)		
<b>TOTAL</b>		<b>/30</b>



**MERIDIAN JUNIOR COLLEGE**  
**JC2 PRELIMINARY EXAMINATION 2014**

**9732/01**

**COVER SHEET**

**ECONOMICS HIGHER 2**

**Paper 1: Case Study Question 2**

Name: \_\_\_\_\_

Civics Group: \_\_\_\_\_

Register Number: \_\_\_\_\_

Tutor: \_\_\_\_\_

**15 Sep 2014**

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Write your name, civics group, register number and tutor's name in the spaces at the top of this cover page and on all the work you hand in.

At the end of the examination, fasten this cover sheet to your answer scripts for Case Study Question 2 with the string provided before submission.

QUESTIONS ATTEMPTED		MARKS
(a)	(i)	
	(ii)	
(b)		
(c)		
(d)		
(e)		
TOTAL		/30

**Suggested Answers for 2014 H2 Prelims (9732/01) - Case Study 1**

(a)	Compare the change in total enrolment in childcare centres between 2009 and 2012 with the change in average full-day fees over the same period.	[2]
	Both the total enrolment and average full-day fees in childcare centres increased between 2009 and 2012. However, the increase in total enrolment was <b>2.4 times</b> the increase in average full-day fees.	
(b)	What can you conclude from the evidence in Extract 3 about the price elasticity of demand for childcare in UK?	[2]
	Extract 3 opined the reduction in costs of providing childcare will increase revenue. Reduction in costs increases supply causing a fall in price of childcare services. [1m]  This would mean that the demand for childcare services in UK is relatively <u>price elastic</u> , such that a fall in price will lead to a more than proportionate increase in quantity demanded of preschool education. The rise in revenue due to a rise in quantity outweighed by the fall in revenue due to a fall in price causing revenue to rise. [1m]  [Both 'blue' segments needed to get the one mark for explanation]	
(c)	(i) Explain the likely value of the price elasticity of supply for early childhood education services in Singapore.	[2]
	Supply is likely to be <u>price inelastic</u> since producers are likely to <u>increase quantity supplied</u> by a <u>less than proportionate amount</u> in response <u>to an increase in price of early childhood education services</u> , ceteris paribus [1m] <u>as it takes time for suitable sites to be sourced and for teachers to be trained</u> ( Extract 1).	
	(ii) Explain the likely impact of the events in Extract 1 on the market for early childhood education services in Singapore.	[6]
	Increase in DD → "demand for early childhood education services has almost doubled" Increase in SS → "introducing more competition" PES<1 → "hard to expand because of the lack of suitable sites and trained teachers"	

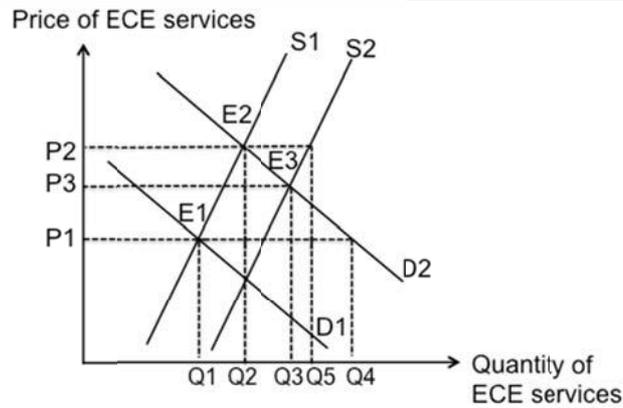


Figure 1

As the increase in demand is likely to be larger than the increase in supply due to more working parents enrolling their children in preschools (Extract 1), the overall impact on the market for ECE services is an increase in price and increase in quantity.

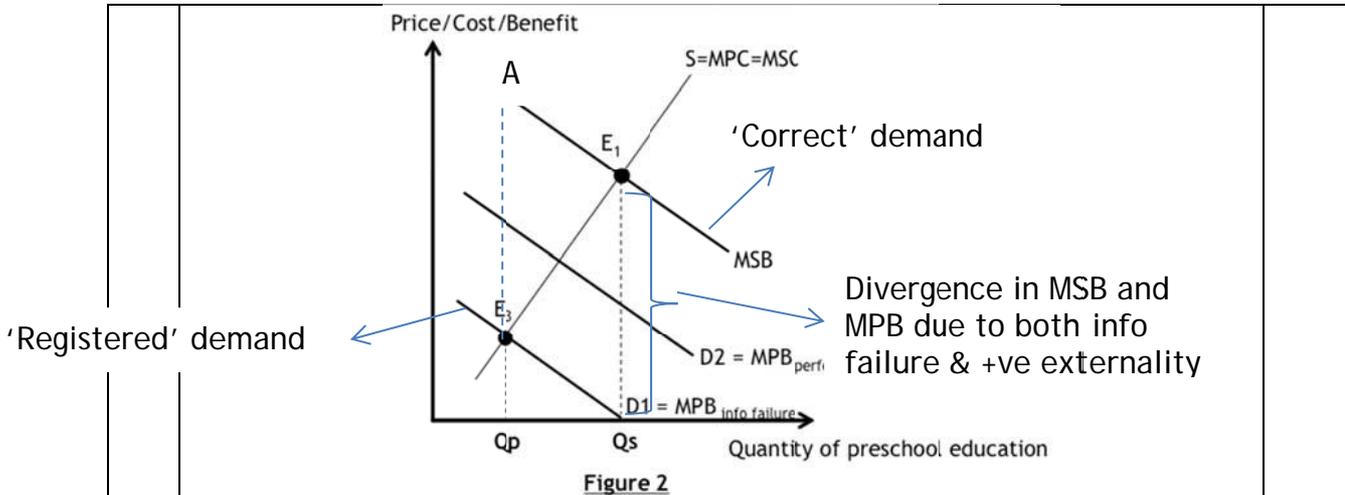
L3	Uses the evidence provided to explain the likely demand <b>and</b> supply impact of the events on the ECE services in Singapore <b>and</b> indicates what is <b>likely</b> to be the overall impact.	5-6
L2	Uses the evidence provided to explain the <b>demand or supply</b> impact of the events on the ECE services in Singapore	3-4
L1	Makes some comment on likely impact of the events on ECE services in Singapore, but without reference to the data.	1-2

(d) Using economic analysis, evaluate the appropriateness of government offering preschool education free to address the market failure in Extract 4. [8]

The market failure in preschool education is a result of preschool education being a merit good.

As mentioned in extract 4, parents underestimate the private benefits of ECE (“improve children’s readiness for school and life in future”. ) + ignore the +ve externality (“early childhood contributes to creating the kinds of workforces needed in the twenty-first century which bolsters economic growth”)

This therefore leads to a divergence in the benefit curves, with MSB being greater than MPB at all output levels.



With reference to Figure 2, the market equilibrium occurs at the point where  $MPB_{info\ failure} = MPC$ , and  $Q_p$  units of preschool education are produced and consumed. The socially desirable level of output, however, occurs at  $Q_s$  where  $MSB = MSC$ . As a result, there is an underproduction and under-consumption of preschool education. This leads to a deadweight loss of area  $AE_1E_2$  due to under-allocation of resources to the market for preschool education as the total social benefit of  $Q_pQ_s$  unit is more than the total social cost of these units.

Explain & evaluate why providing preschool education for free is an appropriate policy.

→ correct the underproduction and underconsumption. Greater equity → the lower income group would have greater access to preschool education, and thus, this reduces inequity in resource allocation.

Evaluation : Concern with resultant quality of preschool education. As there would be lesser or even no competition in the market, there would be no incentive for firms to improve the quality of preschool education. As such, the quality of preschool education might be affected. This is supported in Extract 1 which highlights that introducing more competition among the big-players would make the good-quality programmes more accessible to the masses, as well as allow for “greater diversity and more choices for parents”.

Level	Level Marking Scheme	Marks
L3	Candidate demonstrates their ability to analyze and evaluate the effectiveness of free provision in context of case materials.	7-8
L2	Candidates accurately analyze the effects of free provision with the use of Economic tools. However, no evaluative comments are demonstrated.	4-6
L1	Candidates makes some relevant comments but without any appropriate analysis.	1-3

(e) Discuss the policy options available to the Singapore government to keep childcare prices down and improve the quality of its early childhood [10]

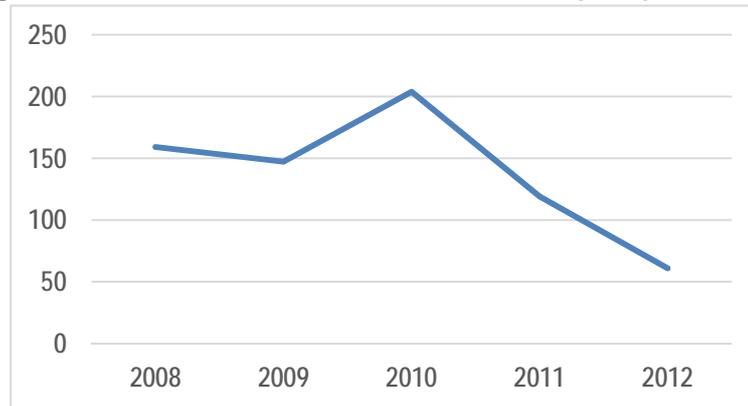
education.		
<b>Level</b>	<b>Knowledge, Application, Understanding &amp; Analysis</b>	<b>Marks</b>
L2	Explain 3 policies with due reference to relevant economic concepts and appropriate analytical framework	4-8
L1	Explanation of any 2 policies but the answer will be very closely link to the text and will make limited or only very superficial reference to the tools of economic analysis.	1-3
<b>Up to 4 additional marks for evaluation</b>		
E2	Application of relevant economic concepts to make judgement about the relative impact on 3 chosen policies based upon the case materials	3-4
E1	For comparative comment but the application of economic concepts will be superficial .	1-2
		<b>[Total: 30]</b>

**Question 2 Japan's Impending Twin Deficits**

**Table 2: Selected economic indicators for Japan over the period 2008-2012**

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Adapted *The Guardian*, 26 August 2013

### Questions

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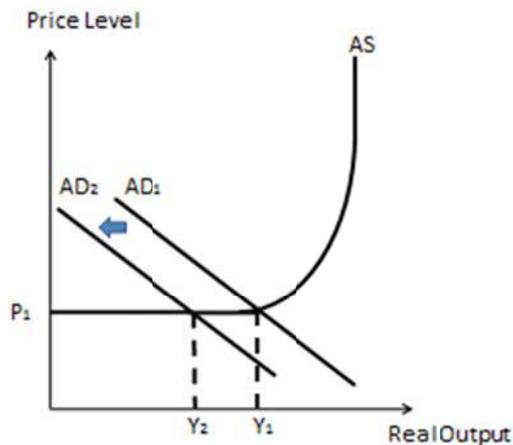
- End of Paper -

<p><b>(a)</b></p>	<p><b>(i) Describe what happened to Japan's balance on current account over the period 2008 to 2012. [2]</b></p> <p>Japan's current account surplus [1] decreased by about 62.5% [1].</p> $160-60/160 = 62.5\%$
	<p><b>(ii) To what extent is Japan's balance on current account affected by the changes in exports and imports of goods and services as shown in Table 2? [3]</b></p> <p>Exports (as % of GDP) generally decreased more than imports (as % of GDP), resulting in an overall decreasing trade surplus and a deficit since 2011. As a component of the current account, this could have led to the overall decreasing current account surplus.</p> <p>However, the current account balance could have also been affected by net income flows and current transfers but there is no information on these components.</p>
<p><b>(b)</b></p>	<p><b>Account for the change in Japan's central government debt between 2008 and 2012. [2]</b></p> <p>Extract 5 mentions low taxation rate and unsustainable government spending, suggesting insufficient tax revenue to finance the large and increasing government spending, thus resulting in an increasing government budget deficit. This deficit has to be financed by borrowing resulting in an increasing government debt.</p>
<p><b>(c)</b></p>	<p><b>Using Keynesian analysis, explain how the change in Japan's household-saving rate will affect the equilibrium level of national income. [5]</b></p> <p>The fall in household saving rate suggests an increase in autonomous <math>C_d</math> and <math>MPC_d</math>. Rise in injection increases <math>AE \rightarrow</math> multiple increase in national income. Explain clearly using a Keynesian Cross Diagram or the circular flow of income model.</p>
<p><b>(d)</b></p>	<p><b>With reference to the data where appropriate, discuss how the Japanese economy might be affected by the developments in Asia.[8]</b></p> <p><b>Fall in X:</b> Extract 6 - territorial disputes with China, economic slowdown in China Territorial disputes have led to Chinese consumers boycotting Japanese goods, resulting in a fall in demand for Japan-branded products. Economic slowdown suggests falling disposable incomes for Chinese consumers, decreasing their purchasing power and ability to consume goods and services including imports.</p> <p>Quantity demanded for Japan's exports decreases at every price <math>\rightarrow</math> fall in demand for exports, leading to fall in export revenue, ceteris paribus, trade deficit increases, CA balance worsens.</p>

**EV:** This is also further exacerbated by a strong yen, which causes demand for X to fall further. Overall large decrease in trade balance, large decreases in AD.

Since  $AD = C + I + G + X - M$ , fall in X leads to a fall in AD from  $AD_1$  to  $AD_2$ . Real output falls from  $Y_1$  to  $Y_2$ .

Ceteris paribus → leads to fall in real GDP per capita which suggests a decrease in disposable income and purchasing power. The average citizen in Japan can consume less goods and services, thus material SoL falls.



**Increase in X and I in future:**

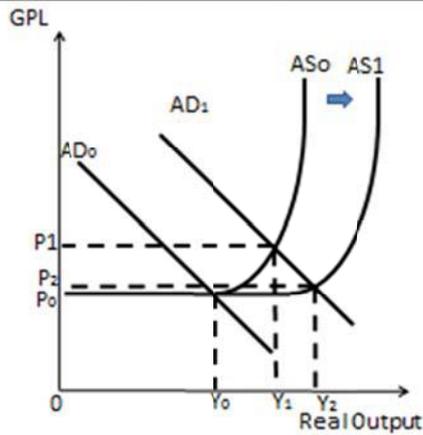
Extract 6 also suggests that Japan is likely to benefit from emerging market demand. As these countries industrialise, they may require more capital machinery, thus importing robotics and automated technology from Japan. The increase in demand for capital goods will offset the decrease in demand for consumer goods from Japan.

Should future global economic outlook improve, developing countries' demand for such technology may increase significantly, leading to an overall increase in X. Thus Japan's CA balance is likely to improve in future.

In addition, the rise of dynamic companies in niche areas such as healthcare and robotics may attract FDIs as existing infrastructure and expertise in such fields may increase investors' confidence and expected yields, leading to increase in I.

Increases in X and I increase AD. Actual growth (real output increase from  $Y_0$  to  $Y_1$ ), higher employment and higher SoL can be achieved. In the long run, the increase in I will lead to capital accumulation and improvements in state of technology, shifting AS to the right from  $AS_1$  to  $AS_2$ . There is potential growth and real output further increases to  $Y_3$ , leading to further improvements in SoL.

**EV:** Volume of I is also dependent on other factors. High corporate taxes may deter investors from investing as post-tax profits may be low. AD and AS may increase by a small extent.



Make overall judgement on whether Japan is likely to benefit from the developments in Asia.

Level	Knowledge, Application, Understanding & Analysis	Marks
L2	Explain & evaluate a range of factors (3) that contribute to how the Japanese economy might be affected by the developments in Asia using the context the data provided.	4-8
L1	Show an understanding of impact on Japanese economy and identify at least one development in Asia that contributes to it.	1-3

(e) Extract 7 suggests that it is too early to tell if “Japan will suffer as a result of the measures its government is taking to boost growth and create jobs”.

In light of the risk of twin deficits, assess the appropriateness of the measures undertaken by the Japanese government. [10]

Level	Knowledge, Application, Understanding & Analysis	Marks
L2	Explain impact of various measures with due reference to case materials, relevant economic concepts and appropriate analytical framework	4-6
L1	Explanation of the impact of at least one measure but the answer will be very closely link to the text and will make limited or only very superficial reference to the tools of economic analysis.	1-3
<b>Up to 4 additional marks for evaluation</b>		
E2	Application of relevant economic concepts to make judgement about the appropriateness of measures with due reference to the risks of twins deficits.	3-4
E1	For comparative comment but the application of economic concepts will be superficial	1-2



MERIDIAN JUNIOR COLLEGE  
JC2 PRELIMINARY EXAMINATION 2014

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## H2 Economics

**9732/02**

Paper 2 Essay Questions

**23 Sep 2014**

**2 Hours 15 Minutes**

Additional Materials: Writing Paper

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### READ THESE INSTRUCTIONS FIRST

**Do not open this booklet until you are told to do so.**

Write your name, class and register number in the spaces at the top of the answer sheets.

Write in dark blue or black pen.

Write your answers on the separate answer paper provided.

You may use a soft pencil for any diagrams, graphs or rough working.

Do not use staples, paper clips, highlighters, glue or correction fluid.

You are reminded of the need for good English and clear presentation in your answers.

### **Section A & B: Essay Questions (2h 15 min)**

Answer **three** questions in total, of which **one** must be from Section A, **one** from Section B and **one** from **either** Section A or Section B.

Begin each essay question on a fresh sheet of paper.

At the end of the examination, fasten all your work securely to the cover sheet with the string provided.

The number of marks is given in brackets [ ] at the end of each question or part of a question.

**[Turn Over]**

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This document consists of **3** printed pages and **3** cover sheets.

Answer **three** questions in total.

**Section A**

**One** or **two** of your three chosen questions must be from this section.

- 1 Growing demand for non-renewable energy such as crude oil and a rise in its extraction cost have led to huge government subsidies on renewable energy such as biofuel.
  - (a) Explain how price elasticity concepts determine whether the producers or consumers of renewable energy will be more likely to benefit from a subsidy. [10]
  - (b) Discuss how the combination of the above changes might affect consumer expenditure on renewable and non-renewable energy. [15]
  
- 2 Distinguish between oligopolistic competition and monopolistic competition and discuss which of these two market structures best explains the market behaviour of retailers in Singapore. [25]
  
- 3 In Indonesia, plantation companies must commit to zero deforestation and stop illegal practices such as fire clearing for crop production. Currently, forest protection measures are poorly enforced.

Source: *Greenpeace*, accessed on 20 Aug 2014

  - (a) Explain why government intervention is advocated when externalities are present. [10]
  - (b) Assess the view that the regulation of plantation companies, as opposed to the imposition of pollution taxes, is the best way of solving the above problem. [15]

**Section B**

**One** or **two** of your three chosen questions must be from this section.

- 4 (a)** Explain the possible causes of an increase in the average standard of living in a country. [10]
- (b)** Assess the desirability of aiming for high economic growth rates in Singapore. [15]
- 5** Governments in economies worldwide solve unemployment problems through the use of loose monetary policy and investment in human capital.
- (a)** Explain the trade-offs that a government might face in solving the problem of unemployment. [10]
- (b)** Discuss the view that Singapore would be better off reducing unemployment through the use of exchange rate policy. [15]
- 6** A small and open economy may find it more beneficial to embrace globalisation, as compared to a large and less open economy.
- Discuss the extent to which you agree with the above view. [25]

- End of Paper -

9732/02

## COVER SHEET

### H2 ECONOMICS

#### Section A & B: Essay Question

Name: \_\_\_\_\_

Civics Group: \_\_\_\_\_

Register Number: \_\_\_\_\_

Tutor: \_\_\_\_\_

23 Sep 2014

2 Hours 15 Minutes

#### READ THESE INSTRUCTIONS FIRST

Write your name, civics group, register number and tutor's name in the spaces at the top of this cover page and on all the work you hand in.

**WRITE down the question number you have attempted.**

At the end of the examination, fasten this cover sheet to your answer scripts for the essay with the string provided before submission.

QUESTION ATTEMPTED	MARKS
Question _____	/25

9732/02

## COVER SHEET

### H2 ECONOMICS

#### Section A & B: Essay Question

Name: \_\_\_\_\_

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Register Number: \_\_\_\_\_

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QUESTION ATTEMPTED	MARKS
Question _____	/25

9732/02

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### H2 ECONOMICS

#### Section A & B: Essay Question

Name: \_\_\_\_\_

Civics Group: \_\_\_\_\_

Register Number: \_\_\_\_\_

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23 Sep 2014

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QUESTION ATTEMPTED	MARKS
Question _____	/25

2014 Prelim Exam H2 Economics EQ 1

**2014 Prelim H2 Economics Paper 2**

**Essay Question 1**

Growing demand for non-renewable energy such as crude oil and a rise in its extraction cost have led to huge government subsidies on renewable energy such as biofuel.

(a) Explain how price elasticity concepts determine whether the producers or consumers of renewable energy will be more likely to benefit from a subsidy. [10]

(b) Discuss how the combination of the above changes might affect consumer expenditure on renewable and non-renewable energy. [15]

Suggested Answer - Part (a)

**Development 1 [Impact of an indirect subsidy]**

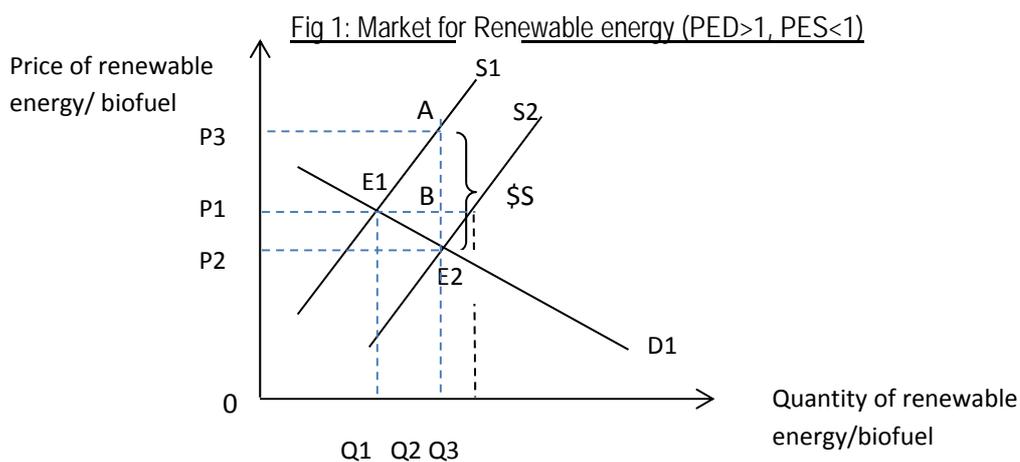
A specific subsidy (i.e. \$s per unit of good) will result in a fall in the unit cost of production (COP) of renewable energy. Hence, at every price, producers are willing able to produce a lower quantity supplied, which results in a rise in the supply of renewable energy from S1 to S2 (Fig 1).

The initial price is at P1 with output Q1. New equilibrium is achieved at a lower price, P2, and higher output, Q2.

**Development 2 [Short run analysis : Incidence of subsidy]**

The introduction of a subsidy will benefit both consumers and domestic producers of renewable energy. However, the relative share of benefit or incidence of indirect subsidy for the consumers and producers would differ depending on different relative values of Price Elasticity of Demand (PED) and Price Elasticity of Supply (PES). A subsidy favours the side of the market that is less price elastic.

PED measures the degree of responsiveness of quantity demanded of a good to a change in the price of the good itself, ceteris paribus. PES measures the degree of responsiveness of quantity supplied of a good to a change in the price of the good itself, ceteris paribus.



Government subsidy on renewable energy suggests that it may be rather expensive which makes it less affordable to consumers. Hence, the **demand for renewable energy** such as biofuel may be **relatively price elastic** (i.e.  $PED > 1$ ) in the short run as expenditure on this good is likely to constitute a large proportion of consumers' income. Furthermore, non-renewable energy such as crude oil is

2014 Prelim Exam H2 Economics EQ 1

available as a close substitute for renewable energy. A fall in the price of renewable energy would therefore result in a more than proportionate rise in quantity demanded of renewable energy.

The **supply of renewable energy such as biofuel** is likely to be **relatively price inelastic** (i.e.  $PES < 1$ ) due to the gestation period that is required to grow crops which are required for the production of biofuel. A rise in the price of renewable energy would therefore result in a less than proportionate rise in quantity supplied of renewable energy.

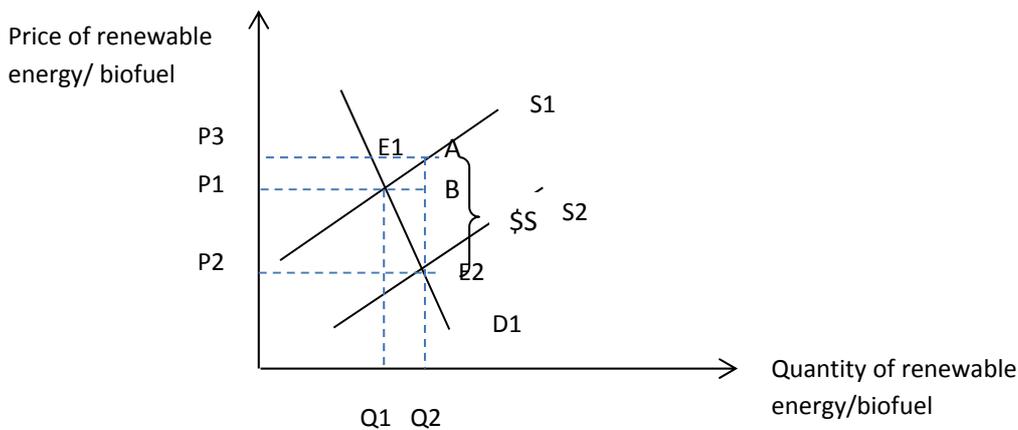
Total subsidy for renewable energy is the product of the unit subsidy ( $\$S$ ) and the new equilibrium quantity of renewable energy ( $OQ_2$ ), represented by area  $P_2E_2AP_3$ . Given the renewable energy subsidy, the consumers' share of the benefit from the subsidy is the proportion of the government funding that leads to a reduction in the market price from  $P_1$  to  $P_2$ . The domestic producers' share of the benefit from the subsidy is the proportion of the government funding that allows them to receive a higher price ( $P_3$ ) which is inclusive of the subsidy

Hence of the total subsidy, area  $P_2E_2AP_3$ , the consumers' share of the subsidy is given by the area  $P_1P_2E_2B$  while the producers' share of the subsidy is area  $P_1P_3AB$ . Thus, producers benefit more from the subsidy given to biofuel production.

This is due to the demand for renewable energy being relatively more price elastic than its supply. Producers would absorb more of the subsidy and pass less of the subsidy to consumers who are more responsive to price changes. Thus **a larger share of the subsidy is enjoyed by the producers of renewable energy.**

**Development 3 [Long run analysis : Incidence of Subsidy]**

Fig 2: Market for Renewable energy ( $PED < 1$ ,  $PES > 1$ )



The **demand for renewable energy** such as biofuel may be relatively **price inelastic** (i.e.  $PED < 1$ ) in the long run if it becomes a commonly used form of energy such that it is regarded as a necessity. A fall in price of renewable energy would therefore result in a less than proportionate rise in quantity demanded of renewable energy.

The **supply of renewable energy such as biofuel** may be relatively **price elastic** (i.e.  $PES > 1$ ) due to greater spare capacity in growing crops and producing biofuels in the long run. Hence, a rise in price of renewable energy would therefore result in a more than proportionate rise in quantity supplied of renewable energy.

Total subsidy on renewable energy is represented by area  $P_2P_3AE_2$ . In Fig 2. Of this amount, the consumers' share of the subsidy is given by the area  $P_2P_1BE_2$  while the producers' share of the subsidy is area  $P_1P_3AB$ . Hence, consumers benefit more from the subsidy given to biofuel production.

This is due to the demand for renewable energy being relatively more price inelastic than its supply. Producers would absorb less of the subsidy and pass more of it to consumers who are less responsive to price changes. Thus **a larger share of the subsidy is enjoyed by the consumers of renewable energy.**

**Conclusion**

Overall, the incidence of a subsidy depends on the relative price elasticities of demand and supply. In the case of renewable energy, producers are likely to benefit more from the subsidy, while consumers may benefit more in the long run. However, this may not be true if consumers do not regard renewable energy as a necessity in the long run.

Level	Knowledge, Comprehension, Application and Analysis	Marks
L3	For an answer that uses appropriate analysis to explain how relative PED and PES are relevant in determining the incidence of a specific subsidy on producers and consumers. <b>Both</b> cases where $PED > PES$ and $PED < PES$ are considered.	7-10
L2	For an answer that uses appropriate analysis to explain how relative PED and PES are relevant in determining the incidence of a specific subsidy on producers and consumers. Either $PED > PES$ OR $PED < PES$ is considered. OR For an answer that gives a <b>descriptive</b> explanation how relative PED and PES are relevant in determining the incidence of a specific subsidy on producers and consumers. OR For an answer that analyses ONLY how PED <b>OR</b> PES is relevant in determining the incidence of a specific subsidy on producers and consumers.	5-6
L1	For an answer that shows knowledge of the impact of subsidy and relevant elasticity concepts. This could be in the form of a largely unexplained list .	1-4

2014 Prelim Exam H2 Economics EQ 1

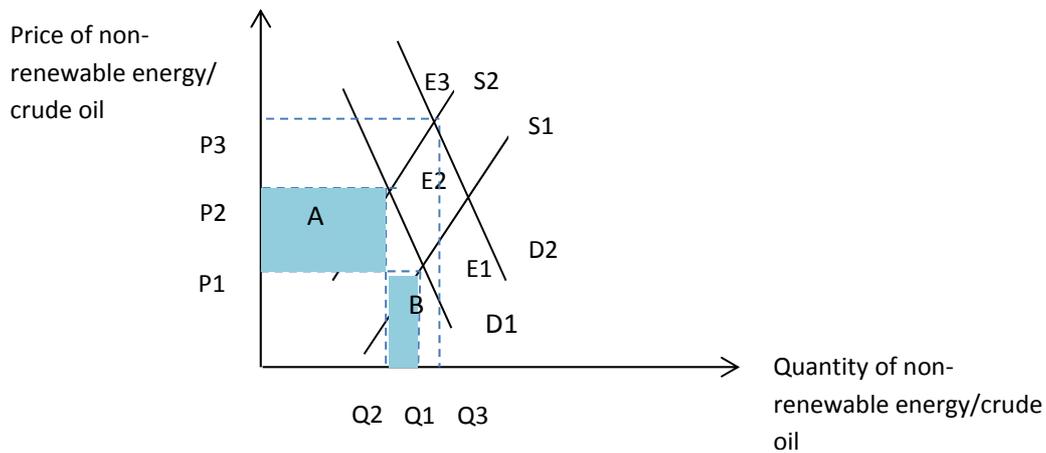
Suggested answer for part (b)

(b) Discuss how the combination of the above changes might affect consumer expenditure on renewable and non-renewable energy. [15]

**Development 1: CE on non- renewable energy/crude oil**

**(i) Short-run: DD for crude oil is relatively price inelastic**

Fig 3: Market for Non- Renewable energy (PED<1)



**(i) Impact on CE due to a rise in extraction costs of crude oil**

A rise in extraction costs for crude oil → lead to a fall in the supply of crude oil → price of crude oil rises from P1 to P2, while quantity demanded of crude oil falls from Q1 to Q2.

The demand for crude oil is likely to be price inelastic (PED<1) since crude oil is a key resource, and hence a necessity. A rise in the price of crude oil → rise consumer spending.

**(ii) Impact on CE due to a growing demand for crude oil**

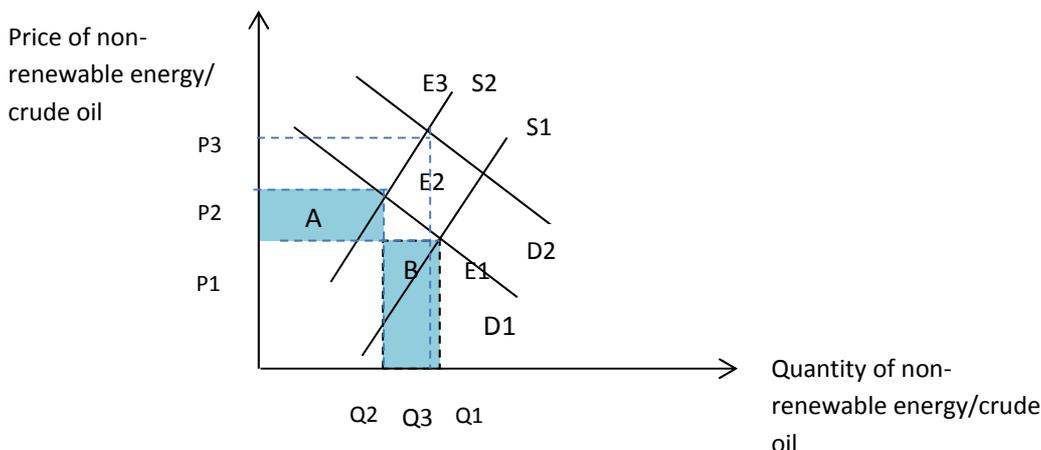
Growing demand for crude oil could be due to several factors such as global economic recovery since the 2008 financial crisis, population growth and low interest rates. Increase in demand brings about an increase in total consumer expenditure.

**Combined effect on CE on crude oil:** The combined effect on consumer expenditure when PED < 1 → total consumer expenditure increases.

**Evaluation:** The impact on CE on crude oil depends on the extent of shifts of demand and supply of crude oil. For instance, a larger increase in the demand for crude oil due to stronger global economic recovery would lead to a greater rise in CE on crude oil

(ii) Long-run: DD for crude oil is relatively price elastic

Fig 3: Market for Non- Renewable energy (PED>1)



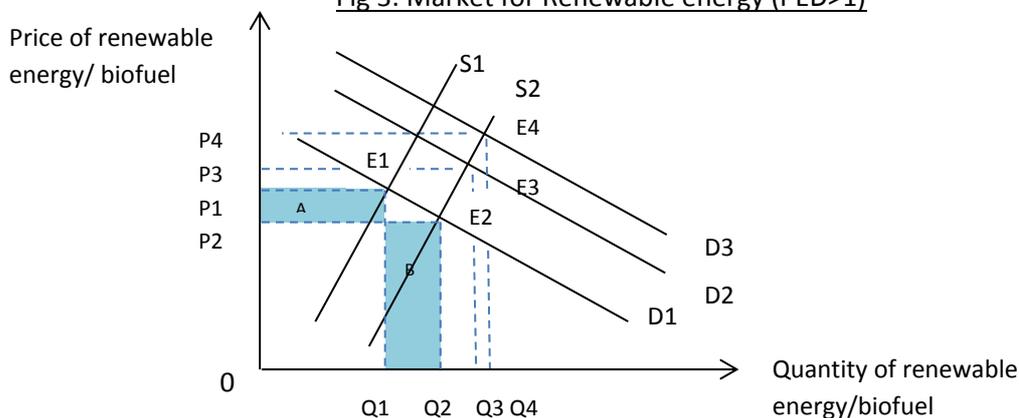
(i) Impact on CE due to a rise in extraction costs of crude oil

The demand for crude oil is likely to be price elastic ( $PED < 1$ ) in the long run as a greater variety of alternative energy is available due to efforts in research & development. A rise in the price of crude oil would lead to a more than proportionate fall in the quantity demanded of crude oil. Hence, consumer spending on crude oil falls.

- (ii) Impact on CE due to a growing demand for crude oil -CE rises from  $OP_2E_2Q_2$  to  $OP_3E_3Q_3$  as previously analysed.
- (iii) Combined effect on CE on crude oil: Evaluation: The combined effect on consumer expenditure when  $PED > 1$  is uncertain.

Development 2: CE on renewable energy/ biofuel

Fig 3: Market for Renewable energy (PED>1)



**(i) Impact on CE due to a subsidy on biofuel**

As explained in part (a), a subsidy would lead to lower unit COP for renewable energy which would allow firms to produce a larger quantity of renewable energy (Q1) such as biofuel at a lower price (P2).

Consider the case where the demand for biofuel is relatively price elastic. A fall in the price of biofuel would lead to a more than proportionate increase in the quantity demanded for biofuel. CE on biofuel rises.

**(ii) Impact on CE due to a rise in the price of crude oil**

Renewable energy and non-renewable energy are substitutes ( $XED > 0$ ). Hence, a rise in the price of crude oil would lead to a fall in its quantity demanded, which results in a rise in the demand for biofuel.

**(iii) Impact on CE due to global economic recovery**

Assuming that biofuel is a normal good, global economic recovery would also lead to a rise in the demand for it which reinforces the rise in CE on biofuel from OP3E3Q3 to OP4E4Q4.

**(iv) Combined effect on CE on biofuel:** A rise in demand for biofuel due to a rise in the price of crude oil and global economic recovery reinforces the rise in consumer expenditure due to a subsidy.

**Evaluation:** The demand for biofuel may become more price inelastic as consumers may regard biofuel as a necessity in the long run. In this case, a fall in price of biofuel would lead to a fall in CE on biofuel instead. The overall impact on CE would thus be indeterminant. Assuming that the rise in demand for biofuel is smaller than the rise in its supply, overall CE on biofuel may fall instead.

**Conclusion**

The impact on CE on each type of energy depends on its price elasticity of demand, extent of shifts in demand and supply. In light of the events highlighted in the signpost, consumer expenditures on both types of energy are likely to increase.

Suggested marking scheme:

<b>L3</b>	For an analytical and balanced discussion on how events impact CE of both crude oil and biofuel. The relevance of PES, XED YED and consideration of extent of shifts in demand and supply are to analyse the impacts on consumer expenditure in both markets.	<b>9-11</b>
<b>L2</b>	For an analysis of the impact on CE on crude oil OR biofuel OR For a description of the impact on CE on crude oil and biofuel which has limited application of PES, XED and YED	<b>6-8</b>
<b>L1</b>	An answer that shows some understanding of the concepts of demand and supply to analyse the impacts. Explanation of the use of PES, XED YED is either absent or poorly	<b>1-5</b>

	done.	
<b>E2</b>	For an evaluative discussion based on economic analysis	3 - 4
<b>E1</b>	For an unexplained judgement, or one that is not supported by economic analysis.	1 - 2

**2. Distinguish between oligopolistic competition and monopolistic competition and discuss which of these two market structures best explains the market behaviour of retailers in Singapore. [25]**

**Suggested Answer:**

***Comparing key characteristics using examples of various retailers in Singapore***

In the monopolistic competitive (MC) market, there is a large number of small firms, each controlling a small market share. In Singapore, such examples include hairdressing, wearing apparels and footwear, food and beverages. The products they offer are differentiated in terms of range of goods and services provided e.g. neighbourhood salons offering basic haircuts at budget prices while hairdressing prices at 'branded' salons such as Kimage and Jean Yip are more expensive (varies with the experience of the hairstylist). It is this characteristic that conferred some market power to each firm. Each firm has some control of the local market, and is a price setter i.e. possesses the ability to set independent price and output (OP3, OQ3) to maximise profit where  $MC=MR$ . The high number of firms is due to the low barriers to entry which allow entrants. There are low barriers to entry in these retail markets. Start-up cost is likely to be lower for small shops in MC market structure as compared to larger firms in the OC market structure. For smaller shops, rental and labour costs, and cost of goods are also likely to be lower. Eg. The start-up cost of a hair salon is likely to be lower than that of a telecommunications firm which incurs a huge cost of laying cables. On the whole, the MC market structure describes such small retailers to a large extent as many of the characteristics of MC are observed.

In contrast, an oligopolistic (OC) industry has a few dominant firms, each controlling a large market share. Each firm has considerable market power due to its large size and small number of competitors. Mutually interdependence occurs where a firm behavior is affected by that of its rivals. In Singapore, the market behaviour of a number of large retailers such as supermarkets selling general merchandise, petrol service stations and telecommunication apparatus markets are best described by the oligopolistic market structure. For example, in Singapore, the supermarket industry is dominated by three large supermarkets selling general merchandise (i.e. NTUC FairPrice, Dairy Farm [Cold Storage, Shop N Save, Giant] and Sheng Siong; these supermarkets are large in terms of market share, revenue, profits and strength of staff. There are also only three large firms that dominate telecommunication services market in Singapore - StarHub, SingTel and M1. Each of these retailers possesses a significant market share. In terms of product differentiation, a supermarket such as FairPrice sells products under its own house brand as a form of product differentiation. For telecommunication services, they sell different types/bundles of mobile and internet subscription plans. Unlike MC industries, there are **high barriers to entry** (BTE) in these industries limiting the number of retailers in these industries. Economies of scale are a significant BTE in supermarket. E.g. Large supermarkets are able to gain economies of scale through centralized administration and bulk purchase. This allows the supermarket selling a large output to charge low prices which become a formidable BTE to the supermarket industry in SG.

Difficulty of securing a licence, large capital outlay and substantial cost savings enjoyed by large firms (economies of scale) can strongly deter potential firms from entering a particular market. The government offers limited licenses to provide telecommunications services in Singapore. There is also large start-up capital in terms of the costs incurred to lay the cable network. These constraints are formidable BTEs to the telecommunications services industry in SG.

***Comparing pricing decisions using examples of various retailers in Singapore***

The MC firm has a downward sloping, relatively price elastic demand curve since the product has many good substitutes in the market. Consequently, when the MC firm tries to increase the price of its product, its quantity falls by a greater proportion. Each firm has some, though limited, market power due to its small size and large number of competitors. Hence, while the firm is a price setter, it possesses limited ability to raise prices. It is more able to reduce price. MC firms are not mutually interdependent as each of them has too small a market share and the actions of each of them are unlikely to have much impact

on one another. Unlike most Oligopoly firms, MC firms can compete in terms of lowering prices (i.e. offering discounts) as the PED of their products is high due to the availability of many substitutes.

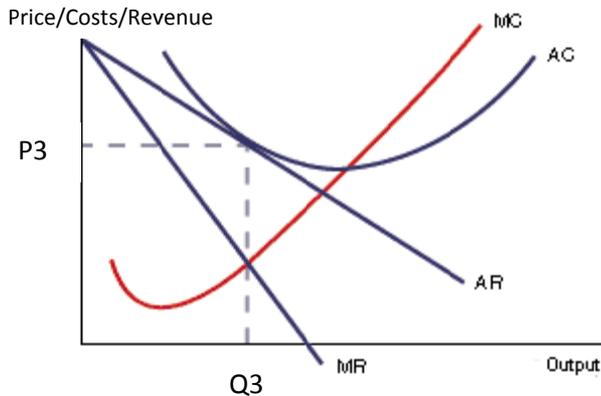


Figure 1: Demand curve of a MC firm

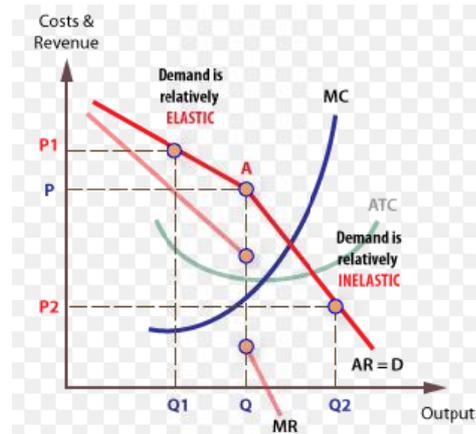


Figure 2 : Kinked demand curve of OC

In contrast, an oligopolistic (OC) industry the few dominant firms are mutually interdependent, where rivals will match each other price reductions but not price increase. This leads to price stability/price rigidity where the demand curve is kinked at the existing market price. as in figure 2. The upper portion of AR (DD) curve is relatively price elastic as rival firms are unlikely to match price increases. An increase in price from OP to OP1 causes a more than proportionate fall in quantity demanded as the oligopolist is likely lose a large number of consumers, Q to Q1 to its rivals. The lower portion of the AR (DD) curve is relatively price elastic - rivals are likely to follow price cuts so as not to lose customers to the firm that has lowered its price from OP to OP2. The cut in price will brings about a less than proportionate increase in quantity demanded from Q to Q2. As a result, **prices tend to stay rigid** at P for the oligopoly, even if costs conditions change (within the disjointed portion of MR).

Supermarkets and telecommunication shops in Singapore have demonstrated that they follow closely their rivals' price cuts and non-price strategies to gain a larger market share. For example, in Singapore supermarkets follow each other in making weekly offers on items, non-price promotions such as "Purchase with purchase" and free gifts. When M1 came up with attractive discounts to bundled mobile subscription plans, M1 and Singtel also included that in their price plans for their mobile phones. Prices of telco plans are also rather similar.

Like a MC firm, a profit-maximising OC firm produces where marginal cost = marginal revenue (MC=MR) . If the firm produces where  $MC < MR$ , then producing one more unit of output adds more to revenue than to cost increasing total profit. As long as MR exceeds MC, profits can be increased by increasing production. Likewise, as long as MC exceeds MR, profits can be increased by decreasing production. Thus, profit is maximized when the firm produces an output where  $MC = MR$  provided MC cuts MR from below.

### Comparing profit levels in long-run equilibrium

The two market structures also differ in terms of the types of profits the firms could earn in the long run.

In an **oligopoly**, there are **substantial barriers to entry** such as higher set-up costs, difficulty of obtaining license etc, unique product knowledge or amount of R&D taken by established firms. → **oligopolists** can continue to **earn supernormal profits** in the **long run**.

However, for MC industry, low BTE → supernormal profits competed away in the LR → firms can only earn normal profits in the LR.

**Comparing non-price competition using examples of various retailers in Singapore**

The MC firm tends to indulge in non-price competition such as advertising and product promotion to keep its market share.

Like the MC firm, the OC firm also focuses on non-price competition. However, its non-price competition activities such as advertising is of a larger scale and its R&D activities are likely to make real changes to the products resulting in a highly differentiated products

Hence, these several characteristics of oligopolies and MC distinguish the two market structures and examples of these two types of market structures can be found in Singapore, although there are some limitations in identifying the market structure that best explains their market behaviour.

**Development 2: A monopoly also describes the market behaviour of some retailers in Singapore: Singapore Power**

Also, in retail trade, there exists other market structure such as Singapore Power, a utilities firm that is the sole distributor of electricity in Singapore, a monopoly. The firm enjoys very large market power as electricity is a necessity and there are no other substitutes. The barriers to entry in the distribution of electricity are also very large, with need for a license from the government and also the need to own the power grid of an entire country.

**Conclusion: Reasoned conclusion**

**Address the direction word 'best' by explaining which market structure if either, is more appropriate to retailing in Singapore.**

<b>Knowledge, Application, Understanding and Analysis</b>		
L3	For an answer that uses appropriate analysis to explain the differences in retailers & their market structures and which market structure if either, is more appropriate to retailing in Singapore. The answers refers to both monopolistic competition and oligopolistic competition	15-21
L2	For an answer that describes the differences in retailers & their market structures, referring to <u>both</u> monopolistic competition <u>and</u> oligopolistic competition  OR for an answer using relevant analysis to explain one market structure and different retailers	9-14
L1	An answer that shows knowledge of market structures, list of key features and different retailers	1-8
<b>Evaluation</b>		
E2	For a discussion justifying the conclusions drawn – this could be one evaluative comment done well	3-4
E1	For an unexplained evaluative statements	1-2

- 3 In Indonesia, plantation companies must commit to zero deforestation and stop illegal practices such as fire clearing for crop production. Currently, forest protection measures are poorly enforced.

Source: *Greenpeace*, accessed on 20 Aug 2014

- (a) Explain why government intervention is advocated when externalities are present. [10]
- (b) Assess the view that the regulation of plantation companies, as opposed to the imposition of pollution taxes, is the best way of solving the above problem. [15]

**Suggested Answer Model:**

**Part (a)**

**Explain the private costs of crop production**

Cost of workers, equipment for clearing the land (electric saw, axe etc), seeds, fertilisers etc.

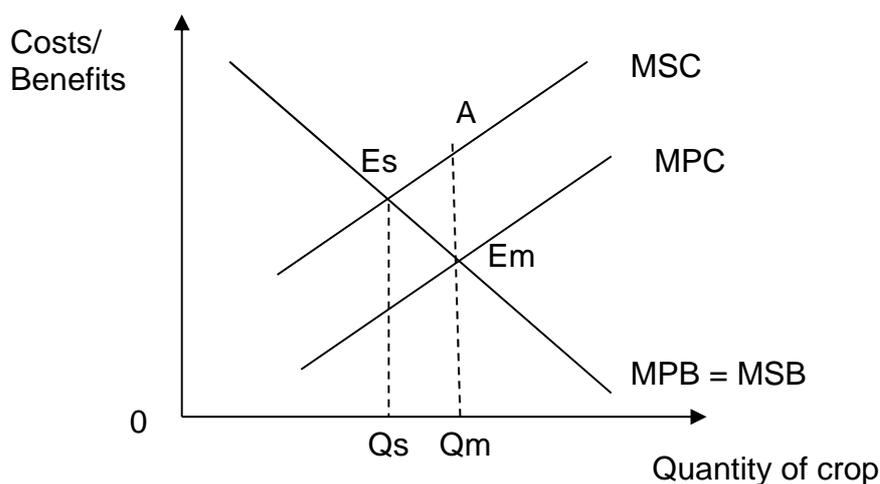
**Explain the negative externalities in crop production**

Farmers in preparation of land for farming burn forest land (slash & burn method) has created negative externalities in production. The burning of forest land generate pollution in the form of smog, carbon dioxide and sulphur dioxide which causes health problems to third parties such as residents staying near the forest. These third parties incur costs of the form of medical expenses for which they are not compensated by the farmers or plantation owners.

**Explain, with the use of a diagram how negative externalities in production lead to market failure**

Market failure occurs when the price mechanism fails to allocate resources efficiently and equitably.

Figure 1:



The social cost of crop production is the summation of the private cost and the external cost. Hence, the existence of negative externalities in production causes divergence between the costs curve, where marginal social cost (MSC) > marginal private cost (MPC) as seen in Figure 1. The market equilibrium output,  $Q_m$

determined when  $MPC=MPB$  where the sum of producer and consumer surplus ( or sum of producer and consumer welfare) is maximised. On the other hand, the socially optimal level of output,  $Q_s$  is determined when  $MSC=MSB$  where societal welfare is maximised..

Hence, market equilibrium output ( $Q_m$ ) exceeds socially optimal equilibrium level ( $Q_s$ ) resulting in an overproduction and overconsumption by  $Q_sQ_m$ . The total social cost of producing  $Q_sQ_m$ ,  $Q_sBAQ_m$  outweighs the total social benefit,  $Q_sBCQ_m$  resulting to the deadweight loss of ABC. Hence, there is a need to lower the quantity of crop produced.

**Conclusion**

Thus, inefficiency in resource allocation arises when negative externalities which are not accounted for and usually the government needs to take actions and provide a non-market mechanism to allocate scarce resources.

Level	Knowledge, Application, Understanding and Analysis	Marks
L3	For an answer that analyses how the market fails for negative externalities in production.	7-10
L2	For an answer that describes how the market fails for for negative externalities in production.	4-6
L1	For an answer that demonstrates some understanding for negative externalities in production, private cost, social cost	1-3

(b) Assess the view that the regulation of plantation companies, as opposed to the imposition of pollution taxes, is the best way of solving the above problem. [15]

**Development 1: Explain how regulation deals with the market failure due negative externalities in production.**

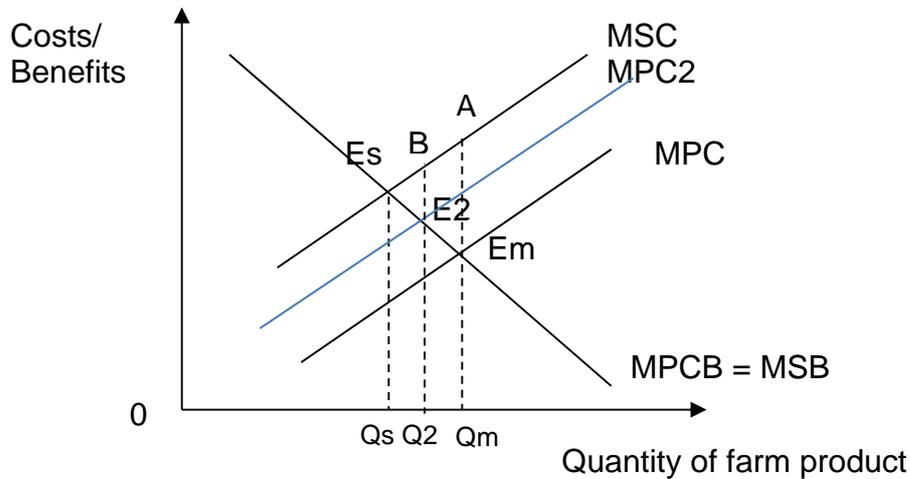
**What legislation is.**

- Command and control measure
- Legislations are rules and regulations for compliances.

**How legislation works**

For example, govt enact anti-burning laws which specifies how land-clearance can be carried out enact anti-burning laws ban the practice of forest burning to clear land and allow zero deforestation. → increase the MPC and reduce output towards the socially optimal level,  $Q_2$  and thus improving efficiency in resource allocation. The overproduction is reduced to  $Q_sQ_2$  and deadweight loss reduced to area  $E_sE_2B$ .

**Figure 2:**



**Evaluation of legislation**

Legislation is a powerful tool in correcting market failure as it is mandatory.

**Development 2: Explain how carbon taxes deals with negative externalities in production.**

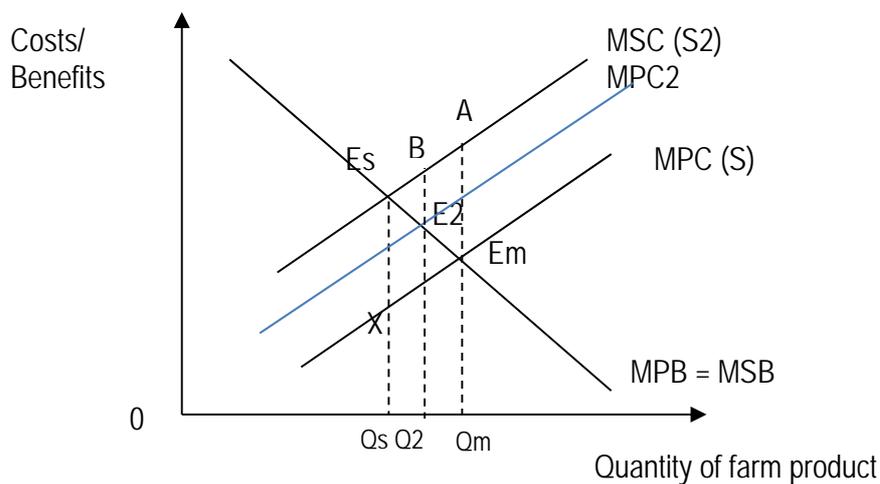
**What carbon tax is.**

Taxes are compulsory payments to the govt. A tax by the amount of the pollution (EF) can be imposed

**How carbon tax works.**

The government imposes an indirect tax equivalent to the amount of MEC (EsX). This will increase unit production cost by the amount of the tax and cause MPC to rise to MSC. The external cost is internalised. Output will be reduced to the socially optimal level, Qs.

**Figure 2:**



**Limitations of using taxes:**

**Difficult to monetize the MEC** - The effectiveness of taxes depends on ability to identify and calculate correctly the amount of external cost created. In general, it is difficult to attach a monetary value to negative externalities generated and hence it is difficult to ensure accuracy in the amount of tax imposed. Over-taxing results in under-allocation of resources and can result in a larger welfare loss. Under-taxing results over-consumption will still exist in the economy although the market equilibrium is now closer to the socially optimal level of output

**Development 3 : Compare how well regulation works compare with carbon tax works.**

Regulation is a better policy compared to carbon tax as it can achieve pollution target better.

Carbon tax is a better policy compared to regulation as it is a more flexible tool.

**Carbon tax may be less costly as compared to legislation**

To ensure adherence, legislation requires large amount of manpower to monitor and enforce, requires high opportunity cost unlike taxes which are easily implemented as it is a market-based solution. To ensure compliance of the law, heavy enforcement and monitoring needs to be in place for legislation to be effective. Hence, legislation may be more draining on the governments' resources as manpower is required for conducting regular checks.

**Conclusion:** Make a reasoned judgement on whether regulation is the best measure.

Knowledge, Application, Understanding and Analysis		
L 3	<i>For an answer using analysis to support the conclusions about the use of regulation as opposed to carbon taxes</i>	9-11
L 2	<i>For an answer that gives a descriptive explanation of regulation, carbon taxes and other policies</i>	6-8
L 1	<i>For an answer that shows some basic but largely unexplained knowledge of regulations, carbon taxes or policies to correct market failure due to negative externalities in production</i>	1-5

Allow up to 4 additional marks for Evaluation		
E 2	<i>For an evaluative discussion supported by relevant economic analysis that either regulation or carbon taxes are justified</i>	3 – 4
E 1	<i>For an unexplained evaluative e.g. a largely unexplained statement that regulation is justified</i>	1 – 2

2014 Preliminary Examination H2 Economics EQ4

Essay Q 4

- (a) Explain the possible causes of an increase in the average standard of living in a country [10]
- (b) Assess the desirability of aiming for high growth rates in Singapore [15]

SUGGESTED ANSWER MODEL

Part (a)

Introduction

Development 1: Increase in AD, increases national output, results in actual economic growth and increases in material well-being

Explain material well-being

List the components of AD

$AD=Cd+I+G+X$ , an increase in any of the components of AD will result in actual economic growth, assuming spare capacity in the economy.

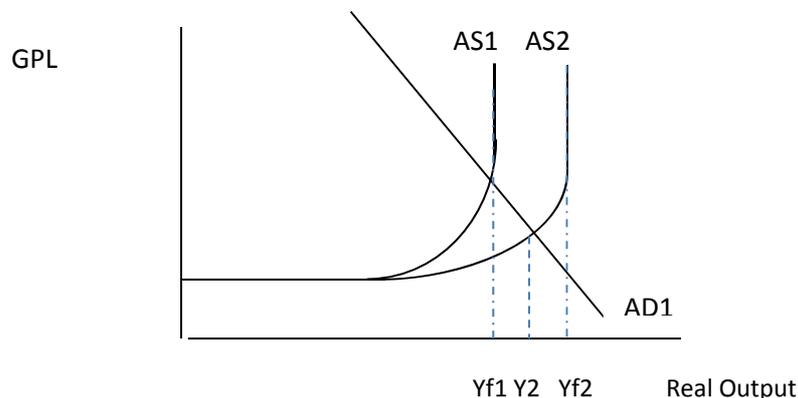
Fall in IR  $\rightarrow$  lower COB  $\rightarrow$  increase Cd + increase I  $\rightarrow$  increase AD  $\rightarrow$  increase in real GDP.

Use AS/AD diagram to illustrate.

Assuming no change in population or that population growth rate is less than economic growth rate, there will be an increase in national income per head in the economy. This indicates a rise in purchasing power of the average individual which allows him to consume a greater quantity of goods and services thus improving the material well-being.

Development 2: Increase in AS, increases productive capacity, results in potential economic growth and increases in material well-being

An increase in AS is caused by an increase in quantity and quality of resources. E.g. an increase in AS can be due to an increase government spending on education in the economy  $\rightarrow$  raise the quality of labour  $\rightarrow$  increase capacity of economy to produce  $\rightarrow$  AS shifts right from AS1 to AS2. The full employment level of output increases from  $Y_{f1}$  to  $Y_{f2}$ . Education and training promotes potential growth. There is an increase in real GDP to  $Y_2$  and hence increase in material SOL, c.p.



2014 Preliminary Examination H2 Economics EQ4

**Evaluation** : While AS increases in the long term – actual growth and hence SoL, this can only be realized with increasing and high levels of AD to utilize the productive capacity created by the rightward shift of AS. May also increase non-material well-being:

**Development 3:** Government policy is one factor that affect non-material standard of living.

Explain non-material well-being. Use example to show how govt policy can improve non-material well being.

**Conclusion**

An increase in either material or non-material well-being, or both can result in an increase in average SOL in a country.

**[Conflict]** However, in some economies, an improvement in material well-being has led to a worsening of the non-material well-being. For example, high economic growth in an economy as a result of greater production in the economy, may bring with it a higher level of pollution in the economy. This negatively impacts the health and well-being of people in the economy resulting in a fall in material-being. Overall, the improvement in average SOL may be reduced or average SOL may have fallen. **[link to part (b)]**

<b>Knowledge, Application, Understanding and Analysis</b>		
<b>L3</b>	Explanation of causes of an increase in average SOL that considers both material and non-material well-being. Two of the causes must be explained analytically.	<b>7-10</b>
<b>L2</b>	Underdeveloped explanation or an answer lacking in scope or rigour.	<b>5-6</b>
<b>L1</b>	For an answer which demonstrates some basic knowledge about SOL without any economic analysis	<b>1-4</b>

**4 (b) Assess the desirability of aiming for high growth rates in a country. [15]**

**Thesis: High growth rates are desirable to an economy as (i) there are advantages of high growth including improvement in SOL and (ii) potential link to attainment other economic goals**

**[Explain Growth and impact on material SOL]** High growth rates means that the economy is experiencing large actual growth which is one of the macroeconomic goals in the economy. As mentioned in part (a) of the essay, this means that there is an increase in the material well-being of an economy, ceteris paribus.

**[Evaluation – encourage investment and additional impact on potential growth]** High growth rates may result in an improvement in consumer confidence and optimistic expectations for the future. Consumers thus are more willing to spend, raising consumption. This impacts business confidence raising investment.

Increase in I fuel growth in the SR by raising AD. More importantly, in the LR, due to an increase in quantity of capital goods, will result in potential growth. Illustrate using AS/AD framework.

**Anti-thesis: There are some instances whereby high growth rates may be undesirable because (i) there are disadvantages of high growth including worsening non-material well-being and hence SOL and (ii) potential conflicts with other macroeconomic goals.**

Analyse conflicts with inflation and one of the 2 points (increase inequity and negative environmental impact)

**[Conflicts - Inflation]** Experiencing actual growth may impact an economy negatively through higher demand pull inflation. High growth rates are likely to be due to large increases in the AD in the economy. Large increases in AD at a point of excess spare capacity can result in high growth without changes in the GPL. However, if sustained over time with little or no change in productive capacity, it may eventually result in demand-pull inflation in the economy. Explain why inflation is undesirable.

**[Worsen inequity]** Higher growth rates may result in greater income inequality due to the more rapid structural changes. This means that a majority of the people have not experienced a rise in material SOL or worse, a fall in material SOL.

**Evaluation :** This problem can be mitigated by governments redistributing income through transfer payments or better subsidized facilities for the poor, and this policy option has varying outcome for different economies.

**[Reduces non-material SOL]** As mentioned in part (a), a rise in econ growth may lead to a fall in non-material SOL. Economic growth achieved at the expense of environment damage or negative externalities that are unaccounted for in the GDP figures. High growth rates may reduce non material SoL as people get to enjoy fewer leisure hours or experience a rise in stress levels which both negatively impacts their QOL and this reduces material SOL.

**Address the question of ‘high’ rates of growth by considering the possibility that some fairly slow economic growth might be deemed to be preferable to either higher or zero/negative growth.**

**Reasoned Conclusion : Address the direction word ‘Assess’**

High growth is 'desirable' due to the many positive impacts on the economy and SOL, but it is not always desirable as there are also some negative impacts.

<b>Knowledge, Application, Understanding and Analysis</b>		
<b>L3</b>	For an analytical and balanced discussion on whether high growth rates are desirable by referring to the benefits and costs.	<b>9-11</b>
<b>L2</b>	For an analysis of <u>either</u> the benefits <u>or</u> costs <b>OR</b> A description of both benefits and costs.	<b>6-8</b>
<b>L1</b>	An answer which shows some knowledge or merely lists the benefits and costs of high growth rates.	<b>1-5</b>

<b>Knowledge, Application, Understanding and Analysis</b>		
<b>E2</b>	For an evaluative discussion based on economic analysis	<b>3-4</b>
<b>E1</b>	For an unexplained judgement, or one that is not supported by economic analysis.	<b>1-2</b>

Governments in economies worldwide **solve unemployment** problems through employing **loose monetary policy** and **reinvestments in human capital**.

(a) Explain the **trade-offs** that a government might face in solving the problem of unemployment. [10]

Suggested Approach:

### Introduction

**Define :** Loose MP, Reinvestment in HC, Cyclical U/Structural U

### Development

**1: Exp DMP to solve DD-deficient UE causes DD-pull inflation**

Exp MP (  $\downarrow$  IR)

- Raise  $Cd + I \rightarrow \uparrow AD \rightarrow \uparrow Output$
- $\uparrow DL \rightarrow$  resolve DD-deficient UE
- Excessive  $\uparrow AD \rightarrow$  drives up factor prices  
 $\rightarrow$  Higher unit COP  $\rightarrow \uparrow P \rightarrow$  DD-pull

inflation

**2: Exp DMP to solve DD-deficient UE causes BOP to worsen**

Exp MP  $\rightarrow \uparrow GPL$  (inflation)

- $\uparrow P_x, \downarrow P_m$
- Lower qty demanded of X, Higher DD for M
- $[X-M]$  worsen if  $PED_x > 1 \rightarrow BOP$

worsens

**3: SSP to solve Structural UE draw resources away from more immediate needs and outcomes are uncertain**

- G on training + skill upgrading  $\rightarrow \uparrow Qly$  of labour  $\rightarrow \downarrow$  labour immobility  $\rightarrow \downarrow$  Structural UE

\*Include evaluative points

### Conclusion

Answer the Qn by providing a **reasoned judgement**.

Governments in economies worldwide **solve unemployment** problems through employing **loose monetary policy** and **reinvestments in human capital**.

(b) Discuss the view that Singapore would be better off reducing unemployment through the use of exchange rate policy. [15]

Suggested Approach:

### Introduction

**Qn interpretation** : The policy choices employ to solve unemployment problems depend on nature & state of economy restricting the usage of certain economic policies and the type of unemployment.

### Development

1: D1 – Yes, ERP is effective in reducing cyclical unemployment → SG is better off

- Open economy → External demand is large → ERP is effective in boosting external demand

2. D2 – No, ERP is not the best method to reduce unemployment → SG is not better off.

- FP is better when the unemployment is due to a sharp serious recession because it instil consumers' and producers' confidence

3. D3– No, ERP is not the best method to reduce unemployment → SG is not better off.

- SSP are better if there is structural unemployment

\*Include evaluative points

### Conclusion

Answer the Qn by providing a **reasoned judgement**.

Part (a)

Knowledge, Application, Understanding and Analysis		
	Descriptor	Mark
L 3	For an answer that <u>analyses</u> at least two macroeconomic conflicts that may arise when lower unemployment is pursued	7-10
L 2	For an answer that <u>describes</u> at least two macroeconomic conflicts that may arise when lower unemployment is pursued.	4-6
L 1	For an answer that demonstrates some understanding of unemployment and macroeconomic objectives.	1-3

Part (b)

Knowledge, Application, Understanding and Analysis		Marks
L 3	<i>For an answer <u>using analysis to support the conclusions</u> about the use of exchange rate policy as opposed to other policies to correct unemployment in small, open economies</i>	9-11
L 2	<i>For an answer that gives a <u>descriptive explanation</u> of exchange rate policy and other policies to correct unemployment</i>	6-8
L 1	<i>For an answer that shows some basic but largely <u>unexplained knowledge</u> of exchange rate policy, policies to correct unemployment <u>and/or</u> small, open economies</i>	1-5

Allow up to 4 additional marks for Evaluation		
E 2	<i>For an evaluative discussion supported by relevant economic analysis that either exchange rate policy or any other policy is justified</i>	3-4
E 1	<i>For an unexplained evaluative e.g. a largely unexplained statement that exchange rate policy is justified</i>	1-2

**Q6. A small and more open economy may find it more beneficial to embrace globalisation, as compared to a large and less open economy. Discuss the extent to which you agree with the above view. [25]**

Suggested Approach:

### Introduction

**Define :** Globalisation, SOE/ LLOE

### Development

#### 1: SOE has much to gain from globalization

Globalization

- Raises SOE's SoL through trade & specialisation
- Aids SOE's export-driven growth
- Promotes non – inflationary sustained growth

#### 2: There are problems of globalisation to SOE

Globalisation

- Increases the volatility of a SOE's macroecon performance
- Poses an increased risk to structural unN ( or income inequality)

\*Include evaluative points

### Conclusion

Answer the Qn by providing a **reasoned judgement**.

Level	Knowledge, Application, Understanding and Analysis	Marks
L3	For a balanced discussion using appropriate analysis to explain whether a small and open economy may find it more beneficial to embrace globalisation by referring to the benefits and costs.	15 - 21
L2	For an <u>analysis</u> of <u>EITHER</u> the benefits <u>OR</u> costs of globalisation to small and open economies  <u>OR</u> A <u>description</u> of both benefits <u>and</u> costs of globalisation to small and open economies	9-14
L1	An answer which shows some knowledge of the benefits and costs of globalisation or merely lists the benefits and costs of globalisation.	1-8
Allow up to 4 additional marks for Evaluation		
E2	For a discussion justifying the conclusion drawn	3-4
E1	For an unexplained judgement, or one that is not supported by economic analysis.	1-2

Class Adm No

Candidate Name: \_\_\_\_\_

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## 2014 Preliminary Examination 2

### Pre-university 2

**H1 ECONOMICS**

**8819/1**

Paper 1

2 September 2014

Additional Materials: Answer Paper

3 hours

#### **READ THESE INSTRUCTIONS FIRST**

Write your name, class and admission number in the spaces at the top of this page and on all pages of the work you hand in.

Write in dark blue or black pen on both sides of the paper.

You may use a soft pencil for any diagrams or graphs.

Do not use staples, paper clips, highlighters, glue or correction fluid.

Section A

Answer **all** questions.

Section B

Answer **one** question.

At the end of the examination, you are to **hand in Section A and Section B separately**.

You are to **write the question number of the essay attempted on the Cover Page** and tie the Cover Page on top of **Section B**.

The number of marks is given in brackets [ ] at the end of each question or part question.

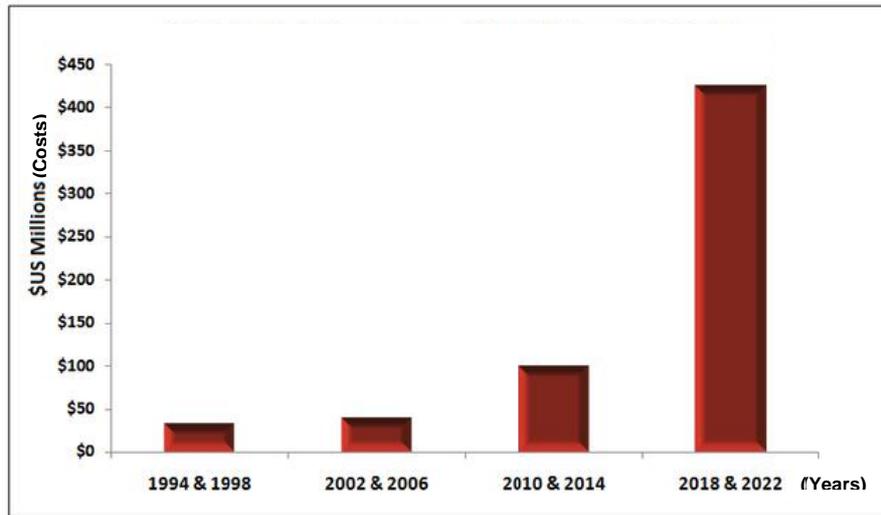
Section A

Answer all questions in this section

Question 1

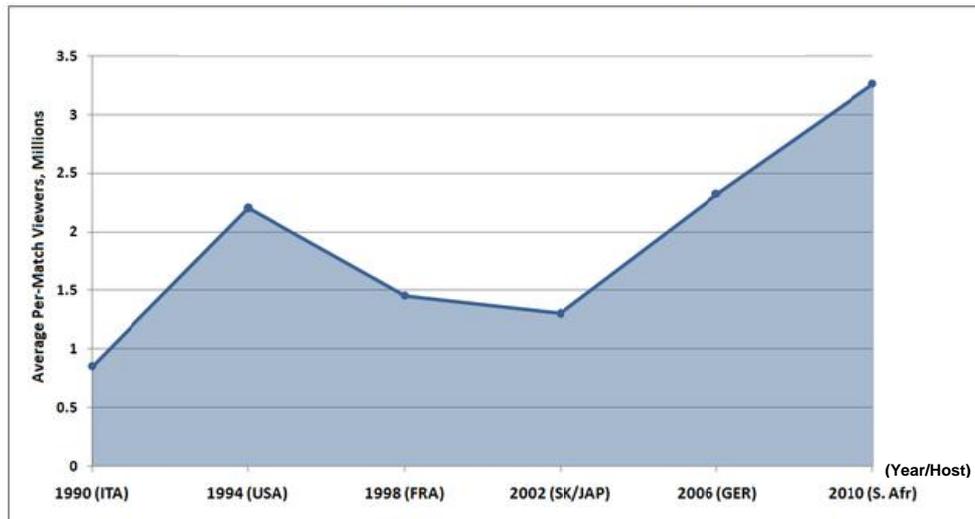
The World Cup in Brazil

Figure 1: US English-Language World Cup TV Rights



Source: *Forbes*, 9 June 2014

Figure 2: Historical US World Cup Viewership



Source: *Forbes*, 9 June 2014

Extract 1: American World Cup Rights Fees Soar Along With Viewership

Fox Broadcasting Company will write a \$425 million cheque for the rights to the 2018 and 2022 World Cups (plus a handful of other rights, including the Women's World Cup). That is

not only a massive increase over the tournaments of the 1990s, but also over even more recent years: The same package cost ESPN, another US-based cable television network, just \$100 million for the previous two World Cups, in 2010 and 2014.

The massive growth in rights fees is far from a surprise. For one, live sports telecasts have become increasingly more valuable in recent years because they are almost exclusively watched live, and not on commercial-skipping digital video recorder. On top of that, Fox likely paid a premium thanks to a need for live programming on its still-fledgling Fox Sports One network. Most importantly, though, American World Cup viewership has been climbing fast.

There is a clear relationship between domestic viewership and host country – viewership spiked in the year that the United States hosted the tournament, but dipped in 2002 when games played in Asia were aired live in the middle of the night – but the numbers have been generally on the rise over the last two decades. Little coincidence that the most recent increase, which was in spite of live games often airing in the morning or middle of the day, coincides with soccer's recent surge in domestic popularity.

This year's tournament should continue that climb, even if just from matches being played in the evening when it is easier for American soccer fans to tune in. That continued increase in viewership helps explain just why Fox is willing to spend so much on domestic broadcast rights.

Source: *Forbes*, 9 June 2014

### **Extract 2: Fifa loses free-to-air World Cup TV battle**

Fifa, the international governing body of football, have lost an appeal against a European ruling that the World Cup should be shown on free-to-air TV in the UK. In 2011, the European General Court said the UK could keep the event on a list of "protected" events of national sporting interest broadcast for free.

It means the tournament cannot be sold exclusively to pay-TV firms. Fifa had appealed, after saying they could not sell the event fairly for their real value. But the European Court of Justice has now said the original decision in the General Court in 2011 was correct.

Fifa had argued that the current set-up interfered with their ability to sell television rights at the best commercial price they could get in the marketplace. However, the UK argued that all the 64 World Cup finals matches and 31 European Championship matches were an important part of the list of national sporting "crown jewels", that have to be made available to the whole population to watch on free-to-air television.

The court agreed, saying that European states were able to select broadcast events, "which they deem to be of major importance for society" and show them for free. Otherwise it "would deprive a substantial proportion of the public of the possibility of following those events on free television".

Source: *BBC*, 18 July 2013

**[Turn over**

**Extract 3: The World Cup and the Brazilian Economy**

Economists agree that, on the whole, big sporting events have negligible impact on output. Money for the infrastructure spending is not conjured from thin air; it is diverted from elsewhere. Productivity dips, too. Holidays have been decreed on some match days to ease pressure on creaking public transport. Before the Brazil-Cameroon game on June 23rd, for example, Brasília was a ghost town; to spare fans inevitable gridlock, public institutions and private firms let workers off early.

The São Paulo Federation of Commerce reckons the output lost as a result could reach 30 billion reais (US\$14 billion), about as much as all World Cup investment put together. Tourism-related earnings, which the government puts at 6.7 billion reais, will not offset this. For every football fan coming to see his team play, a tourist is put off by the crowds and the prices. Gelsa Lima, who runs a food stall at the bus terminal in Natal, capital of Rio Grande do Norte, complains that business is no better than usual. The state tourism secretary's expectation of a net 300,000 extra visitors this year compared with 2013 looks overly optimistic.

Public spending on stadiums and other World Cup-related infrastructure projects - estimated at US\$11.3 billion - was met with widespread unrest and protests in the 18 months before the start of the Cup. An economic upswing was one of the things that lawmakers touted to the Brazilian public that was supposed to make hosting the Cup worth the investment. Most analysts and economists, however, agree that the tournament will probably wind up being anything but a moneymaker.

"There will be a short-term input from the huge increase in tourism and related consumer spending," Cynthia Arnson, the Latin American director at the Woodrow Wilson International Center for Scholars in Washington, D.C., told Fox News Latino. "Once the Cup is over, however, the long-term structural problems will remain."

Host cities did score some new infrastructure (though many question whether it was the sort they most urgently needed). Natal got a snazzy airport. Taxi drivers in Recife say traffic has eased thanks to a new viaduct linking the north and south of the city. Brasília, Curitiba and Salvador built new motorways to their airports. Severe flooding due to unusually heavy rains which hit Natal in the past week "would have been worse had it not been for the World Cup", says Demétrio Torres, special secretary for World Cup affairs in Rio Grande do Norte. A joint operations centre created for the occasion helped police, firemen and civil defence to co-ordinate their actions. As part of its preparations, the city also began building a new drainage system.

Sources: *The Economist*, 28 June 2014 and *The Independent*, 20 July 2014

**Questions**

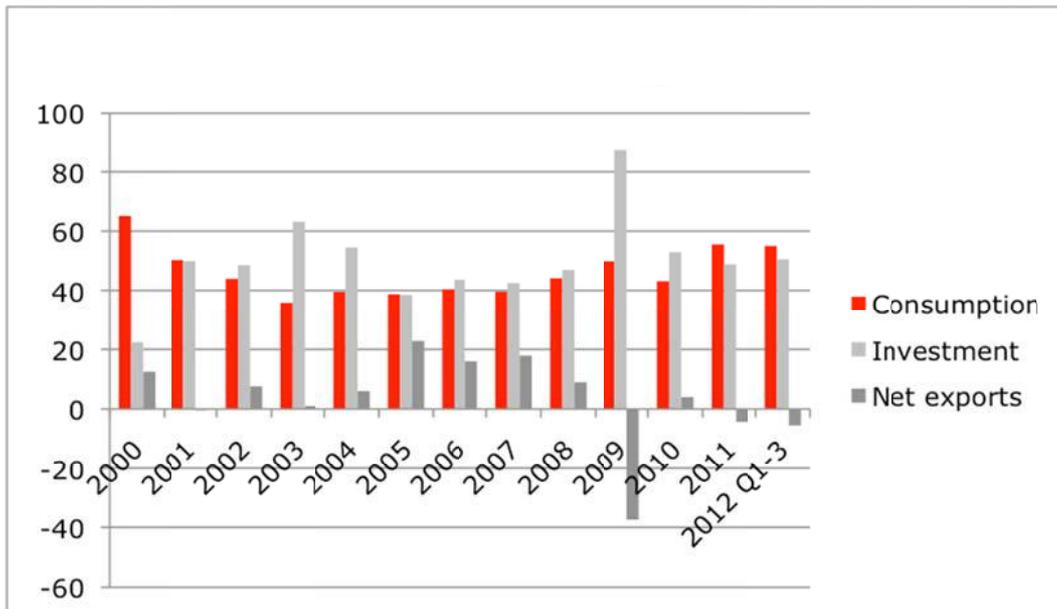
- (a) With reference to Figures 1 and 2,
- (i) Compare the trend of the costs of World Cup TV Rights with the historical US World Cup Viewership between 1994 and 2010. [2]
  - (ii) Using demand and supply analysis, account for the identified trend. [4]
- (b) (i) Explain what is meant by “Price Elasticity of Demand”. [2]
- (ii) With reference to Extract 1, explain whether live sports telecasts are price elastic or inelastic in demand. [4]
- (c) Using economic analysis, explain why World Cup broadcasts are “deemed to be of major importance for society and shown for free” in the UK. [6]
- (d) (i) Using the Production Possibility Curve, explain the difference between real growth and potential growth. [4]
- (ii) As an economic consultant to the Brazilian government, evaluate whether the hosting of the World Cup has benefited Brazil’s economy in terms of real and potential growth. [8]

**[Total 30m]**

Question 2

The Chinese Economy

Figure 3: Contributions to the growth of the Chinese economy (%)



Source: www.economist.com, 20<sup>th</sup> October 2012

Table 1: China's GDP growth

GDP growth (annual %)

2009	2010	2011	2012	2013
9.2	10.4	9.3	7.7	7.7

Source: The World Bank

Extract 4: China's economic growth

Foreign direct investment (FDI) into the mainland saw its strongest surge in more than two years in 2012 with the US\$14.4 billion of capital committed to the world's second biggest economy, to put it firmly on track to meet the government's target of US\$120 billion of inflows this year. It is one of the principal drivers of China's breakneck economic growth in the past three decades.

At the same time, much investment outside China, especially in Asia, is dependent on the China boom. So supercharged has the Chinese export machine become that it has sucked in vast quantities of parts and components for final assembly from other parts of Asia – Thailand, Malaysia, Singapore, the Philippines and Indonesia, as well as richer Taiwan and South Korea. Everybody has benefited from Chinese demand for top-notch components. At

the same time, China has recently recorded phenomenal growth in exports of high-tech products, principally notebook and desktop computers, DVD players, mobile phones and the like.

However, the economic growth is not only relying on export. Instead, domestic consumption is going to drive the economy, which will provide other countries with numerous business opportunities. With China's rising consumption in recent years, this domestic demand is now growing at 9% a year and starting to act as a regional engine of growth, sucking in imports to feed its increasing consumption for products it has no comparative advantage in.

Source: South China Morning Post, 17 July 2013

### **Extract 5: China's trade imbalance with the US**

China's trade with the US in 2012 grew 8.5% year-on-year to US\$484.68 billion, accounting for 12.5% of China's total foreign trade in 2012. Outbound shipments to the US grew, leaving a trade surplus of US\$218.92 billion, up 8.2% year-on-year.

With millions of Americans still unemployed, political pressure has grown in the US to impose economic sanctions on China. Critics say China has undervalued its currency against the dollar and has made Chinese goods cheaper in the US and American products more expensive in China. In addition, US manufacturers contend that the Chinese currency is still significantly undervalued against the dollar, giving Chinese exporters an unfair edge. As such, even though there have been moves to overcome the problem, critics said the moves were unlikely to narrow the trade gap between the two nations.

Source: usatoday30.usatoday.com, 10<sup>th</sup> May 2012 and www.chinadaily.com.cn, 10<sup>th</sup> January 2013

### **Extract 6: China's Exchange Rate Reform**

China's fixed exchange system was discontinued from 2005 and a managed float system was adopted. This is a move that would increase the value of the Chinese yuan against the dollar and help ease a trade imbalance, which has cost U.S. jobs. The move came amid growing complaints that China's undervalued yuan has made it difficult for manufacturers in the United States and other countries to compete with China's exports.

However, He Weiwen in the Global Times news article states that the US trade woes should not be blamed on the yuan. He points out that from 1998-2004, the yuan was fixed at 8.28 to the dollar and China's exports to the U.S. varied from year to year stressing that the yuan exchange rate doesn't play a significant role in affecting US exports. China also continued to record trade surpluses against the United States after it initiated exchange rate reform in 2005 to allow the yuan to appreciate 20 percent against the US dollar.

Source: Economics Policy Institute (EPI) News, 9<sup>th</sup> April 2010

### **Extract 7: US imposes tariffs on solar panels from China**

The US Commerce Department has recently increased charges of 18 percent up to nearly 250 percent on Chinese solar panel producers to counter what is said was improper subsidies by Beijing to the industry. This is because US competitors complain that Chinese solar manufacturers get improper government support in the form of low-cost access to land, bank loans and other resources.

The latest US tariffs were imposed in response to a complaint by a group of companies who claimed that there was unfair competition posed by the Chinese producers and that it would lead to loss of local employment.

Source: [www.businessweek.com](http://www.businessweek.com), 11<sup>th</sup> October 2012

### **Extract 8: Enough appreciation for now**

The yuan has appreciated by nearly 8% against the dollar from 2010 to 2012. The Economist also found that the yuan was close to fair value even though China continues to run large surpluses with America (though America exported over US\$100 billion in goods to China for the first time in 2011). More balanced trade overall and a sharp reduction in the growth of its foreign-exchange reserves suggest that China's currency may be a lot closer to the "right" level than American politicians would like to hear.

That is not to argue, however, that China's economy has successfully rebalanced. Nothing could be farther from the truth. Higher incomes should translate into a rising share of consumption in the economy, but between a tightly controlled financial system and a meagre safety net, saving and investment will only slowly fall from the extraordinarily and unhealthily high levels now observed.

Revaluation was never going to be the hardest part of Chinese development. The most difficult tasks largely lie ahead: freeing finance, reducing the level of investment in the economy and figuring out how to build an innovative economy.

Source: [www.economist.com](http://www.economist.com), 12<sup>th</sup> May 2012

**Questions**

- (a) (i) Compare the contributions of consumption and investment to the growth of the Chinese economy from 2008 to 2012. [2]
- (ii) Using information from the case, account for the difference between contributions by investment and consumption to growth from 2008 to 2012. [3]
- (b) Using information from the extracts, explain the reasons why China has increased its imports in recent years? [4]
- (c) (i) Explain the effects of undervaluation of the Chinese currency on its balance of payment. [3]
- (ii) Discuss whether China's trade position with the US is necessarily good for the Chinese economy. [6]
- (d) Based on information from the extracts, explain why the US has launched a growing number of protectionist measures against the Chinese products. [4]
- (e) "Revaluation was never going to be the hardest part of Chinese development" (Extract 8). Is revaluation the only policy that the Chinese economy can undertake to achieve its macroeconomic aims of sustained economic growth and healthy balance of payments? [8]

**[Total 30m]**

**Section B**

Answer **one** question from this section.

- 3 (a) Using appropriate examples, explain why the existence of negative externalities and public good causes market failure. [10]
- (b) As a city develops, air pollutants are inevitably produced. Without control measures, increased urbanisation and industrialisation threaten to degrade our air quality.

Source: <http://app.mewr.gov.sg/web/contents>, accessed on 18 Aug 2014

Discuss the appropriate policies which a government may undertake to tackle the problem of pollution. [15]

- 4 (a) Explain the different types of inflation that can occur in an economy. [10]
- (b) Assess the effectiveness of macroeconomic policies used to achieve low and healthy inflation rate in an economy. [15]

- End of Paper -

**[Turn over**

2014 Prelim II PU2 H1 Economics Suggested Answers  
Section A CSQ 1: The World Cup in Brazil

(a) With reference to Figures 1 and 2,

- (i) Compare the trend of the costs of World Cup TV Rights with the historical US World Cup Viewership between 1994 and 2010. [2]

Similarity: Both have overall increasing trends.

Difference: World Cup Viewership numbers fell between 1994 to 2002 whereas costs rise throughout.

- (ii) Using demand and supply analysis, account for the identified trend. [4]

Increase in viewership indicates an increase in quantity demanded for World Cup broadcasts. World Cup TV rights have increased together with World Cup Viewership as firms are willing to pay more due to the increase in demand (or expectation of increase in future demand) of live sports broadcasts.

The fall in viewership between 1994 to 2002 might be due to the fact that there is a fall in demand of World Cup broadcast as the 2002 matches were held in Asia, which would have been aired at an inconvenient time for US consumers.

- (b) (i) Explain what is meant by “Price Elasticity of Demand”. [2]

The responsiveness of quantity demanded to a change in the price of a good.

Formula:  $\frac{\% \text{change in quantity demand}}{\% \text{change in price of a good}}$

- (ii) With reference to Extract 1, explain whether live sports telecasts are price elastic or inelastic in demand. [4]

Demand for live sports telecasts is likely to be inelastic.

Reasons

- 1) No close substitutes for ‘live’ broadcasts: “live sports telecasts...are exclusively watched live” [Extract 1]
- 2) Addiction: fans of sports teams are likely to follow their teams on TV. “soccer’s surge in domestic popularity” [Extract 1]

- (c) Using economic analysis, explain why World Cup broadcasts are “deemed to be of major importance for society and shown for free” in the UK. [6]

World Cup broadcasts are deemed to be merit goods by the UK government.

Merit goods are goods deemed intrinsically desirable by the government and usually exhibit positive externalities. Positive externalities refer to the external benefits enjoyed by someone other than the consumers or producers of the good, for which no compensation occurs.

In this case,  $MSB > MPB$ , as  $MEB > 0$ . MEB here may refer to the fostering of national identity, promotion of healthier lifestyle and promotion of football as a national sport in the UK.

Positive externality analysis with diagram, including why ‘free’.

L1 (1 – 3 m)	Descriptive explanation of why broadcasts are free.  OR  Theoretical explanation of market failure without referring to context.
L2 (4 – 6 m)	Correct identification of merit good as the source of market failure, with detailed explanation of what the external benefits refer to.  Detailed economic analysis with the use of a diagram.

- (d) (i) Using the Production Possibility Curve, explain the difference between real growth and potential growth. [4]

Definition of PPC.

Real growth: movement from a point within the PPC to a point closer to the frontier. Usually due to increase in production of goods and services.

Potential growth: outward shift of the PPC. Usually due to increase in capacity to produce

- (ii) As an economic consultant to the Brazilian government, evaluate whether the hosting of the World Cup has benefited Brazil's economy in terms of real and potential growth. [8]

Use opportunity costs and PPC.

Thesis: Hosting the World Cup has benefitted Brazil's economy

Investments in infrastructure

- Airports, roads, flood control systems (more in terms of potential growth)

Provision of jobs

- From building of infrastructure, tourism (in terms of real growth)

Increase international recognition

- Tourism and other political / social impacts (more in terms of real growth)
- Due to worldwide television broadcasts (in terms of real growth)

Increase in tourism revenues (in terms of real growth)

Anti-Thesis: Hosting the World Cup has not benefitted Brazil's economy

Loss of productivity

- Holidays decreed to lower strain on public transport network (in terms of real growth)

Spending on infrastructure (stadiums) that do not serve a purpose beyond the event.

- Opportunity costs in terms of other spending (healthcare, education) (in terms of potential growth)

Tourism receipts may not cover costs (in terms of real growth)

Evaluation

Ceteris Paribus assumption

- The effects of hosting the World Cup on the Brazilian economy also depend on the current state of world economy. For e.g., if there is a major world recession, the positive effects from hosting the World Cup may be diminished. (in terms of real growth)

Short run VS Long run

- Long term infrastructural gains may not be captured by data now, as some of these gains will only be realised in full in the future (in terms of potential growth) e.g. roads / flood control, airports etc

L1 (1 – 3 m)	Descriptive explanation of both thesis and anti-thesis with no link to extracts and/or economic concepts.  OR  Detailed Explanation of only one point of view.
L2 (4 – 6 m)	Detailed explanation of both points of view with consistent links to extracts and/or economic concepts.
E1 (1 m)	Evaluative comments
E2 (2 m)	Evaluative comments with justification

2014 Prelim II PU2 H1 Economics Suggested Answers

Section A CSQ 2: The Chinese Economy

- (a) (i) Compare the contributions of consumption and investment to the growth of the Chinese economy from 2008 to 2012. [2]
- **Similarity:** Both contributions by consumption and investment increased from 2008 to 2012.
  - **Difference:** Investment contribution to growth was higher than consumption contribution to growth from 2008 to 2010 and the reverse occurred in 2011 and 2012.
- OR**  
Contribution by investment was highest in 2009 while the contribution by consumption was highest in 2011.
- OR**  
While contribution by consumption rose in from 2010 to 2011, the contribution by investment fell during the same period.
- (ii) Using information from the case, account for the difference between contributions by investment and consumption to growth from 2008 to 2012. [3]
- Investment contribution was greater in the earlier part of the period because of the large amounts of FDI that was entering the country (Ext 4).
  - Subsequently, as China's consumption rises, consumption contribution overtook investment contribution as suggested by Ext 4 that stated that "domestic consumption is going to drive the economy."
  - However, consumption contribution did not rise significantly because despite the higher incomes enjoyed, people in China prefer to save rather than spend (Ext 8).
- (b) Using information from the extracts, explain the reasons why China has increased its imports in recent years? [4]
- China increases its imports of "parts and components for final assembly from other parts of Asia" because it needs these raw materials and intermediate goods for production of its exports (Ext 4).
  - China is also increasing its consumption of consumer goods from other parts of Asia because it does not have comparative advantage in the production of those goods and also because of its rising consumption (Ext 4).
  - Appreciation of the yuan makes imports into China cheaper so there is an increase in the volume of imports. [2]
- (c) (i) Explain the effects of undervaluation of the Chinese currency on its balance of payment. [3]
- "Critics say China has undervalued its currency against the dollar and has made Chinese goods cheaper in the US and American products more expensive in China." (Ext 5)
  - Undervaluation of the yuan has made Chinese exports relatively cheaper than domestically-produced goods in the US. Export revenue is likely to increase.
  - Undervaluation of the yuan has also made imported goods from other countries to China relatively more expensive than the domestically-produced goods. Import expenditure is likely to fall.
  - Assuming that the Marshall-Lerner condition ( $PED_x + PED_m > 1$ ) holds,

*undervaluation of the Chinese currency will lead to an improvement in the BOP position of China.*

- (c) (ii) **Discuss whether China’s trade position with the US is necessarily good for the Chinese economy.** [6]

*China has a trade surplus with US*

<b>Trade surplus is good</b>	<b>Trade surplus is bad</b>
<ul style="list-style-type: none"> <li>• <i>Trade surplus indicates that (X-M) is high therefore AD would increase. This results in increase in equilibrium national income, output and employment via the multiplier process. → Actual economic growth</i></li> <li>• <i>Increase in foreign reserves is often regarded as a symbol of economic success.</i></li> </ul>	<ul style="list-style-type: none"> <li>• <i>Persistent trade surplus may result in demand pull inflation especially if the economy is operating at full employment.</i></li> <li>• <i>Persistent trade surplus will cause retaliation by trading partners. There has been increased political pressure in the US to impose protectionistic measures in the form of economic sanctions on China (Ext 5).</i></li> <li>• <i>Persistent trade surplus will create pressure for the external value of the yuan to rise. Hence, the central bank would have to intervene by selling the yuan and buying foreign currencies if it has no wish for the yuan to appreciate.</i></li> </ul>

<i>Knowledge, Application, Understanding and Analysis</i>		
L3	<i>A detailed answer explaining both the positive and negative implications of China’s trade surplus.</i>	5 – 6
L2	<i>For an answer that attempts to explain both sides but undeveloped OR For an answer that only discusses one side of the argument.</i>	3 – 4
L1	<i>For an answer that shows some knowledge of trade surplus and merely lifts from the extracts.</i>	1 – 2

- (d) **Based on information from the extracts, explain why the US has launched a growing number of protectionist measures against the Chinese products.** [4]

- *Ext 6: “Growing complaints that China’s undervalued yuan has made it difficult for manufacturers...to compete with China’s exports.”*
- *Ext 7: “The latest US tariffs were imposed in response to a complaint...there was unfair competition...lead to loss of local employment.”*
- *Tariffs will increase the cost of production of Chinese products thus reducing the supply of those products in the US market. This will lead to higher prices of the products when entering the US market.*
- *When prices of Chinese products increase, the prices of locally-produced substitutes may seem relatively cheaper thus causing US consumers to switch from buying Chinese products to buying locally-produced substitutes.*
- *This will cause the demand for locally-produced goods to increase thus encouraging the local firms to maintain or even increase employment levels to meet the demand.*

- (e) “Revaluation was never going to be the hardest part of Chinese development” (Extract 8). Is revaluation the only policy that the Chinese economy can undertake to achieve its macroeconomic aims of sustained economic growth and healthy balance of payments? [8]

Revaluation of yuan (Exchange rate policy)

- *P<sub>x</sub> will increase while P<sub>m</sub> will fall. Demand for Chinese exports is likely to be price inelastic so higher P<sub>x</sub> will still help China gain export earnings. Since China is dependent on other Asian countries for raw materials and intermediate goods (Ext 4), China will stand to benefit from a stronger yuan because it will be able to increase the imports of these materials and components. At the same time, consumers in China are increasing their consumption of imports. If demand for imported consumer goods is price elastic, it is likely that import expenditure will increase.*
- *Overall, there is a possibility that China’s trade surplus may be reduced and China will be able to enjoy healthy BOP with lesser likelihood of its trading partners retaliating*
- *Evaluation: Revaluation may result in lower export earnings if demand for China’s exports is price elastic. When this happens, AD will fall and China may not be able to enjoy high economic growth rates as before.*

Other than revaluation, China may want to use other policies to help the economy achieve the two macroeconomic aims.

Freeing finance (Expansionary monetary policy)

- *Increase MS → Reduce i/r → Lower cost of borrowing → Consumption and investment will increase → AD increase → Actual economic growth*
- *Evaluation: Unfortunately consumption in China seems to be interest inelastic. Chinese consumers prefer to save rather than spend as mentioned in Ext 8 that “saving will only slowly fall from the extraordinarily and unhealthy high levels now observed.”*
- *Too much saving means that there will be more withdrawals from the circular flow of income thus the effectiveness of this policy is limited.*

Build an innovative economy (Supply-side policy)

- *Increase LRAS through investments → Potential economic growth → Sustained economic growth since the demand for Chinese exports is also rising.*
- *With innovation, China can make the demand for its exports more price inelastic and will guarantee greater export earnings in the future.*

Knowledge, Application, Understanding and Analysis		
L3	A detailed discussion of the relevant policies that the Chinese economy has undertaken to achieve its macroeconomic aims.	5 – 6
L2	For an undeveloped answer that attempts to discuss the different policies undertaken.	3 – 4
L1	For an answer that shows some knowledge of macroeconomic policies without reference to extracts.	1 – 2
Evaluation		

E2	Evaluative comments, with justification.	2
E1	Evaluative comments, unexplained.	1

**2014 Prelim II PU2 H1 Economics Suggested Answers**

3	(a)	Using appropriate examples, explain why the existence of negative externalities and public good causes market failure.	[10]
	(b)	As a city develops, air pollutants are inevitably produced. Without control measures, increased urbanisation and industrialisation threaten to degrade our air quality.  Source: <a href="http://app.mewr.gov.sg/web/contents">http://app.mewr.gov.sg/web/contents</a> , accessed on 18 Aug 2014  Discuss the appropriate policies which a government may undertake to	

**Section B**

**Part (a)**

**Introduction**

- **Define market failure**

**Market failure** refers to a situation in which the market when left on its own is unable to attain social optimal output level where marginal social benefit (MSB) is equal to marginal social cost (MSC). Alternatively, market failure would mean that the **price mechanism has failed to allocate resources efficiently**, that is, the good is either under- or over-produced/consumed.

**Body**

- **Explain meaning of negative externalities**

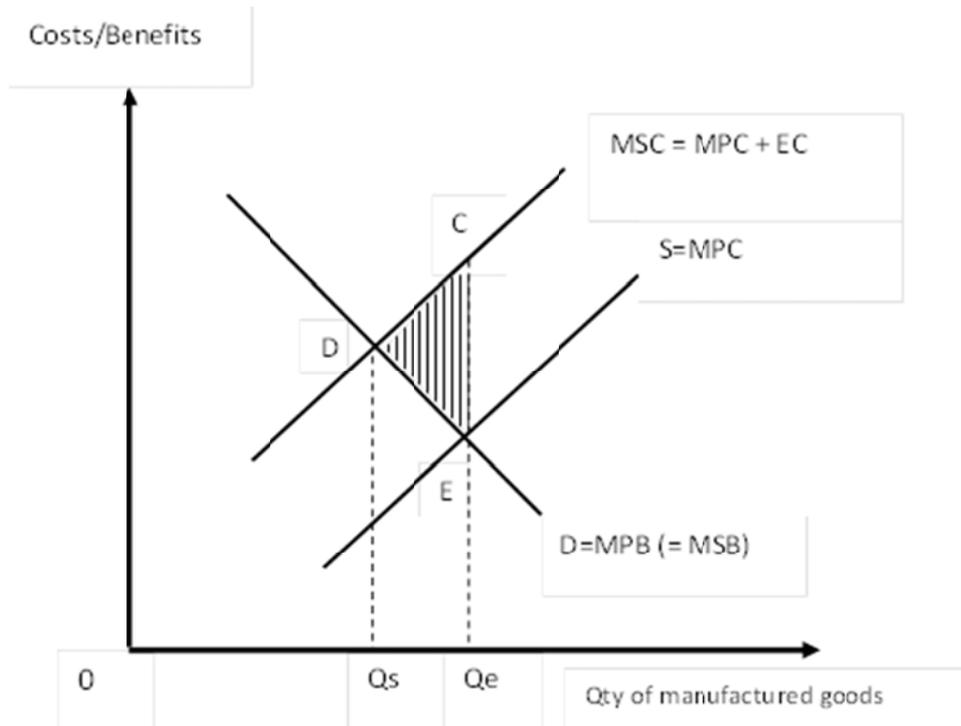
**Negative externalities** refer to the external costs imposed on someone other than the consumers or producers of the product, for which no compensation occurs. (*i.e. harmful effect on 3<sup>rd</sup> parties*). Individual decision makers are not internalising all the costs that society is bearing.

Examples of negative externalities include pollution, traffic congestion and environmental damages. Such negative externalities can be generated from the consumption or production of goods and services. For instance, car consumption gives rise to air pollution caused by exhaust fumes. Other road users and residents in the neighbourhood will suffer third party costs to such as breathing difficulties and lung problems without being compensated for the costs incurred. Thus, negative externalities are generated whenever other people are affected adversely.

- **Explain how negative externalities cause market failure**

To illustrate how negative externalities lead to market failure, let's take the example of negative externalities generated from a factory. In a free market, producers pursuing their self-interest of profit maximisation take into account only their own private costs and benefit.

	tackle the problem of pollution.	[15]
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In the figure above, the demand curve,  $D$ , reflects the marginal private benefit (MPB) of the factory from its production of goods which is the revenue they receive from the sale of each unit of good. The supply curve,  $S$ , reflects the marginal private cost (MPC) which is the additional cost of producing an additional unit of goods. If the factory is left to make its decision on how much to produce, it will only consider private costs and benefits, ignoring the negative externalities and will produce up to the point where **MPB = MPC** (private efficiency). As such,  $Q_e$  is being produced.

However, the negative externality generated from the production of goods creates a divergence between MPC and MSC, i.e. MSC is higher than MPC. On the other hand, since there is no external benefit incurred,  $MSB = MPB = D$ . As such, at market equilibrium output,  $Q_e$ , **MSC is greater than MSB**, meaning that the society values an extra unit of good less than what it would cost the society to produce it

The **socially efficient level of output** should be where  $MSC = MSB$ , i.e. at output  $Q_s$ . Therefore, the price mechanism **over-allocates** resources to the production of the good since  $Q_e < Q_s$ , that is, there is an over-production of the good. Area  $ECD$  represents the **welfare/deadweight loss** to society as a result of this over-allocation of resources. Therefore, the market fails to allocate resources efficiently because it does not take into account the external cost in production and market failure arises.

- **Explain How Public Goods cause markets to fail**

**Public goods** are goods where the positive externalities ( $MSB > MPB$ ) are so great that the free market may not produce at all. A pure public good is a good which has the features of **non-excludability** and **non-rivalry in consumption**.

A classic example of a public good is national defence. Other examples include lighthouse, flood control dams, street lights and bridges.

**Non-excludability** means it is either not economically feasible or not possible to exclude anyone from using the good, once it is provided. It is collectively consumed and it is not possible to assign property rights to only those who pay for the good. For example, when a streetlight is build, the owner cannot exercise private property rights and prevent other people who walk pass from enjoying the light as it is not economically feasible.

Thus, the property of non-excludability could give rise to **free rider problem** where it is possible for a person to consume a public good without having to pay for it. From the demand side of the market, the desire to be a free rider weakens the incentive for consumers to offer to pay for the public good. In the case of streetlight, the passer-by would not want to offer to pay for enjoying the light since it is impossible for the streetlight owner to charge him/her a fee. This would also mean that there is an incentive to refrain from expressing demand in the market. Hence, since there is no expression of demand, it is **impossible to charge a market price** for the good. The missing market price would lead to **no provision** of such goods at all if left to the private enterprise.

**Non-rivalry in consumption** means the consumption of the good by one person does not diminish another person's ability to consume the same good. This implies that once the good is produced, additional resource cost to provide for another person benefiting from consuming the good is zero. For instance, while one enjoys the streetlight, others could also enjoy the same amount of streetlight. Thus, there is no additional cost involved when another passer-by walk pass and enjoy the streetlight. This means that **marginal cost is equal to zero**. At social optimal level, MSB should be equal to MSC. Since MSC of streetlight is equal to zero, the **socially ideal price should be \$0**. However, at \$0, there will be **no supply** because producers are profit motivated.

Hence, the characteristics of non-excludability and non-rivalry in consumption explain why there is no provision of public goods in a free market economy. This results in compete market failure as **no resources are allocated to these goods** which are essential and beneficial to the society. In other words, resources are not allocated efficiently.

### Mark Scheme

<b>L3</b>	<b>8-10</b>	Good analysis of welfare loss using relevant marginal cost and benefit concepts, with help of appropriate diagram and examples. Competent explanation with good description of terms and a clear understanding of the concepts involved..
<b>L2</b>	<b>4-7</b>	<ul style="list-style-type: none"> <li>• Shows understanding the market failure which results in welfare loss and/or with little explanation</li> <li>• Diagram is drawn but with errors</li> <li>• Examples are missing but may show some inaccuracies; if they are included, concept of external cost is not clearly explained.</li> </ul>
<b>L1</b>	<b>1-3</b>	Showed little/ some basic concepts. May contain inaccuracies and/or irrelevant information

**Part (b)**

**Introduction**

- **Explain that pollution is a negative externality**

It arises largely from industrial production, usage of vehicles and excessive use of electricity. The harmful pollutants or greenhouse gases released into the environment cause ill health to people who live near factories and contribute to global warming which leads to adverse weather conditions and disruption of people's lives (external costs on 3<sup>rd</sup> parties). MSC is higher than MPC and there is over-production/consumption of manufactured goods.

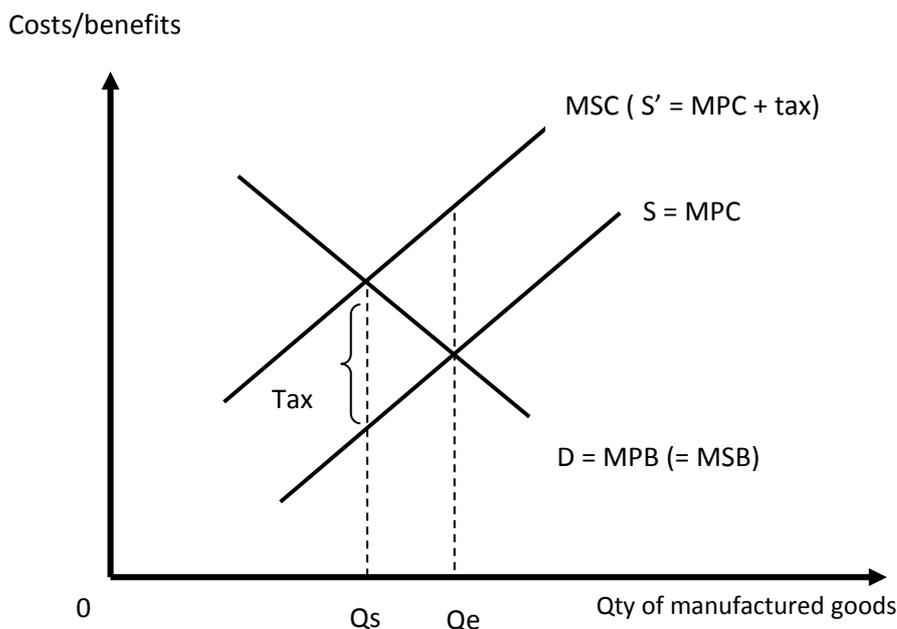
Government intervention is therefore required. Government can intervene by implementing taxes, tradable permits or legislation to reduce pollution generated and correct market failure.

**Body**

- **Explain and evaluate appropriate policies**

**Taxes**

To correct **negative** externalities, the government would have to impose a **tax** on production that is equal to the **external cost**. Consider the use of taxes to decrease production/consumption in the case of negative externalities.



The market equilibrium (where  $MPC = MPB$ ) will give a quantity  $Q_e$  which is higher than the socially efficient level  $Q_s$  (where  $MSC = MSB$ ). The market does not take into consideration the external costs involved (EC).

If the government imposes a tax equal to the external cost, then it will effectively internalize the externality. Cost of production will increase and producers will be induced to produce less; the supply curve will shift to the left to  $S'$  ( $MPC$  raised to the same level as the  $MSC$ ). The socially efficient level  $Q_s$  will thus be achieved.

### Evaluation:

#### **Advantages**

- The tax system still allows the market to operate, and also acts as an incentive to encourage firms to seek low-cost alternatives such as installing certain anti-pollution devices or use cleaner fuels to reduce emission so as to pay less tax.
- The revenue from the tax could be used by the government to pay for the external damages from the production of the product. For example, when a chemical firm dumps waste in a river or pollutes the air, the revenue collected from the tax can be used to clean up the river.

#### **Disadvantages**

- The main difficulty is in assessing the monetary value of the external costs. If the government assesses wrongly the amount, that itself will lead to resource misallocation. For example, if the external costs are overestimated, the government may levy excessively high taxes that over-correct for the actual external cost, resulting in underproduction of the good and thus greater inefficiency in resource allocation.
- Another problem is that each firm produces different levels and types of externality; and it would be very difficult and costly for the government to charge each offending firm its own particular tax rate.

#### **Tradable Permits**

Tradable permits aim to solve pollution by getting firms to internalize the external cost. Firms that wish to pollute above a certain limit may do so by buying permits. Firms who pollute less than their allocated portion may sell their excess to other firms for extra profits. The gap between MSC and MPC is narrowed as those who are polluting more are paying more. Overall pollution may fall if low polluting firms gain a competitive advantage and drive some of the high polluting firms out of business.

For firms that face high costs in decreasing pollution, they may find it cheaper to buy permits from the market. This forces them to internalise the negative externality. The cost of the permits adds on to the costs of production for the firm. The MPC curve will shift leftwards towards the MSC. Firms will reduce their production towards the socially optimal level of production at  $Q_s$ , and this reduces the extent of the market failure due to the overproduction of manufactured goods.

### Evaluation

#### **Advantages**

- Gives firms an incentive to cut back on pollution levels if they desire to sell their allocated share. In addition, if cuts to pollution are made where they are cheapest, those firms who find it easy to reduce their pollution emission will gladly do it for greater profits. In general, tradable permits which are market based solutions are good because their prices are determined by their demand and supply in the market. Requirements on government monitoring are minimal. For example, pollution permits are allocated to those who are willing and able to pay for it and price of the permits is determined by the forces of demand and supply which ensures efficiency
- Includes the advantage of a command and control type of intervention where the maximum pollution can be dictated directly by the number of permits issued.
- **Superior to taxes:** Tradable permits direct government intervention on those firms that are polluting, unlike taxes which may be imposed across entire industries which punishes the less polluting firms. Thus tradable permits system is seen as a more effective and fair instrument. Furthermore, imposing taxes may permanently increase costs of production for firms, thereby either reducing export competitiveness to domestic firms producing for

the exports market, or reducing the country's international competitiveness to foreign firms.

### Disadvantages

- The disadvantage is that the price of the pollution permits varies according to the demand and supply of them in the secondary market and this will affect firms in their production costs planning.
- It may also lead to pollution being concentrated in certain geographical areas if all the firms in that particular region has the purchasing power to buy the excess credits from other firms in other regions, with serious consequences for the environment in that region.

### Legislation

This is a process of controlling business activities through licences, setting standards, laws and administrative rules. The government may lay down the maximum pollution levels. Firms have to adhere to the standards otherwise they will be punished, e.g. fined or licence revoked. This requires firms to install pollution abatement equipment (such as filters or scrubbers that remove harmful materials from the emissions) or use energy saving technologies to reduce pollution.

### Evaluation

#### Advantages

- A legal maximum ensures certainty in outcome; there is a limit (cap) on the maximum amount of externality that can be produced.
- Legal regulations are **easy to understand, implement and are relatively easy to monitor**. Random spot checks or checks based on public complaints can be made and those who flout the regulations are then heavily fined. The penalties, if set high enough acts as an effective deterrent to prevent the undesirable behavior that imposes negative externalities on others.

#### Disadvantages

- Legal regulations tend to be a rather **blunt weapon**. They are inefficient because they do not pinpoint and focus on punishing only the main culprits. Once imposed, all will have to abide by the regulations. There is also **no incentive** for firms to reduce emissions below the permissible level.
- In addition, to design good rules, the government regulators need to know the details about specific industries and about the alternative technologies that those industries could adopt. This **information is often difficult for government regulators to obtain**. Without full knowledge of the cost of pollution abatement, determining the emission standards (socially optimal level of pollution) becomes a guessing game. Too stringent standards and there could be underproduction.
- For the law to be effective, the penalties for breaking the law can be made sufficiently harsh and inspections made more frequent. Hence, there is the need to incur costs of policing and enforcing the law by the government.
- In extreme cases, when a **complete ban is imposed**, this removes the entire benefits of using the goods. This can result in a **welfare loss** to society, and is not allocative efficient either.

### Subsidies

The government could provide subsidies to firms to carry out R&D to develop more environmentally friendly methods of production or more energy efficient technologies. Successful R&D measures carried out by the firms would help reduce the amount of pollution produced in the long run.

### Advantages

This measure address the root of the problem, and its effects would be longer lasting as compared to tradable permits and legislation. Improving energy efficiency will result in overall cost savings to businesses, helping the country to maintain its competitiveness in the long term.

### Disadvantages

It is costly, and might have to be funded by increases in taxation, which would have disincentive effects on work and investment. Such spending also involves an opportunity cost – the government could have used the funds on other projects.

### Conclusion

To conclude, there is no one best policy to deal with pollution in a free market economy. The form of government intervention to adopt depends on the cause of market failure and its benefits and limitations must be weighed. To alleviate pollution in the long term and by its root, governments need to go beyond punitive policies such as pollution permits and legislation. Citizens and businesses need to be educated on the harmful effects of negative externalities and thus make it their own duties to reduce emissions. One must also not neglect pollution from household consumption and traffic emissions. Hence, a combination of policies should thus be used so that the policies could complement and offset each other's weaknesses.

### Mark Scheme

Level	Descriptor	Marks
L3	For a good analytic discussion of at least 2 different government interventions to reduce pollution.	9 – 11
L2	For an underdeveloped explanation of how different government interventions can be used to reduce pollution. OR A developed explanation of at least one possible government intervention.	5 – 8
L1	For an answer that shows some knowledge of the possible government interventions to reduce pollution	1 – 4
E2	Evaluative comment with justification	3 – 4
E1	Evaluative comment	1 – 2

2014 Prelim II PU2 H1 Economics Suggested Answers

Section B

- 4 (a) Explain the different types of inflation that can occur in an [10] economy.

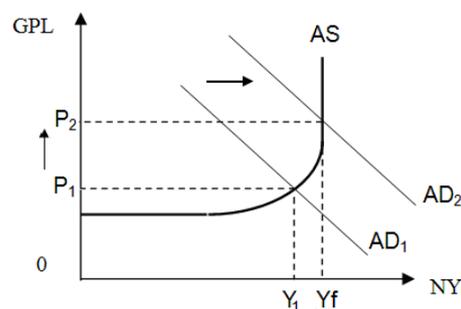
Introduction

- Define inflation: A situation when there is a sustained and inordinate increase in the general price level → Fall in the value of money and reduces the purchasing power of money
- The different types of inflation can be categorised according to the rate of inflation and according to the causes of inflation.

Body 1: Different types of inflation according to rate of inflation

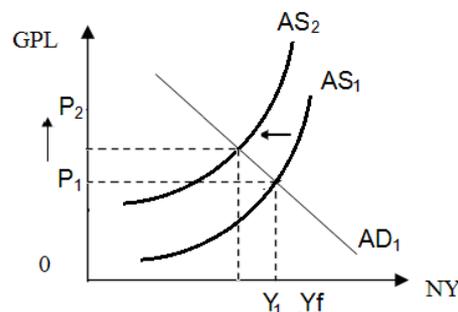
- Mild inflation < 5% = expanding economy that is generating jobs and output, while enjoying economic growth
- Strato-inflation about 10 to several hundred %
- Hyperinflation = rapidly accelerating inflation → usually short-lived

Body 2: Demand-pull inflation



- Increase in AD from  $AD_1$  to  $AD_2$  → GPL rises from  $P_1$  to  $P_2$
- Caused by faster increase in AD relative to AS
- Likely to happen when the economy is operating near or at the full employment level,  $Y_f$ , because it is difficult to increase production when scarce economic resources are mostly or fully employed.

Body 3: Cost-push inflation



- Decrease in AS from  $AS_1$  to  $AS_2$  → GPL rises from  $P_1$  to  $P_2$
- Occurs when firms respond to the rising costs of production (COP) → Firms will produce lesser and will have to increase prices to maintain profit margin
- Can be caused by rising price of imported raw materials (a.k.a. imported inflation)

Conclusion

- Policies can be implemented to achieve price stability but it is important for the government to identify the cause(s) of inflation in order to implement the appropriate policy.

Knowledge, Application, Understanding and Analysis		
L3	Well-developed and in-depth explanation of the different types of inflation. Answer is based on solid economic analysis with neat organisation of points.	8-10
L2	Attempts to explain the different types of inflation. Lacks detailed economic analysis.	4-7
L1	Some knowledge of the types of inflation with inaccuracies.	1-3

- (b) **Assess the effectiveness of macroeconomic policies used to achieve low and healthy inflation rate in an economy.** [15]

Introduction

- After determining the cause(s) of inflation, the government can implement appropriate policies to achieve low and healthy inflation rate in an economy.
- Demand-pull inflation can be tackled with demand-management policies like contractionary fiscal policy (FP) and contractionary monetary policy (MP).
- Cost-push inflation can be tackled with supply-side policies.

Body 1: Contractionary FP can reduce demand-pull inflation

- Reduction in  $G \rightarrow$  Lower AD
- Rise in  $T \rightarrow$  Rise in personal income tax will reduce disposable income,  $Y_d$ , and lower  $C$
- Rise in  $T \rightarrow$  Rise in corporate tax will reduce firms' after-tax profits and lower  $I$
- Overall, AD will fall and lower GPL  $\rightarrow$  Demand-pull inflation reduced

Body 2: Evaluation of contractionary FP

- Contractionary FP is preferred over contractionary MP because increase in  $T$  can increase gov't's revenue that can be kept as reserves for future use, esp during recession.
- Difficulty in determining type of inflation, time lags, small size of multiplier, difficulties in reducing  $G$  and raising  $T$ , assumption of ceteris paribus.

Body 3: Contractionary MP can reduce demand-pull inflation

- Reduce  $MS \rightarrow$  Higher  $i/r \rightarrow$  Higher cost of borrowing  $\rightarrow$   $C$  and  $I$  fall  $\rightarrow$  AD falls, lower GPL  $\rightarrow$  Demand-pull inflation reduced

Body 4: Evaluation of contractionary MP

- Contractionary MP is preferred over contractionary FP when the country wants to pursue a more favourable BOP position because increase in  $i/r$  can attract hot money, which will improve BOP via the capital account.
- Interest inelasticity of  $C$  and  $I$

Body 5: Supply-side policies can reduce cost-push inflation

- Supply-side policies = instruments that affect AS
- Education and training, R&D, other policies like price/wage controls
- Supply-side policies reduce COP  $\rightarrow$  Rightward shift of SRAS and LRAS  $\rightarrow$  Lower GPL  $\rightarrow$  Cost-push inflation reduced

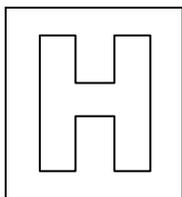
Body 6: Evaluation of supply-side policies

- Heavy gov't expenditure in education and training = opportunity cost, adults are often reluctant to attend training
- R&D requires large funding and long-term financial investment, no guarantee that R&D will be successful
- Price/wage controls are SR solutions that will not increase productive capacity of the economy

Conclusion

- No one best policy.
- Decision on which policy to be adopted depends on the cause(s) of inflation.
- There may be conflicts with other macroeconomic aims when policies are implemented to achieve low and healthy inflation rate.

Knowledge, Application, Understanding and Analysis		
L3	Very clear and precise answer that is able to suggest relevant policies to tackle the different types of inflation. Very detailed economic analysis.	8-11
L2	Able to explain relevant policies that can generally help achieve low and healthy inflation rate. Lacks detailed economic analysis.	4-7
L1	Able to briefly highlight the policy options that the government has to achieve low and healthy inflation rate.	1-3
Allow up to 4 additional marks for Evaluation		
E2	Able to identify and explain the limitations of all the policies mentioned.	3-4
E1	For unexplained limitations of some policies.	1-2



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## 2014 Preliminary Examination II Pre-university 3

**ECONOMICS**

**9732/01**

Paper 1

**17 September 2014**

Additional Materials: Answer Paper

**2 hours 15 minutes**

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### READ THESE INSTRUCTIONS FIRST

Write your name and class on all the work you hand in.  
Write in dark blue or black pen on both sides of the paper.  
You may use a soft pencil for any diagrams or graphs.  
Do not use paper clips, highlighters, glue or correction fluid.

Answer **all** the questions.

Begin answer for Question 2 on a fresh sheet of writing paper.  
At the end of the examination, hand in your answers to the 2 questions separately.  
The number of marks is given in brackets [ ] at the end of each question or part question.

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This question paper consists of 8 printed pages.

[Turn over

Answer **all** questions.

**Question 1****The World Beer Industry****Table 1: Beer Consumption by Country (All Volumes in 000's kiloliters)**

	2008	2009	2010	2011	2012
China	39,130	42,194	44,683	44,738	44,201
United States	25,004	24,483	24,138	23,861	24,186

Source: Kirin Holdings News Release, 2009 – 2012

**Extract 1: The spirit level**

Awareness of the effects of alcohol is extremely low in China. For centuries people enjoyed booze at celebrations, but few drank regularly. As incomes have shot up over the past 35 years, alcohol consumption has accelerated. Average annual consumption rose from 2.5 litres of pure alcohol in 1978 to 6.7 litres in 2010. Nearly 70% of that is spirits.

More than half the Chinese population do not drink. Those who do drink often do so to great excess. Male Chinese drinkers drink far more than Japanese ones, and almost as much as notoriously sozzled British, Australian or Irish boozers. Binge-drinking is prevalent and high-risk drinking has reached “epidemic proportions” in China, reckons Hao Wei of Central South University in Changsha, the capital of Hunan province. In China drinking with clients and colleagues is now seen as vital to career advancement; some job adverts even call for “good drinking capacity”.

The state has taken some action in response. Drink-driving cases fell by nearly 40% in the two years after May 2011, when the government started to clamp down and increase penalties. President Xi Jinping’s anti-corruption drive has quashed lavish banquets (although this has made high-end liquor much cheaper).

But the government has done little to promote public education. Other countries have curbed drinking by increasing tax on booze. In 2006 China lowered its already paltry liquor tax. Its health services and professionals are poorly equipped to deal with alcohol-related problems, says Yilang Tang of Emory University in Atlanta, Georgia. There are no national guidelines on responsible drinking and the minimum drinking age is ambiguous. Rules relating to the sale, consumption and advertising of alcohol are weak or ill-enforced. As Central South University’s Mr Hao puts it: “Alcohol can be bought anywhere, at any time, by any person.”

Source: The Economist, 9 August 2014

**Extract 2: Why are American drinkers turning against beer?**

Light beer sales fell for three years after the recession in 2008. Just 20 years ago, it was America’s most popular alcoholic beverage by far. Since then, per capita consumption of beer down 20 percent and despite population growth, annual domestic production has fallen down, too.

One explanation has been that American drinkers are more health-conscious today because there are so many studies and media reports of studies that make it impossible to be less health-conscious. This has hurt high-sugar and empty-calorie drinks that face relentless press criticism. "You're seeing that the consumer is taking a healthier look and having more alternatives [than soda], such as tea, and coconut water," Thomas Mullarkey, an analyst from Morningstar.

Wine is delicious and affordable and many Americans only just recently realised that. It's not just Americans who are ordering bottles of wine in record numbers. Wine exports are growing every year, too. In this light, it's not that Americans are turning against beer so much as our preferences are turning somewhat more European as our capacity to produce good affordable wine has caught up to the old continent.

Source: The Atlantic, 5 August 2013

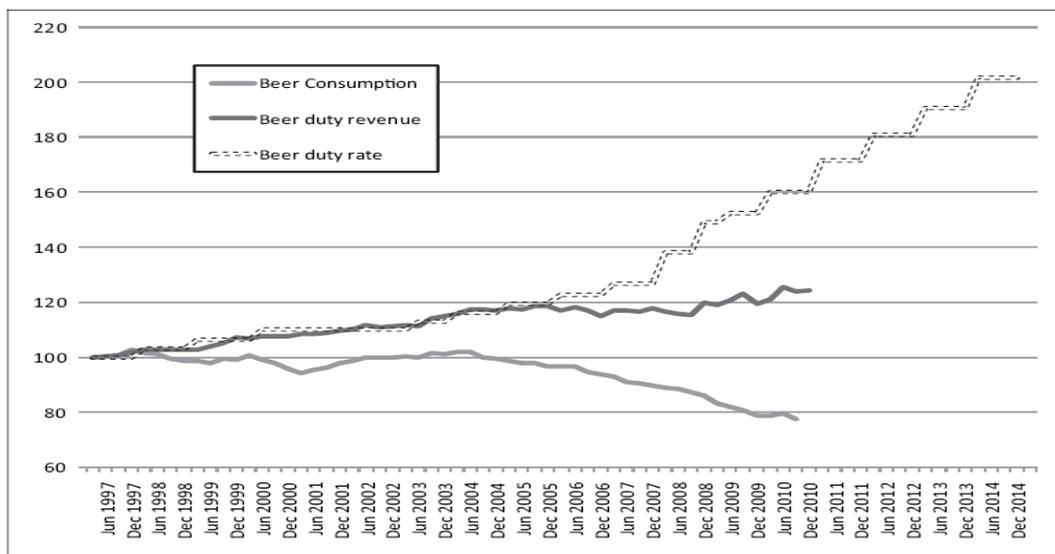
**Extract 3: Britain's binge drinking reaches crisis level**

Binge drinking – defined as consuming more than six drinks a session has reached crisis levels in Britain, health experts say, costing the cash-strapped National Health Service 2.7 billion pounds (US\$4.4 billion) a year, including the cost of hospital admissions related to booze-fueled violence and longer-term health problems.

Under the mechanism known as the beer duty escalator, beer duty has risen by 2% above inflation each year since 2008. The level of tax rises with the strength of the beer and is paid directly by the brewer. The industry says beer duty has risen by 42% in the last 47 months. The Treasury generates around £3.7bn a year from duty on beer and cider. British beer in a pub is heavily hit with the duty and value-added tax leading to an average of 6 pubs closing per day.

Source: The Daily Mail, 21 March 2012

**Figure 1: Index no. of beer consumption, beer duty revenue, beer duty rate**



Source: UK Parliament Website, 2011

**Extract 4: S'porean brewery bubbling over with big plans**

With the takeover by Dutch beer giant Heineken completed, brewer Asia Pacific Breweries (APB) is now eyeing bubbling opportunities in regional markets, said the new head of APB's Singapore operations. The brewery makes beers like Heineken and Tiger, and APB is hoping to increase its exports to regional markets like Japan, South Korea, Taiwan and the Philippines.

To meet expansion plans, the brewery in Jalan Ahmad Ibrahim will boost its capacity by 10 per cent over the next two months, and by 50 per cent within the next 18 months, said APB Singapore general manager Samson Wong, who took on the role four months ago. Wong says the leaner corporate structure after the takeover is opening the door for APB to expand its wings. A big hope is that the Singapore brewery will be able to export more beer to the region.

In June, Heineken announced that it will integrate its existing Singapore operations with APB's group headquarters here. The result is a new regional hub in Singapore for Heineken. "Now it's all under one roof, we can look at the development and supply chain arrangements," said Wong. "That helps us to be more aggressive in expanding our business."

Among the target markets is Japan, which has traditionally imported its Heineken beer from the brewery in Amsterdam. Apart from being able to cut shipping time to Japan from Singapore compared with Europe, the Singapore brewery is also smaller and "more flexible" than its Amsterdam counterpart.

Another aspect of growth is in expanding the reach of its brands, and APB plans to take Tiger Beer, a Singapore icon, to greater heights. "Now, about 47 countries carry Tiger and we hope to grow further in Western Europe," said Wong. He plays down the chances of cannibalisation between Heineken and Tiger, noting that both brands have existed beside each other for decades and that each beer will attract different consumers. "In fact, in one night, the same consumer can drink two different brands."

Source: asianewsnet.net, 26 August 2013

**Questions**

- (a) (i) With reference to Table 1, compare the trends in beer consumption in the United States of America with that of China from 2008 to 2012. [2]
- (ii) Account for the trends observed. [4]
- (b) (i) Explain the term 'market failure'. [2]
- (ii) With the aid of a diagram, explain how market failure could arise from consumption of beer. [4]
- (c) With reference to the data, discuss the effectiveness of taxation in discouraging beer consumption. [8]
- (d) Discuss the impact of the takeover of APB on Heineken and on consumers. [10]

[Total: 30]

## Question 2

## Crisis in United Kingdom and Spain

Table 2: Spain Key Economic Indicators

	2009	2010	2011	2012	2013*
Gross domestic product, constant prices (% change)	-3.8	-0.2	0.1	-1.6	-1.3
Inflation (% change)	-0.2	2.0	3.1	2.4	1.8
Unemployment rate (%)	18.0	20.1	21.7	25.0	26.9
Current account balance (US billion \$)	-70.4	-62.3	-55.4	-14.8	19.4
Government Net Debt (% of GDP)	42.5	50.1	58.6	73.5	80.8
Government budget balance (% of GDP)	-9.3	-8.1	-8.1	-6.3	-4.9

\*Estimated figures.

Table 3: UK Key Economic Indicators

	2009	2010	2011	2012	2013*
Gross domestic product, constant prices (% change)	-5.2	1.7	1.1	0.2	1.4
Inflation (% change)	2.1	3.3	4.5	2.8	2.7
Unemployment rate (%)	7.5	7.9	8.0	8.0	7.7
Current account balance (US billion \$)	-31.4	-61.9	-36.0	-93.9	-69.2
Government Net Debt (% of GDP)	62.4	72.2	76.8	81.6	84.8
Government budget balance (% of GDP)	-10.3	-8.4	-6.0	-5.8	-4.0

\*Estimated figures.

Source: International Monetary Fund, 2013

**Extract 5: Spain set to reveal its pain in its books**

Spain, a Eurozone behemoth, is in the crosshairs of Europe's financial crisis. The country is suffering from soaring borrowing cost (for the sovereign bond), a banking system leaking cash and unemployment rates at devastating levels. The Spanish economy is the eurozone's fourth-largest -- after Germany, France and Italy -- making up around 11% of the bloc's GDP.

After Bankia, the country's fourth largest bank, asked for a €19 billion state intervention to prevent bankruptcy, the situation in Spain has developed like a perfect storm, with money being pulled out of the country. This leaves Spain in a precarious financial state, driving investors away and making it more likely to need a bailout by seeking financial support from International Monetary Fund (IMF) or European Union (EU).

The mood of the markets may, ultimately, dictate Spain's ability to pull itself from its financial hole. Investors already twitchy about the prospect of a "Grexit" -- a Greek exit from the euro -- will react badly to further bad news out of Spain. Greece has been swallowing austerity medicine to cut government spending and raise taxes as part of the bailout deal with IMF and EU since 2010. But its economy has slid further into recession, and initial hopes it could detach itself from external life-lines within two years now look wildly optimistic.

As with other fragile countries within the euro bloc, Spain cannot benefit from an independent monetary policy. Spain has focused on cost cutting and labour reforms in November 2011. Spain has also been under pressure to implement austerity measures to try and combat its debt crisis.

If governments implement austerity measures too soon they risk snuffing out demand and recovery, but delays could provoke a catastrophe with inflation and high interest burdens to service countries' debt.

Source: Cable News Network, September 2012

#### **Extract 6: U.K. budget deficit unexpectedly swells on spending gain**

Britain's budget deficit unexpectedly widened in November as spending surged and a drop in income-tax receipts depressed government revenue, prompting warnings that Britain could lose its top credit rating.

"There has to be a very real danger that at least one of the credit rating agencies will strip the U.K. of its AAA rating (a measure of credit rating) over the coming months," said Howard Archer, an economist at IHS Global Insight in London. Fitch Ratings said letting the debt goal slip weakened the credibility of the fiscal regime and Standard and Poor's lowered its outlook to negative from stable, citing weak prospects.

The pound remained lower against the dollar, down 0.2 percent on the day.

Source: Cable News Network, 21 December 2012

#### **Extract 7: Bank of England steps up stimulus**

The Bank of England stepped up its economic stimulus, announcing an increased bond-buying program designed to jolt the struggling British economy out of a double-dip recession. The £50 billion, or \$78 billion, in additional stimulus comes on top of £325 billion already pumped into the economy by the Bank of England over the past several years.

Noting that the British economy was already in recession, with corporate earnings down and consumers and companies reluctant to spend, stimulus measures had "to work harder and harder," Graeme Leach, chief economist at the Institute of Directors said. "The end result is that we could see another £50 billion on top of this, within a few months."

Britain's banking crisis wrecked government finances, prompting London to embark on its biggest austerity program since World War II. Meanwhile, the economic outlook has been worsened by the crisis in the euro zone economy, which has sapped global confidence and decreased demand in key trading partners.

The program of spending cuts and tax increases appears to have persuaded the financial markets that the government intends to tackle its huge budget deficit and permitting the government to borrow cheaply. But the austerity measures have also reduced consumer confidence and household spending, compounding the downturn. Government departments, with the exception of health and education, would be subject to further spending cuts, and public-sector pay caps would be extended.

Finance Minister George Osborne said the government's policy of fiscal discipline and active monetary policy would eventually bear fruit.

The U.K. economy risks falling into a triple-dip recession in the first quarter of 2013 as domestic demand remains depressed by austerity measures and falling real incomes and exporters feel the impact of the Eurozone crisis, despite a weaker currency.

Sources: New York Times, 5 July 2012 and Cable News Network, 20 March 2013

**Figure 2: Bank of England interest rates**



Source: Bank of England

**Questions**

- (a) (i) What is the difference between real GDP growth and nominal GDP growth? [1]
- (ii) Identify the economy which is projected to have a higher growth in nominal GDP in 2013. [1]
- (b) (i) Describe the trend in the UK's government net debt from 2009 to 2012 shown in Table 3. [1]
- (ii) With reference to the data, account for the above trend in the UK's government net debt. [4]
- (c) (i) Explain how the credit downgrade affects the external value of pounds. [2]
- (ii) Explain how this change in external value of pounds might affect the prices of goods and services in the UK. [3]
- (d) Discuss the impact of Eurozone crisis on the UK's balance of payment. [8]
- (e) To what extent can Spain adopt the policies used by the UK to achieve her macroeconomic aims of sustained economic growth and low unemployment? [10]

[Total: 30]

CSQ1 answers

**(a)(i)** With reference to Table 1, distinguish the trends in beer consumption in the United States of America with that of China from 2008 to 2012. [2]

- The beer consumption in China is generally increasing while the beer consumption in US is generally decreasing.
- The beer consumption in China is always higher than the beer consumption in US.
- The extent of increase of beer consumption in china is greater than the extent of the decrease of beer consumption in US.
- There is a reversal of consumption trend in China and US from year 2011 to year 2012.

**(a)(ii)** Account for the trends observed. [4]

General trend:

Increase in demand due to increase in income for China. (Assuming beer is a normal good.)

Increase in demand due to change in taste and preference towards beer.

Americans are more health conscious versus China where there is no guideline on responsible drinking. Ill- informed therefore more harm to them.

Americans are switching their consumption towards wine or other substitutes.

Refinement: Chinese population is higher than US.

**(b)(i)** Explain the term 'market failure'. [2]

Market failure is when the price mechanism has failed to allocate resources efficiently [1m] in a free market where  $MSB$  is not equal to  $MSC$  [1m]. The good is either over-consumed or over-produced/ the right goods are not produced in the right amount [1m].

*Either 2 points is sufficient.*

**(b)(ii)** With the aid of a diagram, explain how market failure could arise from consumption of beer. [4]

The consumption of beer generates negative externality like drink driving. Assuming there is no external benefit, the  $MSB=MPB$ . When left to free market, the consumers will consume beer up to the quantity  $Q_e$ . [1m] Due to the negative externality like drink- driving [1m] causing accidents to third party is present; there will be a divergence between the  $MSC$  and  $MPC$ . The social optimal level of consumption, where  $MSB=MSC$  is at output  $Q_s$ . [1m] Under this circumstance, there is an over-consumption of beer as a result of the negative externality. The over-consumption [1m] leads to a deadweight loss of the shaded area in figure below.

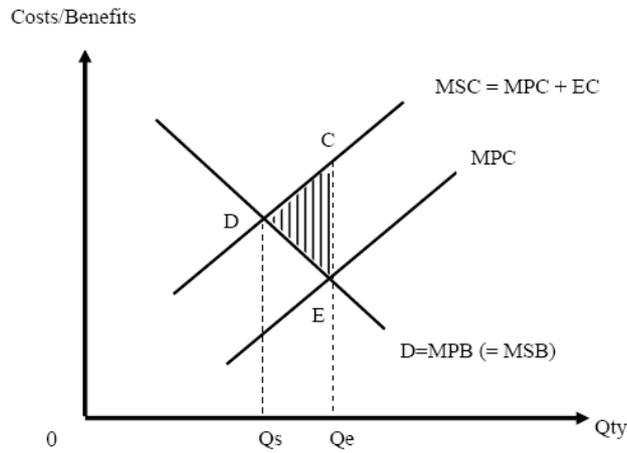


Figure 5: Negative Externalities in Consumption Causing a Divergence between MPC and MSC

Or imperfect information. Perceived cost is smaller than the true cost of consuming beer to individuals.

*No reference to extract, max of 3m can be awarded.*

- (c) With reference to the data, discuss the effectiveness of taxation in discouraging beer consumption. [8]

How taxation works to discourage beer consumption

Taxation on sale of beer will increase cost of production and result in a lower profit per unit. Supply of beer will decrease and the supply shifts to the left, increasing the equilibrium price of beer. Hence quantity of beer consumed falls towards the socially optimal level. (Diagram) The data given in table 1 shows that the taxes have worked to reduce beer consumption in the UK since 2004.

Limitations (Evaluation)

However, Figure 1 shows that before 2004, a less than 20% rise in beer duty did not affect beer consumption. From 2004 to 2010, when beer duty has increased by 60% compared to 1997, beer consumption fell by 25%. This indicates that the quantity demanded for beer is not very responsive to a price change. One possible reason could be that alcohol is addictive in nature as seen from binge-drinking habits of the Britons (Extract 2) and so the demand for beer tends to be price inelastic. Hence a sharp increase in taxes is required to reduce beer consumption significantly.

Conclusion

Hence, taxes on its own may not be very effective in discouraging beer consumption. Taxes allow the external costs to be internalised but the effectiveness depends on the accuracy in estimating the external costs and the price elasticity of demand for the good. Also it affects the market via supply but not the demand. Tastes and preferences also need to be changed. Therefore the government has to complement taxes with a slew of other measures like reducing demand for beer through national campaigns.

<b>L2</b>	Understanding of how taxation is supposed to work + explains 1 limitation based on the data provided: max 5m Understanding of how taxation is supposed to work + explains at a limitations obtained from the data: max 6m	4 - 6
<b>L1</b>	Understanding that a tax increases COP and hence causes rise in price which leads to fall in quantity demanded. Considers responsiveness of change in quantity demanded to a price change but with no ref to data. One sided/ undeveloped answer.	1 - 3
<b>E</b>	Reasoned conclusion with some suggestions.	1 - 2

**(d)** Discuss the impact of the takeover of APB on Heineken and on consumers. [10]

Introduction:

Define takeover.

Body:

Impact on Producers:

Positive impact:

- (i) "Cut shipping time to Japan from Singapore..." this can help the firm to reduce their cost of production, hence increasing the amount of profits which the firms

can earn.

- (ii) Consolidated financial ability to expand production. Able to use increased market power and financial ability to export more to emerge new markets internationally. This results in an increase in export revenue and an increase in profits for the producers.
- (iii) Singapore is a more flexible trading hub for Heineken and APB after takeover. This allows for more aggressive expansion of the company.
- (iv) Able to use the expertise from APB group consolidated financial ability to improve products constantly, ensuring there is dynamic efficiency.
- (v) “we can look at the development and supply chain arrangements” The firm might enjoy economies of scale (financial EOS, marketing EOS), reducing the cost of production, now that the quantity they produce is greater as a result of the takeover. Firms might be able to use the increase profits from cost savings to partake in research and development. In the long run, better quality beer can be produced/ the process of production can be more efficient.  
(Candidate should explain with reference to 1 economies of scale and provide e.g. relevant to the case.)

*Evaluation:*

- *Heinenken might be complacent and not willing to partake in R&D.*
- *Theory of contestable market may not hold.*

Negative Impact:

- (i) The firm also suffer from diseconomies of scale like inefficient management as the firm might be too large. This could cause an increase in the cost of production of the firm.

Impact on Consumers:

Positive impact:

- (i) “same consumer can drink two different brands” Better variety of beer. Consumers have more choices of beer to consume, increasing their non-material standard of living.
- (ii) Consumers might enjoy lower prices if the EOS is passed onto consumers.  
*Evaluation: EOS might not be passed onto consumers.*

Negative impact:

- (i) Unemployment due to the retrenchment of repeated roles in the same company after takeover.
- (iii) Possibility of exploitation of consumer’s welfare if the firm is not constantly regulated. However, this fear might be insignificant in Singapore because of the stiff Competition Act in Singapore to ensure that there is minimal market failure

arising from excessive market power.

- (iv) Exploitation of consumer's welfare due to the larger market power which APB now possesses with the takeover. Consumers might now have to pay for higher prices should APB choose to exploit these consumers using their increased market power.

Synthesis:

The takeover has more positive impact than negative impact. As the European beer market is not performing well, the takeover of APB might allow the firms to have more benefits than cost.

<b>L3</b>	Developed and well discussed impact on BOTH consumers and producer as a result of APB's takeover.	5 – 6
<b>L2</b>	Undeveloped discussion on the impact of takeover of APB.  Developed one-sided answer (either discussed on impact on consumers or on producer); Max 3m	3 – 4
<b>L1</b>	Little or no discussion on the impacts of takeover of APB on producer or consumer. One sided argument is given.	1 – 2
<b>E1</b>	Reasoned conclusion with little or no elaboration.	1 – 2
<b>E2</b>	Reasoned and well elaborated conclusion.	3 – 4

**Question 2**

**Crisis in United Kingdom and Spain**

**Table 2: Spain Key Economic Indicators**

	2009	2010	2011	2012	2013*
Gross domestic product, constant prices (% change)	-3.8	-0.2	0.1	-1.6	-1.3
Inflation (% change)	-0.2	2.0	3.1	2.4	1.8
Unemployment rate (%)	18.0	20.1	21.7	25.0	26.9
Current account balance (US billion \$)	-70.4	-62.3	-55.4	-14.8	19.4
Government Net Debt (% of GDP)	42.5	50.1	58.6	73.5	80.8
Government budget balance (% of GDP)	-9.3	-8.1	-8.1	-6.3	-4.9

\*Estimated figures.

**Table 3: UK Key Economic Indicators**

	2009	2010	2011	2012	2013*
Gross domestic product, constant prices (% change)	-5.2	1.7	1.1	0.2	1.4
Inflation (% change)	2.1	3.3	4.5	2.8	2.7
Unemployment rate (%)	7.5	7.9	8.0	8.0	7.7
Current account balance (US billion \$)	-31.4	-61.9	-36.0	-93.9	-69.2
Government Net Debt (% of GDP)	62.4	72.2	76.8	81.6	84.8
Government budget balance (% of GDP)	-10.3	-8.4	-6.0	-5.8	-4.0

\*Estimated figures.

Source: International Monetary Fund, 2013

**Extract 5: Spain set to reveal its pain in its books**

Spain, a Eurozone behemoth, is in the crosshairs of Europe's financial crisis. The country is suffering from soaring borrowing cost (for the sovereign bond), a banking system leaking cash and unemployment rates at devastating levels. The Spanish economy is the Eurozone's fourth-largest -- after Germany, France and Italy -- making up around 11% of the bloc's GDP.

After Bankia, the country's fourth largest bank, asked for a €19 billion state intervention to prevent bankruptcy, the situation in Spain has developed like a perfect storm, with money being pulled out of the country. This leaves Spain in a precarious financial state, driving investors away and making

it more likely to need a bailout by seeking financial support from International Monetary Fund (IMF) or European Union (EU).

The mood of the markets may, ultimately, dictate Spain's ability to pull itself from its financial hole. Investors already twitchy about the prospect of a "Grexit" -- a Greek exit from the euro -- will react badly to further bad news out of Spain. Greece has been swallowing austerity medicine to cut government spending and raise taxes as part of the bailout deal with IMF and EU since 2010. But its economy has slid further into recession, and initial hopes it could detach itself from external life-lines within two years now look wildly optimistic.

As with other fragile countries within the euro bloc, Spain cannot benefit from an independent monetary policy. Spain has focused on cost cutting and labour reforms in November 2011. Spain has also been under pressure to implement austerity measures to try and combat its debt crisis.

If governments implement austerity measures too soon they risk snuffing out demand and recovery, but delays could provoke a catastrophe with inflation and high interest burdens to service countries' debt.

Source: Cable News Network, September 2012

#### **Extract 6: U.K. budget deficit unexpectedly swells on spending gain**

Britain's budget deficit unexpectedly widened in November as spending surged and a drop in income-tax receipts depressed government revenue, prompting warnings that Britain could lose its top credit rating.

"There has to be a very real danger that at least one of the credit rating agencies will strip the U.K. of its AAA rating (a measure of credit rating) over the coming months," said Howard Archer, an economist at IHS Global Insight in London. Fitch Ratings said letting the debt goal slip weakened the credibility of the fiscal regime and Standard and Poor's lowered its outlook to negative from stable, citing weak prospects.

The pound remained lower against the dollar, down 0.2 percent on the day.

Source: Cable News Network, 21 December 2012

#### **Extract 7: Bank of England steps up stimulus**

The Bank of England stepped up its economic stimulus, announcing an increased bond-buying program designed to jolt the struggling British economy out of a double-dip recession. The £50 billion, or \$78 billion, in additional stimulus comes on top of £325 billion already pumped into the economy by the Bank of England over the past several years.

Noting that the British economy was already in recession, with corporate earnings down and consumers and companies reluctant to spend, stimulus measures had "to work harder and harder," Graeme Leach, chief economist at the Institute of Directors said. "The end result is that we could see another £50 billion on top of this, within a few months."

Britain's banking crisis wrecked government finances, prompting London to embark on its biggest austerity program since World War II. Meanwhile, the economic outlook has been worsened by the

crisis in the euro zone economy, which has sapped global confidence and decreased demand in key trading partners.

The program of spending cuts and tax increases appears to have persuaded the financial markets that the government intends to tackle its huge budget deficit and permitting the government to borrow cheaply. But the austerity measures have also reduced consumer confidence and household spending, compounding the downturn. Government departments, with the exception of health and education, would be subject to further spending cuts, and public-sector pay caps would be extended.

Finance Minister George Osborne said the government's policy of fiscal discipline and active monetary policy would eventually bear fruit.

The U.K. economy risks falling into a triple-dip recession in the first quarter of 2013 as domestic demand remains depressed by austerity measures and falling real incomes and exporters feel the impact of the Eurozone crisis, despite a weaker currency.

Sources: New York Times, 5 July 2012 and Cable News Network, 20 March 2013

**Figure 2: Bank of England interest rates**



Source: Bank of England

**Questions**

- (a) (i) What is the difference between real GDP growth and nominal GDP growth? [1]
- (ii) Identify the economy which is projected to have a higher growth in nominal GDP in 2013. [1]
- (b) (i) Describe the trend in the UK's government net debt from 2009 to 2012 shown in Table 3. [1]
- (ii) With reference to the data, account for the above trend in the UK's government net debt. [4]
- (c) (i) Explain how the credit downgrade affects the external value of pounds. [2]
- (ii) Explain how this change in external value of pounds might affect the prices of goods and services in the UK. [3]
- (d) Discuss the impact of Eurozone crisis on the UK's balance of payment. [8]
- (e) To what extent can Spain adopt the policies used by the UK to achieve her macroeconomic aims of sustained economic growth and low unemployment? [10]

[Total: 30]

CSQ2 Answer to Questions

- (a) (i) What is the difference between real GDP growth and nominal GDP growth? (1)

Real GDP (growth) has been adjusted for inflation while nominal GDP (growth) has not been adjusted for inflation (1) OR (Real GDP growth measures annual % change in real GDP where) real GDP measures national income at constant prices while (nominal GDP growth measures annual % change in nominal GDP where) nominal GDP measures national income at current year prices (1)

Note in marker's report: A significant number failed to score because they were careless in expression and stated the opposite of what they really meant. For example, some stated that nominal GDP accounted for inflation when they really meant that it included changes in price.

- (ii) Identify the economy which is projected to have a higher growth in nominal GDP in 2013. (1)

United Kingdom.

- (b) (i) Describe the trend in the UK's government net debt from 2009 to 2012 shown in Table X. (1)

There is an increasing trend in the UK's government net debt.

- (ii) With reference to the data, account for the above trend in the UK's government net debt to GDP. (4)

3m on one reason for higher government spending and one reason for lower tax revenue:

Low growth → low consumption spending → lower sales tax revenue.

High/increasing UN → lower income tax revenue

High/ increasing UN → higher UN benefits → higher government spending.

[If reasons for only why higher government spending and no reason for why lower tax revenue (and vice versa), max. 2m.]

1m on why higher net debt:

With  $G > T$ , needs to borrow to finance the spending → higher debt.

- (c) (i) Explain how the credit downgrade affects the external value of pounds. (2)

Expects pounds to fall in future (1m) → dd for pounds fall (1m) → pounds depreciate.

OR

Expects pounds to fall in future OR no confidence in the UK economy → British/ investors sell financial investment products that are denominated in pounds (1m) → ss of pounds increases (1m) → pounds depreciate.

- (ii) Explain how this change in external value of pounds might affect the prices of goods and services in UK. (3)

Depreciation of Pounds:

- price of imports increase, price of exports decrease (1m). DD for M fall, dd for X increase.

Assuming M-L condition holds, NX increases (1m), AD increases → GPL in UK increases. (1m)

OR

- price of imports, including M of raw materials, increase (1m) → COP increase (1m) → GPL in UK increases (1m).

**(d)** Discuss the impact of Eurozone crisis on the UK's balance of payment. (8)

Extract "leaves Spain in a precarious financial state, driving investors away"

- crisis → loss of confidence in economy → short money outflow to UK → improves UK capital account.

Extract "economic outlook has been worsened by the crisis in the euro zone economy, which has sapped global confidence and decreased demand in key trading partners"; Table: worsening of current account deficit in 2012.

- Fall in X → fall in X revenue. Assuming M expenditure same → worsens current account deficit

Evaluation:

Capital may not flow from Eurozone to the UK as UK economy remains weak. Capital may flow to emerging or Asian countries instead. UK capital account may not improve.

L3 5 - 6	Answer on how crisis affects BOTH capital account and current account.
L2 3 - 4	Answer on either capital account or current account but not both OR answer on how crisis affects both capital and current account but answer is undeveloped. Max 4m if answer only on current account. Max 3m if answer only on capital account.  No ref to extracts, max. 3m.
L1 1 - 2	Very undeveloped answer and/or without economic analysis.
E 1 - 2	Take a stand with reference to data. Without reference to data, max 1m.

**(e)** To what extent can Spain adopt the policies used by the UK to achieve her macroeconomic aims of economic growth and low unemployment? (10)

Thesis: Policies used by UK can achieve economic growth and low UN

1. Austerity measure

Reduce G and increase tax → confidence in the financial market → confidence in the economy → stop the fall in C and I → maintain actual economic growth and employment levels.

OR

Reduce G and increase tax → better credit rating → able to borrow cheaply → less need to increase tax in future → sustained economic growth.

Evaluation: "But the austerity measures have also reduced consumer confidence and household spending, compounding the downturn"

- Reduce G, e.g. on pension OR higher tax rates → fall in C → fall in AD --> fall in GDP via k → low growth and worsens UN.

Anti-thesis:

(i) Policies used by UK cannot achieve economic growth and low UN

1. Lower interest rate from Figure X

- Lower interest rate → lowers cost of borrowing → stimulate  $C_d$  and  $I_d$  → higher AD → higher real GDP and employment;

“As with other fragile countries within the euro bloc, Spain cannot benefit from an independent monetary policy”

- Spain is part of EU and does not have an independent monetary policy. Interest rate for Eurozone is determined by the European Central Bank.

2. OR Quantitative easing

Central bank pumps money into the economy directly by buying assets - usually government bonds or private securities from private commercial banks or financial institutions - using money it has simply created out of thin air. The institutions selling those bonds (commercial banks or other financial institutions such as insurance companies) will then have "new" money in their accounts, which then boosts the money supply. The companies who sold the bonds may use the proceeds to invest in other companies or lend to individuals. The hope is that with banks, pension funds and insurance firms now more enthusiastic about lending to companies and individuals, the interest rates they charge fall, so more money is spent and the economy is boosted.

“As with other fragile countries within the euro bloc, Spain cannot benefit from an independent monetary policy”

- Spain is part of EU and does not have an independent monetary policy. Any decision to pump money into the economy has to come from European Central Bank.

Evaluation: If most major countries in Eurozone are facing negative growth, Central Bank of Europe is likely to adopt a loose monetary policy such as lowering interest rate and/or quantitative easing and Spain will benefit from it. However, if firms or consumers remain pessimistic about the future, they will borrow to spend or invest even if interest rate lowers or if commercial banks want to lend more with quantitative easing.

(ii) Other policies Spain can use (2m)

1. “Cost cutting and labour reform”

- Ss-side policies. Labour reform → increase productivity → lower COP → increase SRAS → increase actual economic growth and employment.

Stand: Given the high debt incurred by Spain government, short-term pain from austerity measures complemented with ss-side policies are probably necessary to have sustainable growth.

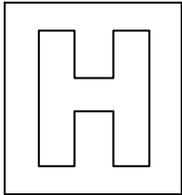
L3 5 – 6	Developed and balanced answer. Thesis on how austerity measure can achieve growth and lower UN. Anti-thesis on why monetary policy used by UK cannot be adopted by
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	Spain and development on one other policy that Spain can use.
L2 3 - 4	Undeveloped and/or unbalanced answer. No ref. to extracts, max. 3m
L1 1 - 2	Very undeveloped answer and/or without economic analysis.
E1 1 - 2	Evaluative comments about policies that can or cannot be adopted by Spain.
E2 3 - 4	Evaluative comments about policies that can or cannot be adopted by Spain. And take a stand with reference to data.

Class Adm No

Candidate Name: \_\_\_\_\_

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## 2014 Preliminary Examination II Pre-university 3

**ECONOMICS**

**9732/02**

Paper 2: Essay Questions

**19 September 2014**

Additional Materials: Answer Paper

**2 hours 15 minutes**

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### READ THESE INSTRUCTIONS FIRST

Write your name and class on all the work you hand in.  
Write in dark blue or black pen on both sides of the paper.  
You may use a soft pencil for any diagrams or graphs.  
Do not use paper clips, highlighters, glue or correction fluid.

Answer **three** questions in total, of which **one** must be from Section A, **one** from Section B and **one** from either Section A or Section B.

At the end of the examination, fasten all your work securely together.  
The number of marks is given in brackets [ ] at the end of each question or part question.

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**This question paper consists of 3 printed pages and 1 blank page.**

**[Turn over**

Answer **three** questions in total.

**Section A**

**One or two** of your three chosen questions must be from this section.

1. Smartphone usage is predicted to overtake computer usage in the near future. This is due to advances in smartphone technology and greater affluence.

Discuss how the combination of smartphone technology and greater affluence might affect the expenditure by consumers on different models of smartphones. [25]

2. (a) Explain the various forms of barriers to entry. [8]

(b) Should the government act to reduce barriers to entry whenever possible? [17]

3. (a) Explain how national defence and income inequality may lead to market failure. [10]

(b) Discuss the policies used by the Singapore government to address these causes of market failure. [15]

**Section B**

**One or two** of your three chosen questions must be from this section.

4. (a) Explain how fiscal policy can be used to encourage both actual and potential economic growth. [10]

(b) Discuss the extent to which conflicts in government macroeconomic objectives limit the scope for the use of fiscal policy. [15]

5. Recent adverse weather conditions as well as military conflicts around the world have led to an increase in the prices of oil and other primary products.

To what extent would you agree that it is the increase in prices of oil and other primary products which have contributed the most to the inflation rate in Singapore? [25]

6. Singapore's Balance of Payments rose to \$33 billion in 2012 from \$21 billion in 2011, also reflecting a smaller net outflow from the capital and financial account. Singapore's official foreign reserves rose to \$317 billion at the end of 2012.

(a) Using economic analysis, explain Singapore's pattern of trade with the rest of the world. [10]

(b) Assess whether there is a need for the Singapore government to change its policies for managing the balance of payments. [15]

1. Smartphone usage is predicted to overtake computer usage in the near future. This is due to advances in smartphone technology and greater affluence.

Discuss how the combination of smartphone technology and greater affluence might affect the expenditure by consumers on different models of smartphones. [25]

	Normal-Luxury Models	Normal-Necessity Models	Inferior Models (e.g. 2 <sup>nd</sup> hand lower-end smart phones)
↑in technology	COP falls → Increase in SS → P falls, Q increases. PED>1, with a given fall in price, more than proportionate increase in Q → TE increases.	COP falls → Increase in SS → P falls, Q increases. PED<1, with a given fall in price, less than proportionate increase in Q → TE falls.	COP falls → Increase in SS → P falls, Q increases. Since there are close substitutes to inferior models, PED>1. With a given fall in price, more than proportionate increase in Q → TE increases. [Also accept if student justifies why PED<1 and explains that TE falls].
↑In income	YED>1. Income increases → DD increases by more than proportionate amount → TE increases (by a large amount).	1>YED>0. Income increase → DD increases by less than proportionate amount → TE increases.	YED<0. Income increases, dd falls → TE falls.
Combined effects	↑SS & ↑ DD → TE increases.	↑SS & ↑ DD → TE indeterminate	↑SS & ↓DD → TE indeterminate.
Evaluation	As YED>0, large shift in dd curve when income increases. This large increase in dd combined with PED>1 → large increase in TE.	If increase in dd > increase in ss → TE increases.	Singapore is a rich developed countries with one of the highest smartphone penetration rates in the world. Fall in dd > increase in ss → TE likely to fall.

L1	Answer merely identifies the different models of smartphones that are available in Singapore and recognizes how advances in smartphone technology and greater affluence affect the market for smartphones. No reference to elasticities of demand.	1-9
L2	Undeveloped answer on how the advances in smartphone technology and greater affluence affect the smartphone markets for the different models of smartphones. There is some reference to PED & YED.	10-14
L3	Answer provides a thorough analysis of the impact of the expenditure on at least two different models of smartphones. There is good reference to PED & YED in the analysis.	15-21
E1	Answer provides an unsubstantiated opinion on the extent of the impact of greater smartphone technology and greater affluence on the different models of smartphones in the Singapore context.	1-2
E2	Answer provides a substantiated opinion on the extent of the impact of greater smartphone technology and greater affluence on the different models of smartphones in the Singapore context.	3-4

2. (a) Explain the various forms of barriers to entry. [8]  
 (b) Should the government act to reduce barriers to entry whenever possible? [17]

- Define barriers to entry.
- Explain at least three different forms of barriers to entry.

- Ownership of essential resources

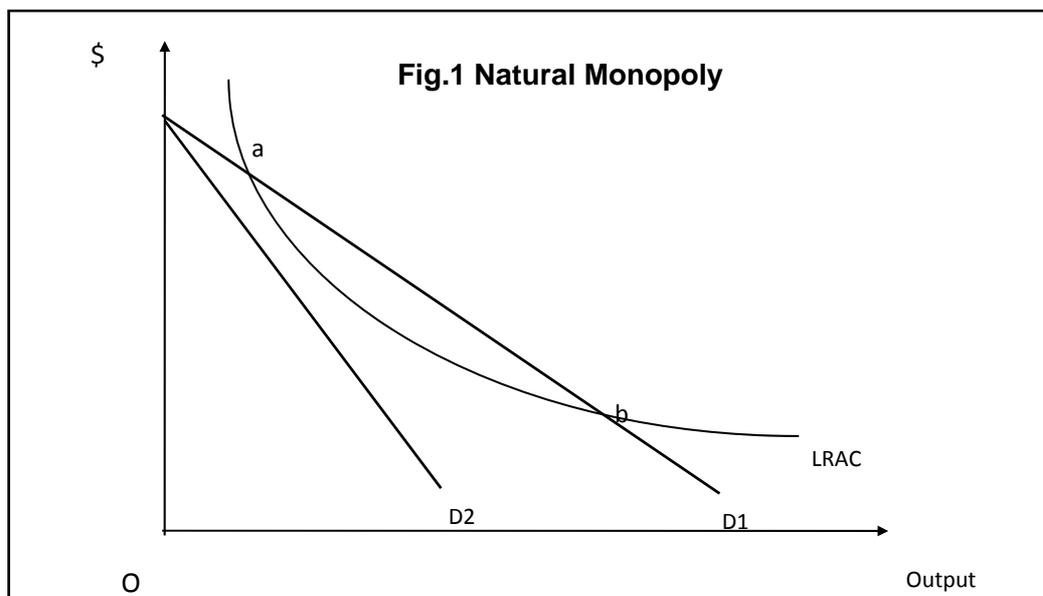
If one firm owns the resources needed to produce a particular good, it is possible for the firm to keep other firms from entering the industry. For example, Aluminium Company of America (ALCOA) controls almost every source of bauxite, therefore it monopolises the production of aluminium in America till World War II; Debeers either owns most of the world's diamond mines or has effective control of them.

- Internal Economies of scale

(i) Natural Monopoly:

A **natural monopoly** enjoys substantial economies of scale --- the LRAC goes on falling significantly such that minimum efficient scale is at an output which is higher than the total demand in the market/industry, the industry may not be able to support more than one producer. When this is the case, a single firm can satisfy the market demand at a lower cost per unit than two or more firms operating at smaller levels of output could.

In figure 1, D1 represents the industry curve, and hence the demand curve for the firm under monopoly. The monopolist can gain supernormal profit at any output between points a and b. If there were two firms, however, each charging the same price and supplying half the industry output, they would each face the demand curve D2 and higher AC. There is no price that would allow them to cover costs.



Examples of natural monopoly arising from internal economies of scale are public utilities, such as the distribution of electricity and water where tremendous amount of capital is required to produce the product (and market is relatively small). As monopoly increase production, AFC falls and this fall will likely outweigh any increase in AVC. Hence, AC falls as output increases.

For example, to generate electricity, capital in the form of a power station etc. is required; to distribute the final product, even more capital in the form of cables, poles, transformers etc. are needed. For telephone network, cable television etc., the cost per household is lowest when a single company “wires” throughout the community for signal reception. Because of the nature of a natural monopoly and the fact that the product is usually one that society feels is essential, it is necessary for the government to regulate the firm so as to ensure that the consumers benefit from the low per-unit costs of production. The question is: what price should the monopolist be allowed to charge?

(ii) Even if an industry could support more than one firm, a new entrant is unlikely to be able to start up on a very large scale. For example, an established monopoly is likely to have access to cheaper finance and can charge a price below the cost of the new entrant and drive it out of business.

- High set-up costs for new firms

If a new firm can enter fully grown into the market, it might be able to compete effectively with the existing monopolist. However, the cost to the new firm of entering the market, developing its products, and establishing its reputation and its distribution network may be so large that its entry will be unprofitable. The high fixed capital costs involved in some industries (e.g. silicon wafer fabrication, shipbuilding, petrochemicals, oil refinery, iron & steel) may also discourage the less financially able from entering the market as producers.

- Legal Restrictions

Patents and Copyrights : These are exclusive rights to production given by the authorities to the developer of a new product for a number of years. During that time, no other firm or individual can produce or duplicate the good unless authorized by the holder of the patent/copyright, so that inventors are given a **temporary** monopoly over the use of their inventions. Moreover, these laws give firms the stimulus to turn an invention into a marketable product, a process called **innovation**. If other firms could simply copy successful products, many firms would be less willing to incur the high initial costs of researching and developing new products and bringing them into the market.

Licenses and other Entry Requirements : Governments often promote a monopoly by awarding a single firm the exclusive right to provide particular goods and services. Licenses give certain firms the right to broadcast radio and TV signals. The government itself may claim the right to provide certain productions by outlawing competitors. For example, SingTel in Singapore has the exclusive right to provide telephone services to consumers until 2000, when other firms will be permitted to enter the market.

- Predatory Pricing

A monopolist can also deter entry of a potential competitor by setting price at such a low level that a would-be entrant feels disinclined to persist with plans to enter this market. Where a monopoly attempts to protect its dominant position by temporarily pricing its product such that losses are incurred not only by itself but for any competitor, it is said to be practicing predatory pricing.

- Ownership of, or control over, wholesale or retail outlets

It could also make life difficult for a potential competitor by trying to deny wholesalers who might consider distributing the product of a rival firm. Exclusive dealing arrangements with wholesalers such that only the monopolists' goods are handled can limit the sources of custom for a new firm. Alternatively, those wholesalers and importers who wish to handle the goods of a new entrant may find they do not enjoy such favourable trading terms as other merchants who only stock the monopolists' goods.

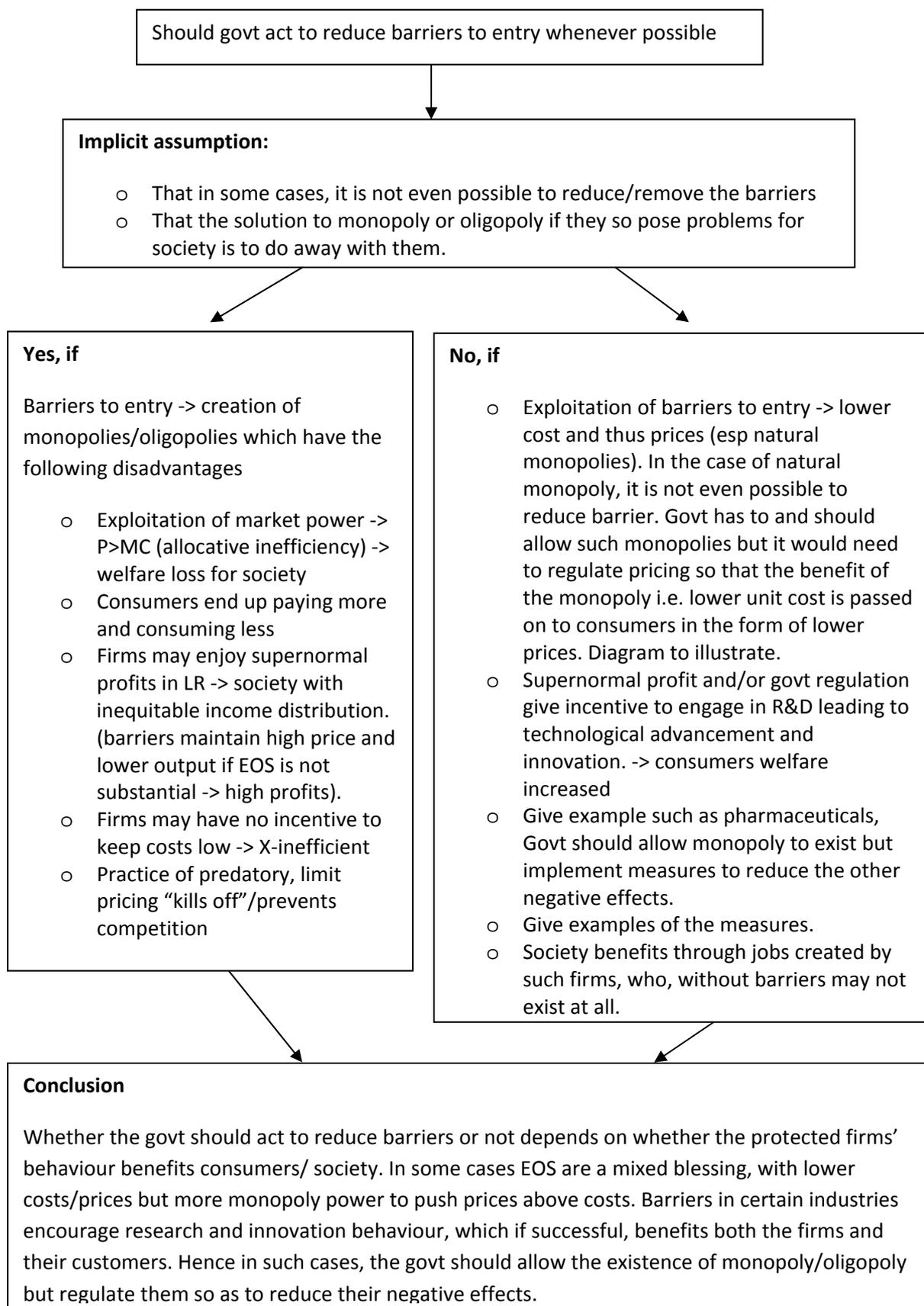
E.g. Microsoft's strategy of pressurizing computer makers to pre-install their Internet browsing software – Internet Explorer, was an example of a company with a near monopoly on computer operating systems trying to use its influence to capture Internet market share from its rival Netscape and keep out newer rivals.

- Product Differentiation

A monopolist can make their product to seem very different from their competitor through marketing and branding.

L1	Answer defines barriers to entry	1-2
L2	Undeveloped answers OR developed answer but with limited scope.	3-6
L3	Answer illustrates at least three barriers to entry with examples, with at least one on EOS.	7-8

(b)



L1	Answer identifies why the government should intervene to reduce barriers to entry in markets according to its microeconomics objectives. Recognizes that it may not always be feasible for the government to reduce barriers to entry and so alternative solutions may be needed.	1-5
L2	Answer provides a developed but one-sided argument OR provides an undeveloped but two-sided argument.	6-9
L3	Answer provides a developed balanced argument. Illustrates with examples.	10-13
E1	Answer provides an unsubstantiated opinion on whether the Singapore government should intervene to reduce barriers to entry in certain industries.	1-2
E2	Answer provides a substantiated opinion on whether the Singapore government should intervene to reduce barriers to entry in certain industries.	3-4

3.

(a) Explain how national defence and income inequality may lead to market failure. [10]

(b) Discuss the policies used by the Singapore government to address these causes of market failure. [15]

(a)

- Definition of market failure- the inability of markets to achieve social allocative efficiency where  $MSB=MSC$  or inequality.
- Definition of public goods- non-rivalry & non-excludability
- Explain how national defense and income inequality are examples of market failure
  - Non-excludability. Once national defense is provided, cannot exclude non-paying resident from enjoying the security provided by national defense → free-rider problem → price =0 → unprofitable → 0 output in the market.
  - The MC of providing national defense is zero (non-rivalry) to each resident of the country as the residents of a country cannot be excluded from enjoying the security (non-excludable) once the security is provided for all residents in the country. Since allocative efficiency occurs where  $P=MC$ , price has to be 0 to achieve output where there is efficiency. However, at  $P=0$ , no profits → 0 output in market.
- Definition of income inequality as the gap between the higher and lower income households and an inequitable distribution of income
- Explain why income inequality arises: Demand for labour is determined by labour productivity which is influenced by the workers' education, skills and health. DD for unskilled labour is relatively lower as firms will be less willing to hire workers with low labour productivity. The supply of highly skilled labour tends to be lower than that of unskilled labour as the former requires specialized and technical skills that are not easily acquired. SS of unskilled labour is high as there is a readily available pool of such labour. A combination of high demand and low supply of skilled labour leads to higher wage. This is as opposed to unskilled workers who would receive much lower wages due to its high ss and low dd.
- Income inequality can further worsened with occupational immobility, whereby the low skilled workers who lack the necessary skills to move into industries which employ high-skilled workers and hence pay higher wages → unequal incomes between low skilled and high skilled workers

- Explain why income inequality leads to market failure: Income inequality → failure of the market to allocate resources fairly → consumption disparities
  - In a market based economy, allocation of resources is based on the price mechanism. Movements in product prices determine the types and amt of G+S to be produced. An increase in dd for a good → increase in product prices and producers will respond to the price signals by increasing production and the amt. of good produced is distributed among those who are willing and able to pay.
  - Consumers command resources according to their dollar votes. Those who are unable to pay will not have access to the goods. Thus in a market based economy, types of goods and the amt of goods produced is based on the willingness and ability to pay rather than on needs.
  - Because income is unevenly distributed □ people with most income will be able to determine what should be produced as they are able to cast higher money votes for the goods that they want → resources will be diverted to produce luxury goods for the rich, while the needs of the poor will not be satisfied OR Those with high income will get more of the goods but those with low income may not get the goods, including necessities
  - Unfair distribution of resources → inequity → society's welfare not maximized
  - Larger share of output to those who are willing and able to pay which in turn depends on income. → market failure.

L1	Answer defines market failure, public goods and income inequality	1-4
L2	Answer provides an explanation of how national defence and income inequality are examples of market failure	5-6
L3	Answer provides some examples of how national defence and income inequality result in market failure	7-10

(b)

Introduction

- Increasing income gap can represent an inequitable distribution of income.
- It can cause problems such as such as material hardship for lower income groups, increasing tension between the different income groups and social instability.
- Public goods are necessary for society but since the private sector will not usually produce them, governments have to take on the responsibility of providing them so as to cater to society's needs.
- Hence, policies to provide public goods and to narrow the income gap should be pursued. There are various policies to narrow the income gap and these include progressive taxation and subsidies for lower income households as well as upgrading programmes for lower skilled workers (e.g. Workfare)

Body

- Public goods → inevitable for government to fund and provide the good e.g. national defence & street lighting
  - However possibility of government failure to determine the optimal or efficient level of production (e.g. government may produce too many street lighting or spend too much on military equipment than what is necessary to defend the country)
  - Possibility of government debt

- Income inequality → progressive income taxes and transfers to the poor e.g. GST Voucher Scheme, growth dividends and Workfare bonus
  - Progressive taxation places a higher tax burden on higher income households. Transfer of resources to lower income households to reduce and manage the income gap
  - Progressive subsidies like
    - GST rebates & growth dividends help lower income households shoulder the burden of rising costs, especially since GST is a regressive tax which places a greater tax burden on lower income households.
    - Workfare Income Supplement Scheme creates incentives for lower income workers to stay employed
    - Growth dividends redistributes the fruits of economic growth to the lower income households
  - Government programmes like Workfare Training Support Scheme encourages workers to improve their skills to as to increases their productivity and thus their pay.
  - However, overtaxing the higher income households & firms could result in negative impacts on productivity. Spillover effects on overall growth as businesses/workers relocate to other countries.

#### Evaluation

- Singapore has one of the higher income disparities in the world. Hence, it is arguable that the government should allocate more of its resources towards closing the income gap. However, being a small country, Singapore is also vulnerable in terms of national defense.
- Since significant government resources need to be allocated to both the closing of the income gap as well as providing national security, the government runs the risk of running a budget deficit which goes against their policy of running a small surplus annually.
- However, since the Singapore government has considerable reserves due to running budget surpluses the past few years, the public debt may not be considerable.
- Furthermore, as long as Singapore retains its competitive tax and salary structure and remains an attractive destination to live and work, the effects of progressive taxation on the higher income households and firms should be mitigated somewhat.
- Hence, all things considered, Singapore should continue its respective policies for managing income inequality and providing public goods like national defense as the benefits outweigh the costs for now.

L1	Answer recognises the need for the government to intervene when markets fail and identifies the government policies to address public goods and income inequality.	1-5
L2	Answer explains how the various government policies work to address public goods like national defence and income inequality but without explaining the limitations OR undeveloped answers.	6-8
L3	Answer explains how the various government policies work to address public goods like national defence and income inequality and the limitations of the policies. Contextual Singapore examples are provided.	9-11
E1	Answer provides an unsubstantiated opinion on the effectiveness of the Singapore government in carrying out the policies to address public goods like national defence and income inequality	1-2
E2	Answer provides a substantiated opinion on the effectiveness of the Singapore government in carrying out the policies to address public goods like national defence and income inequality	3-4

4.

- (a) Explain how fiscal policy can be used to encourage both actual and potential economic growth. [10]
- (b) Discuss the extent to which conflicts in government macroeconomic objectives limit the scope for the use of fiscal policy. [15]

(a)

Define actual and potential growth and fiscal policy

- Actual growth refers to the rise in real output that has been experienced by a country
- In the short run, a country's aggregate supply (AS) is assumed to be fixed, so actual growth can be experienced from purely an increase in aggregate demand (AD)
- Potential growth refers to the increase in an economy's productive capacity and is presented by a rightward shift of a country's AS curve
- For there to be actual growth in the long-run, both AD and AS needs to shift right i.e. potential growth is required for long run actual growth to be achieved
- Definition of expansionary fiscal policy

Explain how expansionary fiscal policy can be used to raise actual and potential growth

- Expansionary fiscal policy involves increasing government spending which raises AD directly and/or decreasing direct taxes such as personal income taxes and corporate taxes, which stimulates consumption by households and investment by firms respectively
- Key to the working of fiscal policy is the multiplier effect, where higher government spending or tax cuts provides only the initial injection, while subsequent rounds of induced consumption further boosts AD
- Expansionary fiscal policy can have supply side effects which raises potential growth
  - o Spending on infrastructure raises the quantity of capital
  - o Spending on education and training raises the quality and mobility of labour
  - o Lowering personal income tax rates raises the incentive to work and hence the quantity of labour
  - o Cutting corporate taxes spurs investments and raises the quantity of capital
  - o Spending on research and development raises the quality of capital

L1	Answer defines expansionary fiscal policy, actual and potential growth	1-4
L2	Answer explains how expansionary fiscal policy may bring about actual and potential growth	5-6
L3	Answer illustrates actual and potential growth with the AD/AS or PPC model	7-10

(b)

- The objectives of the government are high economic growth, low unemployment, price stability and BOP equilibrium.
- The expansionary effect on the national income through the use of expansionary fiscal policy is explained in part a already. Will look at how this may conflict with the other objectives.
- Conflict between economic growth and price stability – If the economy is close to full employment, the increase in government expenditure may be more than a deflationary gap, causing too much demand going after too little goods, giving rise to demand pull inflation (AS/AD diagram). This is contrary to a government's objective of low inflation/price stability.
- Conflict between economic growth and BOP equilibrium – The increase in government expenditure resulting in higher national income will mean households will get higher disposable income, assuming ceteris paribus.
- Their ability to buy imports will increase as imports are induced expenditure; this will worsen the BOP current account, thereby upsetting the BOP equilibrium under a fixed or managed exchange rate regime.

However, besides these conflicts, there are also other limitations that affect the effectiveness of expansionary fiscal policy in achieving economic growth:

- Crowding out effects – When government borrows to finance its expenditure, the increase in demand for loanable funds will drive up interest rate.
  - Higher interest rates increase the costs of borrowing and the opportunity costs of holding money.
  - Firms will decrease their investments, therefore this may result in small increase in net AD and may dampen the effect on national income.
- Value of the multiplier – If the k value is small, it means that a large part of the injection is withdrawn from the circular flow of income through savings, taxes and imports.
  - The high value of MPS, MPT and MPM will cause k value to be small.
  - Therefore, the effect on national income will be dampened.
- Time lag

Evaluation

- The government has to be aware that there may be conflicts with the objective of there may be tradeoffs, more than 1 policy is therefore required to attain the objective effectively and minimizing the conflicts or tradeoffs that may come along with the implementation of the policy.
- Other policies that the government may also consider will be monetary and supply management policies.

L1	Answer identifies the various macroeconomic objectives of a government and recognises the potential conflicts which may come about due to discretionary fiscal policy	1-5
L2	Answer explains how discretionary fiscal policy may bring about conflicts in the macroeconomic objectives	6-8
L3	Answer analyses the limitations of discretionary fiscal policy in achieving macroeconomic objectives of the government	9-11
E1	Answer provides an unsubstantiated opinion on how the government could use discretionary fiscal policy while still meeting most or all of their macroeconomic objectives.	1-2
E2	Answer provides a substantiated opinion on how the government could use discretionary fiscal policy while still meeting most or all of their macroeconomic objectives.	3-4

**5. Recent adverse weather conditions as well as military conflicts around the world have led to an increase in the prices of oil and other primary products.**

**To what extent would you agree that it is the increase in prices of oil and other primary products which have contributed the most to the inflation rate in Singapore? [25]**

Introduction:

- This essay aims to explain how the large increases in prices of oil and other primary products have affected inflation in Singapore before discussing other factors which may have contributed to inflation like weather conditions and military conflicts.
- Define inflation- General, sustained, inordinate rise in GPL / devaluation of the currency
- Explain causes of inflation- AD and AS factors using AD/AS model

Thesis: Higher oil and other primary products prices cause cost-push inflation in Singapore

- Oil is used to produce the fuels needed to power transport vehicles and also drive power generators to produce electricity
- Military conflicts, especially in oil-producing countries like in the Middle East, drive up the price of oil. This is due to increased demand for oil from governments for military uses as well as reduced supply as oil producing infrastructure get destroyed.

- An increase in the price of oil raises transportation and energy cost, thus driving up cost of production for all firms in the economy
- Primary products refer to the raw materials used to produce goods e.g. metals, agricultural products & minerals, so higher primary products prices lead to higher production costs
- Adverse weather conditions can also affect harvests and thus decrease the supply of imported primary products like food which Singapore is dependent on. This increase food costs and thus gives rise to imported inflation
- An increase in economy-wide production costs causes the AS curve to shift upwards and assuming that AD remains unchanged, general price levels rises
- Due to the lack of natural resources, Singapore is totally dependent on imports for oil and all other raw materials, so a large increase in the prices of such imports is likely to cause significant imported cost-push inflation

Anti-thesis (i) Why increases in prices of oil and primary products may not contribute (the most) to inflation in Singapore

- Singapore government adopts appreciation of the Singapore dollar (SGD) to cope with such inflationary problems. The appreciation of the SGD can be coincidentally due to free market forces or by deliberate action of the government. By appreciating the currency, price of imported goods and services that makes use of imported raw materials will be lowered. Thus overall fall in prices of goods and services within an economy will help reduce cost-push inflation. Cost of living of locals will not rise as significantly and standard of living will not fall as much. With the appreciation of the currency, the Singapore government could ease the burden of the rising cost of living of the ordinary HDB heartlanders who are mostly low or middle income.
- Nonetheless, there are limitations to every policy. Limitations include conflicts with other goals of a healthy economy. An appreciation of the SGD raises foreign price of exports causing exports from Singapore to be less competitive. They also find it difficult to export from Singapore. Furthermore, with the stronger SGD, locals will switch to buying more imports than local goods which can cause a fall in the aggregate demand. If M-L condition holds, NX falls, AD falls, growth and inflation falls. Also the appreciation of SGD may cause a rise in foreign investment cost in Singapore. Therefore, FDIs in Singapore may fall. This has a deflationary effect, offsetting the earlier inflationary pressures.

(ii) Other factors that contribute to inflation in Singapore

Cost push inflation:

- In recent years Singapore has also experiences other sources of domestic cost-push inflation
  - Rising COE prices due a reduction in COE quotas
  - Rising wages due to a deliberate policies aimed at reducing foreign labour inflows
  - Falling productivity leading to higher unit cost of production.

Demand-pull inflation from external sources:

- Demand-pull inflation i.e. overheating occurs when AD rises as the economy is at or near full employment i.e. upward or vertical portion of the AS curve
- As Singapore is highly dependent on external demand, a large rise in exports e.g. due to an upswing in the global economy, could cause demand-pull inflation
- Higher liquidity due to quantitative easing policies in US/UK/Eurozone → higher dd for properties (housing) in more stable economies such as Singapore

Demand-pull inflation from domestic sources:

- Singapore enjoyed economic growth in most of the years → higher affluence → higher dd for g&s → dd-pull inflation
- Low interest rate environment → higher dd for housing which constitute a rather big component in the basket of goods in the computation of CPI → dd pull inflation

Evaluation on Singapore's main cause of inflation

- Singapore has not been lacking in investments, so its growth in productive capacity has generally been able to match its grow in aggregate demand
- Hence, demand pull inflation has not been a major problem for Singapore for most years/ in the long run.
- In contrast, due to Singapore's import dependence, the threat of imported cost push inflation has always been relatively more serious
- Furthermore, in the last few years, due to changes in government regulation as well as domestic economic conditions, domestic cost push factors have been gaining importance
- Hence it can be argued that factors affecting cost push inflation are more significant than those affecting demand-pull inflation

L1	Answer defines both demand-pull and cost-push inflation. Recognises the characteristics of the Singapore economy and its dependence on imports. Explanation on thesis only, max 5m.	1-5
	Answer provides a generic explanation of the causes of both demand-pull and cost-push inflation with no or little reference to the Singapore context. Illustrates with the AD/AS model but with some errors.	6-9
L2	Undeveloped thesis as well as anti-thesis OR Balanced answer but with limited scope in the anti-thesis. Little reference to Singapore.	10-14
L3	Developed thesis as well as anti-thesis and gives examples in the Singapore context	15-21
E1	Answer provides an unsubstantiated opinion on the main cause of inflation in Singapore	1-2
E2	Answer provides a substantiated opinion on the main cause of inflation in Singapore	3-4

6. Singapore's Balance of Payments rose to \$33 billion in 2012 from \$21 billion in 2011, also reflecting a smaller net outflow from the capital and financial account. Singapore's official foreign reserves rose to \$317 billion at the end of 2012.

(a) Using economic analysis, explain Singapore's pattern of trade with the rest of the world. [10]

(b) Assess the need for the Singapore government to change its policies for managing the balance of payments. [15]

Suggested Answer:

Theory of comparative advantage

- The pattern and direction of trade in Singapore to a large extent has been dictated by the theory of comparative advantage. When a country can produce a good at a lower opp cost, the country has a CA in the production of that good. Theory states that when a country can produce a good at a lower opportunity cost than another country, specialization and trade can benefit both countries.
- Highlight assumptions – namely 1) Factor mobility within countries, 2) Absence of transport cost 3) Absence of trade barriers 4) Constant opportunity cost 5) Full employment of resources
- Illustrate concept of opportunity cost with Table

Table 1.

With 1 Worker,	Shirt	or	Chip	Opportunity Cost of	
				1 Shirt	1 Chip
Singapore can produce	2	or	6	— Chip	— Shirt
China can produce	1	or	1	— Chip	— Shirt

According to the above table, Singapore has a lower opportunity cost of producing a chip and India has a lower opportunity cost of producing a shirt. Therefore Singapore has a comparative advantage in producing chip and China has a comparative advantage in producing shirt.

- The theory of comparative advantage provides a good explanation of world trade between Singapore and the rest of the world. It has well-educated and English-speaking labour force, good infrastructure (e.g. Biopolis to reap external EOS), stable government → factors or production are better suited for high value/ tertiary industries → lower opp cost in the pdtn of high value/ tertiary goods and services. This means that Singapore has a comparative advantage in high value - added tertiary industries such as finance, healthcare, education services and pharmaceutical pdts and high value electronic chips. With its good geographical location and efficient container port & airport, Singapore also has a comparative advantage in shipping and aviation services.
- In addition, Singapore also has a comparative advantage in high value - added manufacturing industries - electronics, engineering, chemicals and biomedical science.
- Singapore has small population and little natural resources. Factors of production are less suited to produce labour intensive/ natural resource-intensive goods → higher opp cost in pdtn of these goods. It has a comparative disadvantage in labour-intensive industries and natural resource-intensive industries. Singapore, therefore, has to import

industrial raw materials, foodstuff and low/mid value-added consumer goods such as textiles from developing countries, e.g. China, which has relatively large no. of unskilled/semi-skilled workers and natural resources.

- As a result, Singapore exports a range of high value manufacturing goods and capital equipment. So, these are the goods that Singapore exports. In 2007, the value of its exports is S\$451 billion. The major markets are Malaysia, Europe, Hong Kong, Indonesia, China & USA. Singapore's main exports are manufactured goods such as electronics, engineering, chemicals & biomedical science products. Electronics form the bulk of non-oil exports and USA is the key electronics export market. Singapore also exports high value services such as financial & business services.
- **Dd-side reasons: Intra-industry trade is** international trade in goods that belong to the same/ similar industry. E.g. US exports cars to Japan while simultaneously importing cars from Japan. People living within a country and across countries have differences in taste and preference. People in all of these places have different preferences for the cars they drive. Drivers who prefer larger cars may prefer to buy Ford and GM cars while others may prefer smaller but energy efficient Japanese cars → thus affecting the pattern of trade.
- Social and political considerations influencing trade. For example, Singapore bans or curtails the imports of drugs, pornographic materials and certain livestock. A country may also impose trade sanctions on countries with which she disagrees politically. For example, during the Gulf War, many countries including Singapore impose trade sanction on Iraq. To maintain a degree of self-sufficiency in strategic goods, Singapore also produces water such as NEWater and armaments ranging from fighter planes to submarines, from missiles to tanks even when it has no comparative advantage.
- Transport cost

L1	Answer defines comparative advantage and recognises the theory as a basis of trade for Singapore but answer lacks clear economic analysis.	1-4
L2	Answer explains comparative advantage with economic analysis but answer is undeveloped (e.g. unable to explain differing opp cost ratio for relevant product groups). Gives relevant examples of Singapore's exports and imports.	5-6
L3	Well explained answer on theory of CA and analyses the alternative reasons why Singapore trades and illustrates with examples. OR use dd-ss analysis to explain patterns of trade between Singapore and rest of the world. If ans only on theory of CA, max 8m.	7-10

(b)

Suggested Answer:

- Policies include free trade and exchange rate management policies. No need to change as they have proven to be effective in achieving not just BOP position of surplus, the

surplus having risen from \$33 billion in 2012 from \$21 billion in 2011, but brought about economic growth for Singapore.

Thesis: Policies that help achieve healthy BOP.

- Gradual appreciation of S\$

Appreciation of S\$--> higher returns on investment in future → attracts FDI → capital inflows → healthy BOP.

Evaluation: Strong S\$: lowers price of import and increases price of exports. NX falls if M-L condition holds; Price of M falls which in turn lowers imported cost push inflation as Spore imports a lot of raw materials. This helps offset some of the price increase in our exports, esp. for those goods with high import content [Note: overall, price of X will still increase from appreciation of S\$. Price remain unchanged only if M constitutes 100% of pdtn cost which is unlikely.]

- Ss-side policies

Subsidies on R&D/low corporate taxes→ low COP → price of exports is price competitive. Assuming  $PED_x > 1$ , X revenue increases → current account surplus.

- FTA

FTA, e.g. removal of tarriff by trading partners → X cheaper to foreigners. Assuming  $PED_x > 1$ , X revenue increases→ current account surplus.

Anti-thesis

- Reverse policy of gradual appreciation of S\$ to depreciation of S\$ during economic downturn.

Explain the harm of appreciation of S\$ → worsens the fall in real NY during an economic downturn. Explain how fall in S\$ stimulate NX and hence improve current account.

Evaluation

- Singapore's policies of gradual appreciation to manage its BOP has proven to be effective so far as it helps to retain some degree of exchange rate flexibility so as to maintain a favourable BOP position while at the same time achieving the macroeconomic objectives of stable prices and exchange rate.
- Over the years, BOP surpluses → Singapore has accumulated much foreign reserves, arguably more than enough to fend off speculative attacks to prevent a sudden depreciation. Keeping too much foreign reserves can be seen as a waste of resources because these reserves could be used to finance domestic consumption or investment which will raise current or future living standards respectively.
- Despite gradual appreciation of S\$, S\$ may still be undervalued since current account surplus and huge reserves. The extent of under-valuation and the amount of BOP surplus can be reduced, especially since Singapore's long run growth is expected to slow given that Singapore is now a developed economy

L1	Answer recognises the characteristics of the Singapore economy and its dependency on trade. Identifies how Singapore manages its BOP and recognises that being open to trade and having an exchange rate policy is needed to fuel growth and manage the main kind of inflation which Singapore faces. Limited scope and/ or answers with little economic analysis.	1- 5
L2	Answer explains why the Singapore government adopts an openness to trade policy as well as an exchange-rate based monetary policy to manage the BOP. Developed but unbalanced OR undeveloped but balanced answers.	6 - 8
L3	Balanced (at least 2 policies in thesis & 1 point in anti- thesis)	9 - 11
E1	Answer provides an unsubstantiated opinion on whether the Singapore government should change its policies for managing the BOP. Limitations of policies.	1-2
E2	Answer provides a substantiated opinion on whether the Singapore government should change its policies for managing the BOP. Limitations of policies.	3-4

Nanyang Junior College

2014 JC2 Prelim Examinations

H1 Economics Paper 1

Suggested answers:

Question 1:

(a)	(i)	<p>Compare the trends in the percentage of population aged 60 and over for the developed and developing countries from 1950 to 2050.</p> <ul style="list-style-type: none"> <li>- There is a <b>rising trend</b> in the percentage of population aged 60 and over for both the developed and developing countries. (1)</li> </ul> <p style="text-align: center;"><b>AND</b></p> <ul style="list-style-type: none"> <li>- The percentage of population aged 60 and over is <b>higher</b> for developed countries compared with developing countries for the period shown.(1)</li> </ul> <p style="text-align: center;"><b>OR</b></p> <ul style="list-style-type: none"> <li>- <i>developing countries are predicted to experience a faster rate of increase in percentage of those aged 60 and above of the total population over the forecasted period.</i></li> </ul> <p style="text-align: center;"><b>OR</b></p> <ul style="list-style-type: none"> <li>- <i>Over the recorded period, developed countries experienced a faster rate of increase of those 60 and above than developing countries. (maybe give % figures)</i></li> </ul>	[2]
	(ii)	<p>Account for the above demographic trends.</p> <p><b>2 factors [1 for identifying 1 for explaining] x 2: (4m)</b></p> <ul style="list-style-type: none"> <li>- Longer life expectancy due to better healthcare services</li> <li>- Falling birth rates (fertility rates) due to higher opportunity costs in having children.</li> <li>- The percentage of population aged 60 and over for the developing countries is lower because of higher population growth rates.</li> </ul>	[4]
	(iii)	<p>With the use of a diagram, explain the likely effects of this demographic change on a product market.</p> <ul style="list-style-type: none"> <li>- Increase in demand for hospital beds, walking sticks, healthcare etc.</li> <li>- Rightward shift in the demand, c.p, upward pressure on price due to a shortage at the existing price → increase in P and Q.</li> <li>- Demand factor identified (1m)</li> <li>- Brief explanation of price mechanism – impact on P&amp; Q (1m)</li> <li>- Diagram (1m)</li> </ul>	[3]

(b)	(i)	<p>What is income inequality?</p> <ul style="list-style-type: none"> <li>- Refers to a disparity of income between lower income and higher income groups</li> <li>- The unequal distribution of household or individual income across the various participants in an economy</li> </ul>	[1]
	(ii)	<p>With reference to extract 4, <b>explain 2 measures</b> that the government could implement to reduce income inequality.</p> <ul style="list-style-type: none"> <li>- Government transfers money from its “coffers” (revenue collected from progressive taxes) to low income earners through transfer payments. Eg. Workfare income supplement, the Special Employment Credit, conservancy charge rebates. This increases the disposable income of the low income earners and hence narrows the income gap.</li> <li>- “Skills training programme” Allowing lesser skilled workers to upgrade themselves and be able to command a higher wage thus narrowing the income gap.</li> </ul> <p>Identifying <u>each</u> 1 measure (1m)                  Explaining <u>each</u> measure – (1m)</p>	[4]
(d)		<p>Discuss whether building more hospitals by the government is the best way of addressing the healthcare needs of the aged.</p> <p>Based on extract 3, the rapidly ageing population will lead to an increasing demand for healthcare needs like hospitals, nursing homes, outpatient health services and social services. This increase in demand for hospitals will result in a shortage of hospitals and the healthcare needs of the aged are not taken care of. (diagram)</p> <p><u>Thesis : Building more hospitals by the government is an efficient method to meet the healthcare needs of the aged</u></p> <p>Government has to build more hospitals to cater to the needs of the aged because</p> <ol style="list-style-type: none"> <li>1. <b>Merit Good and Imperfect Info:</b> Healthcare underconsumed from society’s point of view due to imperfect information and external benefit not captured in the decision making process of the consumer thus leading to an inefficient allocation of resources (diagram). In reaction to underconsumption producers underproduce. Government intervenes to build more hospitals increasing supply and thus lowering price and encouraging consumption.</li> <li>2. <b>Income inequality.</b> Lower income aged may not be able to afford healthcare. If left to the market,(aged) low income earners may not be able to afford hospitalization. Market may function to serve only those who are able to pay. – <i>“The retired, elderly poor, for example, will not benefit from higher wages - but will suffer the inflation that comes in tandem, he notes. This group, who are both old and poor, will continue to grow”</i> –Government to build more hospitals to cater to the needs of the low income earners.</li> </ol>	[8]

Anti-Thesis : Building more hospitals by the government is not an efficient method to meet the healthcare needs of the aged

Limitations

1. The supply of hospitals is price inelastic, hence the increase in supply may not meet the increase in demand.
2. There is also a shortage of healthcare workers to work in the hospitals.
3. Costly to build hospitals

Alternative measures

1. Improve the outpatient healthcare services for eg, provide home visits so that the aged can recuperate at home instead of staying in the hospital
2. Collaborate with the private hospitals and community hospitals in terms of the usage of resources like doctors, nurses and hospital beds. This will help to reduce the demand for government hospital services.
3. Extend healthcare subsidies to the private hospitals and clinics such that the demand for government hospitals would be reduced.
4. Preventive measures for them to stay healthy.....

Conclusion

There is a limit in which government can increase the number of hospitals due to high costs involved and shortage of healthcare workers. The long term solution is to improve the health of the aged and to collaborate & pool resources with the private healthcare sectors.

<b>L2</b>	<ul style="list-style-type: none"> <li>• <b>A well-developed 2-sided answer</b>, supported by case evidence and theoretical framework, that describes how building more hospitals achieves efficiency and addresses the healthcare needs of the aged <b>AND</b> goes on to highlight that an attempt to build more hospitals may not necessarily achieve an efficient outcome and meet the needs of the aged.</li> <li>• Limited use of data (max 5)</li> </ul>	<b>4-6</b>
<b>L1</b>	<ul style="list-style-type: none"> <li>• A well-developed 1-sided answer that describes how building more hospitals achieves efficiency and addresses the healthcare needs of the aged using a cost/benefit analysis framework.</li> <li>• An undeveloped 2-sided answer (and/or with some concept errors/issues or limited use of case evidence) that also highlights the possibility that building more hospitals may not necessarily achieve an efficient outcome and also meet the needs of the aged.</li> <li>• An answer with some reference to data</li> </ul>	<b>1-3</b>
<b>E</b>	Evaluative comments with justification	<b>1-2</b>

(c)		<p>Discuss the impact of an ageing population on an economy.</p> <p><b><u>Negative impacts</u></b></p> <ol style="list-style-type: none"> <li>1. Slow down economic growth</li> <li>2. Fall in labour force participation rate → fall in labour supply, c.p. → increase in wage → increase in costs of production.</li> <li>3. Fall in income of the older workers → fall in purchasing power → fall in consumption → fall in AD → fall in real NY</li> <li>4. Increase in government expenditure on healthcare needs, transfer payments for the aged &amp; pensions → government may run a budget deficit. There is opportunity costs in this financing expenditure → impede economic growth</li> <li>5. Ageing population may worsen income inequality (extract 4)</li> <li>6. Fall in productivity of the aged</li> </ol> <p><b>However, the negative impacts of the aged on economy may not be so serious if the</b></p> <ol style="list-style-type: none"> <li>1. Aged workers are highly educated.</li> <li>2. There is improvement in technology which can enable the aged to continue working</li> </ol> <p><b><u>Positive impacts</u></b></p> <ol style="list-style-type: none"> <li>1. Benefited the pharmaceutical companies (extract 1). A new source of income from discovery of new drugs for the aged. This will cover the loss of their income due to expiry of patents.</li> <li>2. Development of silver industry like tourism, healthcare, etc</li> </ol> <p><b><u>Judgement/Synthesis</u></b></p> <ul style="list-style-type: none"> <li>- How significant the impact will depend on the government taking preemptive policy measures</li> <li>- Possible measures the government could undertake to mitigate long term negative effects</li> <li>- Restructure economy to better cater to the needs of the aged</li> </ul>	[8]									
		<table border="1" style="width: 100%;"> <tr> <td style="width: 5%; text-align: center;"><b>L2</b></td> <td style="width: 65%;"> <ul style="list-style-type: none"> <li>• A <b>well-developed 2-sided answer</b>, supported by case evidence and theoretical framework, that discusses the positive <b>AND</b> negative effects of an ageing population on the economy</li> <li>• A <b>well-developed 1-sided</b> answer (positive or negative effects) using an economic framework discussing the impact of an ageing population on an economy (<b>max 4</b>)</li> <li>• An <b>undeveloped 2-sided</b> answer that discusses both positive and negative impacts of ageing on an economy with limited use of an economic framework</li> <li>• An answer with some reference to data Limited use of data (<b>max 5</b>)</li> </ul> </td> <td style="width: 10%; text-align: center; vertical-align: top;"><b>4-6</b></td> </tr> <tr> <td style="text-align: center;"><b>L1</b></td> <td>Brief and/or superficial answer that merely lists information with no or limited explanation</td> <td style="text-align: center; vertical-align: top;"><b>1-3</b></td> </tr> <tr> <td style="text-align: center;"><b>1</b></td> <td>Evaluative comments with little or no justification.</td> <td style="text-align: center; vertical-align: top;"><b>1-2</b></td> </tr> </table>	<b>L2</b>	<ul style="list-style-type: none"> <li>• A <b>well-developed 2-sided answer</b>, supported by case evidence and theoretical framework, that discusses the positive <b>AND</b> negative effects of an ageing population on the economy</li> <li>• A <b>well-developed 1-sided</b> answer (positive or negative effects) using an economic framework discussing the impact of an ageing population on an economy (<b>max 4</b>)</li> <li>• An <b>undeveloped 2-sided</b> answer that discusses both positive and negative impacts of ageing on an economy with limited use of an economic framework</li> <li>• An answer with some reference to data Limited use of data (<b>max 5</b>)</li> </ul>	<b>4-6</b>	<b>L1</b>	Brief and/or superficial answer that merely lists information with no or limited explanation	<b>1-3</b>	<b>1</b>	Evaluative comments with little or no justification.	<b>1-2</b>	
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<b>1</b>	Evaluative comments with little or no justification.	<b>1-2</b>										

Question 2:

(a) (i) Explain what is meant by labour productivity. [1]

- Labour productivity refers to the output produced per worker [1]

(ii) Describe the trend in Singapore's labour productivity growth from 2010 to 2012. [2]

- General trend: Singapore's labour productivity growth showed a generally falling trend between 2010 and 2012. [1]
- Refinement: There was a negative change in labour productivity of -1.4% in 2012, suggesting that labour productivity fell during the year. [1]

(b) Using Table 1, compare the internal and external economic performance of Singapore and Vietnam over the given period. [5]

Internal economic performance [3]

- **Economic growth:** Following the spike in real GDP growth to 15.2% in 2010, the Singapore economy has seen a sharp slowdown in growth to 2.5% in 2012. In comparison, the pace of growth is more even in Vietnam. Although the increase in GDP growth in 2010 was not as pronounced, they experienced a less significant slowdown in economic growth thereafter.
- **Inflation rates:** Inflation rates in both countries have generally been rising but the rates in Vietnam is significantly higher across the given period → potential threat to LT growth.
- **Unemployment rates:** Both economies experience declining unemployment rates but the rates for Singapore is higher than Vietnam.

External economic performance [1]

- **Current account:** Based on current account balance as a percentage of GDP, Singapore is more reliant on the external economy for growth compared to Vietnam:
  - Singapore experiences a current account surplus (positive current account balance as a percentage of GDP) throughout the given period while Vietnam's current account position as a percentage of GDP improved from a deficit in 2009 and 2010 but to a surplus from 2011 onwards.
  - Singapore's current account balance as a percentage of GDP is significantly higher than that of Vietnam.

Conclusion [1]

- Vietnam seems to have a stronger internal economy although strong inflationary pressures may threaten longer-term growth.
- External economy more critical in driving growth in Singapore compared to Vietnam.

(c) (i) Explain the causes of inflation in Vietnam [4]

Demand-pull inflation [2]

- Push for stronger growth → currency devaluation (Extract 8) → exports relatively cheaper in foreign currency and imports relatively more expensive in domestic currency → ↑ (X-M) → ↑ AD → if ↑ AD not matched by AS → demand-pull inflation.

Cost-push inflation [2]

- Increase in power, fuel and coal prices (Extract 8) → ↑ cost of production → cost-push inflation
- Currency devaluation (Extract 8) → imports relatively more expensive in domestic currency → ↑ cost of imported raw material → ↑ cost of production → cost-push inflation.

(ii) **Discuss whether the Vietnamese government's approach is appropriate in battling inflation.** [8]

*Introduction: Vietnamese government's approach to battling inflation: raise interest rates / tighten money and credit; and cut budget deficit → to address demand-pull and cost-push inflation as detailed in (c)(i).*

Thesis: Vietnamese government's approach can be used in battling inflation

- Raise interest rates to 14% in a flurry of increases; tighten money and credit (Extract 8) → contractionary MP
  - ↑ interest rates → ↑ cost of borrowing → ↓ incentive to consume and invest; also rising opportunity cost of consumption → ↓ C and I → ↓ AD → curbs demand-pull inflation.
- Cut budget deficit → contractionary FP
  - Cut budget deficit (Extract 8) → ↓ government expenditure by pruning inefficient public investment (↓G) and ↑ direct taxes (↓C,I) → ↓ AD → curbs demand-pull inflation.

Anti-Thesis: Vietnamese government's approach is not appropriate in battling inflation

- Policies do not address cost-push inflation.
- Policies work to mitigate the effect of rising AD on GPL but do not address the root causes (root cause is ↑X-M but FP and MP affects C, I and G).
- Limitation of policies adopted:
  - Raise interest rates – effectiveness depends on interest elasticity of investments; compromise short-term growth (Table 1: growth rates fell from 6.2% to 5.2% between 2011 and 2012) and employment in the SR and possibly potential growth due to ↓I in the LR.
  - Cut budget deficit –time lag, rigidity of government spending and political consideration of raising taxes.
- Judgement
  - Policies work to mitigate the effect of rising AD on GPL but does not solve cost-push inflation.
  - Suggest possible policies to address cost-push inflation (focused on ↓ COP)
  - Propose the need for a mix of policies to address both demand-pull and cost-push inflation.

Levels	Description	Marks
L2	A balanced answer which recognises that while raising interest rates and cutting budget deficit can be used to solve demand-pull inflation, it does not address cost-push inflation. Evaluation of policies needed, with application to Vietnamese context.  For a well-developed answer that focuses on either raising interest rates or cutting budget deficit, with evaluation → max 4m	4-6
L1	One-sided answer with limited or no evaluative comments on the approach taken OR sketchy two-sided answer that does not make reference to data provided.	1-3
E	Well-developed evaluative judgment on the effectiveness of the approach adopted by Vietnam to address inflation.	1-2

(d) To what extent do you agree with the view that “Singapore's nipping foreign labour inflow policy may warrant a review”? [10]

Students must talk about the pros & cons of the foreign labour inflow policy to comment on whether it needs adjustment in the light of the problems associated with the policy & give judgment base...

**Intro:** Singapore characteristics of being resource scarce & trade dependent → the need to depend on foreign worker & exports & FDI. However, it has also put strain on both the physical infrastructure and the social conditions of Singapore.

Explain the recent changes in the foreign labour inflow policy → Stricter policy to reduce the overdependence on foreign workers by imposing quotas & levies ( **Extract 5** )

### Thesis: Need for Singapore to review foreign labour inflow policy

- Explain how foreign labour inflow policy leads to inflationary effects → lower SS of foreign labour → COP ↑ → SRAS ↓ → GPL ↑ → Cost push Inflation. (Last para Ext 5 & also 3<sup>rd</sup> Para Ext 6). Also RNY ↓ → C.P Negative impact on economic growth. (Technical Recession – Ext 6). Must Draw diag of SRAS shift.
- Impact on export and FDI competitiveness → Higher GPL will impact our cost competitiveness ( **Extract 6** ) as our exports become more expensive because of inflation & also because of higher costs of doing business ( **Ext 6 high lab costs & compression of profit margins** )

**Anti-thesis: Singapore should not change foreign labour inflow policy because the Govt is in the process of Economic restructuring**

- Reducing the over reliance on foreign labour will force the firms to improve labour productivity that has been falling → long-term or “sustainable” growth (**Extract 7**). It will also encourage firms to be more innovative and efficient.
- Draw LRAS shift to show sustained growth with price stability in LR.

**Anti-thesis: Singapore should not change foreign labour inflow policy because the problems may be because of other reasons and also because the Govt is already implementing other policies.**

- The increase in GPL may not due to a tighter labour market but because of other reasons like imported inflation (**last para Ext 5**), high COE premiums and rentals → thus changing the foreign labour policy will not address the root cause of the problem.
- Inflationary pressures contained in part by ER appreciation – Table
- Support given to SMEs already (**Ext 7**)

**Evaluation:**

- In conclusion, while tighter inflow of low wage foreign labour would have impact on overall growth and inflation in Singapore in the short term, the main focus should be on managing the pace of adjustment and not abandoning the process of weaning off cheap labour entirely.
- Other factors such as external demand, exchange rates, government policies would also matter because in recent years, they are clearly making a bigger impact on cost of doing business in Singapore. – For example being an export-oriented economy, the Singapore government acknowledges that cost competitiveness is important for our companies and had used policy tools such as rental rebates, utility charges and tax rates to enhance our competitiveness.
- Thus it is too early to comment on whether **“Singapore's nipping foreign labour inflow policy may warrant a review”** because the long term impact of the economic restructuring needs to be seen.

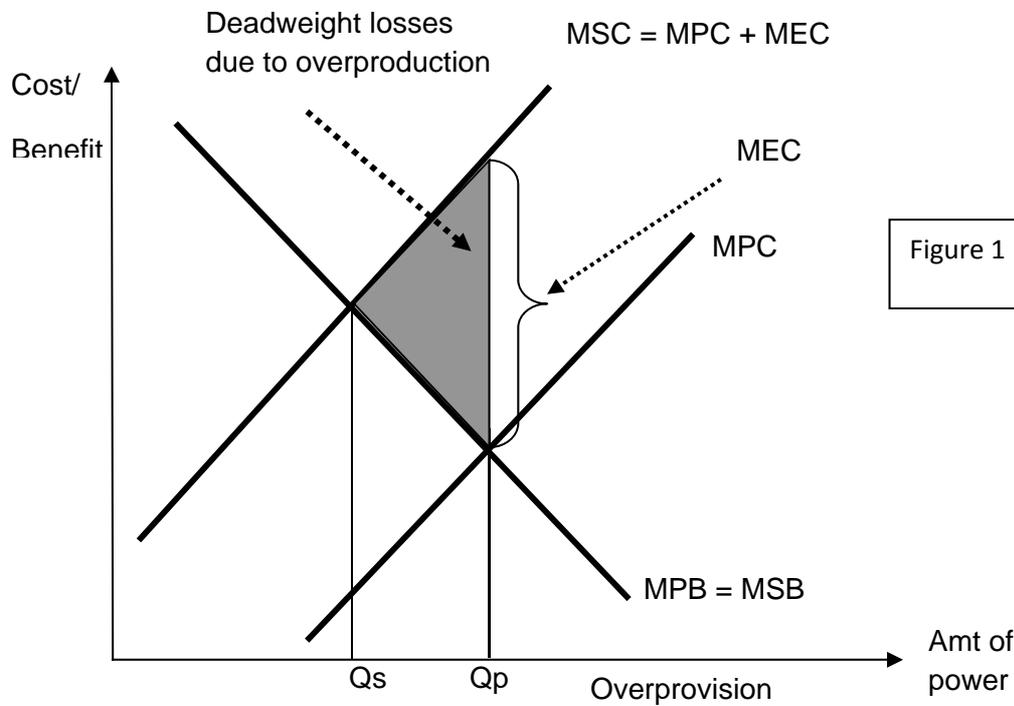
Levels	Descriptor	Marks
L3	A Well-developed balanced answer with economic analysis that thoroughly explains whether the stricter foreign worker policy needs review or not in the Singapore context.	7-8
L2	Able to explain how the stricter foreign worker policy creates potential problems that's needs some adjustment but may not have elaborated on all anti thesis issues <b>OR</b> may not have given enough case study evidence	4-6
L1	One-sided answer with limited or no link to the nipping of the foreign worker policy <b>OR</b> sketchy two-sided answer that does not make reference to data provided. <b>OR</b>  Merely lifting evidence from the passage but no clear link to economic problems	1-3
E	Judgment based on Economic restructuring →able to give evaluation based on short term losses Vs Long term gains	1-2

**Question 3:**

"Climate change, once considered an issue for a distant future, has moved firmly into the present. The evidence is visible everywhere from the top of the atmosphere to the bottom of the ocean. Some changes are already having a measurable effect on food production and public health. The global warming of the past 50 years is primarily due to human activities, predominantly the burning of fossil fuels.

*National Climate Assessment 2014, USA*

- a. Explain why economists describe climate change as an example of market failure? [10]
- b. Critically evaluate the measures countries can take to address the above market failure. [15]
- a. Explain why economists describe climate change as an example of market failure? [10]
1. Explain market failure (highlighting the essential components):
    - a. Workings of free market leads to undesirable outcomes from a societal viewpoint leads to:
      - Deadweight losses
      - Total (ie. consumers' plus producers') surpluses or societal welfare is not maximized
      - Leading to inefficient allocation of resources
    - b. Explain that fossil fuels refer to oil and coal
      - Activities that use fossil fuels lead to emission of carbon dioxide and other greenhouse gases. These activities result in negative externalities. Such activities include:
        - industrial production
        - Transport sector - cars, planes, ships
        - excessive use of electricity – power generation accounts for high fuel usage
  2. Explain how negative externalities cause market failure by changing the world climate
    - The externalities could be due to production and/or consumption activity
    - a. Choose a context of a particular market activity to illustrate a negative externality in production or consumption (application) – eg. negative externality arising from production using example (Power production from oil or coal)
    - b. Define negative externality in context – the actions of producing electricity by parties directly involved (1<sup>st</sup> parties) imposes an external cost (EC) on other members of society (3<sup>rd</sup> parties).
    - c. The free market perspective
      - Identify objective of the 1<sup>st</sup> party - to maximize net private benefits where the revenue that they would gain from the level of power production is more than the costs incurred in using/buying resources to produce that level of power (ie.  $TPB - TPC = \max.$ )
      - Choosing to produce at output level where  $MPB = MPC$ , i.e.  $Q_p$ . (Pte equilibrium).
      - When the 1<sup>st</sup> party produces electricity, they generate negative externality (eg. air pollution & greenhouse gases all of which results in global warming) that imposes external costs for other members of society (3<sup>rd</sup> parties).
      - This external costs (EC) comes in terms of possible harsh weather as a result of global warming and through the harsh weather results in possible poor harvest or ill health which translates into financial or monetary losses for 3<sup>rd</sup> parties such as farmers.
      - The EC will cause a divergence between private costs and social costs causing the marginal private cost (MSC) curve to be higher than the marginal private benefit (MPC) curve. (See Figure 1)
      - It should be noted that as a result of the EC imposed, output  $Q_p$  results in  $MSC > MPC$  due to MEC.



d. The societal perspective

- Identify the objective of the society – to maximise societal welfare or net social benefit, (where  $TSB - TSC = \max$ .)
- Preferred output level is where  $MSB = MSC$ , ie. output  $Q_s$ .
- At output  $Q_p$ , with  $MSC > MSB$ , any production adds more to cost than benefits for the society – leading to a deadweight loss (vertical distance) for this unit of production.
- This deadweight loss cease to exist once the preferred output level is achieved (where  $MSB = MSC$  ie. output  $Q_s$ ).
- As long as pte/free market output levels ( $Q_p$ ) is greater than optimum output levels ( $Q_s$ ) there is an over-production of the power and an over-allocation of resources.
- The shaded region (Figure 1) represents the deadweight loss (or monetary measure of welfare loss) to society when 1<sup>st</sup> parties are maximising their net private benefits when externalities exist at  $Q_p$  resulting in over-production of power.
- Thus, market failure results as there is an over-production of power that emits negative externality and resources are inefficiently allocated as such.

Note that illustration using fossil fuel as the product is not acceptable. Examples should be based on activities such as production goods & services or consumption e.g car usage.

Knowledge, Application, Understanding and Analysis		
L3	A clear and developed explanation of how the market fails with a proper diagram. Both production and consumption activity should be mentioned with one in greater detail	7 – 10
L2	Limited explanation illustrating how negative externality lead to market failure. Limited use of relevant examples to support explanation.	5 – 6
L1	Weak or limited clarity of understanding of key concepts or ability to show how negative externality lead to market failure. Did not use or give relevant examples.	1 – 4

b. Critically evaluate the measures countries can take to address the above market failure. [15]

Possible measures include

1. Pollution Permits (tradable/non-tradable) – used in USA, Shenzhen
2. Tax / Carbon Tax – e.g. petrol tax /Canada, South Africa in 2016
3. Legislation – e.g. use of catalytic convertors, Euro 6 emission standards, recycling requirements
4. Supply Side – e.g. grants for R&D to reduce emission, switch to hydro, wind and solar power
5. Campaigns – less plastic bags, economy drive, Reduce, Re-use & Recycle

The measures are to be discussed with regard to the appropriate markets with relevant diagrams. Evaluation is to be based on appropriateness and difficulties for different countries and markets. Criteria that can be used are: monitoring costs, feasibility & cost of implementation, correct target group (consumer or producer), compliance cost and possible side-effects. One key issue would be compliance by all countries or any agreement may eventually breakdown as governments would see the solutions as an unfair burden.

Conclusion

Need to recognise that different markets/countries require different solutions. Although most solutions can be short term or just slow down climate change, long term solutions tend to converge towards technology and alternative energy sources.

<b>Knowledge, Application, Understanding and Analysis</b>		
<b>L3</b>	Able to provide clear explanation of a range of measures (min 3) that are currently adopted, with examples and assessed in terms of effectiveness / limitations.	<b>9 - 11</b>
<b>L2</b>	Able to provide explanations of some measures that are currently adopted in some countries with limited assessment of the measures (at least 2)	<b>6 - 8</b>
<b>L1</b>	Provide measures that are largely text book in nature without reference to any country..	<b>1 - 5</b>
<b>E2</b>	Holistic evaluation across countries.	<b>3 - 4</b>
<b>E1</b>	Evaluative statement that is based on economic analysis i.e student is able to justify and arrive at a conclusion.	<b>1 - 2</b>

Question 4:

- (a) Explain how a fall in exchange rate would affect the components of aggregate demand of a country. [10]
- (b) In view of the uncertainties of the global economy due to the financial crisis and conflict in Middle East, discuss Monetary Authority of Singapore's (MAS) stance of maintaining a modest and gradual appreciation of Singapore dollar. [15]

(a)

Introduction:

- Define AD
- Determine framework (DD/SS in foreign exchange market)
- Change in ER: can be appreciation or depreciation (student to choose either context)

Body:

- **Brief explanation of ER determination (interaction of DD and SS of S\$)**
- **Explain how € depreciation affect C and X:**

€ depreciation --- fall in prices of exports in foreign currency --- assuming PED of X is price elastic --- quantity demanded of X will increase more than proportionately --- increase in X revenue

€ depreciation --- increase in prices of imports in € --- domestic goods (import substitute) become relatively cheaper --- increase demand for domestic goods --- increase in C

- **Explain how € depreciation might affect I:**

€ depreciation --- lower cost of investment for foreign investors (less foreign currency needed to invest the same amount in €) --- increase investments returns --- increase in FDI

€ depreciation --- lower returns for € profits denominated in foreign currency --- lower returns on investment --- fall in FDI

- **Explain how € depreciation might affect G:**

€ depreciation --- increase in foreign debt (denominated in US\$) --- government would have to pay more in domestic currency (€) for the same amount of US\$ debt --- might lead to fall in G on domestic projects (opportunity costs), such as infrastructure development, if the government is due to make debt payment and reserves is low

Conclusion:

- Effect of ER changes on the AD depends on other factors as well, such as investors' confidence and amount of foreign debt a country possess. Impact on the economy would depend on the current state of the economy.

L1	<ul style="list-style-type: none"> <li>• Able to <b>identify</b> the components of AD</li> <li>• <b>Weak explanation</b> of how ER can affect <b>some</b> components of AD</li> </ul>	1-4
L2	<ul style="list-style-type: none"> <li>• Adequate explanation of at least 2 components of AD</li> <li>• Provided brief explanation on ER determination</li> </ul>	5-6
L3	<ul style="list-style-type: none"> <li>• <b>Good</b> explanation on how ER affect <b>2 components</b> of AD with <b>contextual discussion</b></li> <li><b>Or</b></li> <li>• <b>Good</b> explanation on how ER affect <b>3 components</b> of AD</li> <li>• <b>Good</b> explanation on how ER affect <b>3 components</b> of AD with <b>context discussion</b></li> </ul>	7-8  9-10

(b)

Introduction:

- Singapore ER system – Managed Float
- Global economy uncertainties – US and Euro crisis and rising oil prices

Body:

- Singapore's ER system – Managed Float --- explain how gradual appreciation can be achieved via purchase of S\$ in foreign exchange market
- Explain how US and Euro crisis affect Singapore economy in terms of X and FDI --- fall in AD --- link to macro goals
- Explain how rising oil prices affect Singapore economy --- increase in COP --- fall in SRAS
- Explain how gradual appreciation can mitigate the impact of imported inflation
- Explain how in the LR, cheaper imports of raw materials will improve Singapore's export competitiveness
- Evaluate the measure of gradual appreciation --- conflicting objectives --- compromising SR export competitiveness and making investment in Singapore more expensive for foreign firms --- fall in actual growth and potential growth --- unfavourable BOP position --- detrimental in view of current economic slowdown of global economy
- External shock (financial crisis) can never be solved by Singapore government
- Suggest alternative solutions to mitigate impact of financial crisis:
- Short run supply side measures, such as subsidies to households (transfer payments) to raise domestic consumption; subsidies to firms to reduce cost of production
- Other policies in place (expansionary FP) to encourage domestic consumption and boost government expenditure on infrastructure development to mitigate the impacts

Conclusion:

- ERP is used to tackle imported inflation which is crucial in ensuring Singapore remain cost competitive in terms of both export and investment
- Good scripts will discuss the importance of maintaining a gradual appreciation to avoid erosion of export competitiveness.

L1	<ul style="list-style-type: none"> <li>• Weak 2-sided discussion on the effects of strong S\$ on the Singapore economy</li> <li>• Adequate one sided discussion</li> <li>• Brief explanation on Singapore's ER system (managed-float)</li> </ul>	1-5
L2	<ul style="list-style-type: none"> <li>• Good one-sided discussion on effect of strong S\$</li> <li>• Adequate 2-sided discussion</li> </ul>	6-8
L3	<ul style="list-style-type: none"> <li>• Good 2-sided discussion on ERP taking into consideration of the contexts</li> <li>• Good application of Singapore context</li> </ul>	9 10-11
E1	<ul style="list-style-type: none"> <li>• Stand on the effects of ERP on Singapore in view of the financial crisis and rising oil prices</li> <li>• Explain the stand</li> </ul>	1-2
E2	<ul style="list-style-type: none"> <li>• Understand the limitations of ERP and hence the recommend other complementary policies</li> </ul>	3-4

	<b>PRELIMINARY EXAM</b> <b>2014</b>
	<b>Economics JC2</b> <b>H2 (9732)</b>

## **PAPER 1**

Thursday  
4 September 2014  
08:00 – 10:15

**TIME** : 2 hours 15 mins

### **INSTRUCTIONS TO CANDIDATES**

**Do not open this paper until you are told to do so.**

Write your name, class and name of economics tutor in the space provided on the writing paper.

Answer **all** questions. The number of marks is given in the brackets at the end of each question. Write your answers on the writing papers provided. If you use more than one sheet of paper, fasten the sheets together. Submit the answers for both case study questions **separately**.

You are advised to spend several minutes per question reading through the data and questions before you begin writing your answers.

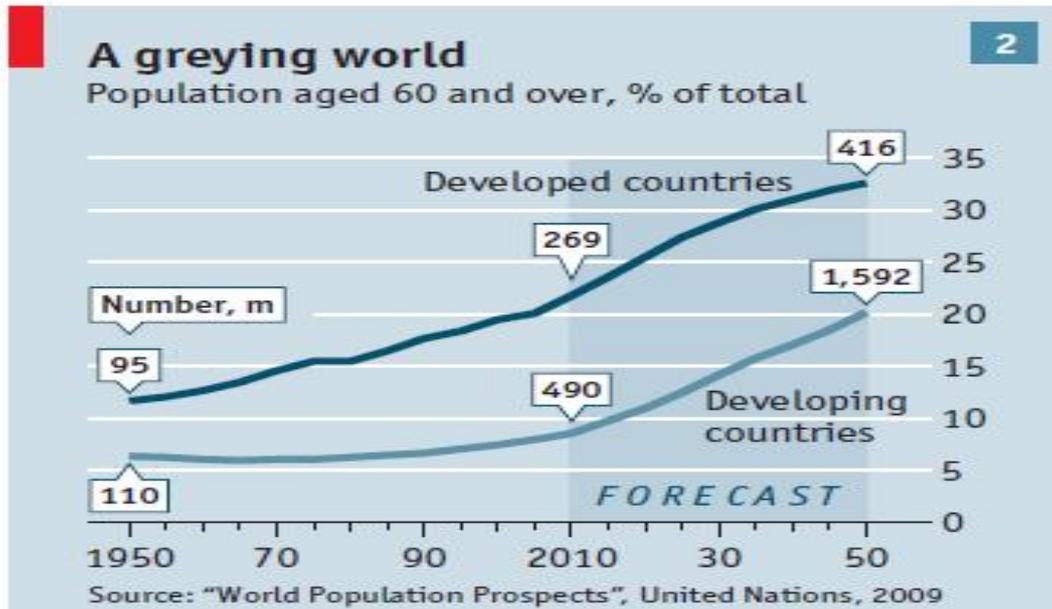
There are 8 printed pages including this cover page

Answer all questions.

Question 1

Ageing Population

Figure 1



**Extract 1: Economic opportunities in an ageing population**

The ageing population offers a myriad of opportunities for businesses. Some 135 pharmaceutical and biotechnology companies are now developing 294 medicines aimed at diseases that disproportionately affect older people, like cancer, heart disease and stroke, according to study results that were released last week by the Pharmaceutical Research and Manufacturers of America, a trade group based in Washington.

Pharmaceutical companies may be steadily losing the patent protection on their established drugs in the United States, but sales from new medications that cater to an aging population could more than make up for any lost revenue. And there are plenty of these drugs in the pipeline.

Source: <http://www.globalaging.org/health/us/ph.htm>

### **Extract 2: A billion shades of grey**

The world is on the cusp of a staggering rise in the number of old people, and they will live longer than ever before. The experience of the 20th century, when greater longevity translated into more years in retirement rather than more years at work, has persuaded many observers that this shift will lead to slower economic growth and “secular stagnation”, while the swelling ranks of pensioners will bust government budgets.

But the notion of a sharp division between the working young and the idle old misses a new trend, the growing gap between the skilled and the unskilled. Employment rates are falling among younger unskilled people, whereas older skilled folk are working longer. The divide is most extreme in America, where well-educated baby-boomers are putting off retirement while many less-skilled younger people have dropped out of the workforce.

Policy is partly responsible. Many European governments have abandoned policies that used to encourage people to retire early. Rising life expectancy, combined with the replacement of generous defined-benefit pension plans with stingier defined-contribution ones, means that even the better-off must work longer to have a comfortable retirement. But the changing nature of work also plays a big role. Pay has risen sharply for the highly educated, and those people continue to reap rich rewards into old age because these days the educated elderly are more productive than their predecessors. Technological change may well reinforce that shift: the skills that complement computers, from management expertise to creativity, do not necessarily decline with age.

This trend will benefit not just fortunate oldies but also, in some ways, society as a whole. Growth will slow less dramatically than expected; government budgets will be in better shape, as high earners pay taxes for longer. Rich countries with lots of well-educated older people will find the burden of ageing easier to bear than places like China, where half of all 50-to-64-year-olds did not complete primary-school education.

*Source: The Economist, April 2014*

### **Extract 3: Synching healthcare for an ageing population**

Singapore’s population is ageing rapidly and the repercussions are being felt across the country. Nowhere is this more evident than in the healthcare system, where policymakers have to make decisions about hospitals, social services and manpower for which the benefits may not be seen for several years.

DBS economist Irvin Seah, said that an ageing population will require a slight “reorientation” of the economy. This would involve a greater focus on developing medical services and attracting more workers to the sector, as well as increasing productivity and the use of technology in jobs so that people can continue to work as they age.

Keeping the system in sync as healthcare capacity is built up to respond to growing needs is a challenge of heroic proportions. However, the crucial question for Singapore policymakers is not simply how many hospitals to build, but how to decrease inflow and increase outflow of patients so that we do not need as many hospitals.

Hospitals are wonderful for what they are especially good at: Urgent, high-intensity and specialty services. But they are also expensive and hospital stays can be burdensome to patient and families, and are associated with risk, such as hospital-acquired infection.

In responding to this question of how to decrease inflow to and increase outflow from hospitals, Singapore is turning to innovations in outpatient and social care services. This means raising the capabilities of outpatient health services to accommodate the needs of an ageing population so fewer need hospitalisation, and increasing available long-term care services so people who no longer need acute hospital services can be discharged to more appropriate sites and avoid readmission.

This is, indeed, the strategy being pursued by Singapore: More clinic availability (including creating new service options such as community-based care), more long-term care options (such as home services, better trained maids and more nursing home beds), and more community hospitals to allow patients to achieve a level of health and independence that may permit them to live at home with family.

*Source: Adapted from Today, May 2013*

#### **Extract 4: Mind the Gap**

In the past few years, the government has curbed the inflow of foreign labour, cajoled companies to invest in enhancing productivity, and expanded its skills training programme to "upgrade" workers. It is also redistributing significantly straight from government coffers to low-income and older workers to close the income gap.

The effort to boost productivity should raise incomes, but "this does not mean that nothing else needs to be done because rising wages is only one part of the problem", says the chief executive of Centennial Asia Advisors, Mr Manu Bhaskaran. The retired, elderly poor, for example, will not benefit from higher wages - but will suffer the inflation that comes in tandem, he notes. This group, who are both old and poor, will continue to grow in what Mr Tharman has said is a unique, local challenge.

Due to Singapore's rapid development, unskilled workers are largely also ageing ones and of those who did not complete secondary school in the workforce, two-thirds are aged 50 and above. That Singapore is now on the ageing downswing overall has also made its inequality more visceral.

*Source: The Straits Times, Apr 6 2013*

**Questions**

- (a) (i) Compare the trends in the percentage of population aged 60 and over for the developed and developing countries from 1950 to 2050. [2]
- (ii) Account for the above demographic trends. [4]
- (iii) With the use of a diagram, explain the likely effects of this demographic change on a product market. [3]
- (b) With reference to extract 4, explain a **redistributive** measure that the government could implement to reduce income inequality. [3]
- (c) Discuss the impact of an ageing population on an economy. [8]
- (d) With reference to the data, discuss whether building more hospitals by the government is the best way of addressing the healthcare needs of the aged. [10]

**[Total: 30]**

Question 2

Economic Challenges of Two Asian Cities

Table 1: Selected Economic Indicators for Singapore and Vietnam

	2009	2010	2011	2012
<b>Singapore</b>				
GDP growth at constant prices (%)	-0.6	15.2	6.1	2.5
Inflation rate (%)	0.6	2.8	5.3	4.5
Unemployment (%)	4.3	3.1	2.9	2.8
Change in labour productivity (%)	-3.3	11.6	2.2	-1.4
Current account balance (% of GDP)	17.6	26.2	23.8	17.9
REER* index (2005=100)	96.7	100	105.5	110.4
<b>Vietnam</b>				
GDP growth at constant prices (%)	5.4	6.4	6.2	5.2
Inflation rate (%)	7.1	8.9	18.7	9.1
Unemployment (%)	2.3	2.3	2	2
Current account balance (% of GDP)	-6.2	-3.7	0.2	5.8

\* REER – Real Effective Exchange Rate

Source: World Bank & The Global Economy

**Extract 5: Inflation Set to Rise on Labour Cost - MAS**

Inflation is likely to rise further in the wake of higher manpower costs stemming from tighter foreign worker policies and continued weakness in services sector productivity. The warning came from Monetary Authority of Singapore (MAS), which added that drought in grain-producing countries could send food prices spiking early next year.

The main culprit for the increase was weak growth in labour productivity in the services sectors, MAS said, which accounts for nearly two-thirds of the local economy. Overall, labour productivity fell 2.1 per cent in January through June from a year ago.

The Government's stricter foreign worker policy, which imposes quotas and levies on firms hiring overseas workers, has led to a manpower crunch and boosted wages. Wages grew 2.8 per cent in April through June after expanding 0.9 per cent year-on-year in January through March.

Weak productivity combined with heightened labour costs mean the unit labour cost could rise by as much as 3 per cent to 4 per cent next year, MAS said. The resulting increase in business costs is likely to be passed on to consumers, it added.

On top of the expected rise in domestic inflation, imported inflation is also tipped to go up next year, mainly due to costlier food. MAS pointed to a recent surge in global prices of several food commodities such as corn, wheat and soya beans as the major producers suffered droughts. This surge is likely to filter through to domestic food prices towards the end of this year, MAS said.

*Source: Adapted from The Straits Times, 31 October 2012*

### **Extract 6: Should Singapore Rethink Tightened Foreign Labour Inflow Policy Amid Inflation Spikes?**

Technical recession is looming and experts are wary over stagflation. DBS argued that high inflation in Singapore has affected overall competitiveness of Singapore versus Asian peers in recent years.

High COE premiums and rentals, as well as the continued increase in labour cost are the key drivers. DBS however said that ironically, the bulk of these were policy-induced.

"The tightening in foreign labour inflow in particular, is creating significant strain on enterprises and eroding Singapore's cost competitiveness. The near-term impact is higher labour costs, compression of profit margins and the tendency for companies to pass on this higher cost to consumers, resulting in higher inflation. Thus, in a bid to restructure the economy, growth and competitiveness have been affected, and just when the global cycle is weak," it added.

As such, DBS said that Singapore's nipping foreign labour inflow policy may warrant a review.

*Source: Adapted from Singapore Business Review, 11 October 2012*

### **Extract 7: Economic Restructuring**

This year's budget once again focuses on raising productivity and innovation for businesses—seen as one of the Government's long-term plans to help reduce the high costs of sustaining a business in Singapore.

During the budget, Mr Tharman said that "we need to intensify this economic restructuring and skills upgrading so as to achieve quality growth..... the end result must be a vibrant and sustainable local SME sector."

The main focus of the budget this year revolves around economic restructuring of the company, lowering the dependency on foreign workers, and incentives to boost productivity measures and social inclusiveness. Mr Tharman stressed that the Government "can and will actively support all small and medium enterprises (SMEs) that are willing to upgrade, so that they can retain their roots in Singapore and grow."

This presents a very clear message to local companies—restructure, increase productivity and hire more locals, otherwise they will need to pay more levies and salaries to foreign workers.

*Source: Adapted from <http://mybusiness.singtel.com/techblog/singapore-budget-2013-key-changes-sme-related-policies#sthash.teQCdEOc.MMUIdO1p.dpbs>*

**Extract 8: Doing Battle Against Inflation**

Vietnam, which last year pushed for strong growth, now is battling some of the highest inflation in Asia with consumer prices rising by 17.5% in the year to April.

On May 4th the country's central bank, the State Bank of Vietnam, raised one of its key rates to 14%, the latest in a flurry of increases since February. Its campaign was accompanied by a package of commitments to tighten money and credit and cut the budget deficit.

Known as Resolution 11, this package obliges the central bank to curb private credit, which has surpassed 120% of GDP, up from less than 40% in 2001. By this measure Vietnam is the "world record-holder for debt creation", according to Jonathan Anderson of UBS.

As well as restoring faith in the dong, the government must also restore sanity to the public finances. In Resolution 11, it promised to prune public investment, which amounted to 17% of GDP in 2009. There are grave doubts about the efficiency of this spending.

The higher than expected inflation for April was on account of the recent increase in power, fuel and coal prices as well as the effect of February's devaluation, said Deepak Mishra, lead economist for the World Bank in Vietnam.

He said authorities will have to continue to adhere to the credit and liquidity targets it announced in late February and "revisit the policy rates in light of the higher-than-expected inflation rate."

*Source: Adapted from The Economist and Vietnam News Today, 2011*

**Questions**

- (a) (i) Explain what is meant by labour productivity. [1]
- (ii) Describe the trend in Singapore's labour productivity growth from 2010 to 2012. [2]
- (b) Using Table 1, compare the internal and external economic performance of Singapore and Vietnam over the given period. [5]
- (c) (i) Explain the causes of inflation in Vietnam. [4]
- (ii) Discuss whether the Vietnamese government's approach is sufficient to battle inflation. [8]
- (d) To what extent do you agree with the view that "Singapore's nipping foreign labour inflow policy may warrant a review"? [10]

**[Total: 30]**

\*\*\*\*\* END OF PAPER \*\*\*\*\*

Nanyang Junior College

2014 JC2 Prelim Examinations

H2 Economics Paper 1

Suggested answers:

Question 1:

(a)	(i)	<p>Compare the trends in the percentage of population aged 60 and over for the developed and developing countries from 1950 to 2050.</p> <ul style="list-style-type: none"> <li>- There is a <b>rising trend</b> in the percentage of population aged 60 and over for both the developed and developing countries. (1)</li> </ul> <p style="text-align: center;"><b>AND</b></p> <ul style="list-style-type: none"> <li>- The percentage of population aged 60 and over is <b>higher</b> for developed countries compared with developing countries for the period shown.(1)</li> </ul> <p style="text-align: center;"><b>OR</b></p> <ul style="list-style-type: none"> <li>- <i>developing countries are predicted to experience a faster rate of increase in percentage of those aged 60 and above of the total population over the forecasted period.</i></li> </ul> <p style="text-align: center;"><b>OR</b></p> <ul style="list-style-type: none"> <li>- <i>Over the recorded period, developed countries experienced a faster rate of increase of those 60 and above than developing countries. (maybe give % figures)</i></li> </ul>	[2]
	(ii)	<p>Account for the above demographic trends.</p> <p><b>2 factors [1 for identifying 1 for explaining] x 2: (4m)</b></p> <ul style="list-style-type: none"> <li>- Longer life expectancy due to better healthcare services</li> <li>- Falling birth rates (fertility rates) due to higher opportunity costs in having children.</li> <li>- The percentage of population aged 60 and over for the developing countries is lower because of higher population growth rates.</li> </ul>	[4]
	(iii)	<p>With the use of a diagram, explain the likely effects of this demographic change on a product market.</p> <ul style="list-style-type: none"> <li>- Increase in demand for hospital beds, walking sticks, healthcare etc.</li> <li>- Rightward shift in the demand, c.p, upward pressure on price due to a shortage at the existing price → increase in P and Q.</li> <li>- <i>Demand factor identified (1m)</i></li> <li>- <i>Brief explanation of price mechanism – impact on P&amp; Q (1m)</i></li> <li>- <i>Diagram (1m)</i></li> </ul>	[3]
(b)		<p>With reference to extract 4, explain a <b>redistributive</b> measure that the government could implement to reduce income inequality.</p> <ul style="list-style-type: none"> <li>- Government transfer money from its coffers (revenue collected from progressive taxes) to low income earners through <u>transfer payments</u> like workfare income supplement, the Special Employment Credit, conservancy charge rebates, subsidies for skills upgrading programme etc. - This will increase the disposable income of the low income earners and hence close the income gap</li> <li>- <i>Redistributive measure - (1m)</i></li> <li>- <i>Explaining redistribution how income is redistributed from the rich to the poor. – (2m)</i></li> </ul>	[3]

	<p>- 'measures' <u>that are not clearly redistributive</u> eg. – “Skills training programme” Allowing lesser skilled workers to upgrade themselves and be able to command a higher wage thus narrowing the income gap.  <i>Measure - (1m)</i>  <i>Explanation– (1m)</i></p>				
(c)	<p>Discuss the impact of an ageing population on an economy.</p> <p><b><u>Negative impacts</u></b></p> <ol style="list-style-type: none"> <li>1. Slow down economic growth</li> <li>2. Fall in labour force participation rate → fall in labour supply, c.p, → increase in wage → increase in costs of production.</li> <li>3. Fall in income of the older workers → fall in purchasing power → fall in consumption → fall in AD → fall in real NY</li> <li>4. Increase in government expenditure on healthcare needs, transfer payments for the aged &amp; pensions →government may run a budget deficit. There is opportunity costs in this financing expenditure → impede economic growth</li> <li>5. Ageing population may worsen income inequality (extract 4)</li> <li>6. Fall in productivity of the aged</li> </ol> <p><b>However, the negative impacts of the aged on economy may not be so serious if the</b></p> <ol style="list-style-type: none"> <li>1. Aged workers are highly educated.</li> <li>2. There is improvement in technology which can enable the aged to continue working</li> </ol> <p><b><u>Positive impacts</u></b></p> <ol style="list-style-type: none"> <li>1. Benefited the pharmaceutical companies (extract 1). A new source of income from discovery of new drugs for the aged. This will cover the loss of their income due to expiry of patents.</li> <li>2. Development of silver industry like tourism, healthcare, etc</li> </ol> <p><b><u>Judgement</u></b></p> <ul style="list-style-type: none"> <li>- How significant the impact will depend on the government taking preemptive policy measures</li> <li>- Possible measures the government could undertake to mitigate long term negative effects</li> <li>- Restructure economy to better cater to the needs of the aged</li> </ul> <table border="1" data-bbox="288 1630 1214 2058"> <tr> <td data-bbox="288 1630 359 2058"><b>L2</b></td> <td data-bbox="359 1630 1139 2058"> <ul style="list-style-type: none"> <li>• <b>A well-developed 2-sided answer</b>, supported by case evidence and theoretical framework, that discusses the positive <b>AND</b> negative effects of an ageing population on the economy</li> <li>• <b>A well-developed 1-sided</b> answer (positive or negative effects) using an economic framework discussing the impact of an ageing population on an economy (<b>max 4</b>)</li> <li>• An <b>undeveloped 2-sided</b> answer that discusses both positive and negative impacts of ageing on an economy with limited use of an economic framework</li> </ul> </td> <td data-bbox="1139 1630 1214 2058"><b>4-6</b></td> </tr> </table>	<b>L2</b>	<ul style="list-style-type: none"> <li>• <b>A well-developed 2-sided answer</b>, supported by case evidence and theoretical framework, that discusses the positive <b>AND</b> negative effects of an ageing population on the economy</li> <li>• <b>A well-developed 1-sided</b> answer (positive or negative effects) using an economic framework discussing the impact of an ageing population on an economy (<b>max 4</b>)</li> <li>• An <b>undeveloped 2-sided</b> answer that discusses both positive and negative impacts of ageing on an economy with limited use of an economic framework</li> </ul>	<b>4-6</b>	[8]
<b>L2</b>	<ul style="list-style-type: none"> <li>• <b>A well-developed 2-sided answer</b>, supported by case evidence and theoretical framework, that discusses the positive <b>AND</b> negative effects of an ageing population on the economy</li> <li>• <b>A well-developed 1-sided</b> answer (positive or negative effects) using an economic framework discussing the impact of an ageing population on an economy (<b>max 4</b>)</li> <li>• An <b>undeveloped 2-sided</b> answer that discusses both positive and negative impacts of ageing on an economy with limited use of an economic framework</li> </ul>	<b>4-6</b>			

			<ul style="list-style-type: none"> <li>An answer with some reference to data [max 5]</li> </ul>		
		L1	Brief and/or superficial answer that merely lists information with no or limited explanation	1-3	
		E	Evaluative comments with justification	1-2	
(d)		<p>With reference to data, discuss whether building more hospitals by the government is the best way of addressing the healthcare needs of the aged. [10]</p> <p>Based on extract 3, the rapidly ageing population will lead to an increasing demand for healthcare needs like hospitals, nursing homes, outpatient health services and social services. This increase in demand for hospitals will result in a shortage of hospitals and the healthcare needs of the aged are not taken care of. (diagram)</p> <p><u>Thesis : Building more hospitals by the government is an efficient method to meet the healthcare needs of the aged</u></p> <p>Government has to build more hospitals to cater to the needs of the aged because</p> <ol style="list-style-type: none"> <li><b>Market dominance:</b> There is <u>under supply of hospitals due to the presence of monopoly power</u>. If left to the market, the numbers of hospitals is below the socially optimum quantity, and the price charged is greater than MC. There is a deadweight loss due to the undersupply of hospitals (diagram).</li> <li><b>Income inequality (affecting affordability).</b> Lower income aged may not be able to afford healthcare. If left to the market, (aged) low income earners may not be able to afford hospitalization. Market may function to serve only those who are able to pay. – <i>“The retired, elderly poor, for example, will not benefit from higher wages - but will suffer the inflation that comes in tandem, he notes. This group, who are both old and poor, will continue to grow”</i> –Government to build more hospitals to cater to the needs of the low income earners.</li> <li><b>Merit Good and Imperfect Info:</b> Healthcare underconsumed from society’s point of view due to imperfect information and external benefit not captured in the decision making process of the consumer thus leading to an inefficient allocation of resources (diagram). In reaction to underconsumption producers underproduce. Government intervenes to build more hospitals increasing supply and thus lowering price and encouraging consumption.</li> </ol> <p>Therefore,  <u>Anti-Thesis : Building more hospitals by the government is not an efficient method to meet the healthcare needs of the aged</u></p> <p><u>Limitations</u></p> <ol style="list-style-type: none"> <li>The supply of hospitals is price inelastic, hence the increase in supply may not meet the increase in demand.</li> <li>There is also a shortage of healthcare workers to work in the hospitals.</li> <li>Costly to build hospitals</li> </ol> <p><u>Alternative measures</u></p> <ol style="list-style-type: none"> <li>Improve the outpatient healthcare services for eg, provide home visits so that the aged can recuperate at home instead of staying in the hospital</li> <li>Collaborate with the private hospitals and community hospitals in terms</li> </ol>			

- of the usage of resources like doctors, nurses and hospital beds. This will help to reduce the demand for government hospital services.
3. Extend healthcare subsidies to the private hospitals and clinics such that the demand for government hospitals would be reduced.
  4. Preventive measures for them to stay healthy.....

Conclusion

There is a limit in which government can increase the number of hospitals due to high costs involved and shortage of healthcare workers. The long term solution is to improve the health of the aged and to collaborate & pool resources with the private healthcare sectors.

[Total: 30]

<b>L3</b>	<ul style="list-style-type: none"> <li>• <b>A well-developed 2-sided answer</b>, supported by case evidence and theoretical framework, that describes how building more hospitals achieves efficiency and addresses the healthcare needs of the aged <b>AND</b> goes on to highlight that an attempt to build more hospitals may not necessarily achieve an efficient outcome and meet the needs of the aged.</li> <li>• Limited use of data (max 7)</li> </ul>	<b>7-8</b>
<b>L2</b>	<ul style="list-style-type: none"> <li>• A well-developed 1-sided answer that describes how building more hospitals achieves efficiency and addresses the healthcare needs of the aged using a cost/benefit analysis framework. [max 4]</li> <li>• An undeveloped 2-sided answer (and/or with some concept errors/issues or limited use of case evidence) that also highlights the possibility that building more hospitals may not necessarily achieve an efficient outcome and also meet the needs of the aged. [max 5]</li> <li>• An answer with some reference to data</li> </ul>	<b>4-6</b>
<b>L1</b>	<ul style="list-style-type: none"> <li>• Brief and/or superficial answer that merely lists information with no or limited explanation</li> </ul>	<b>1-3</b>
<b>E</b>	Evaluative comments with justification	<b>1-2</b>

Question 2:

(a) (i) **Explain what is meant by labour productivity.** [1]

- Labour productivity refers to the output produced per worker [1]

(ii) Describe the trend in Singapore's labour productivity growth from 2010 to 2012. [2]

- General trend: Singapore's labour productivity growth showed a generally falling trend between 2010 and 2012. [1]
- Refinement: There was a negative change in labour productivity of -1.4% in 2012, suggesting that labour productivity fell during the year. [1]

(b) **Using Table 1, compare the internal and external economic performance of Singapore and Vietnam over the given period.** [5]

Internal economic performance [3]

- **Economic growth:** Following the spike in real GDP growth to 15.2% in 2010, the Singapore economy has seen a sharp slowdown in growth to 2.5% in 2012. In comparison, the pace of growth is more even in Vietnam. Although the increase in GDP growth in 2010 was not as pronounced, they experienced a less significant slowdown in economic growth thereafter.
- **Inflation rates:** Inflation rates in both countries have generally been rising but the rates in Vietnam is significantly higher across the given period → potential threat to LT growth.
- **Unemployment rates:** Both economies experience declining unemployment rates but the rates for Singapore is higher than Vietnam.

External economic performance [1]

- **Current account:** Based on current account balance as a percentage of GDP, Singapore is more reliant on the external economy for growth compared to Vietnam:
  - Singapore experiences a current account surplus (positive current account balance as a percentage of GDP) throughout the given period while Vietnam's current account position as a percentage of GDP improved from a deficit in 2009 and 2010 but to a surplus from 2011 onwards.
  - Singapore's current account balance as a percentage of GDP is significantly higher than that of Vietnam.

Conclusion [1]

- Vietnam seems to have a stronger internal economy although strong inflationary pressures may threaten longer-term growth.
- External economy more critical in driving growth in Singapore compared to Vietnam.

(c) (i) **Explain the causes of inflation in Vietnam** [4]

Demand-pull inflation [2]

- Push for stronger growth → currency devaluation (Extract 8) → exports

relatively cheaper in foreign currency and imports relatively more expensive in domestic currency  $\rightarrow \uparrow (X-M \rightarrow \uparrow AD \rightarrow \text{if } \uparrow AD \text{ not matched by AS} \rightarrow \text{demand-pull inflation.}$

Cost-push inflation [2]

- Increase in power, fuel and coal prices (Extract 8)  $\rightarrow \uparrow$  cost of production  $\rightarrow$  cost-push inflation
- Currency devaluation (Extract 8)  $\rightarrow$  imports relatively more expensive in domestic currency  $\rightarrow \uparrow$  cost of imported raw material  $\rightarrow \uparrow$  cost of production  $\rightarrow$  cost-push inflation.

(ii) **Discuss whether the Vietnamese government's approach is sufficient to battle inflation.** [8]

*Introduction: Vietnamese government's approach to battling inflation: raise interest rates / tighten money and credit; and cut budget deficit  $\rightarrow$  to address demand-pull and cost-push inflation as detailed in (c)(i).*

Thesis: Vietnamese government's approach can be used to battle inflation

- Raise interest rates to 14% in a flurry of increases; tighten money and credit (Extract 8)  $\rightarrow$  contractionary MP
  - $\uparrow$  interest rates  $\rightarrow \uparrow$  cost of borrowing  $\rightarrow \downarrow$  incentive to consume and invest; also rising opportunity cost of consumption  $\rightarrow \downarrow C$  and  $I \rightarrow \downarrow AD \rightarrow$  curbs demand-pull inflation.
- Cut budget deficit  $\rightarrow$  contractionary FP
  - Cut budget deficit (Extract 8)  $\rightarrow \downarrow$  government expenditure by pruning inefficient public investment ( $\downarrow G$ ) and  $\uparrow$  direct taxes ( $\downarrow C, I$ )  $\rightarrow \downarrow AD \rightarrow$  curbs demand-pull inflation.

Anti-Thesis #1: Vietnamese government's approach is not sufficient to battle inflation due to limitations

- Policies do not address cost-push inflation.
- Policies work to mitigate the effect of rising AD on GPL but do not address the root causes (root cause is  $\uparrow X-M$  but FP and MP affects C, I and G).
- Limitation of policies adopted:
  - Raise interest rates – effectiveness depends on interest elasticity of investments; compromise short-term growth (Table 1: growth rates fell from 6.2% to 5.2% between 2011 and 2012) and employment in the SR and possibly potential growth due to  $\downarrow I$  in the LR.
  - Cut budget deficit –time lag, rigidity of government spending and political consideration of raising taxes.

Anti-Thesis #2: Vietnamese government's approach is not sufficient to battle inflation  $\rightarrow$  need for other measures

- Suggest supply-side policies to reduce COP  $\rightarrow$  address cost-push inflation.
- Judgement
  - Approach of Vietnamese government work to mitigate the effect of rising AD on GPL but does not solve cost-push inflation.
  - Propose the need for a mix of policies to address both demand-pull and cost-push inflation.

Levels	Description	Marks
L2	A balanced answer which recognises that while raising interest rates and cutting budget deficit can be used to solve demand-pull inflation, it does not address cost-push inflation. Evaluation of policies needed, with application to Vietnamese context.  For a well-developed answer that focuses on either raising interest rates or cutting budget deficit, with evaluation → max 4m	4-6
L1	One-sided answer with limited or no evaluative comments on the approach taken OR sketchy two-sided answer that does not make reference to data provided.	1-3
E	Well-developed evaluative judgment whether the approach adopted by Vietnam to address inflation is sufficient.	1-2

(d) To what extent do you agree with the view that “Singapore's nipping foreign labour inflow policy may warrant a review”? [10]

Students must talk about the pros & cons of the tightened foreign labour inflow policy to comment on whether it needs adjustment in the light of the problems associated with the policy & give judgment based on the arguments given.

**Intro:** Singapore characteristics of being resource scarce & trade dependent → the need to depend on foreign worker & exports & FDI. However, it has also put strain on both the physical infrastructure and the social conditions of Singapore.

Explain the recent changes in the foreign labour inflow policy → Stricter policy to reduce the overdependence on foreign workers by imposing quotas & levies ( **Extract 5** )

**Thesis: It is necessary for Singapore to review foreign labour inflow policy**

- Explain how foreign labour inflow policy leads to inflationary effects → lowered SS of foreign labour → COP ↑ (Higher cost of employing foreign workers because of higher levy and also need to offer higher wages to local workers ) → SRAS ↓ → GPL ↑ → Cost push Inflation. (Last para Ext 5 & also 3<sup>rd</sup> Para Ext 6). Also RNY ↓ → C.P Negative impact on economic growth. ( **Technical Recession –Ext 6** ). Must Draw diag of SRAS shift.
- Possible Impact on export competitiveness and FDI → Higher GPL will impact cost competitiveness ( **Extract 6** ) as our exports become more expensive because of inflation & also because of higher costs of doing business ( **Ext 6 high lab costs & compression of profit margins** )

**Anti-thesis: Singapore should not change foreign labour inflow policy because the Govt is in the process of Economic restructuring**

- Reducing the over reliance on foreign labour will force the firms to improve labour productivity that has been falling → long-term or “sustainable” growth (**Extract 7** ).It will also encourage firms to be more innovative and efficient.
- Draw LRAS shift to show sustained growth with price stability in LR.

**Anti-thesis: Singapore should not change foreign labour inflow policy because the problems may be because of other reasons and also because the Govt is already implementing other policies.**

- The increase in GPL may not due to a tighter labour market but because of other reasons like imported inflation (**last para Ext 5** ), high COE premiums and rentals →thus changing the foreign labour policy will not address the root cause of the problem.
- Inflationary pressures contained in part by ER appreciation – Table
- Support given to SMEs already (**Ext 7** )

**Evaluation:**

- In conclusion, while tighter inflow of low wage foreign labour would have impact on overall growth and inflation in Singapore in the short term, the main focus should be on managing the pace of adjustment and not abandoning the process of weaning off cheap labour entirely.
- Other factors such as external demand, exchange rates, government policies would also matter because in recent years, they are clearly making a bigger impact on cost of doing business in Singapore. – For example being an export-oriented economy, the Singapore government acknowledges that cost competitiveness is important for our companies and had used policy tools such as rental rebates, utility charges and tax rates to enhance our competitiveness.
- Thus it is too early to comment on whether **“Singapore's nipping foreign labour inflow policy may warrant a review”** because the long term impact of the economic restructuring needs to be seen.

Levels	Descriptor	Marks
L3	A well-developed balanced answer with economic analysis that thoroughly explains whether the stricter foreign worker policy needs review or not in the Singapore context.	7-8
L2	Able to explain how the stricter foreign worker policy creates potential problems that needs some adjustments but may not have elaborated on all anti thesis issues <b>OR</b> may not have given enough case study evidence	4-6
L1	One-sided answer with limited or no link to the nipping of the foreign worker policy <b>OR</b> sketchy two-sided answer that does not	1-3

	make reference to data provided <b>OR</b> Merely lifting evidence from the passage but no clear link to economic problems	
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E	Judgment based on Economic restructuring → able to give evaluation based on short term losses Vs Long term gains	1-2
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	<h1 style="margin: 0;">PRELIMINARY EXAM</h1> <h2 style="margin: 0;">2014</h2>
	<h1 style="margin: 0;">JC2 Economics</h1> <h2 style="margin: 0;">H2 (9732)</h2>

**Paper 2 - Essay**

Tuesday  
 23 September 2014  
 08:00 – 10:15

**TIME** : 2 hours 15 mins

**INSTRUCTIONS TO CANDIDATES**

- Do not open this paper until you are told to do so.
- Attempt 3 questions, with at least one from each section.
- The number of marks is given in the brackets at the end of each question. Write your answers on the writing papers provided. If you use more than one sheet of paper, fasten the sheets together.
- Write your name, class and name of economics tutor in the space provided on the writing paper.
- **Circle the questions you have attempted in the table below, and attach this paper to the front of your answer scripts.**

**Name:** \_\_\_\_\_

**Class:** \_\_\_\_\_

**Tutor's Name:** \_\_\_\_\_

Question	Marks	Question	Marks
<b>1</b>		<b>4</b>	
<b>2</b>		<b>5</b>	
<b>3</b>		<b>6</b>	
<b>Total:</b>	<b>/ 75</b>		

There are 3 printed pages including this cover page

Answer **three** questions in total.

**Section A**

**One or two** of your three chosen questions must be from this section.

1. 2014 is the most profitable year ever for chicken producers. Fast food restaurants such as KFC, McDonalds, Wendy's and Burger King are betting on the birds due to rising costs of other meats. However, the outlook is bearish outside the US as feed costs rise and an outbreak of avian influenza erode demand in China, the second-largest consumer.

Bloomberg report, 2014

- (a) Using economic analysis, explain how the above changes will affect the chicken market in US and in China. [10]
- (b) Discuss how different restaurants in China might respond to the challenges mentioned in the report. [15]

2. Despite the existence of supermarket chains, such as FairPrice and Giant, the newest local online grocery retailer Redmart is confident that online grocery shopping will catch on in a big way here as time-starved consumers will increasingly value one-stop convenience shopping.

The Straits Times, 20 July 2014

In light of the market structure supermarket chains operate in, discuss whether the entry of Redmart is desirable. [25]

- 3 (a) Explain why income inequality and market dominance may lead to market failure. [10]
- (b) Evaluate the policies currently used by the Singapore government to correct these causes of market failure. [15]

**Section B**

**One or two** of your three chosen questions must be from this section.

4. Discuss the extent to which trade affects the standard of living of a country. [25]
5. The Japanese economy shrank at its fastest rate since the 2011 earthquake and tsunami in the second quarter of this year, contracting at an annual rate of 6.8%. In addition to falling exports and high government debt, spending was hit by a sales tax rise in April.

The Guardian, 13 August 2014

- (a) Explain the likely causes of recession in Japan. [10]
- (b) Discuss whether demand management policies are most appropriate in pursuing economic growth for Japan. [15]
- 6 (a) Explain how a change in the exchange rate would affect a country's balance of payments. [10]
- (b) Discuss whether maintaining a healthy balance of payments takes priority over other macroeconomic objectives. [15]

\*\*\*\*\* End of Paper \*\*\*\*\*

Nanyang Junior College

2014 JC2 Prelim Examinations

Suggested answers:

H2 Economics Paper 2

Question 1:

**2014 is the most profitable year ever for chicken producers. Fast food restaurants such as KFC, McDonalds, Wendy's and Burger King are betting on the birds due to rising costs of other meats. However, the outlook is bearish outside the US as feed costs rise and an outbreak of avian influenza erode demand in China, the second-largest consumer.**

**Bloomberg report, 2014**

(a) Using economic analysis, explain how the above changes will affect the chicken market in US and in China.

[10]

(b) Discuss how different restaurants in China might respond to the challenges mentioned in the report.

[15]

(a)

### INTRO

- Establish how chicken markets could be impacted
  - Changes in demand and supply factors
  - Effects on price and quantity on US and China's chicken markets

### BODY

#### Explain the effects on US Chicken Market

- *"Fast food restaurants such as KFC, McDonalds, Wendy's and Burger King are betting on the birds due to rising costs of other meats."* → price of beef/pork rises → restaurants change their preferences towards substitutes of beef/pork → demand for chicken rises → demand curve shifts to the right from  $D_0$  to  $D_1$ , shortage at price  $P_0$  results in upward pressure in price (explain using Fig. 1) → price and quantity rises

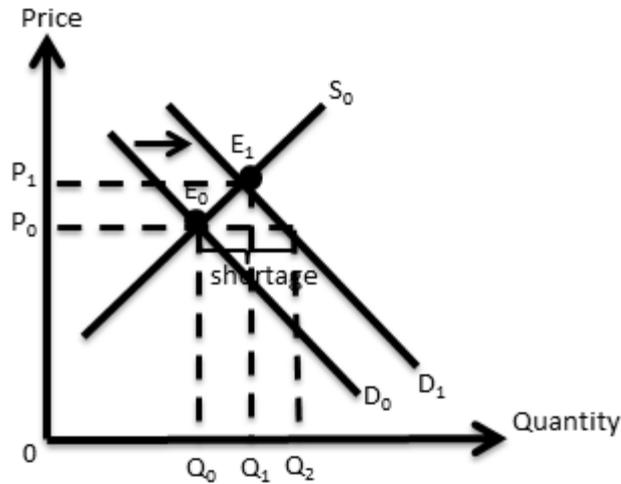


Figure 1: US Chicken Market

Explain the effects on China Chicken Market

- “However, the outlook is bearish outside the U.S. as feed costs rise” → feed costs rise → cost of production rise since cost of rearing chickens rise → supply of chicken falls as farmers are profit motivated (rise in cost of production which affects profitability makes farmers less motivated to increase production) → supply curve shifts to the left  $S_0$  to  $S_1$  → price rises while quantity falls
- “However, the ... outbreak of avian influenza erodes demand in China” → consumers’ fear of contracting the virus from consuming chicken → demand for chicken falls → demand curve shifts to the left from  $D_0$  to  $D_1$  → price and quantity falls
- Combined effect: demand falls more than supply since the outbreak of avian influenza results in greater fear of consumers and China is the second-largest consumer → price and quantity falls (explain using Fig. 2)

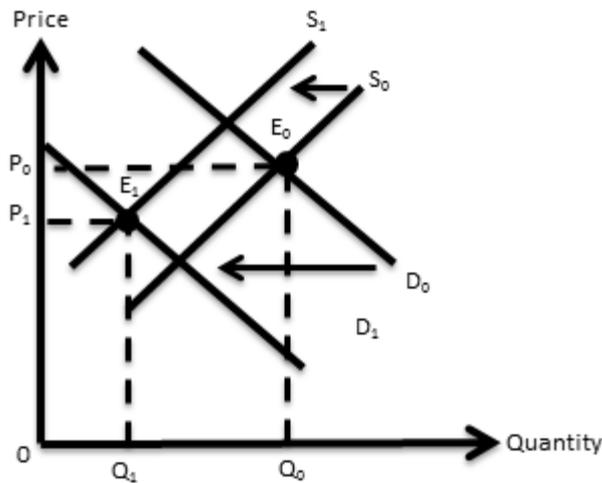


Figure 2: China Chicken Market

## CONCLUSION

- Impact on chicken markets in China and US will differ as price and quantity of chicken rises in US while price and quantity falls in China.
- The impact of such changes in China's chicken market will affect the different types of restaurants that make use of chicken meat.

L3	Clear detailed explanation of how the chicken markets in China and US are affected in terms of effects on price and quantity using both demand and supply factors.  (US Chicken Market – 1 demand factor)  (China Chicken Market – 1 demand and 1 supply factor)	7-10
L2	Undeveloped explanation of how the chicken markets in US and China are affected.	5-6
L1	Mere listing of factors with little reference to demand and supply concepts.	1-4

(b)

## INTRO

- Establish that chicken is used as a raw material for meals in restaurants
- Identify the different kinds of restaurants that will be affected differently due to the challenges faced in the context of China
- Acknowledge that some restaurateurs will respond to the challenges using elasticity concepts where relevant

## BODY

- Restaurants that **make use of chicken for most of the food items** sold (KFC, Dicos, Popeyes, chicken rice restaurants, etc)
  - $P_{\text{chicken}}$  rises due to rise in feed costs  $\rightarrow$  COP (cost of preparing chicken meals) rises  $\rightarrow$  supply for chicken meals falls
  - “*outbreak of avian influenza*”  $\rightarrow$  demand for chicken meals falls

- **Impact on restaurants:** Demand for chicken meals falls more than supply → price and quantity for chicken meals fall → total revenue for restaurants falls (explain using Fig. 3) →
- **How will restaurants respond:**
  - If restaurants are unable to cover their costs due to the falling revenue → shut down their restaurants since they are persistently making losses
  - Some restaurants may choose to change their menu to gain sales in other food areas such as complements of chicken.
  - KFC restaurants in China on the other hand have taken measures to ensure food safety and to win back the trust from customers as a hope to regain back their sales.

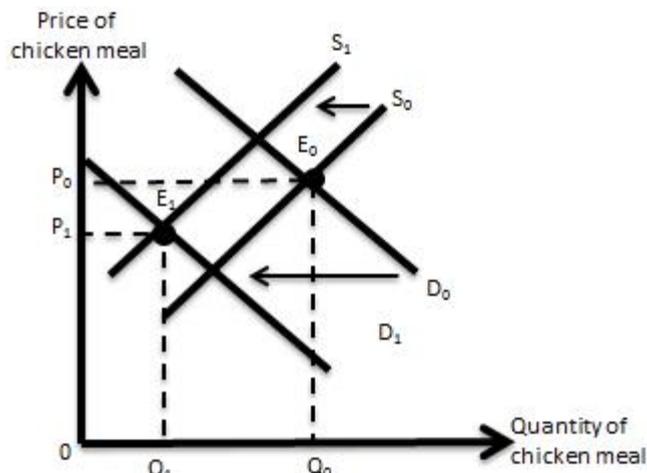


Figure 3

- Restaurants that **do not make use of chicken for the food items** sold (fish/seafood/vegetarian restaurants, etc)
  - **Impact on restaurants:** Since these restaurants do not make use of chicken in their meals, they are not impacted by the rise in  $P_{\text{chicken}}$  (due to rise in feed costs) which may translate to higher priced chicken meals
  - **How will restaurants respond:**
    - While restaurants which use chicken in their meals experienced a fall in total revenue from the chicken meals sold, those restaurants that do not make use of chicken will be able to boost their sales as quantity of other non-chicken-related meals sold rises → total revenue rises (explain using Fig. 4)
    - These restaurants that do not make use of chicken for their meals will take this situation as an advantage to advertise their restaurants to gain greater sales.

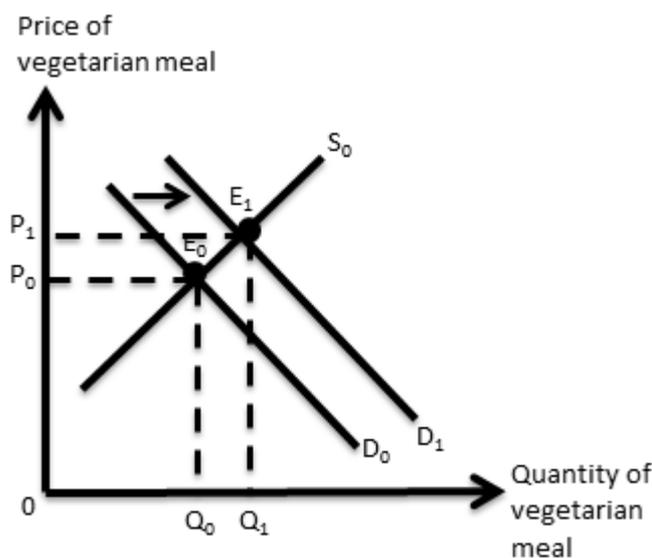


Figure 4

- Restaurants that **make use of chicken for some of the food items** sold (McDonalds, Burger King, etc)
  - **Impact on restaurants:**  $P_{\text{chicken}}$  rises due to rise in feed costs  $\rightarrow$  COP (cost of preparing chicken burgers) rises  $\rightarrow$  SS of chicken burger falls  $\rightarrow$  price rises and quantity falls more than proportionately ( $PED > 1$  since there are other substitutes to chicken-flavoured burgers)  $\rightarrow$  total revenue falls (explain using Fig. 5)

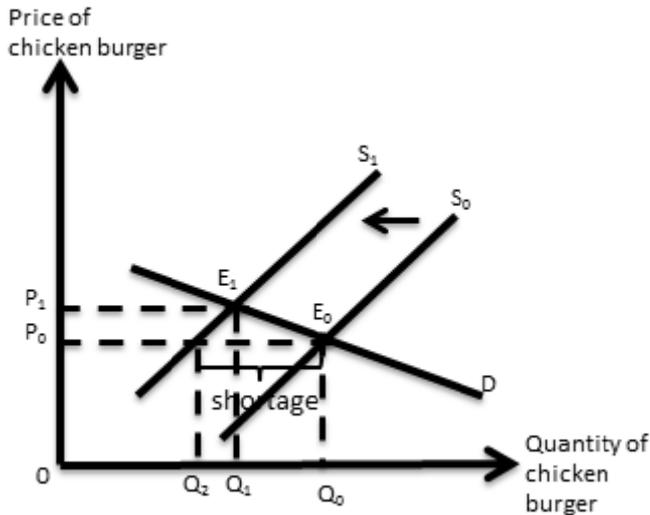


Figure 5

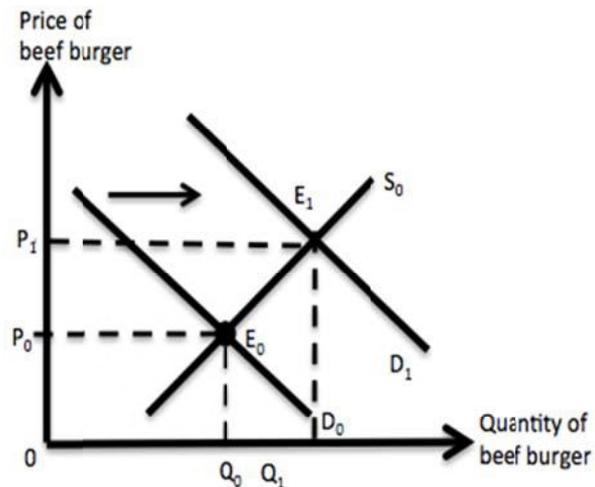


Figure 6

- **How will restaurants respond:**
  - Restaurants respond and make use of the concept of XED. Since  $P_{\text{chicken burger}}$  rises  $\rightarrow$  restaurants will switch to increase the production of its substitute beef/fish burgers  $\rightarrow$  (+ve XED) demand for beef/fish burger rises more than proportionately  $\rightarrow$  total revenue rises (explain using Fig. 6)
  - How much the restaurants will respond is dependent on the magnitude of the loss from selling chicken burgers

## CONCLUSION

- How the restaurants respond to the challenges is dependent on how much chicken meat they use in their meals
  - Restaurants that make use of chicken meat predominantly in their cooking will be affected to a large extent compared to those who do not use at all
- Actions (to be) taken by the authorities
  - Presently, the avian flu incident has led to poultry market cull and this could exacerbate the supply and demand for chickens further, worsening the impact on different restaurants, especially those who are heavily dependent on chicken meat.
  - To help the restaurants, the government should look into the main source of the problem first where actions should be taken to help chicken farmers stay in business due to the outbreak of the avian flu. This can be in the form of short-term loans, to get them through the hard times.

L1	Generic explanation of how different restaurants in China might respond without much economic analysis.	1 – 5
L2	Generally clear explanation of the effects of the challenges on restaurants and how they might respond.	6 – 8
L3	Clear discussion of how different types of restaurants have differing effects from the challenges and therefore respond differently, making use of elasticity concepts.	9 – 11
E1	Unexplained judgment.	1 – 2
E2	Judgment based on analysis.	3 – 4

Question 2:

Despite the existence of supermarket chains like Fairprice and Giant, the newest local online grocery retailer Redmart, is confident that online grocery shopping will catch on in a big way here as time-starved consumers will increasingly value one-stop convenience shopping.

*The Straits Times, 20 July 2014*

**In light of the market structure supermarket chains operate in, discuss whether the entry of Redmart is desirable.**

**[25]**

Introduction:

The supermarket chains are part of an oligopoly market, selling groceries to consumers in Singapore. There is presence of a few large supermarket chains like Fairprice, Giant, Sheng Siong and Prime that dominate this business, alongside numerous smaller sellers. The groceries can be purchased either at the non-online retail outlets or via online portals.

Such oligopolistic firms face a kinked demand curve and prices set may be rigid. The firms are likely to match price cuts but not price rises to avoid losing a share of the market. Hence, the demand curve is kinked at the current market price, with demand significantly more price elastic above the current price than below. This price rigidity reflects that the oligopolistic firms have little incentive to increase or decrease prices.

Such firms will normally compete with their rivals through non-price competition so as to gain a larger share of the market and the industry profits for themselves.

Redmart's entry into the local online grocery retail business is due to the belief that this industry is expected to grow in the future, with total revenue and profits expected to increase.

Redmart's entry will pose competition to established supermarket chains like Fairprice and Giant. Whether this entry is desirable or not depends on the impact on the different groups, i.e. the producers, consumers and society.

Body:

Positive impacts:

Redmart

- Increase total revenue and profits

Redmart's entry into the online grocery industry is based on the assumption that online grocery shopping is set to grow, especially in today's digital world, where consumers increasingly value convenience in purchasing their daily essentials. Redmart's entry will also capture some of the consumers from existing online grocers like Fairprice and Giant as they offer more choices to consumers. This will enable Redmart to earn revenue and profits.

## Consumers

- Increase consumer choice and welfare

Redmart's entry into the online grocery retail industry will increase the level of competition in the industry, and hence provide a greater variety of choices for the consumers to choose from i.e. a more competitive online shopping platform where consumers are able to gain access to more products and brands online.

- Lower price, higher output and increase consumer surplus

With the increased competition, demand for online grocery shopping will become more price elastic due to the availability of more close substitutes. As such, firms in the supermarket industry will have less market power to set price above marginal cost and restrict output sold, resulting in a higher consumer surplus.

- Increased convenience & saving of costs

Time-starved consumers, especially those who work long hours, will increasingly find shopping online more convenient as there is saving of time and no hassle of lugging home bulky grocery items. Groceries can be delivered to the doorsteps, and transport costs can also be saved as consumers will make fewer trips to the supermarkets/wet markets.

## Other firms like Fairprice & Giant

- Less likely to suffer from X-inefficiency

Redmart's entry in the online grocery shopping will increase the level of competition in the grocery retail industry. Dominant firms like Fairprice and Giant will face stronger competition and a reduction of their supernormal profits earned in the long run. They will have less incentive to be lax about cost controls and less likely to suffer from X-inefficiency.

- Dynamic efficiency

With the increase in the level of competition, dominant firms like Fairprice and Giant, as well as Redmart, have more incentive to make use of their supernormal profits earned in the long run to engage in R&D and develop a more efficient method to retail their goods and services. As such, they are able to attain dynamic efficiency as more goods can now be produced from any given amount of resources. Average costs are reduced and lower prices are charged to consumers.

## Society

- Allocative Efficiency

With more competition, there is a reduction in the market share of each firm and market power because of more substitutes available in the industry. Thus firms have lesser ability to set price. Also, with the competition done via online shopping, there is greater transparency of prices as consumers are able to compare prices instantly. Hence firm's ability to charge high prices is reduced. There will thus be lesser allocative inefficiency, with gap between P and MC narrowed, and deadweight loss reduced.

Negative impacts:

Redmart

- X-inefficiency

If Redmart is able to earn supernormal profits in the long run, it could become complacent and suffer from X-inefficiency. For instance, they could pay large amount of rents to locate their temperature-controlled warehouses in prestigious locations to reach more consumers or not use the most updated and efficient production methods. Such higher costs may be passed on to the consumers in terms of higher prices.

Other firms

- Unable to reap internal EOS

Other firms in the online/non-online retail outlet grocery industry especially the smaller ones will be left with less market share when Redmart enters the industry. They will not be able to reap substantial internal EOS to compete with Redmart and offer lower prices to consumers; hence they will need to rely on non-price strategies to compete, e.g. offering personalised services to consumers like free delivery services, which could add on to cost.

- Decrease in total revenue

With the increase in competition from Redmart, smaller firms in the grocery retail industry are likely to experience a fall in demand of their goods and services as consumers turn to Redmart's online portal which may provide more attractive offers, like wider range of fresh items, dairy products, different brands, etc.

Likewise, firms like Fairprice and Giant will also face a fall in the demand of their business.

With an increase in total cost and a reduction in total revenue, profits of other firms will fall.

- Forced to leave the industry

The increase in competition when Redmart enters the online grocery industry will result in smaller share of profits earned by the smaller firms. As such, they have no ability to devote their profits to innovative ordering or delivery methods, which is essential in the online grocery industry to provide consumers with better quality and wider range of goods & services.

In the long run, these smaller firms will find themselves losing their consumers to Redmart (or even Fairprice and Giant who may have stepped up their competition against Redmart) and may not be able to remain in the industry. The smaller producers do not have the relevant resources to engage in much non-price strategy, product differentiation and innovation to compete with the bigger players like Redmart, Fairprice and Giant, and might be forced to leave the industry.

## Consumers

- Higher price

If Redmart and the bigger supermarket chains like Fairprice and Giant are lax in cost control and suffer from X-inefficiency (after driving out the smaller players), these higher costs may be passed on to the consumers in terms of higher prices, such as higher delivery fees or online sales charges. They may also produce at a lower scale due to the fiercer competition faced, and may no longer be able to reap substantial internal EOS and enjoy the cost savings. Hence they have no choice but to charge the consumers at higher prices.

- Decrease consumer choice and consumer surplus

If the smaller firms in the online/non-online grocery industry are unable to compete with the bigger chains and Redmart, and are forced to leave the industry in the long run, consumers will be left with limited choice and access to products and brands. Thus dynamic inefficiency occurs. On the extreme end, if Redmart manages to capture a significant market share in the online grocery industry, it might over exploit the consumers by charging them at high prices and restricting the output, decreases the consumer surplus.

## Society

- Societal welfare may not improve if some smaller firms are forced by the strong competition to leave the industry. The remaining bigger firms will then have more market power to dominate price and exploit consumers by under-allocating resources to the production of the good. This leads to allocative inefficiency.

## Evaluative Conclusion:

The increase in level of competition will benefit the consumers in terms of greater consumer's surplus and welfare as they face lowered prices, greater availability of choices and quality goods in the markets.

However, the impact on producers will vary for Redmart and its competitors like Fairprice, Giant, and smaller supermarket chains like Prime and Sheng Siong, in the online grocery industry, depending on the actions taken by each. In the non-online supermarket industry where a large number of smaller firms are present, the entry of a dominant firm like Redmart in the online grocery industry will also have an adverse effect on these smaller firms in terms of their market share, revenue and profits earned. These smaller firms will not be able to survive in the industry in the long run, which might lead Redmart and other supermarket chains to over exploit the consumers, if it is left with significant market power in the online and non-online grocery industry to do so.

Redmart's entry into the online grocery industry will serve as threats to the dominant firms like Fairprice and Giant. It will provide them with more incentive to be cost efficient and engage in product innovation to keep their market share, which will ultimately benefit consumers in terms of lowered prices and higher quality products.

Mark Scheme

Level	Descriptors
<b>Level 3</b> <b>(18-21)</b>	<ul style="list-style-type: none"> <li>• Excellent explanation &amp; elaboration on the positive <u>AND</u> negative impacts on consumers, Redmart, other firms and society.</li> <li>• Excellent use of diagrams to support elaboration.</li> <li>• Good contextual examples given.</li> </ul>
	<ul style="list-style-type: none"> <li>• Excellent explanation &amp; elaboration on the positive <u>AND</u> negative impacts on consumers, Redmart, other firms and society.</li> <li>• Excellent use of diagrams to support elaboration.</li> <li>• Some contextual examples given.</li> </ul>
<b>Level 2</b> <b>(12-14)</b>	<ul style="list-style-type: none"> <li>• Good explanation &amp; elaboration on the positive <u>AND</u> negative impacts on consumers, Redmart <u>AND/OR</u> other firms.</li> <li>• Good use of diagrams used to support elaboration but diagram analysis is weak.</li> <li>• Some attempt to provide contextual examples.</li> </ul>
	<ul style="list-style-type: none"> <li>• Good explanation &amp; elaboration on the positive <u>AND/OR</u> negative impacts on consumers, Redmart <u>AND/OR</u> other firms.</li> <li>• Some attempt to use diagrams to support elaboration but diagram analysis is weak.</li> <li>• No attempt to provide contextual examples.</li> </ul>
<b>Level 1</b> <b>(6-9)</b>	<ul style="list-style-type: none"> <li>• Some explanation &amp; elaboration on the positive <u>AND/OR</u> negative impacts on consumers, Redmart <u>AND/OR</u> other firms.</li> <li>• No diagrams used to support elaboration.</li> <li>• No contextual examples given.</li> </ul>
	<ul style="list-style-type: none"> <li>• Answer is mostly irrelevant</li> <li>• Answer shows some knowledge on the impacts of Redmart's entry on the market.</li> </ul>
<b>E2 (3-4)</b>	Judgement made with economic justification
<b>E1 (1-2)</b>	Judgment without economic justification.

**Question3:**

- a. Explain why income inequality and market dominance may lead to market failure. [10]**
- b. Evaluate the policies currently used by the Singapore government to correct these causes of market failure. [15]**

**Part a)****Income inequality:*****May result in inefficiency in the product market***

Under the free market, the price mechanism performs two roles – allocate resources according to consumer sovereignty as well as allocate goods according to the ability and willingness to pay for them. Consumers are able to command the resources via their dollar vote. By signalling to the producers what they want or do not want through their effective demand, the resources will be diverted away from or towards the production of the goods.

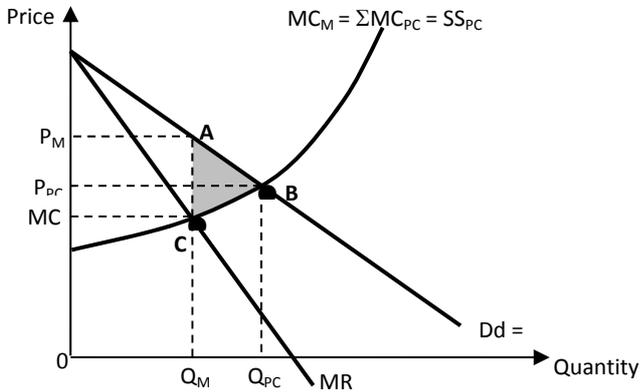
However the price mechanism does not differentiate between needs and wants as it finds no incentive to cater to the needs of those who are not able to pay for the good. For example, the lower income group earners are unable to afford basic necessities such as healthcare or clothing. If healthcare is only provided by the private sector, the poor may not be able to afford medical care or treatment. Thus, the free market allocates insufficient amount of resources and produce low amounts of necessities and might possibly channel an excessive amounts of resources and produce a large amount of luxuries. This unfair distribution of resources will therefore result in social welfare that is not optimized.

The Gini coefficient is often used to measure income inequality. It is a number between 0 and 1 where 0 corresponds to perfect equality (e.g. everyone has the same income) and 1 corresponds to perfect inequality. The coefficient for Singapore has been on a rising trend for over a decade. It has reduced somewhat recently due to greater transfers by the government.

**Market dominance**

In an unregulated market where firms have market power or dominance, firms in the imperfect market have the ability to set a price or output that will maximise profits. Assuming that the monopolist have a similar cost structure as the perfectly competitive market, the monopolist will produce at its profit-maximising output level that may be lower than the perfectly competitive market (ie. output  $Q_M$  instead of  $Q_{PC}$ ). Though producing at its equilibrium output, the monopolist's decision to restrict output allows it to set a price higher than the perfectly competitive market price.

Note that at equilibrium output  $Q_M$ , the market price set by the monopolist is greater than its marginal cost (ie.  $P > MC$ ). In other words, the value consumers placed on additional unit of the good ( $P$  or  $MB$ ) is greater than the opportunity cost incurred by society to produce that additional unit ( $MC$ ). Therefore, output  $Q_M$  is not socially optimal or efficient. Area (ABC) represents the societal benefits forgone resulting from this reduced output and is a deadweight loss. Hence, an unregulated monopoly market may result in socially inefficient outcomes.



Market power may also breed complacency due to a lack of competition and provide little incentive to undertake adequate research and development (R & D) efforts that may improve efficiency in production, achieve a lower (average and marginal) cost and increase the output produced. Hence, market power may breed inefficiencies and jeopardise the likelihood of achieving a socially optimal output level.

The firm can earn supernormal profits even in the long run due to the substantial barriers to entry. Thus, income is transferred from the consumers to the firms. This will increase income inequality in the economy and is thus harmful to society.

Knowledge, Application, Understanding and Analysis		
L3	A clear and developed explanation of how the market fails for both cases with examples.	7 – 10
L2	Clear explanation of one market failure or incomplete explanation of both.	5 – 6
L1	Generally descriptive in nature, limited reference to economic framework.	1 – 4

**Part b)**

**Possible Measures (income Inequality)**

**a) Tax System**

The more progressive the tax system, the more re-distributive it would be. As one moves to a higher income tax bracket, the marginal tax rate increases. However, if the rate is too high, it will discourage additional work and lead to emigration of top earners. In addition, the lowest income earners are exempted from paying income tax. However, in reality, the income tax system, by itself, does not reduce income inequality as it is not progressive enough and as other taxes exist which are regressive. E.g. GST can be regressive for the lower income group.

**b) Transfers**

The government has different forms of assistance given to those whose incomes fall below some prescribed level. The Workforce Income Supplement (WIS) scheme introduced to help the lower income earners. The government has transferred incomes to the citizens in several ways: CPF top-ups, Medisave top-ups, Workfare bonus, New Singapore Shares, Growth Dividends, etc.

Many measures tend to be one-off and have limited impact. E.g. WIS does not address the fundamental cause of low wages. Transfers tend to lead to dependency mentality and a long term strain on government finances and tax payers.

**c) Subsidies**

By subsidising selected goods and services like education and health services, the government helps to 'level up' the poor as they can compete on fairer grounds such as the Financial Assistance Scheme which allow students to enjoy free schooling, grants, bursary and Edusave account which will help pay for certain school programmes. By tagging the amount of subsidy to the size of public housing, the government is also reducing the wealth gap between various groups. Subsidies can be a drain on government finances (e.g. the \$8bn Pioneer Generation Package) leading to higher taxes over the long term.

**d) Price Ceiling and Floors**

Governments sometimes intervene in the market to set the market price. In some markets, the government may impose price floors to raise the incomes of certain groups. For example, the government imposed a mandatory licencing scheme for cleaning firms that specifies training and wage level requirements. However, price controls distort market signals and lead to allocative inefficiency. The root cause may not be actually addressed e.g. the low wages could be due to entry of foreign workers.

**e) Skills Upgrading to enable low income to earn a higher wages**

Employers contribute to the Skills Development Fund (SDF) which is used to subsidise training for workers. The Workforce Development Agency aims to upgrade the skills of the labour force to raise productivity and to raise income of low wage workers. Up to 95% subsidy is given in addition to funding the employees' salary during the training. Workers and employers attitudes still need to be addressed including the cost burden to government

**Measures for Market Dominance:**

(a) Legislation (Competition Act)

The three activities prohibited under the Competition Act are:

- Agreements, decisions and practices which prevent, restrict or distort
- Abuse of a dominant position
- Mergers that substantially lessen competition

Evaluation: However, sometimes companies merge not to reduce competition but to lower costs through economies of scale. This will benefit the consumers. The government has to discern which mergers are desirable and which are against public interest. However, detailed knowledge of firms' work practices and costs are needed to uncover unacceptable practices. Usually, there is a high reliance on 'whistle blowers' to expose misdeeds.

(b) Regulation

In terms of

- Efficiency or Performance targets (LTA, Telecoms)
- Price controls (PTC)

Evaluation: There is a high reliance on the expert knowledge of regulators to set targets. Some data is provided by the firms themselves and therefore liable to be manipulated. Certain targets have cost implications and may result in higher prices for consumers. It is also difficult to set prices due to the need to address different groups e.g. consumer welfare vs business profitability. Financial assistance may be needed to ensure regulated firms remain viable.

(c) Liberalisation of market

Issuing of more licenses to encourage more entrants as more suppliers of the similar product will increase competition e.g. telecom. To survive under more competition, firms will be forced to be more efficient. More choices are available to the consumers if products are differentiated. Deadweight loss may be reduced as prices are lowered due to more competition. However, high set up cost might deter new entrants. If weak competition exists, then it will not improve efficiency. All these measures must be assessed in terms of effectiveness and sustainability.

<b>Knowledge, Application, Understanding and Analysis</b>		
<b>L3</b>	Able to provide clear explanation of a range of measures that are currently adopted in Singapore and assessed in terms of effectiveness and sustainability.	<b>9 - 11</b>
<b>L2</b>	Able to provide explanations of some measures (one for each mkt failure) that are currently adopted in Singapore with limited assessment of the measures.	<b>6 - 8</b>
<b>L1</b>	Provide measures that are largely text book in nature without reference to the context of Singapore.	<b>1 - 5</b>
<b>Allow up to 4 additional marks for Evaluation</b>		
<b>E2</b>	Evaluative statement that is based on economic analysis i.e student is able to justify and arrive at a conclusion.	<b>3 - 4</b>
<b>E1</b>	Evaluation that is not supported or substantiated	<b>1 - 2</b>

Question 4:

Discuss the extent to which trade affects the standard of living.

[25]

1. Introduction

- Define standard of living (material/non-material)
- Define Trade (movement of goods and services and generally exclude capital and labour movements)
- Give an overview of the essay (Thesis – Trade affects the standard of living to a large extent, Anti thesis – Trade only affects the standard of living to a small extent).

2. The theoretical framework for trade

- Theory of comparative advantage (Using either table, PPC or DD/SS with assumptions stated).

3. Thesis – Trade affects the standard of living to a large extent (Positive or Negative)

**Positive**

- Increased trade brings about higher income and employment
- Market access (larger output) lowers price through EOS
- Larger variety of goods and services (more supply sources) improves SOL
- Transfer of technology from trade / rise in efficiency of firms due to trade improves potential of economy

**Negative**

- Depends on factor endowment  
This can affect the comparative advantage of nations. E.g. Nations endowed with huge oil fields will naturally have a lower opportunity cost in the production of crude oil, thus is able export such commodities. However, if a country has the CA in a lower-order/value production, the extent of gains from trade will be significant smaller due to a less favourable terms of trade compared to the oil producing countries. This in turn affects the prosperity it may receive.
- Rise in income inequality / disparity dilutes positive impact of trade
- Economic growth fluctuations depends on exposure to external demand
- Nations that depend on import of raw materials and for consumption are more susceptible to imported cost-push inflation, inflationary effects depends on state of economy
- Size of leakage affects impact of rise in exports

\*All points must link back to how material and/or non-material SOL is affected

**3. Anti-thesis** – There are other factors besides trade that affects SOL

- Other components of AD
- Role of FDI / domestic investment (potential growth)
- Government policies
- Movement of labour

**4. Conclusion**

- Trade improves SOL for economies that are more 'open' and possess spare resources to meet rising global demands (i.e. Reliance on external demand)

- Whether SOL improves depends on the country's ability to meet the changing demands and dynamism of world trade in terms of dealing with structural rigidities
- The nature of the economy, state of the economy, and size of  $k$ , as these affect the extent of benefits a country reaps from trade
- Government policies and other factors that may also drive prosperity of nations; and may offset the effects from trade (i.e. Mitigating policies and trade-offs)

Levels	Description	Marks
L1	<ul style="list-style-type: none"> <li>• Answer largely irrelevant AND/OR incomplete</li> <li>• Answer show some knowledge of the benefits of trade using the theory of CA</li> <li>• Answer shows some knowledge of trade's impact on material AND/OR non-material standard of living</li> </ul>	1-9
L2	<ul style="list-style-type: none"> <li>• Good explanation of benefits of trade using the theory of CA</li> <li>• Good explanation of the positive AND/OR negative impacts of trade on the material and non-material standard of living</li> <li>• Two-sided answer that discuss the extent which trade affects material and non-material standard of living; other factors that affect SOL</li> </ul>	10-12 13-14
L3	<ul style="list-style-type: none"> <li>• Detailed explanation of the benefits of trade using theory of CA</li> <li>• Detailed explanation of the positive and the negative impacts of trade on both material and non-material standard of living.</li> <li>• Good two-sided answer that discuss the extent which trade affects material and non-material standard of living; other factors that affect SOL</li> <li>• Use of real-world examples.</li> </ul>	15-18 19-21
E2	Judgment based on economic analysis.	3-4
E1	Mainly unexplained judgment.	1-2

Question 5:

The Japanese economy shrank at its fastest rate since the 2011 earthquake and tsunami in the second quarter of this year, contracting at an annual rate of 6.8%. In addition to falling exports and high government debt, spending was hit by a sales tax rise in April.

The Guardian, 13 August 2014

(a) Explain the likely causes of recession in Japan. [10]

(b) Discuss whether demand management policies are most appropriate in pursuing economic growth for Japan. [15]

Suggested answer for (a)

Introduction

- Define key concept (“recession”) – contraction of the (Japanese) economy (“6.8%” annual contraction rate) or 2 consecutive quarters of negative growth
- Briefly describe the nature of the Japanese economy (context)
  - world's 3rd largest by nominal GDP & 3<sup>rd</sup> largest automobile manufacturing country
  - world's largest electronics goods industry
  - ranked among the world's most innovative countries leading several measures of global patent filings
  - currently facing increasing competition from China and South Korea
- Provide an overview of the essay
  - Categorically, caused by a persistent fall in AD &/or a fall in AS as well as deflationary macroeconomic policies.
  - Extent of economic contraction can be made worse if the recession occurred in a context of a certain unique features of the economy & its market components.

Body

- a. Major negative demand-side causes for recession (Illustrated using AD-AS framework)
  - i. Slump in exports demand – in consumer electronics & automobile sales (contributed 16% of Japanese economy's revival in 2002-2008)
  - ii. Reduced/Limited govt spending due to high govt debt (240% of GDP in 2014)
  - iii. Fall in Cn spending due to a contractionary/deflationary macroec policies [See (c)(i)]  
→ AD shifts leftwards
- b. Major inflationary supply-side causes for recession (Illustrated using AD-AS framework)
  - i. Fall in productive capacity due to natural disasters (2011 earthquake) or a shrinking labour pool (aging population & minimal immigration)
  - ii. Rising global commodity prices (food & oil products) during the period – SRAS shifts upwards (no change in  $Y_f$ ).  
→ LRAS &/or SRAS shifts leftwards & upwards
- c. Deflationary macroeconomic policies (Illustrated using AD-AS framework)
  - i. Such measures are like an increased int rates or increased direct & indirect T
  - ii. Sales taxes increase (since April 2014) to counter a budget deficit – squeezing real  $Y_d$  & Cn dd or perhaps damaging business invesmt - fall in C & I

- d. *Magnitude of recession depends on (\*\*Optional)*
- i. *Negative multiplier effects arising from less consumption on goods and services*
  - ii. *Accelerator effect – less consumption → less incentive to invest in new capital*
  - iii. *Extent of drop in consumer and business confidence / worsening expectations can lead to more saving and cost-cutting by firms → rising unemployment*

Conclusion

- The major factor causing the recession would be the main influencing factor in determining the policies & measures that would be appropriate to pursue Japan's macroeconomic goals.

**Mark Scheme:**

L1	<ul style="list-style-type: none"> <li>• Able to <b>identify</b> the (categorical) causes of recession</li> <li>• <b>Listing/Weak explanation</b> of the causes of recession</li> <li>• <b>No economic framework</b> used in analysis.</li> </ul>	1-4 Max 4 m
L2	<ul style="list-style-type: none"> <li>• <b>One-sided</b> explanation of the <b>dd or ss causes</b> of recession</li> <li>• <b>Undeveloped</b> explanation of the <b>dd &amp; ss</b> causes of recession</li> </ul>	Max 5 m 5-6
L3	<ul style="list-style-type: none"> <li>• <b>Good balanced (theoretical)</b> explanation of the dd &amp; ss causes of recession</li> <li>• <b>Good balanced (applied)</b> explanation of the dd &amp; ss causes of recession</li> </ul>	7-8 9-10

**(b)**

Introduction:

- Define “economic growth” & state its composition (consisting of actual EG & potential EG)
- Define “demand-management policies” & state the effect of the dd-mgt policies implied with respect to the given goal

Body:

A. Thesis: (Expansionary) Demand-management policies are appropriate in pursuing EG for Japan

- a. The policy tools:
  - i. Expansionary ERP by depreciating the external value of the Yen – describe mechanism & its impact on net Xs
  - ii. Expansionary MP by increasing domestic money ss or lowering domestic int rates – describe mechanism & its impact on C & I
  - iii. Expansionary FP by increasing G more than the contractionary impact of the sales tax (ie. fall in C & I) – describe mechanism & its net impact on AD
- b. The impact: Rise in AD would promote the level of economic activity that leads to greater employment of resources (esp labour – derived dd) leading to a rise in NY (Include diagram)

B. Anti-thesis: (Expansionary) Demand-management policies are not appropriate in pursuing EG for Japan

- a. Expansionary dd-mgt policies though appropriate in the pursuit of actual EG may not solve the root causes of the Japanese recession – limits to the pursuit of actual & potential EG

- i. The “EG-inflation” conflict. Expansionary dd-mgt policies may promote a rise in AD but the fall in productive capacity (due to the earthquake) in Japan may result in the onset of inflation earlier than it would have been prior to the earthquake eroding any real growth significantly.
  - ii. Inherent systemic limitations of policy mechanism to achieve actual EG → need complementary policies to mitigate any significant unforeseen negative side-effects/potential limitations
    - a. Limitation of expansionary FP via increasing G – high govt debt limits ability to finance & raise G. This together with the sales tax rise may collectively erode market confidence (dampening C & I as well) – the “EG – govt debt” conflict.
    - b. Limitation of MP –
      - Bank of Japan (central bank) may not have the ability to control the Yen ss (money ss) due to the openness of the Japanese economy
      - Lowering interest rates was not able to spur domestic expenditure/demand due to the liquidity trap faced by Japan – resulting in investors borrowing in Japan & investing the borrowed capital in other more profitable investment destinations (“Yen-carry-trade”)
    - c. Limitation of ERP due to –
      - Price competition: Japanese exports may not have a price elastic dd that could benefit from depreciation of the Yen (Marshall-Lerner condition not fulfilled)
      - Non-price competition: Though relatively cheaper, substitutes to Japanese exports may have  $PED < 1$  or smaller/zero XED – hence any change in price of Japanese exports has minimal impact on substitutes to Japanese exports
  - iii. Barring any policy limitations, expansionary dd-mgt policies may be appropriate to solve dd-side causes of recession but inappropriate in solving the ss-side causes of the Japanese recession & in pursuing actual EG as well as potential EG concurrently.
- b. Only ss-side policies are appropriate of managing the ss-side origins of the Japanese recession & the pursuit of actual EG as well as potential EG.
- i. SR ss-side policies (give eggs) may lower COP (& shift AS downwards with an unchanged Yf). With a given AD, the lower COP would lead to a movement along AD – pursuit of actual EG.
  - ii. LR ss-side policies (give eggs) may lead to a rightward shift of AS (rise in productive capacity – potential EG) which facilitates a greater non-inflationary rise in NY & more sustainable pursuit of EG (actual & potential).

### C. Synthesis/Conclusion:

The choice of which macroeconomic policy is appropriate to pursue EG depends on:

- The main causes of the recession
- The current state of the economy
- The market reaction & the likelihood of achieving the goal for any policy being implemented

Depending on the causes of recession:

- Due to Japan's trade dependence, the most appropriate dd-mgt policy for Japan is expansionary ERP but the impact of this must be able to overcome the contractionary impact of the eroding market confidence - offsetting the fall in C & I.
- Though, expansionary MP may seem to work but in reality the Japanese economy is facing a liquidity trap - interest rate is so low that it is currently in the negative region (The Guardian, Sept 2014). The resulting "Yen-carry-trade" has actually worked in Japan's favour of causing the Yen to depreciate.
- Dd-mgt policy may be inappropriate if the main cause of the Japanese recession originate from the ss-side. Hence, lowering COP & increasing productive capacity may be essential SR & LR measures to address the ss-side causes.
- However, for an anaemic economy like Japan which is facing an aging population and a chronic govt debt, as well as falling external dd, the odds are against Japan in being able to get the funds to incentivize retraining to enhance the labour productivity level or to generate adequate domestic demand to pursue EG of both types.

Hence in Japan's case the most appropriate policy measure is not simply a choice between dd-side or ss-side, but whether any macroeconomic policy measure undertaken by the Japanese government would actually achieve any degree of EG that would create a positive ripple-effect (multiplier-accelerator effect) that would gain momentum to cure all the chronic components of the ailing economy albeit one at a time.

**Mark Scheme:**

L1	<ul style="list-style-type: none"> <li>• <b>Vaguely identified</b> the demand-management policies.</li> <li>• <b>Lists</b> the demand-management policies.</li> <li>• <b>No economic framework</b> used in analysis.</li> </ul>	1-5
L2	<ul style="list-style-type: none"> <li>• <b>Good one-sided</b> discussion of <b>either</b> demand-management or supply-side policies to pursue economic growth.</li> <li>• <b>Undeveloped 2-sided</b> discussion of the demand-management <b>&amp;</b> supply-side policies to pursue economic growth</li> </ul>	6-8
L3	<ul style="list-style-type: none"> <li>• <b>Good 2-sided</b> discussion of the demand-management &amp; supply-side policies to pursue economic growth <b>for Japan</b> (&amp; how it might <b>conflict with other macro objectives</b>)                             <ul style="list-style-type: none"> <li>○ Appropriateness of MP (<b>theoretical</b>) &amp; ss-side policies</li> <li>○ Appropriateness of ERP (<b>preferred</b>) &amp; ss-side policies</li> </ul> </li> </ul>	Max 9 10-11
E1	<ul style="list-style-type: none"> <li>• <b>Stand</b> on whether demand-management policies are most appropriate in pursuing economic growth for Japan</li> <li>• <b>Without or vague substantiation</b></li> </ul>	1-2
E2	<ul style="list-style-type: none"> <li>• <b>Adequate substantiation</b> of stand on whether demand-management policies are most appropriate in pursuing economic growth for Japan</li> </ul>	3-4

Question 6:

- (a) Explain how a change in exchange rate would affect a country's Balance of Payments (BOP).[10]  
 (b) Discuss whether maintaining a healthy balance of payments take priority over other macroeconomic objectives. [15]

(a)

Introduction:

- Define BOP
- Define framework (DD/SS of foreign exchange market)

Body:

- **Briefly explain ER determination** using DD/SS framework --- Free floating ER system
- **Explain how ER affect current account (BOT)**
  - Depreciation of currency --- fall in export prices in foreign currency, increase in import prices in domestic currency --- assuming Marshall-Lerner condition is satisfied (sum of PED of X and M > 1)--- improves BOT --- assuming no change in other items in current account, such as income balances and unilateral transfers --- current account improves
- **Explain how ER affect capital account (both short term and long term capital)**
  - Effect on short term capital flow is dependent on expectations of future ER movements --- if currency is expected to appreciate in value --- short term capital inflow due to higher returns (in foreign currency) in the future --- assuming no change in LT capital inflow --- capital account improves
  - Currency depreciation --- lower cost of investment for foreign investors (less foreign currency needed to invest the same amount in domestic currency) --- increase investments returns --- increase in FDI -- - increase long term capital inflow --- assuming no change in ST capital flow --- capital account improves
  - Currency depreciation --- lower returns for profits denominated in foreign currency --- lower returns on investment --- fall in FDI --- assuming no change in ST capital inflow --- capital account deteriorates

Conclusion:

- Other factors affecting BOP (such as interest rates, market sentiments)
- Whether BOP surplus or deficit due to ER changes is favourable depends on the current state of the economy and government objectives.

L1	<ul style="list-style-type: none"> <li>• Able to <b>identify</b> items under BOP</li> <li>• <b>Weak explanation</b> of how ER can affect <b>some</b> items in current or capital account</li> </ul> <p>Or</p> <ul style="list-style-type: none"> <li>• Good explanation of how ER affect <b>current account only</b></li> </ul>	<p>1-4</p> <p>Max 4 m</p>
L2	<ul style="list-style-type: none"> <li>• Good explanation of how ER affect capital account (ST and LT) only</li> <li>• Adequate explanation of how ER affect <b>both</b> current and capital account</li> </ul>	<p>Max 5 m</p> <p>5-6</p>
L3	<ul style="list-style-type: none"> <li>• <b>Good</b> explanation of how ER affect <b>both current and capital account with assumptions provided</b></li> </ul> <p>Or</p> <ul style="list-style-type: none"> <li>• <b>Good</b> explanation of how ER both current and capital account with <b>contextual discussion</b></li> </ul>	<p>7-8</p> <p>9-10</p>

(b)

Introduction:

- Identify macro objectives
- Explain healthy BOP --- BOP surplus

Body

**Thesis: Healthy BOP should take priority**

- **Benefits of BOP surplus** (accumulate foreign reserves, actual growth, increase liquidity, potential growth)
  - BOP surplus can be due to **current account** or **capital account surplus**
  - **Current account surplus** – implies increase in net exports --- increase AD --- **achieve actual growth and employment**
  - **Capital account surplus** can be due to **increase in net short term capital inflow** (hot money) which will increase banks' liquidity --- increase money supply --- increase C and I (direct transmission mechanism) --- increase AD --- **achieve actual growth and increase employment; increase in long term capital inflow** (FDI) --- increase AD in short run --- **achieve actual growth and employment**, increase LRAS --- increase productive capacity --- **achieve potential growth**
  - **BOP surplus** --- **accumulation of foreign reserves** (net receipt from the rest of the world) --- allows economy to **influence exchange rate** more effectively if necessary.

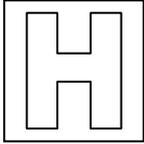
**Anti-Thesis: Healthy BOP should not take priority**

- **Problems of BOP surplus** (demand-pull inflation, currency appreciation, adverse impact on trading partners' BOP position)
  - **Current account surplus** – implies increase in net exports --- increase AD --- **demand-pull inflation** if economy is near classical range of AS
  - **Capital account surplus** can be due to **increase in net short term capital inflow** (hot money) and **increase in long term capital inflow** (FDI) --- increase AD in short run --- **demand-pull inflation**
  - **BOP surplus** --- increase in demand for domestic currency --- **currency appreciation** --- **erode export competitiveness and imported inflation; trading partners experience BOP deficit** (beggar thy neighbour) --- might **retaliate** --- fall in export revenue – fall in AD --- **adversely affect economic growth and employment**
- **Other macro objectives might be more important** depending on the current state of the economy
  - If economy is suffering from **high demand-pull inflation** --- maintaining BOP surplus will worsen inflation issue (China)
  - Countries with **large domestic market** might focus on internal objectives, such as increasing domestic consumption and investment to stimulate growth. Hence, external balance might not be the main objective of such government.

Conclusion / Judgment:

- **Dependent on the most significant issue** an economy is facing
- **Dependent on the characteristics of the economy**
- Use various economies to justify

L1	<ul style="list-style-type: none"> <li>• <b>Vaguely identified</b> the pros and cons of achieving BOP surplus <b>without adequate explanations</b></li> <li>• Adequate one sided discussion on either <b>pros or cons</b> of BOP surplus</li> </ul>	1-5
L2	<ul style="list-style-type: none"> <li>• <b>Good one-sided</b> discussion on the pros or cons of BOP surplus</li> <li>• <b>Adequate 2-sided</b> discussion on the <b>pros of BOP surplus</b>(how it might <b>complement other macro objectives</b>) and <b>cons of BOP surplus</b> (how it might <b>conflict with other macro objectives</b>)</li> </ul>	6-8
L3	<ul style="list-style-type: none"> <li>• <b>Good 2-sided</b> discussion on the <b>pros of BOP surplus</b>(how it might <b>complement other macro objectives</b>) and <b>cons of BOP surplus</b> (how it might <b>conflict with other macro objectives</b>) with <b>contextual discussion</b></li> </ul>	9 10-11
E1	<ul style="list-style-type: none"> <li>• Stand on whether healthy BOP should take priority over other macro objectives</li> <li>• Vague substantiation</li> </ul>	1-2
E2	<ul style="list-style-type: none"> <li>• Adequate substantiation of stand comparing different contexts in the real world</li> </ul>	3-4



NATIONAL JUNIOR COLLEGE  
SH2 Preliminary Examinations for General Certificate of Education Advanced Level  
Higher 1

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## ECONOMICS

8819/01

Paper 1:

2 September 2014

3 hours

Additional Materials: Answer Paper

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### READ THESE INSTRUCTIONS FIRST

Write your student registration number and name on all the work you hand in.  
Write in dark blue or black pen on both sides of the paper.  
You may use a soft pencil for any diagrams, graphs or rough working.  
Do not use paper clips, highlighters, glue or correction fluid.

#### Section A: Case Study Questions

Answer **ALL** questions. You are advised to spend some time reading through the data before you begin writing your answers.

#### Section B: Essay Questions

Answer **ONE** question.

The number of marks is given in brackets [ ] at the end of each question or part question.

**Start each question on a new piece of paper.**

**Start the last part of both case studies on a new piece of paper.**

At the end of the examination, fasten all your work securely with the cover pages given.

Fill in the necessary information on the cover pages.

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This document consists of **13** printed pages; including 3 cover pages.

## Section A

Answer **all** questions.

### Question 1

### The influence of the Fashion Industry

#### Extract 1: Fashion invasion

A giant photo of a model in tiny underwear is in danger of causing car-crashes on a busy intersection in Mexico City. The billboard announces the arrival of H&M, a Swedish fashion retailer, which opened its first Latin American store in Mexico City on November 1st. A fortnight earlier Forever 21, an American chain, celebrated its debut in the country. That followed the first opening of a Mexican store by Gap, another American clothing giant, in September. The new entrants promise high fashion at low prices.

Affordable foreign fashion has been a long time coming to Mexico. Though it has more free-trade deals than any other country, it has kept high tariffs on clothes and shoes. When China joined the World Trade Organisation (WTO) in 2001, Mexico imposed tariffs of up to 1,000% on Chinese goods to protect domestic clothes makers. The result is that high-street fashion is still mostly home-grown.

Now tariffs are coming down, and the market is opening up. Having fallen slowly in recent years, they were slashed in December 2011, to around 20%. The lower tariffs have opened the door to retailers such as H&M, the suppliers of which are 80% Asian. H&M's three-storey Mexican megastore stocks boots, dresses, sweaters and handbags made in China.

For Mexican manufacturers it is going to be hard to keep up with the fast-fashion model used by the likes of H&M, says Isabel Cavill of Planet Retail, a consultancy. Retailers such as Walmart are already threatening "give us a better price, or we go to China", says Ysmael López García, head of the Footwear Chamber in Guanajuato, where most of Mexico's 150,000 cobbling jobs are located. Imports of Chinese shoes have trebled this year, he says. His members' profits are about a quarter lower than they were three years ago.

Mexican firms are fighting back by focusing on quality, where Mr López believes they can still beat China. The cheap but dowdy basics sold at street markets (often imported illegally from China) still account for 60% of Mexico's clothes business, according to Euromonitor, a research firm. But now that more and more Mexicans sport the label "middle class", fashionistas are vying to clothe them.

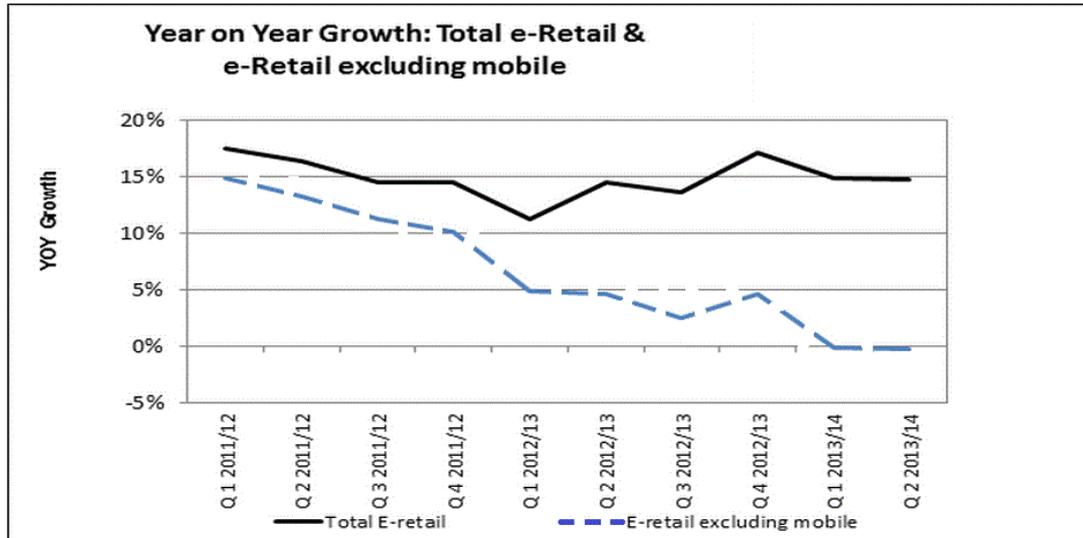
Source: Adapted from *The Economist*, Dec, 2012

#### Extract 2: Chinese manufacturers aim to increase direct sales to Western online shoppers

The world's most advanced economies can only dream of 7.5% annual economic growth, but when China's year-over-year growth came in at 7.5% in the second quarter it represented a slowdown for the world's fastest-growing large economy. With domestic demand softening, Chinese manufacturers are looking to keep their factories humming by selling directly to online shoppers in the West.

Source: <http://www.internetretailer.com/>, accessed on Aug 2014

Figure 1: Online Retail Sales



Source: IMRG and Capgemini

### Extract 3: Fashioning Success

The online fashion retailing industry is burgeoning. Numerous sites have cropped up in the past few years to claim their share of a very satisfying retail pie. This competition has also resulted in small and big ventures innovating to try and stay ahead of a ferocious pack. Consumers on the other hand, are most likely to gain from the increasingly competitive prices and qualitative services.

Selling is increasingly about service. The average consumer who shops online chooses to because of increasing time-poverty, changing lifestyle, convenience and flexibility of shopping and option of free home delivery. There is also a significant change in consumer behaviour, as online shoppers migrate from desktops and laptop computers to mobile devices such as smartphones and tablet devices. Possible contributing factors to the emerging trend include accessibility, convenience and confidence.

Source: Adapted from *Business Today*, May, 2013

### Extract 4: Online Marketplaces Adopting Models to Ensure Discounted Prices

With price being the most potent weapon in their arsenal, online retailers looking to snare more customers are cajoling sellers to offer steep discounts and reimbursing those who do so. India's largest online marketplaces like Amazon, Flipkart and Snapdeal are adopting several models to ensure that merchants on their portal offer discounted prices. Their unbridled aggression is drawing the ire of smaller peers as well as traditional brick-and-mortar retailers who are struggling to keep pace.

Officially most portals maintain that they only offer a technology platform where merchants sell to customers, that they have little role to play in pricing.

However, several merchants that *Economics Times* spoke to said they are constantly badgered to drop prices. Sayak Sahu, founder of IE Ventures that runs design-led gift products and gadgets firm Smiledrive, sells products on Amazon, Snapdeal, Flipkart and eBay, and is urged by each to compare prices for similar products and offer the lowest price.

Source: Adapted from *The Economic Times*, 20 May, 2014

### Extract 5: Global recovery could depend on China's taste for luxury

China's looming coronation as the world's largest economy, years ahead of schedule, is probably not particularly surprising in one sleepy corner of Oxfordshire. Around half of the international visitors who flock to Bicester retail village are Chinese nationals, making the one-hour train trip from London, or using the fleet of special coaches that head there each day – to stock up on luxury goods.

A World Bank-backed report has declared that the country's national currency, the yuan, will go further than previously thought in the hands of the Chinese consumer and that this supercharged purchasing power will push the world's second-largest economy ahead of the US this year.

Gareth Leather, Asia economist at Capital Economics, says the UK stands to benefit substantially from the spending power of the Chinese. "China is a huge market for luxury goods, and there are high taxes on luxury goods in China, so there is a tendency to travel abroad."

Chinese buyers are brand junkies, and the Bicester outlets of their favourite labels are heaving. A sprawling two-floor Burberry store is packed with Chinese visitors poring over the brand's trademark trench coats and accessories, while the Prada branch nearby is thronged too. And this is not just window shopping. To judge by the masses of shopping bags bearing luxury names such as Ralph Lauren and Gucci, as well as Burberry and Prada, some serious cash is being spent. An economist estimates that around two-thirds of luxury shopping by Chinese consumers is done outside China. He says the reason Chinese nationals prefer to buy luxury goods abroad is because of a lack of trust in branding – and genuine safety issues with domestic products, from foodstuffs to cars, clothing and electrical goods. If Western economies such as the UK's are to tilt back towards export-driven growth, China's status as the world's factory floor has to change. The West needs China to open up as a market that consumes goods rather than just making them.

Source: Adapted from *The Guardian*, 11 May, 2014

### Questions

- (a) (i) Compare the year-on-year growth of online sales of total e-retail with that of e-retail excluding mobile from Q1 2012 to Q2 2014. [2]
- (ii) Account for the difference that you have observed. [1]
- (b) With the aid of a diagram and reference to the data in Extract 3, explain what has happened to prices of online retail products. [6]
- (c) (i) What is meant by price elasticity of demand? [2]
- (ii) Explain how the concept of price elasticity of demand can explain the pricing strategy of the online retailers mentioned in Extract 4. [3]
- (d) Explain the case for the protectionist measures imposed by the Mexican government on clothes and shoes. [4]
- (e) Explain two ways in which the decrease in the tariffs on imported clothes from China could benefit a country such as Mexico. [4]
- (f) Discuss the view that "The West needs China to open up as a market that consumes goods rather than just making them." [8]

[Total: 30]

## Question 2

### Challenges in economic policymaking

#### Extract 6: Policymakers fiddle while the economy burns

The Roman emperor Augustus is supposed to have come up with the phrase “festina lente”, which means make haste slowly. It is apt for what has been happening to the global economy these past four years: policymakers have been hyperactive but progress has been painfully slow.

The weakening in activity this year has set off warning bells. The International Monetary Fund (IMF) says the risk of a serious global slowdown is "alarmingly high", due in part to governments imposing austerity programmes. Changes to tax and spending affect the economy through a multiplier effect, which the IMF believes to be larger than expected. The implication is that raising taxes and cutting spending cause a much bigger loss of output, helping to explain why growth has been so weak.

This deserves to be taken seriously. Why? Because a larger multiplier effect could well jeopardise any economic recovery when governments implement austerity programmes, and if interest rates are already extremely low there may be a limit to what a further easing of monetary policy can do to stimulate activity.

What is to be done? The obvious answer would be to relax fiscal policy. Today's policymakers should, in other words, take a leaf out of Franklin Roosevelt's New Deal for America in the 1930s and embark on a major programme of spending on public works. This has its attractions for Britain, where the infrastructure is so poor and the cost of borrowing so cheap.

But the economic historian Nick Crafts has warned against drawing parallels with the 1930s, mainly because US public finances were much healthier at that time than the UK's are now. That's not to say that a different approach to fiscal policy would be impossible - but there is a balance of risks. Tightening or tightening too fast could send the economy on a downward spiral of spending cuts and weak growth. On the other hand, fiscal expansion would result in a burgeoning public debt that would drive interest rates up. Other risks would be a loss of confidence and the possibility that individuals and companies would save more in anticipation of higher taxes or higher inflation in future resulting from the expansionary fiscal policy today.

As a result, we have to assume that monetary policy will continue to take most of the strain in the UK, as it will in the US and the eurozone. At the very least, the UK Central Bank's interest rate will stay at 0.5% for the foreseeable future.

Source: Adapted from Larry Elliot, *The Guardian*, 2 Oct 2012

#### Extract 7: Fiscal cliff threatens US recovery

The US economy will be facing a sharp plunge in spending or fiscal cliff, when tax cuts introduced during the Bush Administration expire at the end of the year, causing taxes to increase. At the same time, government spending cuts mandated under the Budget Control Act of 2011 will kick in at the start of 2013. With the US government debt reaching the limit that is permitted by law, the spending cuts are necessary in order to reduce the government's budget deficit, but can have an adverse impact on the economy.

The Federal Reserve chairman, Ben Bernanke, has warned that the fiscal cliff would threaten the recovery of the US economy. According to Bernanke, the expiry of Bush-era tax

cuts at the end of the year and imposition of deep spending cuts would send the US “toppling back into recession”: He further warned that a row in Washington over increasing the US debt ceiling would also have dire consequences. Protracted disagreement over raising the debt limit in 2011 triggered panic in financial markets around the world, as concerns rose over the possibility of the US government defaulting on its debt payments.

Source: Adapted from Dominic Rushe, *The Guardian*, 21 Nov 2012

### **Extract 8: Japan slump adds to woes over global economy**

A shock slump for Japan rang new alarm bells over global growth prospects yesterday as the world's third-biggest economy was braced to plunge back into recession. The dire figures - which showed Japan's economy shrinking at an annual pace of 3.5 percent between July and September - come days before the eurozone's slide back into a double-dip recession is set to be confirmed.

The nation has been battling deflation and weak growth for more than 20 years since the burst of an asset bubble in the early 1990s, with last year's tsunami and earthquake adding to its headaches. Japan has also been hit by a rising yen as woes elsewhere encourage investors to park their cash in the yen, deterring investment and hitting its competitiveness. Uncertainty in Europe is also affecting Japan. Exports to the EU plunged 23 per cent in the third quarter, the biggest decline since 2009.

Source: Adapted from Russell Lynch, *The Independent*, 13 Nov 2012

### **Extract 9: Spain is a black hole that could pull in all around it**

Where is the world economy heading? The IMF, at its spring conference in Washington, says the prospect is for stronger growth as long as the Europeans, Americans and Chinese do not mess up their domestic recoveries.

However, the interconnected nature of modern economies makes them especially vulnerable to upheavals in other nations, making it even more challenging for governments to manage their economy. Like a black hole, Spain, in particular has the capacity to suck in and destroy all around it.

A member of the eurozone which adopts the euro as a common currency, Spain declared this week that bad bank loans, much of it on empty or abandoned property, had risen to more than 8%. There is some concern that poorly performing bank loans will need to be indemnified by the government or be allowed to fail. Bailing out the affected banks would require additional funds from the EU and aggravate the government's debt problem, raising concerns over the government's ability to service its debt. Allowing the banks to fail could also trigger a financial and confidence crisis that could affect the whole region. Either way, it would cause havoc for the eurozone - and it is the fear of this that keeps investors away.

Source: Adapted from Phillip Inman, *The Guardian*, 20 Apr 2012

**Table 1: Japan: selected economic indicators**

	2009	2010	2011	2012
GDP Growth (annual %)	-5.5	4.7	-0.5	1.4
Exports of goods and services (% of GDP)	13	15	15	15
Imports of goods and services (% of GDP)	12	14	16	17
Current account balance (US\$ millions)	147,017	203,916	119,064	60,859
Government budget balance (% of GDP)	-7.6	-6.7	-8.2	-8.0
Central government debt (% of GDP)	166.8	174.8	189.5	196.5

**Table 2: Spain: selected economic indicators**

	2009	2010	2011	2012
GDP Growth (annual %)	-3.8	-0.2	0.1	-1.6
Exports of goods and services (% of GDP)	24	27	31	33
Imports of goods and services (% of GDP)	26	30	32	32
Current account balance (US\$ millions)	-69,775	-62,498	-55,066	-15,142
Government budget balance (% of GDP)	-8.5	-5.2	-3.6	-9.0
Central government debt (% of GDP)	47.0	48.7	56.1	67.6

**Table 3: US: selected economic indicators**

	2009	2010	2011	2012
GDP Growth (annual %)	-2.8	2.5	1.8	2.8
Exports of goods and services (% of GDP)	11	12	14	14
Imports of goods and services (% of GDP)	14	16	17	17
Current account balance (US\$ millions)	-381,638	-449,477	-457,729	-440,423
Government budget balance (% of GDP)	-10.3	-10.1	-9.1	-7.5
Central government debt (% of GDP)	76.3	85.6	90.1	93.8

Source of Tables 1 to 3: World Bank

**Questions**

- (a) (i) Define the balance of trade of a country. [1]
- (ii) Compare the change in Japan's balance of trade with that of Spain between 2009 and 2012. [2]
- (iii) With reference to the information in Extract 8, explain one factor that could cause Japan's exports to fall. [2]
- (b) With reference to the data, explain how GDP growth might affect the government's budget balance. [3]
- (c) Explain one reason why the size of a country's multiplier could become larger. [2]
- (d) Using data from Table 2, account for the trend in Spain's central government debt. [2]
- (e) It is mentioned in Extract 9 that Spain has the capacity to suck in and destroy all around it. Discuss how the economic conditions in Spain could impact other countries in the eurozone. [8]
- (f) With reference to the countries mentioned in the data, discuss whether domestic factors or external factors have the greater impact on a government's choice of macroeconomic policies. [10]

[Total: 30]

**Section B**

Answer **one** question from this section.

3. The Singapore government plays an active role in managing road congestion and promoting education for Singapore citizens.
- (a) Using the concept of externalities, explain why the Singapore government intervenes in these two areas. [10]
- (b) Discuss the view that the best way for the Singapore government to respond to the market failure in education is to provide it for free at all levels. [15]
4. Globalisation has increased the flow of goods and services, financial capital and labour across countries, making the world economy more integrated.
- (a) Explain the possible macroeconomic problems that globalisation may bring about for the Singapore economy. [10]
- (b) Discuss the measures that the Singapore government can use to curb these possible problems. [15]

**-- END OF PAPER --**

# **National Junior College Economics Department**

## **Preliminary Examination 2014 Answer Booklet**

### **Senior High 2 H1 Economics**

(Syllabus 8819)

## Examiners' Report for 2014 H1 Economics Prelims

### Case Study Question 1

- (a) (i) Compare the year-on-year growth of online sales of total e-retail with that of e-retail excluding mobile from Q1 2012 to Q2 2014. [2]

Similarity: Both experienced positive year on year growth of online sales throughout the period. [1m]

OR

The year-on-year growth for both total e-retail and total e-retail excluding mobile have declined. [1m]

Difference: Year-on-year growth of online sales of e-retail excluding mobile has declined greater than the year-on-year growth of online sales of total e-retail. [1m]

- (ii) Account for the difference that you have observed. [1]

Year-on-year growth of online sales of e-retail excluding mobile has declined greater than the year-on-year growth of online sales of total e-retail because of a change in the taste and preference of consumers. According to extract 1, online shoppers migrate from desktops and laptop computers to mobile devices such as smartphones and tablet devices which provide them with greater accessibility, convenience and confidence. [1m]

- (b) With the aid of a diagram and reference to the data in Extract 1, explain what has happened to prices of online retail products. [6]

Prices of online retail products are likely to fall due to an increase in supply of online retail products exceeding the increase in demand.

According to Extract 1, demand of online retail products increases due to the increase in taste and preference towards the consumption of online products and services, because of the increasing tight working schedule, changing lifestyle, convenience and flexibility of shopping and option of free home delivery. Supply of online retail products increases due to the increase in the number of sellers. According to Extract 1, the online fashion retailing industry is burgeoning and numerous sites have cropped up in the past few years. [3m]

As mentioned in Extract 1, consumers are most likely to gain from the increasingly competitive prices. This suggests that the extent of the increase in supply is likely to be greater than the increase in the demand of online retail products, which results in the fall in price. [1m]

With reference to figure 1, the increase in demand will lead to a rightward shift in demand curve from  $D_0$  to  $D_1$ , and the increase in supply will lead to a rightward shift in supply curve from  $S_0$  to  $S_1$ . [1m for diagram and reference to diagram]

At the existing equilibrium price  $P_0$ , quantity supplied is greater than quantity demanded which results in a surplus of  $Q_s - Q_d$ . The existence of surplus will cause a downward pressure on the price and hence price falls from  $P_0$  to  $P_1$ . [1m]

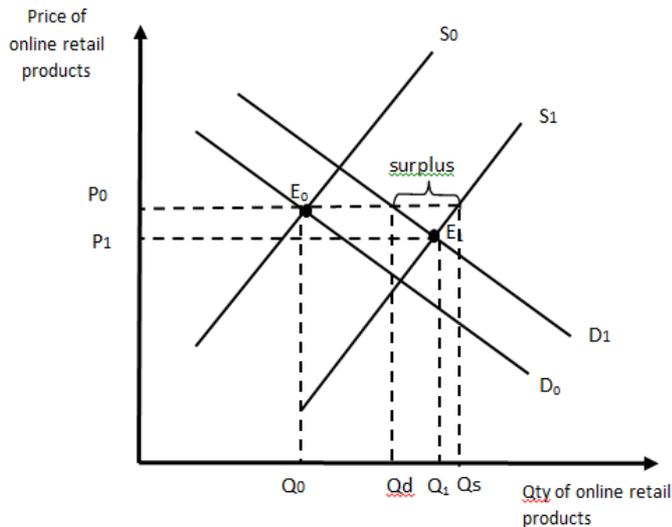


Figure 1: Online retail products market

- (c) (i) **What is meant by price elasticity of demand?** [2]

Definition: Price elasticity of demand measures the change of the quantity demanded of a good to a change in its price, ceteris paribus. [1m]

Measurement:  $E_d = \% \text{ change in } Q_d / \% \text{ change in price of the good}$  [1m]

- (ii) **Explain how the concept of price elasticity of demand can explain the pricing strategy of the online retailers mentioned in Extract 2.** [3]

Determine the PED value of products sold online, likely to be price elastic due to the substitutes available in other online sites and traditional shops [1m]

With a given decrease in price, the quantity demanded of the products will increase more than proportionately. [1m]

As such the revenue gain from the increase in quantity demanded is more than the revenue loss due to the decrease in price. Therefore there is an increase in total revenue. [1m]

- (d) **Explain the case for the protectionist measures imposed by the Mexican government on clothes and shoes.** [4]

Identify the measure used: [1m]

The Mexican government imposed tariffs of up to 1000% on the clothes and shoes from China to protect domestic clothes makers.

Explain how the measure protect the domestic clothes makers: [2m]

With the high tariff imposed, the price of the imported goods from China will be less price competitive compared to the domestically produced clothes. As such, domestic demand will be more directed to home-produced goods. This reduces the amount of clothes imported from China.

For the domestic clothes makers, this increases the amount of clothes that the domestic market wants to purchase from them. It increases the production, thereby increasing local employment.

[1m] Either an illustration of how the tariff works using diagram or an explanation of the positive impact of this measure on any of the macroeconomic aims.

Foreign suppliers, in order to avoid paying tax, may decide to set up production facilities in the tariff imposing country; hence employment in these countries will increase.

*Alternatively, accept other reasons for protectionism but an explanation of how the use of tariffs will affect the price and quality of imports is required.*

- (e) Explain two ways in which the decrease in the tariffs on imported clothes from China could benefit a country such as Mexico. [4]**

Either two of the reasons below with good explanation which either uses good economic concepts to explain or use of evidence to support the analysis.

Increase in the quality of the clothes

Increase in the variety of choices for clothes

Decrease in the price of the clothes → an increase in consumer welfare

[2 m for each benefit]

- (f) Discuss the view that “The West needs China to open up as a market that consumes goods rather than just making them.” [8]**

Introduction:

- Identify the ‘traditional’ roles of the two economies – the West as the consumers and China as the manufacturers for most of the labour-intensive products produced in the world.
- However, in view of the global recession in the recent years, the western economies are still struggling to revive their economies while the Chinese economy is experiencing a year-on-year economic growth of 7.5% in the second quarter mentioned in Extract 2, a growth rate that is unattainable by the world’s most advanced economies.

Body:

Thesis: The West needs China to open up as a market that consumes goods rather than just making them.

- The Chinese consumers have the ability to stimulate the UK economy via their taste for luxury items from the UK market. “Around half of the international visitors who flock to Bicester retail village are Chinese nationals...” Chinese buyers like to purchase branded goods abroad due to the lack of trust in their domestically produced goods.
- Extract 5 also mentions that the Chinese currency, the yuan has appreciated. It means that with the same amount of yuan, the Chinese consumers are able to purchase more imported goods, assuming that there is no change in the price of the imported goods in foreign currencies.
- Therefore, when the Chinese buyers travel to London to purchase their luxury goods and spend on food and hotel accommodations in London, this improves both the visible and invisible trade components of the UK’s current account. This will lead to an increase in net exports, AD and real national income.
- With the unplanned fall in stocks in the western economies, this will stimulate the firms to increase production. Thus, more factors of production will be hired. This will lead to the reduction in the level of unemployment in the economy.
- Given an increase of injection (net exports) in the economy, nominal national income will increase via multiplier effect.
- As there is large spare capacity in the economy due to the recession, the increase in national income does not lead to huge increase in inflation rate. Thus, low level of inflation can be achieved.
- Illustrate the increase in AD, real national income and slight increase in GPL using an AD-AS diagram.

Anti-Thesis: The West also needs China to open up as a market that makes the goods due to their comparative advantage in the production of labour-intensive goods.

- China has the comparative advantage in the production of labour-intensive goods such as clothes and toys. It means that they can produce the goods at a lower opportunity cost than other countries. This is because of their relatively huge population size which allows them to have a lower opportunity cost of producing labour-intensive products.
- The UK economy can continue to import clothes and toys at a low price preserving the welfare of consumers in the UK.
- In short, according to the theory of comparative advantage, trade can benefit all countries if they specialise in (and export) the goods in which they have a comparative advantage.

*Alternatively, students will be credited if they were to explain the reasons why the Western economies do not need China to open up as a market that makes the goods. This could be due to the use of expansionary AD policies. Students need to explain the limitations of the policies as well.*

Synthesis:

Whether the West needs China to open up as a market that consumes goods rather than just making them depends on the:

- Prevailing economic conditions
- Differences in the opportunity cost in the production of the same goods in different economies
- Effectiveness of current measures to stimulate growth in the Western economies
- Significance of the Net Export to overall AD of the Western economies

Knowledge, Application, Understanding and Analysis		
L2	5-6	<ul style="list-style-type: none"> <li>✓ Excellent discussion of why the West needs China to open up as a market that consumes goods, well supported by analysis and reference to case materials</li> <li>✓ There is some consideration of why the West needs China to produce the goods.</li> </ul>
L2	3-4	<ul style="list-style-type: none"> <li>✓ Good discussion of why the West needs China to open up as a market that consumes goods, which may not be well developed.</li> <li>✓ There is limited or no consideration of why the West needs China to produce the goods.</li> <li>✓ May be one-sided ie only the thesis argument</li> <li>✓ Some reference to case material and diagrammatic analysis</li> </ul>
L1	1-2	<ul style="list-style-type: none"> <li>✓ The answer is largely irrelevant or may have some relevant points which are not well developed. There may be conceptual errors in the explanation or analysis.</li> </ul>
E2	2	<ul style="list-style-type: none"> <li>✓ Excellent evaluation with good conclusion of why the West needs China to consume their goods</li> </ul>
E1	1	<ul style="list-style-type: none"> <li>✓ Some evaluation of why the West needs China to consume their goods</li> </ul>

**Case Study Question 2**

- (a) (i) **Define the balance of trade of a country.** [1]

The balance of trade is the value of a country's exports of goods and services (or export revenue) minus the value of its imports of goods and services (or import expenditure).

OR

The difference between a country's export revenue (value of exports) and import expenditure (value of imports).

Note: "BoT is the sum of visible trade and invisible trade balance" is not accepted, unless "visible and invisible trade balance" are also defined.

- (ii) **Compare the change in Japan's balance of trade with that of Spain between 2009 and 2012.** [2]

Japan's balance of trade position has worsened from a surplus to a deficit [1 mark], whereas Spain's balance of trade position has improved from a deficit to a surplus [1 mark] over the period 2009 to 2012.

OR

Japan's balance of trade has worsened while Spain's balance of trade has improved over the period 2009 to 2012. [1 mark]

Japan's balance of trade changed from a surplus to deficit, while Spain's balance of trade changed from deficit to surplus. [1 mark]

- (iii) **With reference to the information in Extract 6, explain one factor that could cause Japan's exports to fall.** [2]

Any of the points below:

- **The tsunami and earthquake** could have destroyed production facilities and infrastructure, resulting in a **fall in AS** and **rise in costs of production**. This makes Japan's exports **less competitive (or more expensive)**, resulting in a fall in quantity demanded of Japan's exports. (Alternatively, there is a **fall in domestic supply** of goods and services, which reduces the quantity of goods available for exports ie Japanese producers need to reduce their exports in the short-run in order to meet the **shortage in the domestic market**.)
- The **appreciation (rise) of the yen** due to economic woes in other countries causing investors to shift their funds into the yen ("hot money" inflow) makes **Japanese exports more expensive in foreign currencies (or less competitive)**, resulting in a **fall in demand** for Japan's exports.
- **Uncertainty in Europe** caused Japan's exports to the EU to fall by 23% in the third quarter. This is because the uncertainty could have caused households and firms to be **cautious about spending** and to **save more** instead. The fall in spending **reduces their demand for imports**, hence reducing Japan's exports to the EU.
- **Eurozone's slide back in double-dip recession** means a **fall in their income** and hence purchasing power. This results in a **fall in consumption** and hence a **fall in their demand for imports**. This leads to a fall in Japan's exports to the EU.

- (b) **With reference to the data, explain how GDP growth might affect the government's budget balance.** [3]

Looking at the year-to-year changes for Japan, Spain and US, an increase in GDP growth generally corresponds with an improvement in the government budget balance (reduction in deficit as % of GDP) and vice versa. [1 mark]

Note for students' understanding (Not required in answer): For example, Japan's increase in GDP growth from -5.5% in 2009 to 4.7% in 2010 corresponds with a fall in its government budget deficit from 7.6% to 6.7% of GDP, whereas the fall in Spain's GDP growth from 0.1% in 2011 to -1.6% in 2012 corresponds with an increase in the government budget deficit from 3.6% to 9.0% of GDP.

One possible reason is that an increase in GDP growth means that generally incomes are rising at a faster rate. This results in an increase in government tax revenue from income taxes. Also, the increase in income leads to higher consumption spending which increases government revenue from indirect taxes on goods and services.

AND

With the rising income, there is less need for social security and welfare aid. At the same time, and the increase in output leads to a fall in unemployment. Hence this causes a fall in government expenditure on unemployment benefits and social welfare.

**(c) Explain 1 reason why the size of a country's multiplier could become larger. [2]**

The size of a country's multiplier is determined by its marginal propensity to save (mps), marginal propensity to tax (mpt) and marginal propensity to import (mpm).

$$K = 1 / (mps + mpt + mpm)$$

The multiplier could become larger if there is a fall in mps, mpt or mpm.

Any one of the reasons below:

Mps – a fall in mps could be due to consumer expectations. For example, if consumers expect prices to increase in future, they may increase their purchase of goods and services before their prices increase. Alternatively, mps may fall if consumers are optimistic about the future and expect their incomes to rise. They will thus have a greater tendency to spend. Hence, households may save a smaller proportion of an increase in their income.

Mpt – a fall in mpt could be caused by a fall in tax rates. This could be due to the government's expansionary fiscal policy, reducing tax rates so as to increase consumption spending. The fall in tax rates means a fall in the amount of taxes withdrawn from a given change in income.

Mpm – a fall in mpm could be due to the government imposing import restrictions or a change in consumers' taste and preferences in favour of domestic products. This results in a fall in demand for imports and hence a fall in the proportion of any increase in income spent on imports.

**(d) Using data from Table 2, account for the trend in Spain's central government debt. [2]**

Table 2 shows that Spain's central government debt as a percentage of GDP has increased from 2009 to 2012. [1 mark]

This is due to the government's budget balance being in deficit over the period. [1 mark]

(Explanation not required but included below for clarity)

The government budget deficit means that the government would need to borrow to finance its spending. Hence this leads to an increase in the government debt.

**(e) It is mentioned in Extract 7 that Spain has the capacity to suck in and destroy all around it. Discuss how the economic conditions in Spain could impact other countries in the eurozone. [8]**

Introduction:

The statement "Spain has the capacity to suck in and destroy all around it" suggests that the economic conditions in Spain can have an adverse impact on other countries in the region. This is especially so because of the "interconnected nature of modern economies" as mentioned in Extract 4.

Body

- Loss of confidence → capital outflow and fall in C and I

One major problem facing Spain is the financial crisis arising from bad bank loans which threaten the survival of some of its banks. According to Extract 4, “poorly performing bank loans will need to be indemnified by the government or be allowed to fail”. Either course of action will have impact on the eurozone. In order to bail out the affected banks, the Spanish government will need to borrow additional funds from the EU. This would increase the government debt which is already high at 67.6% of GDP. The concern whether the Spanish government could service its debt may trigger a loss of confidence in the eurozone as it could cause a financial crisis in the eurozone if Spain defaults on the debt it owes to the EU. On the other hand, if Spain allows its banks to fail, there will also be a financial crisis and loss of confidence in the region as the collapse of these banks could result in losses suffered by banks, people and governments of other countries in the region which had lent to or deposited money in the affected banks. The **loss of confidence** by investors will lead to **capital outflow from the eurozone**, causing a **worsening of the Capital and Financial Account** and hence the balance of payments in these countries. The loss of confidence could also result in a **fall in consumption and investment** spending (both domestic I and FDI), which leads to a fall in AD and hence **fall in national income and economic growth**.

**Diagram** to show fall in AD in eurozone (due to fall in C and I arising from loss of confidence) → fall in real output and economic growth → fall in dd for labour → **increase in cyclical unemployment**

- Recession in Spain → fall in demand for exports from eurozone

The **negative outlook** for Spain as well as government’s **austerity measures** to cut spending will result in a fall in AD, causing a **recession in Spain**. This is shown by the negative GDP growth in 2012 in Table 2. Due to the falling income in Spain, there will be a **fall in consumption and hence demand for imports**. This reduces Spain’s demand for exports from other countries in the eurozone. The **fall in exports in the eurozone countries** will cause a **worsening of their balance of trade** position, and hence their balance of payments, ceteris paribus. In addition, the **fall in (X-M)** causes a fall in AD and leads to a **fall in the economic growth** and **increase in unemployment**.

(Note: Arguments that the failure of banks could lead to a shortage of liquidity/ fall in SS of loanable funds/ credit crunch thus causing rise in  $i/r$  and fall in I and C can also be accepted, altho this assumes that the banks are allowed to fail.)

Mitigating factors due to Spain’s economic conditions:

- However, the negative impact on the eurozone could be mitigated by the likely depreciation of the euro.
- Fall in exchange rate of euro → increase in international competitiveness

Due to the **capital outflow** and **decline in exports** in the eurozone as explained above, there will be less demand for the euro, causing the **exchange rate of the euro to fall**. The depreciation of the euro makes exports from eurozone countries cheaper in foreign currencies, thus making their exports more competitive in the rest of the world. This could help to boost exports (including tourism) in the eurozone countries, thus **increasing (X-M)** and hence AD, which will help to **increase economic growth** and **reduce cyclical unemployment**.

At the same time, the **depreciation of the euro** makes it **relatively cheaper for foreign investors to invest in the eurozone**. As the exchange rate of the euro declines, foreign investors may be attracted to invest in the eurozone again, leading to an **increase in capital inflow** and **improving the Capital and Financial Account** of the BOP. An **increase in FDI inflow** will also help to increase AD as well as productive capacity and hence LRAS. This results in an **increase in actual and potential growth**.

Synthesis and Conclusion

On the whole, it is more likely that the economic conditions of poor economic outlook, high government debt and banking crisis in Spain will have a detrimental impact on the eurozone. The interconnectedness of Spain to the eurozone countries means that the eurozone will also be affected by a loss of confidence which could trigger capital outflow and fall in spending, causing their economic growth to decline as well. In addition, their close trade links also mean that exports of the eurozone countries to Spain will also decline, worsening their balance of trade and economic growth.

However, it is likely that the impact could be different for different countries in the eurozone depending on their links to Spain. Countries that export more to Spain or have lent to Spain or put their money in the affected banks in Spain will be more adversely affected. Those which have less linkages to Spain may in fact benefit as the possible depreciation of the euro will help to make their exports more competitive in the world market as well as make investments in their country more attractive.

(Evaluative comments that the impact depends on the state of the economy can also be accepted. Some may argue that countries already at full employment and experiencing DD-pull inflation may benefit from the decrease in I and (X-M). But this is less likely in the context of the case as it is mentioned that the eurozone is sliding back into recession. This will earn at most 1 evaluation mark.)

Mark Scheme

L3	5-6	Excellent discussion of how economic conditions in Spain can impact countries in the eurozone, well supported by analysis and reference to case materials. There is balance of negative effects and mitigating factors.
L2	3-4	Good discussion of how economic conditions in Spain can impact countries in the eurozone, which may not be well developed. May be one-sided ie only negative effects.
L1	1-2	The answer is largely irrelevant or may have some relevant points which are not well developed. There may be conceptual errors in the explanation or analysis.

E2	2	Excellent evaluation of the likely impact of Spain's economic conditions on the eurozone countries, identifying factors that could affect the impact.
E1	1	Some evaluation of the impact of Spain's economic conditions on the eurozone countries but may not be well explained.

- (f) **With reference to the countries mentioned in the data, discuss whether domestic factors or external factors have the greater impact on a government's choice of macroeconomic policies.** [10]

Introduction:

In general, the government of a country can adopt demand-management policies such as fiscal and monetary policies and/or supply-side policy to achieve its macroeconomic aims. The choice of which policy to adopt may, however, be determined by various factors, both domestic or external.

Thesis: Domestic factors have the greater impact on the choice of economic policies than external factors.

(Any 1 or 2 domestic factors as explained below. The policy choice should be explained)

- The **government's debt** can affect **the choice between fiscal and monetary policy**. For example, both UK and US have incurred a high government debt. US government debt is over 90% of GDP, and is reaching the government's debt limit. The government is therefore required to cut its spending and raise taxes to reduce its budget deficit. This limits the government's ability to adopt expansionary fiscal

policy to achieve economic growth.

Expansionary fiscal policy refers to the discretionary increase in government spending and/or cut in taxes to increase AD and hence the level of economic activity. This will tend to worsen the government budget balance and result in a budget deficit. As mentioned in Extract 1, fiscal expansion will result in “a burgeoning public debt that would drive interest rates up” and discourage investment and consumption spending. Hence, the government will have to rely more on monetary policy to stimulate economic growth, which means that “monetary policy will continue to take most of the strain in the UK, as it will in the US and the eurozone”, as mentioned in Extract 1.

- The country's **current interest rate** and **financial market conditions** can affect the **choice of monetary policy**. Monetary policy (MP) refers to the discretionary control of money supply or interest rate to influence the level of AD. To tackle recession, the government may want to implement expansionary MP by lowering interest rate. This reduces the cost of borrowing and thus encourages more investment and consumption spending, leading to an increase in AD and hence economic growth. However, if the interest rate in the country is already very low, “there may be a limit to what further easing of monetary policy can do to stimulate activity”, as mentioned in Extract 1. For example, the extremely low interest rate could mean that the economy is at the liquidity trap, where demand for money is infinitely elastic. Any increase in money supply will simply be held as idle cash balances with no effect on interest rate and borrowing. Hence, monetary policy may not be effective, and the government **may have to choose to adopt fiscal policy or exchange rate policy instead**.
- The **state of the economy** can affect the government's **choice between demand management policies and supply-side policies**. Both the UK and US economies are experiencing weak growth, and are struggling to recover from the recession in 2009. For example, Extract 2 mentions that the US “fiscal cliff would threaten the recovery of the US economy”. Hence their governments have chosen to adopt expansionary monetary policy to stimulate economic activity. As mentioned in Extract 1, “monetary policy will continue to take most of the strain in the UK, as it will in the US and the eurozone”. Likewise, the deflation and weak growth experienced by Japan means that expansionary fiscal and monetary policies are needed to stimulate demand in the economy. However, if the economy is near or at full employment (ie Classical range of the AS curve), then expansionary fiscal policy would be less appropriate as it would lead to DD-pull inflation, and the government would need to adopt supply-side policies instead.

Anti-thesis: External factors have the greater impact on the choice of economic policies than domestic factors

(Any 1 or 2 external factors as explained below. The policy choice should be explained)

- **Trade and political relations with other countries** affect a country's economic performance and hence the government's choice of economic policies to address the problem. For example, Japan's political dispute with China over the sovereignty of islands in the East China Sea resulted in a boycott of Japanese products in China, hence causing a slump in Japan's exports. This would lead to the government having to implement **expansionary AD policies** such as interest rate cut (monetary policy) or increase in government spending (fiscal policy) to stimulate domestic demand to counter the fall in exports, and increase economic growth. Alternatively, the Japanese government may choose to adopt **trade policy** such as signing more Free Trade Agreements with other countries to diversify its markets in response to the boycott by China.
- **Rising exchange rate** can influence the choice of economic policies. As explained in Extract 2, the economic woes in other countries caused foreign investors to put their funds into the yen. This has resulted in an appreciation of the yen which causes a rise in the price of Japan's exports in foreign currencies and makes investing in Japan more expensive. This causes a fall in demand for Japan's exports and hence a fall in export revenue. At the same time, imports become cheaper in yen, resulting in an increase in quantity demanded of imports. The rising

yen would thus cause a fall in  $(X-M)$ , assuming Marshall-Lerner condition ( $PED_X + PED_M > 1$ ) holds. At the same time, the stronger yen makes it more expensive for foreign investors to invest in Japan, and this could cause a fall in FDI inflow into Japan. The fall in  $(X-M)$  and fall in FDI leads to a fall in AD which causes a fall in economic growth and increase in unemployment. Hence the government would need to adopt **expansionary demand-management policies** such as fiscal and monetary policies to **tackle the fall in AD** or **SS-side policies** to improve export competitiveness to counter the effect of the yen's appreciation. Examples of SS-side policies include promoting skills training, R&D and innovation through subsidies and infrastructure development.

- **Uncertainty and weak economic growth in other countries** can affect the type of policies adopted by a government. For example, the uncertainty and weak growth in Europe means that people and firms are more cautious about spending. If there is an actual fall in income as the eurozone slides into a double-dip recession, consumption spending will decrease. This leads to a fall in demand for imports in EU and hence a fall in Japan's exports to the EU, which plunged 23% as mentioned in Extract 3. The magnitude of the fall in imports in the EU depends on the marginal propensity to import (mpm). The higher the mpm, the greater will be the fall in imports as income falls in the EU, hence resulting in a greater fall in Japan's exports. This can cause the government to adopt **expansionary AD policies, exchange rate depreciation or sign FTAs** with other countries to diversify its export markets.
- **Economic or financial crisis in a neighbouring country** can also have an impact on a country and hence affect its choice of economic policies. For example, the financial crisis in Spain arising from the need to bail out certain banks could cause a loss of investor confidence in the eurozone countries. This could trigger an outflow of capital from the eurozone as well as fall in consumption and investment spending due to negative expectations. Governments in the eurozone would then have to adopt **expansionary AD policies** (such as fiscal and monetary policies) to stimulate their economies.
- A country's **economic integration with other economies** can affect the policy options available to the government. For example, as a member of the eurozone, Spain uses the euro as a common currency together with the other eurozone members. This means that Spain has **no control over its exchange rate and money supply**, as the exchange rate and the supply of the euro would be controlled by the European Central Bank. The ECB also sets the interest rate for the eurozone as a whole. Spain therefore has no control over its monetary policy. Hence, the Spanish government would have to **choose fiscal policy** to manage its country's aggregate demand.

#### Synthesis and Conclusion:

From the above discussion, it can be seen that a government's choice of macroeconomic policies can be influenced by both domestic and external factors. It may not be possible to say with certainty whether external or domestic factors have the greater impact on policy choice, as the extent of the impact of these factors is likely to differ for different countries due to the different nature of their economies.

In general, whether domestic factors or external factors have the greater impact on a government's choice of macroeconomic policies could depend on:

- Size and openness of the economy – For a large country like the US with a large domestic market and less reliance on imports, domestic factors could play a bigger role in influencing the choice of macroeconomic policies. For a small and open economy like Singapore which is highly dependent on trade and foreign investments, external factors are likely to have the greater impact on the choice of policies.
- Degree of integration or connectedness with other countries – If a country is more closely integrated with other countries eg. the eurozone, its choice of macroeconomic policies will be subjected to the policies of the economic grouping, and hence external factors will have a greater impact on its policy choice.

- Level of government debt – A country with a large government debt may not be able to implement expansionary fiscal policy, and will have to choose other demand management policies. Hence its policy choice is more affected by the domestic factor of high government debt.
- Priority of the government – A country may be experiencing both domestic and external macroeconomic problems such as high unemployment, severe balance of trade deficit and rising costs of imports causing cost-push inflation. It may face a conflict in its macroeconomic aims in choosing certain macroeconomic policies. Eg. adopting exchange rate appreciation may help to reduce prices of imports and tackle cost-push inflation, but could worsen the trade deficit and unemployment. In this case, whether the external or domestic factors have a greater impact on the government's macroeconomic decision could depend on the government's priority with respect to which macroeconomic aim they want to address.

However, it could also be argued that both domestic and external factors are interrelated and affect each other. For example, a high government debt may be considered a domestic factor, but it could cause a loss of confidence in the economy and result in capital outflow which becomes an external factor. A global recession which is an external factor could lead to a fall in exports of a country, causing its exporting industries to decline and resulting in high unemployment, which becomes a domestic factor. Hence it may not be possible to say whether domestic or external factors have the greater impact on the choice of macroeconomic policies.

Mark Scheme

L3	6-8 marks	Excellent discussion of the impact of both domestic and external factors on the choice of macroeconomic policies that is well developed with good rigour of analysis, supported by references to the case materials.
L2	4-5 marks	Impact of either domestic OR external factors on policy choice is well developed with rigour of analysis Or there is discussion of impact of BOTH domestic and external factors on the choice of policies, but may lack rigour in analysis. Lack of reference to case materials
L1	1-3 marks	Largely irrelevant with some relevant points that are not clearly explained. Major conceptual errors may be found.

E2	2 marks	Excellent evaluation with good conclusion of the relative impact of domestic factors and external factors on the choice of policies that is supported by analysis.
E1	1 mark	Some evaluation of the relative impact of domestic factors and external factors on the choice of policies

Section B:

3. The Singapore government plays an active role in managing road congestion and promoting education for Singapore citizens.

- (a) Using the concept of externalities, explain why the Singapore government intervenes in these two areas. [10]
- (b) Discuss the view that the best way for the Singapore government to respond to the market failure in education is to provide it for free at all levels. [15]

(a) Suggested Answer:-

**Introduction:**

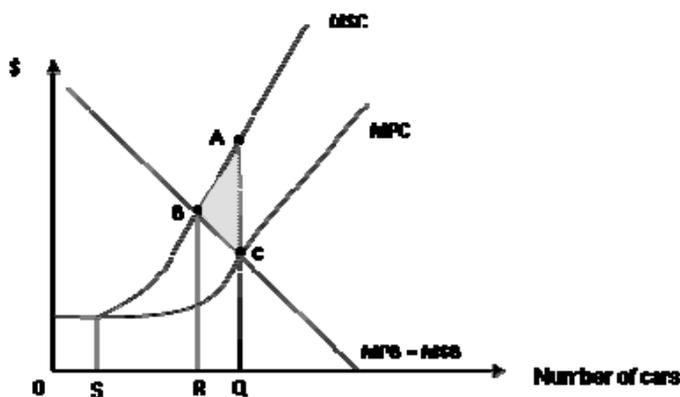
Define externality and indicate the presence of externality will lead to inefficient allocation of resources (ie: Market Failure). This calls for government intervention.

Firms and households make decisions based on their private costs and benefits. External costs/benefits are not factored in.

**Body:** Presence of negative externality

- At the free market equilibrium, producers and consumers will only equate private costs and benefits and produce at  $MPB = MPC$ .
  - Private costs (MPC): cost of paying for the fuel to drive the car, payment for carpark lot, cost of buying the car.
  - Private benefits (MPB): able to reach the workplace earlier, more convenient, high level of satisfaction derived from taking own private transport which is more comfortable than public transport.
- Establish that driving the car on the road results in an external cost (MEC) to society that is not internalised (e.g. air and noise pollution, costs of congestion imposed by drivers on others such as employers, logistics firms take a longer time to deliver the goods resulting in loss of business and this deters foreign investments) during the transaction between private households and firms; and hence this is a case of negative externality which causes market failure. This causes a divergence between private costs and social costs.
- With the aid of a diagram, explain how these factories in maximizing their profits ( $MPC=MPB$ ) would result in external cost.
- Define (marginal) social cost and benefit, and explain the condition for a socially efficient level of output ( $MSC=MSB$ )
- Diagram that is well explained to show how the market failed in optimal resource allocation with clear identification of  $MPB = MPC$  and  $MSB = MSC$ .

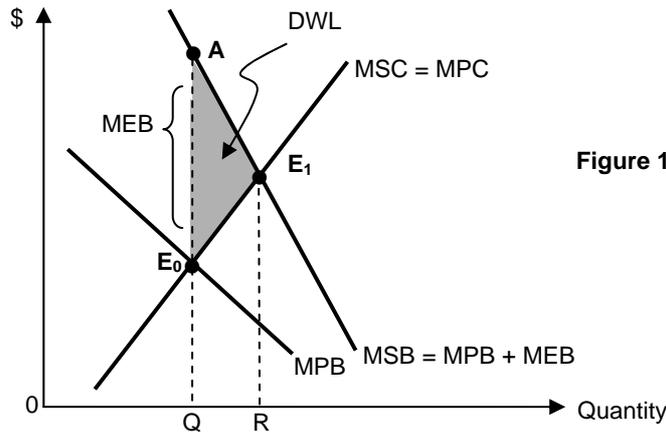
**Negative Externality: Traffic Congestion**



- Price system does not always register all the costs associated with production and consumption.
- With the existence of negative externality, it resulted in  $MSC > MPC$ . Assuming that  $MSB = MPB$  (no positive externality), producing at  $MPB = MPC$  will result in  $MSC > MSB$  which is not socially optimal.
- Explain the presence of the dead-weight loss to society (Area ABC)

Presence of positive externality

- Define positive externalities: occur when private consumption/production creates an external benefit to society that affects third parties as a 'spill-over effect' that is not internalised by the private households and firms
  - Private costs (MPC): school fees, transportation cost to travel to school for lesson
  - Private benefits (MPB): literacy skills, job opportunities, higher wages
  - External Benefits (MEB): educated individuals develop into better citizens, lower crime rate, increase workforce productivity and hence economic growth
  - Presence of positive externality leads to a divergence between private and social benefits. The welfare loss to society resulting from positive externalities can be represented graphically, as shown in Figure 1.



**Figure 1:** Positive Externality leading to allocative inefficiency

- From Figure 1, the free market equilibrium is at  $E_0$  (where  $MPB = MPC$ ) with output at  $0Q$  units. The cost of a vaccination is given by  $MPC=MSC$  (assuming  $MEC = 0$ ).
- As  $MSB = MPB + MEB$ , the presence of positive externalities means that  $MSB$  exceeds  $MPB$  by the amount of  $MEB$ .
- The social optimum level of output is  $0R$  units (where  $MSB = MSC$ ).
- There is under-consumption of the good by  $QR$  units.
- Individuals fail to internalise the external benefits, hence leading to under-consumption causing a dead-weight loss to society (area  $AE_0E_1$ ) due to an allocatively inefficient level of consumption.

**Conclusion:** The two markets failed to allocate resources efficiently which calls for government to intervene via different measures.

Level	Descriptors
Level 3 9-10	<ul style="list-style-type: none"> <li>• Thorough and detailed explanation of how market fails when externalities are present and its impact on resource allocation. (indicate and explain the presence of deadweight loss)</li> <li>• Analysis includes definition of allocative efficiency</li> <li>• Excellent application of concepts to the context given in the question.</li> <li>• Diagrams are accurately drawn and well labelled with excellent explanation</li> <li>• No errors evident in elaboration.</li> </ul>
7-8	<ul style="list-style-type: none"> <li>• Good explanation of how market fails when externalities are present and its impact on resource allocation (indicate the deadweight loss on the diagram but may not be explained)</li> <li>• Good application of concepts to the context given in the question.</li> <li>• Diagrams are accurately drawn and well labelled with good explanation</li> <li>• Minimal errors evident in elaboration.</li> </ul>

<p><b>Level 2</b>  5-6</p>	<ul style="list-style-type: none"> <li>• Adequate explanation of how market fails when externalities are present</li> <li>• Elaboration lacks adequate rigour (e.g. did not explain how the market generated level/socially optimal level is determined.).</li> <li>• Some attempt at using diagram for analysis. Explanation of the diagram is not well-developed.</li> <li>• Some application of concepts by mentioning the context in the explanation.</li> </ul> <p>Marking Tip: For answer that explains only the positive or negative externality - capped at 5.</p>
<p><b>Level 1</b>  1-4</p>	<ul style="list-style-type: none"> <li>• Answer is mostly irrelevant</li> <li>• Unclear explanation of externalities with limited explanation of how the presence of the externalities result in market failure</li> <li>• There may be basic errors in theory and/or listing of points.</li> <li>• Minimal or no diagrams included to aid explanation</li> </ul>

**(b) Suggested Answer:-**

**Introduction:**

- Identify education is a merit good.
- Define merit goods.
- Providing education for free means the government provides full subsidy on the school fees. The students do not need to pay for education. It may be one of the ways to increase the consumption of education, but this may not be the best way for all levels of education.
- Other non-market based, e.g. legislation, nationalisation, education and campaigns can be implemented as well.

**Body:**

**Thesis:** To respond to the market failure in education, Singapore government can provide education for free.

- Explain how the full subsidy on education can increase the consumption of education.
- This may be a case of providing indirect subsidies to the schools to lower the school fees → this substantially lower the MPC until the MPC curve intersects with MPB curve at  $P=0$ .
- Illustrate the analysis using the cost-benefit diagram.
- Explain how this may lead to an efficient allocation of resources when MEB is substantially huge and the socially optimal level ( $MSC=MSB$ ) is achieved at the level where  $MPB=0$ .
- This may be true for the case of primary education as it equips children with basic literacy and numeracy; possibly lead to an increase in productivity, employment and growth rates. This attracts foreign investors and drives economic competitiveness of Singapore in this knowledge-based economy where it relies heavily on knowledge, innovation and entrepreneurial abilities. The MEB for primary school education can be quite substantial.

**Anti-Thesis:** The Singapore government should not provide education for free at all levels.

- Limitations of providing education for free for all levels of education
  - Opportunity cost involved in funds used for subsidising the school fees.
  - Free education may not lead to an efficient allocation of resources as there might be overconsumption of education. Illustrate using diagram.
  - This is true for the higher education where MEB is not high. The MPB for post-secondary education is higher and MEB is smaller when compared with basic education,

Other measures can be used to increase consumption of education.

- Legislation (Compulsory Education Act): Education is made compulsory for children who are above the age of 6 years and who have not yet attained the age of 15 years.
  - In order to prevent ignorant parents who don't understand the true value of education from not sending their children to primary and secondary schools, the government has to set laws on compulsory education so that all children will receive at least ten years of general education
  - Evaluation: Students who are disinterested in studies are kept in school. This is a waste of

scarce resources. Hence, this may not be economically efficient as there is a misallocation of resources.

- Direct Provision: The government is the principal provider of education at primary, secondary and tertiary levels.
  - These schools are funded run according to policies and guidelines from the Ministry of Education (MOE) to ensure the availability of schools for the students to study.
  - Evaluation: There is a lack of market incentives. As principals and teachers in the government schools are not driven by market incentive, there is a compromise of quality and work effort. However, there is assessment and rewards system to provide the incentive to work.
- Various pathways after secondary school education
  - At the higher level of education, students are more aware of their passion, strengths and weaknesses. They will be at the crossroads of their learning journey. The government has provided a varied post –secondary educational systems (Junior Colleges, Centralised Institute, Polyclinics and Institute of Technical Education) for these students to identify where their strengths fits in. This will inevitably increases consumption of education at the higher educational level.
  - Since substantial MPB can be reaped by the private individual in terms of higher wages and faster promotion, the private individual should pay the market rate for education rather than depends on the government for subsidies.
  - Evaluation: Constant review of the courses provided in these institutions is essential to ensure the skills/knowledge learned is still relevant to the economy. This may be time-consuming and not effective as the economy restructures at a rapid rate due to globalisation. However, this allocates resources in a more efficient way as compared to providing higher level of education free to all.

**Conclusion/Evaluation:**

Whether it is the best way for Singapore government to provide education for free to all levels depends on:

- The amount of MEB of education at different levels – MEB is substantial at the primary level of education and smaller for post-secondary education.
- The income level of the families of the students – to address the income inequality issue. The lower income families should receive more subsidies on the school fees. It can be provided free to the students from these families
- The needs of the economy – if government is facing a budget deficit, it may not be feasible for them to provide free education for all levels.

Level	Descriptors
<b>Level 3</b>  9-11	<ul style="list-style-type: none"> <li>• Detailed explanation of how complete subsidies (i.e. making education free) can be used to correct this market failure</li> <li>• Answer shows excellent explanation of at least 2 other policies to correct this market failure</li> <li>• The measures are thoroughly evaluated with reference to the various levels of education.</li> <li>• Diagrams may be included with excellent explanation.</li> <li>• Minimal errors in analysis.</li> <li>• Excellent reference to the Singapore context.</li> </ul>
<b>Level 2</b>  8	<ul style="list-style-type: none"> <li>• Good explanation of how complete subsidies (i.e. making education free) can be used to correct this market failure</li> <li>• Answer shows some explanation of at least 1 other policy to correct this market failure</li> <li>• Diagrams may be included with good explanations.</li> <li>• Some errors and inconsistencies are apparent in analysis.</li> <li>• Minimal or no reference to the Singapore context.</li> </ul> <hr/> <ul style="list-style-type: none"> <li>• Adequate analysis of how complete subsidies (i.e. making education free) can be used to correct this market failure</li> <li>• Answer may recognise other policies to correct this market failure but may not be well explained</li> </ul>

<p><b>6-7</b></p>	<ul style="list-style-type: none"> <li>• The measures are not evaluated or superficial evaluative statements are provided.</li> <li>• Minimal or no diagrams included to aid explanation or diagram included but not explained.</li> <li>• Some errors and inconsistencies are apparent in analysis.</li> <li>• Minimal or no reference to the Singapore context.</li> </ul> <p>Answer may be one-sided and may show an excellent analysis of how free education can be used to correct this market failure OR Answer may include regurgitation of policy solutions from lecture notes with little reference made to education.</p>
<p><b>Level 1 1-5</b></p>	<p>For an answer that is mostly irrelevant in answering the question</p> <ul style="list-style-type: none"> <li>• There may be basic errors in theory and/or listing of points.</li> <li>• No diagrams included to aid explanation.</li> </ul>
<p><b>E2 (3-4)</b></p>	<p>Well explained judgement as to whether it is the best way for Singapore government to provide education for free at all levels.</p> <p>Consider a few factors such as amount of MEB at different level of education, income level of the family and the needs of the government.</p>
<p><b>E1 (1-2)</b></p>	<p>Mainly unexplained judgement.</p>

**4. Globalisation has increased the flow of goods and services, financial capital and labour across countries, making the world economy more integrated.**

**(a) Explain the possible macroeconomic problems that globalisation may bring about for the Singapore economy. [10]**

**(b) Discuss the measures that the Singapore government can use to curb these possible problems. [15]**

**(a) Suggested Answer:-**

**Introduction:**

- Define globalisation - refers to the growing economic integration of national economies, in terms of financial flows, trade, movement of factors of production, ideas and changes in information technology.
- Globalisation is generally beneficial to Singapore since it is dependent on trade for its economic growth. With globalisation, we have gained higher productivity, wider consumer choice at lower prices, and better living standards.
- However, globalisation is not without risk.

**Body:**

**Problems due to freer flow of trade in goods and services:**

- Removal of barriers on imports increases in the quantity demand for imports. This will lead to competition for import substitution industries due to loss in CA in these industries e.g. labour-intensive production → fall in DD for domestically produced goods. This will lead to rise in import expenditure and fall in NX. This worsens BOT and BOP. Economic growth may be compromised due to the fall in NX.
- More vulnerable to external shock especially the economy is dependent on exports for growth and imports for raw materials. For eg: When there is a worldwide recession, this will decrease other countries' demand for imports, which will reduce the demand for our exports. This worsens BOT and BOP. If other countries are experiencing high inflation rates, this will increase the price of raw materials imported leading to import price push inflation within the economy.
- Local firms will find themselves competing with bigger and more established foreign companies, and may not be able to survive the competition, resulting in decline of the domestic industries. This could lead to loss of jobs and possible economic decline.
- Another adverse effect is the loss of jobs. In particular, labour-intensive and low-value added industries in Singapore are relocated to lower production cost locations in emerging countries like China, India and Vietnam given their abundant and hence cheaper labour. This relocation has resulted in job losses in Singapore and increased unemployment → fall in income and material standards of living. (Eg. closure of Seagate Ang Mo Kio plant in 2009). Although it is argued that based on the principle of comparative advantage, Singapore should restructure its economy and specialise in more knowledge-intensive or technology-intensive (which also means higher value-added) industries. In reality, the displaced labour is not able to find employment in these new industries due to the lack of skills and qualifications, i.e. there is occupational immobility of labour.
- If NX increases overall, may lead to demand-pull inflation in the SR if economy is near full employment.

**Problems due to freer capital flow:**

- May lead to structural unemployment as domestic firms outsource the production process. (as explained above)
- If net inflow of FDI → over-heating in the SR → DD-pull inflation. (as explained above)
- Crowding out of domestic investments → over-reliance on FDI for economic growth → more susceptible to international shocks. For example, a major recession in US could cause other major economies in the world to experience economic slowdown as well ("when US sneezes, the rest of the world catches a cold"). Globalisation and the free movement of capital, in particular hot money, have led to very destabilizing effects on many countries including Singapore. Financial crises since the 1990s (Asian Financial Crisis in 1997; Dot.com burst in 2001; Credit crisis in 2008) have happened more frequently, spread across countries more rapidly and their effects more

devastating. Hot money, and the speculative behaviour of hedge fund managers have been blamed for this, along with human greed and unsound banking practices. The global financial crisis in 2008 is an example of how integration of financial markets in the world could result in a chain reaction of collapse of financial institutions and economic downturn across countries.

- Worsening of current account in the LR due to repatriation of profits.

**Problems due to freer labour movement:**

Freer movement of labour will lead to brain drain, where local talents chose to work overseas. → fall in labour supply → fall in AS → limits potential growth.

Inflow of labour into Singapore

- Dampens wages especially for the lower-skilled workers. As Singapore restructures its economy, more investments are put into higher technology, higher value added industries such as bio-medical, pharmaceuticals and aerospace, which require higher skills. Professionals employed in the financial and business services sector also experience higher income growth. However, the majority of workers which are in lower skill jobs find their wages rising more slowly, resulting in a greater income disparity in the country. → Rising income inequality.
- Worsens current account due to repatriation of profits.
- Another feature of globalization is increased migration flows, especially from developing to developed countries. Over the years, an increasing number of Singaporeans have pursued their higher education overseas, and many eventually decided to settle in the foreign country. Such brain drain is a loss of talent and skills, and could lead to a decline in the quality of the local workforce.

**Conclusion:**

- Given the size and openness of the Singapore economy, Singapore has no choice but to embrace globalisation. The government should employ the right policies to minimise the costs of globalisation on Singapore economy.

Level	Descriptors
<b>Level 3</b> 9-10	For answers that shows detailed explanation of the problems of globalisation on Singapore economy <ul style="list-style-type: none"> <li>• Excellent depth of analysis</li> <li>• Good scope of coverage</li> <li>• Diagrams may be included with excellent explanation.</li> <li>• Excellent reference to the Singapore context.</li> <li>• Minimal errors in analysis.</li> </ul>
	For an answer that shows good explanation of the problems of globalisation on Singapore economy <ul style="list-style-type: none"> <li>• Good depth of analysis</li> <li>• Sufficient scope of coverage</li> <li>• Diagrams included with good explanation.</li> <li>• Good reference to the Singapore context.</li> <li>• Some errors and inconsistencies are apparent in analysis.</li> </ul>
<b>Level 2</b> 5-6	For an answer that shows some explanation of the problems of globalisation on Singapore economy <ul style="list-style-type: none"> <li>• Sufficient depth of analysis</li> <li>• May be limited in scope of coverage (ie: only explain the impact of freer trade or capital flow, or explain the impact on only 2 macroeconomic aims or other aims such as efficiency and equity)</li> <li>• Minimal or no diagrams included to aid explanation or diagram included but not explained.</li> <li>• Minimal or no reference to the Singapore context.</li> <li>• Some errors and inconsistencies are apparent in analysis.</li> </ul>
<b>Level 1</b> 1-4	For an answer that is mostly irrelevant in answering the question <ul style="list-style-type: none"> <li>• There may be basic errors in theory and/or listing of points.</li> <li>• No diagrams included to aid explanation.</li> </ul>

**(b) Discuss the measures that the Singapore government can use to curb these possible problems. [15]**

**Suggested Answer:-**

**Body:**

Objective 1: To prevent the loss of jobs and lower structural unemployment

- **Skills training and conversion** – the government provides funding to subsidise the costs of retraining workers or the unemployed to help them acquire new skills to enter into growth industries Example: There was an announcement of top up \$500m to the Lifelong Learning Endowment Fund to \$4.6b, in National Budget 2014, to keep in line with the Singapore government's commitment to Continuing Education and Training (CET).
- The upgrade of labour skills may also help to reduce structural unemployment in the Singapore economy. There is also improvement to quality of labour force in Singapore, enhancing on Singapore's productive capacity, leading to potential economic growth. Coupled with actual economy growth, sustained economic growth is achieved with improvement to labour productivity.

Evaluation:

Skills training takes time especially for higher level skills, and people cannot afford to remain unemployed for too long, while undergoing training. They may take up lower skill jobs or freelance work instead and become "underemployed".

There could be "training wastage" if workers get trained in the wrong skills which do not help them to get jobs (due to imperfect knowledge)

- **Attract FDI** – the government continues to attract FDI (eg. reduce corporate tax rates and provide tax incentives) and develop new industries with potential for growth so as to create new job opportunities eg. Integrated Resorts has created about 35,000 jobs.

Evaluation:

The policy of "picking winners" has been subject to some criticism. As the world is increasingly dynamic, it becomes more difficult to determine what industries will be successful in the long term. Attracting investments in the wrong industries could result in greater instability and wastage of resources if these industries fail in future. Moreover, as comparative advantage shifts with globalization, the foreign companies may also move out in future to other countries which have gained comparative advantage. Moreover, profits from the foreign investments may be repatriated back to the home country, causing income outflow. It may be better to develop domestic industries to create more jobs for the local population in the long run.

Objective 2: To reduce the vulnerability to external factors

- **Diversification of markets** – one way of reducing the vulnerability to external forces is to diversify the country's products as well as export markets. Over the years, Singapore has diversified its economy to cover a broader spectrum of products and services, including building the Integrated Resorts recently. To reduce Singapore's dependence on the US and Europe, the government has increased its trade relations and investments with China, India and Middle Eastern countries, as well as other emerging economies. The government has also signed free trade agreements (FTA) with various countries (eg. ASEAN, US, China, Australia) to expand Singapore's trade network.

Evaluation:

Too much diversification may work against the principle of specialization and comparative advantage and result in lower efficiency and welfare loss. While diversification may help in managing the risks of decline in specific industries or markets, it will not be able to help in the case of a world-wide recession. FTAs come with rules attached, which may result in higher production costs.

- **Prudent fiscal policy and financial regulation** – To ensure that there are sufficient reserves to weather any economic crisis caused by external shocks, the government adopts a prudent fiscal policy of maintaining a budget surplus during normal economic conditions. Over the years, Singapore has built up a substantial pool of reserves accumulated from years of government budget surpluses. This has provided the government with the resources to implement a fiscal stimulus package to deal with the recent economic crisis in 2008/09. In addition, the government adopts prudent financial regulation to ensure that the financial institutions in Singapore have healthy balance sheets and are not taking excessive risks that could threaten the financial stability of the economy.

Evaluation:

Too much budget surplus could have a deflationary effect on the economy as it results in a net withdrawal from the circular flow of income. However, given that Singapore's economy is close to full employment and growing steadily, the withdrawal effect of a budget surplus is not a concern. The fact that Singapore has recovered well from the global economic crisis shows that its prudent fiscal policy and financial regulation have been effective in helping the country to weather the economic storms caused by globalisation.

- **International Cooperation** – another way of managing external vulnerabilities is through coordinated efforts with other countries to deal with problems that have international impact. Singapore participates in various international and regional forums and associations such as Association of South East Asian Nations (ASEAN), (Asia Pacific Economic Cooperation (APEC), Asia-Europe Meeting (ASEM) and World Trade Organisation (WTO), to promote free trade and deal with global issues to help maintain stability in the external environment.

Objective 3: To prevent the decline of domestic firms

- **Supply-side policies** have been used to increase export competitiveness. These are policies designed to increase aggregate supply by decreasing costs and increasing productivity. Basically our supply-side policies are market-oriented, designed to encourage private enterprise or provide incentives and reward initiatives that improve market efficiency. For example, tax incentives and funding are provided to encourage domestic firms to engage in research and development as well as for foreign investors to bring in new technologies and managerial practices that would increase local level of technology. The government also aims to improve the productivity and competitiveness of the workforce through continuing education and training (CET).

Evaluation:

R&D involves high risk and requires high funding → opportunity cost of funds and resources used. The returns are uncertain and such policies may take a long time before their effects can be seen. It may take years before significant breakthroughs in products and technology are achieved.

Objective 4: To reduce income inequality

- **Redistributive role of the government:** The government can redistribute income through the progressive tax structure in the economy. When the higher income earners move to the next tax bracket, they will contribute more tax for government to redistribute to the lower income earners via various subsidy schemes available.

Evaluation:

The self-employed business owners and odd-job labourers may not provide perfect information to the government agencies for the collection of tax and distribution of subsidies.

Business owners, especially those who are owners of the non-listed companies may report a lesser than actual profit made, such that the government will not collect more tax from them. In this case, it does not help to resolve the income inequality issue.

The manual workers who work on an ad-hoc basis may not be honest in the reporting of their income and may request for financial assistance from the government. This does not allow the government to allocate the subsidies efficiently.

- The training programme available can help the lowly skilled labour to be more productive and efficient such that they can bargain for a higher wage in future. [same evaluation as the training programme in Objective #1]

Objective 5: To prevent "Brain drain"

- **Attracting foreign talent** – the government makes direct effort to attract foreign talent such as renowned scientists and researchers to work in Singapore. The government also introduced a Personalised Employment Pass (PEP) scheme to attract foreign professionals to work in Singapore by giving them more flexibility to change jobs while working in Singapore. Maintaining low income tax rates also helps to attract foreign talent to Singapore.

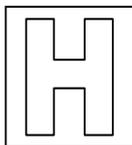
Evaluation:

While having more foreign talent helps to augment the local workforce, it may have social implications such as erosion of traditional values and changing the racial and cultural mix of the population. The increasing number of foreign talent may also lead to rising social discontent as foreigners are perceived to take away the jobs from locals. Also, such foreign talent may not adjust well to the local culture and environment and eventually decide to leave after a while.

**Conclusion/Synthesis:**

On the whole, the policies adopted by the government in minimising the negative impact of globalisation have to be generally sound, both in the short and long term. Supply-side policies to train the workers are essential as they are the main resources in this small economy. However, a major concern is to equip the workers with the correct mindset (ie: life-long learning) such that they are receptive to learning and retraining courses will be highly effective in the long run. While trying to attract more foreign talent into the economy, the government has to take note that the local workers are not short-changed and the social issues (ie: losing of national identity or overcrowding issues at the train platform) are taken care of. It is important to develop the infrastructure of the economy (eg: transport system) so as to ensure that it is able to support the increase in population due to globalisation.

Level	Descriptors
Level 3 9 - 11	<ul style="list-style-type: none"> <li>For an answer that shows <b>excellent</b> knowledge in explaining the most appropriate policy that a government can use to curb the possible problems of globalisation</li> <li><b>Excellent</b> explanation of at least 3 policies to correct at least 3 possible problems of globalisation</li> <li>Policies should be discussed in-depth with <b>excellent</b> analysis, i.e. effectiveness <b>and</b> limitations of each policy</li> <li><b>Excellent</b> development and rigour in economic analysis.</li> <li><b>Good</b> application to the context of the question</li> <li>Diagrams included with <b>excellent</b> explanation</li> <li><b>Minimal</b> errors in analysis</li> </ul>
Level 2 8	<ul style="list-style-type: none"> <li>For an answer that shows <b>good</b> knowledge in explaining the most appropriate policy that a government can use to curb the possible problems of globalisation</li> <li><b>Good</b> explanation of at least 3 policies to correct to correct at least 2 problems of globalisation</li> <li>Policies should be discussed in-depth with <b>good</b> analysis, i.e. effectiveness <b>and</b> ineffectiveness of each policy</li> <li><b>Good</b> development and rigour in economic analysis</li> <li><b>Good</b> application to the context of the question</li> <li>Diagram included with <b>some</b> explanation.</li> <li><b>Some</b> errors in analysis</li> </ul>
6 - 7	<ul style="list-style-type: none"> <li>For an answer that shows <b>fair</b> knowledge in explaining the most appropriate policy that a government can use to curb the possible problems of globalisation</li> <li>Fair explanation of at least 2 policies to correct at least 2 problems of globalisation.</li> <li>Policies should be discussed in-depth with <b>some</b> analysis, i.e. effectiveness <b>and/or</b> ineffectiveness of each policy</li> <li><b>Some</b> development and rigour in economic analysis</li> <li>Some errors and inconsistencies are apparent in analysis.</li> <li>Minimal or no diagrams included to aid explanation or diagram included but not explained.</li> </ul>
Level 1 1 - 5	<ul style="list-style-type: none"> <li>For an answer that is mostly irrelevant in answering the question</li> <li>OR the answer is rather skeletal, with little development or lacking in breadth (eg. Only 1 policy is discussed)</li> <li>Conceptual errors in the explanation of policies</li> <li>There may be basic errors in theory and/or listing of points.</li> <li>Minimal or no diagrams included to aid explanation</li> </ul>
E2 (3-4)	Well explained judgement of the policy measures that the government can use to curb the possible problems of globalisation
E1 (1-2)	Mainly unexplained judgement



NATIONAL JUNIOR COLLEGE  
SH2 Preliminary Examinations for General Certificate of Education Advanced Level  
Higher 2

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**ECONOMICS**

**9732/01**

**Paper 1: Case Study Questions**

**2 September 2014**

**2 hour 15 minutes**

Additional Materials: Answer Paper

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**READ THESE INSTRUCTIONS FIRST**

Write your student registration number and name on all the work you hand in.  
Write in dark blue or black pen on both sides of the paper.  
You may use a soft pencil for any diagrams, graphs or rough working.  
Do not use paper clips, highlighters, glue or correction fluid.

Answer **all** questions.

The number of marks is given in brackets [ ] at the end of each question or part question.

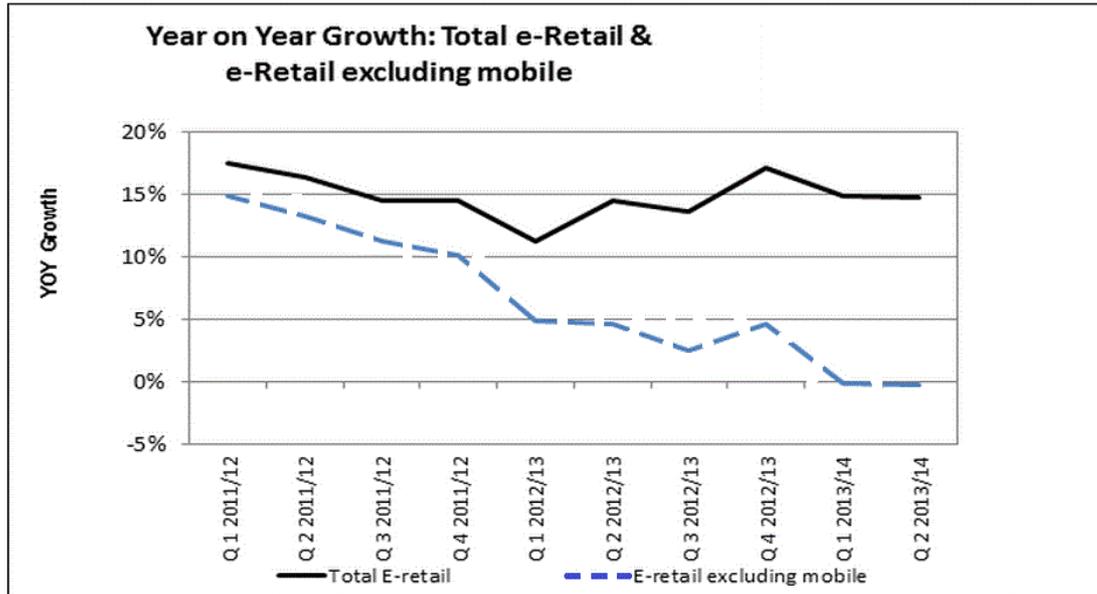
This document consists of **12** printed pages; including 4 cover pages.

Answer all questions.

**Question 1**

**The World of E-retail and Fast Fashion**

**Figure 1: Online Retail Sales**



Source: IMRG and Capgemini

**Extract 1: Fashioning Success**

The online fashion retailing industry is burgeoning. Numerous sites have cropped up in the past few years to claim their share of a very satisfying retail pie. This competition has also resulted in small and big ventures innovating to try and stay ahead of a ferocious pack. Consumers on the other hand, are most likely to gain from the increasingly competitive prices and qualitative services.

Selling is increasingly about service. The average consumer who shops online chooses to because of increasing time-poverty, changing lifestyle, convenience and flexibility of shopping and option of free home delivery. There is also a significant change in consumer behaviour, as online shoppers migrate from desktops and laptop computers to mobile devices such as smartphones and tablet devices. Possible contributing factors to the emerging trend include accessibility, convenience and confidence.

Source: Adapted from *Business Today*, May, 2013

**Extract 2: Amazon, Flipkart & Snapdeal Adopting Models to Ensure Discounted Prices**

With price being the most potent weapon in their arsenal, online retailers looking to snare more customers are cajoling sellers to offer steep discounts and reimbursing those who do so. India's largest online marketplaces like Amazon, Flipkart and Snapdeal are adopting several models to ensure that merchants on their portal offer discounted prices. Their unbridled aggression is drawing the ire of smaller peers as well as traditional retailers who are struggling to keep pace.

"P&G gives a margin of 13% for a pack of Pampers diapers. But Amazon was selling it at a discount of 28%," said the founder of an online site that sells baby care products among

other categories. "How is that fair? We can never match that kind of discounts," said the person on condition of anonymity. Amazon declined to comment.

Officially most portals maintain that they only offer a technology platform where merchants sell to customers, that they have little role to play in pricing.

However, several merchants that Economics Times spoke to said they are constantly badgered to drop prices. Sayak Sahu, founder of IE Ventures that runs design-led gift products and gadgets firm Smiledrive, sells products on Amazon, Snapdeal, Flipkart and eBay, and is urged by each to compare prices for similar products and offer the lowest price. Such strategies, termed as predatory pricing are creating ripples of discontent across the country's fast growing ecommerce industry. Saurabh Malik, business head at Indiatimes Shopping, said that while the portal co-funds some of the discounts, most are funded by sellers. "We are against the philosophy of selling products at loss," said Malik.

Amazon too reimburses merchants. Flipkart, on the other hand, makes adjustments in commissions. "In some promotional campaigns, we either reduce or waive our commissions to allow sellers to offer better prices to customers," said Ankit Nagori, VP (marketplace) at Flipkart. "However, we do not reimburse sellers as this is not in the spirit of a true marketplace." Experts said these kinds of discounts are legal. "It is a marketing expense aimed at gaining customers," said Arvind Singhal, chairman of retail advisory Technopak. "However, if it falls under predatory pricing then there could be a problem."

Traditional traders and even smaller online sites argue that rampant discounting followed by online marketplaces is indeed leading to predatory pricing. "Predatory pricing does affect traditional traders," said Sumant Chopra, a manager at electronics merchant Delhi mall.

Source: Adapted from *The Economic Times*, 20 May, 2014

### **Extract 3: Fast Fashion Gets Sustainable**

The throwaway fashion industry, where clothing is designed to be worn very few times before they are thrown out, is often associated with fast fashion. It is fashion from the style of the moment, usually very cheap and of poor quality, and is often criticized for causing environmental damage, but retailer H&M is looking at ways to improve its green footprint. Fashion observers frequently criticize fast fashion for not being eco-friendly. However, one of the world's best-known high street brands, H&M, is committed to going green.

The company introduced its Conscious and its Conscious Exclusive collections. As the names suggest, these two collections are trying to raise the public's consciousness on environmental protection in the fashion industry.

The term "fast fashion" was first used by retailers to describe designs that move quickly from catwalk to stores. Produced in large quantity, they are comparatively cheaper, yet still stylish. For consumers, it is a good thing: They can buy many items at good prices and can discard those garments and buy new products when the trends move on. The cheap and disposable nature of the clothes has also led to the term "McDonald's fashion".

Fast fashion has come under criticism for causing pollution. Rapid consumption, poor craftsmanship resulting in easily worn out clothing, and the focus on short trends are the main culprits. Conscious and Conscious Exclusive collections, however, are breaking the stereotype of fast fashion. Garments from these collections are not only stylish, but also eco-friendly. Materials used are organic cotton, recycled cotton, recycled polyester, hemp and Tencel, a biodegradable fabric made of wood-pulp cellulose. Another interesting aspect of this collection is some of the garments are made from recycled clothes. H&M fan Wang Chuyang found that she could enjoy a discount at one of its stores in Shanghai, if she

brought in some unwanted garments. The old garments Wang took to the H&M boutique might reappear in H&M's Conscious collection.

"One important thing for us, being one of the biggest retailers in the world, is that we carry responsibility," says Magnus Olsson, country manager of H&M Greater China and Southeast Asia. The Conscious and Conscious Exclusive collections were first launched early in 2010 and received a good response from consumers, according to Olsson. He stresses that H&M has made many efforts to create eco-friendly fashion. Among all the fast fashion companies, H&M is the biggest buyer of organic cotton.

Source: Adapted from *China Daily USA*, 5 May, 2014

### Questions

- (a) (i) Compare the year-on-year growth of online sales of total e-retail with that of e-retail excluding mobile from Q1 2012 to Q2 2014. [2]
- (ii) Account for the difference that you have observed. [1]
- (b) With the aid of a diagram and reference to the data in Extract 1, explain what has happened to prices of online retail products. [6]
- (c) Explain the type of market structure in which the e-retail industry operates. [3]
- (d) Discuss whether rampant discounts given by online retailers are beneficial to society. [8]
- (e) As an economic advisor to the government, discuss the case for government intervention in the throwaway fashion industry by encouraging the creation of eco-friendly fashion. [10]

[Total: 30]

## Question 2

### Challenges in economic policymaking

#### Extract 4: Policymakers fiddle while the economy burns

The Roman emperor Augustus is supposed to have come up with the phrase “festina lente”, which means make haste slowly. It is apt for what has been happening to the global economy these past four years: policymakers have been hyperactive but progress has been painfully slow.

The weakening in activity this year has set off warning bells. The International Monetary Fund (IMF) says the risk of a serious global slowdown is "alarmingly high", due in part to governments imposing austerity programmes. Changes to tax and spending affect the economy through a multiplier effect, which the IMF believes to be larger than expected. The implication is that raising taxes and cutting spending cause a much bigger loss of output, helping to explain why growth has been so weak.

This deserves to be taken seriously. Why? Because a larger multiplier effect could well jeopardise any economic recovery when governments implement austerity programmes, and if interest rates are already extremely low there may be a limit to what a further easing of monetary policy can do to stimulate activity.

What is to be done? The obvious answer would be to relax fiscal policy. Today's policymakers should, in other words, take a leaf out of Franklin Roosevelt's New Deal for America in the 1930s and embark on a major programme of spending on public works. This has its attractions for Britain, where the infrastructure is so poor and the cost of borrowing so cheap.

But the economic historian Nick Crafts has warned against drawing parallels with the 1930s, mainly because US public finances were much healthier at that time than the UK's are now. That's not to say that a different approach to fiscal policy would be impossible - but there is a balance of risks. Tightening or tightening too fast could send the economy on a downward spiral of spending cuts and weak growth. On the other hand, fiscal expansion would result in a burgeoning public debt that would drive interest rates up. Other risks would be a loss of confidence and the possibility that individuals and companies would save more in anticipation of higher taxes or higher inflation in future resulting from the expansionary fiscal policy today.

As a result, we have to assume that monetary policy will continue to take most of the strain in the UK, as it will in the US and the eurozone. At the very least, the UK Central Bank's interest rate will stay at 0.5% for the foreseeable future.

Source: Adapted from Larry Elliot, *The Guardian*, 2 Oct 2012

#### Extract 5: Fiscal cliff threatens US recovery

The US economy will be facing a sharp plunge in spending or fiscal cliff, when tax cuts introduced during the Bush Administration expire at the end of the year, causing taxes to increase. At the same time, government spending cuts mandated under the Budget Control Act of 2011 will kick in at the start of 2013. With the US government debt reaching the limit that is permitted by law, the spending cuts are necessary in order to reduce the government's budget deficit, but can have an adverse impact on the economy.

The Federal Reserve chairman, Ben Bernanke, has warned that the fiscal cliff would threaten the recovery of the US economy. According to Bernanke, the expiry of Bush-era tax cuts at the end of the year and imposition of deep spending cuts would send the US "toppling back into recession": He further warned that a row in Washington over increasing the US debt ceiling would also have dire consequences. Protracted disagreement over raising the debt limit in 2011 triggered panic in financial markets around the world, as concerns rose over the possibility of the US government defaulting on its debt payments.

Source: Adapted from Dominic Rushe, *The Guardian*, 21 Nov 2012

### **Extract 6: Japan slump adds to woes over global economy**

A shock slump for Japan rang new alarm bells over global growth prospects yesterday as the world's third-biggest economy was braced to plunge back into recession. The dire figures - which showed Japan's economy shrinking at an annual pace of 3.5 percent between July and September - come days before the eurozone's slide back into a double-dip recession is set to be confirmed.

The nation has been battling deflation and weak growth for more than 20 years since the burst of an asset bubble in the early 1990s, with last year's tsunami and earthquake adding to its headaches. Japan has also been hit by a rising yen as woes elsewhere encourage investors to park their cash in the yen, deterring investment and hitting its competitiveness. Uncertainty in Europe is also affecting Japan. Exports to the EU plunged 23 per cent in the third quarter, the biggest decline since 2009.

Source: Adapted from Russell Lynch, *The Independent*, 13 Nov 2012

### **Extract 7: Spain is a black hole that could pull in all around it**

Where is the world economy heading? The IMF, at its spring conference in Washington, says the prospect is for stronger growth as long as the Europeans, Americans and Chinese do not mess up their domestic recoveries.

However, the interconnected nature of modern economies makes them especially vulnerable to upheavals in other nations, making it even more challenging for governments to manage their economy. Like a black hole, Spain, in particular has the capacity to suck in and destroy all around it.

A member of the eurozone which adopts the euro as a common currency, Spain declared this week that bad bank loans, much of it on empty or abandoned property, had risen to more than 8%. There is some concern that poorly performing bank loans will need to be indemnified by the government or be allowed to fail. Bailing out the affected banks would require additional funds from the EU and aggravate the government's debt problem, raising concerns over the government's ability to service its debt. Allowing the banks to fail could also trigger a financial and confidence crisis that could affect the whole region. Either way, it would cause havoc for the eurozone - and it is the fear of this that keeps investors away.

Source: Adapted from Phillip Inman, *The Guardian*, 20 Apr 2012

**Table 1: Japan: selected economic indicators**

	2009	2010	2011	2012
GDP Growth (annual %)	-5.5	4.7	-0.5	1.4
Exports of goods and services (% of GDP)	13	15	15	15
Imports of goods and services (% of GDP)	12	14	16	17
Current account balance (US\$ millions)	147,017	203,916	119,064	60,859
Government budget balance (% of GDP)	-7.6	-6.7	-8.2	-8.0
Central government debt (% of GDP)	166.8	174.8	189.5	196.5

**Table 2: Spain: selected economic indicators**

	2009	2010	2011	2012
GDP Growth (annual %)	-3.8	-0.2	0.1	-1.6
Exports of goods and services (% of GDP)	24	27	31	33
Imports of goods and services (% of GDP)	26	30	32	32
Current account balance (US\$ millions)	-69,775	-62,498	-55,066	-15,142
Government budget balance (% of GDP)	-8.5	-5.2	-3.6	-9.0
Central government debt (% of GDP)	47.0	48.7	56.1	67.6

**Table 3: US: selected economic indicators**

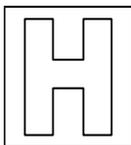
	2009	2010	2011	2012
GDP Growth (annual %)	-2.8	2.5	1.8	2.8
Exports of goods and services (% of GDP)	11	12	14	14
Imports of goods and services (% of GDP)	14	16	17	17
Current account balance (US\$ millions)	-381,638	-449,477	-457,729	-440,423
Government budget balance (% of GDP)	-10.3	-10.1	-9.1	-7.5
Central government debt (% of GDP)	76.3	85.6	90.1	93.8

Source of Tables 1 to 3: World Bank

**Questions**

- (a) (i) Define the balance of trade of a country. [1]
- (ii) Compare the change in Japan's balance of trade with that of Spain between 2009 and 2012. [2]
- (iii) With reference to the information in Extract 6, explain one factor that could cause Japan's exports to fall. [2]
- (b) With reference to the data, explain how GDP growth might affect the government's budget balance. [3]
- (c) Explain one reason why the size of a country's multiplier could become larger. [2]
- (d) Using data from Table 2, account for the trend in Spain's central government debt. [2]
- (e) It is mentioned in Extract 7 that Spain has the capacity to suck in and destroy all around it. Discuss how the economic conditions in Spain could impact other countries in the eurozone. [8]
- (f) With reference to the countries mentioned in the data, discuss whether domestic factors or external factors have the greater impact on a government's choice of macroeconomic policies. [10]

[Total: 30]



NATIONAL JUNIOR COLLEGE  
SH2 Preliminary Examinations for General Certificate of Education Advanced Level  
Higher 2

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**ECONOMICS**

**9732/02**

Paper 2: Essay Questions

**28 August 2014**

**2 hour 15 minutes**

Additional Materials: Answer Paper

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**READ THESE INSTRUCTIONS FIRST**

Write your name and subject class on all the work you hand in.  
Write in dark blue or black pen on both sides of the paper.  
You may use a soft pencil for diagrams, graphs or rough working.  
Do not use paper clips, highlighters, glue or correction fluid.

Answer **three** questions in total, of which **one** must be from Section A, **one** from Section B, and **one** from **either** Section A or Section B.  
Start each question on a **new** piece of paper.

The number of marks is given in brackets [ ] at the end of each question or part question.  
At the end of the examination, fasten all your work securely with the cover pages given [**one cover page for one question**].  
Fill in the necessary information on the cover pages.

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This document consists of **6** printed pages; including 3 cover pages.

Answer **three** questions in total.

**Section A**

**One or two** of your three chosen questions must be from this section.

- 1** China is the world's largest manufacturing power, producing a large part of the world's televisions, smartphones, steel pipes and many other products. However the era of cheap China products may be drawing to a close as costs such as wages and rents are soaring.

  - (a)** Explain what determines whether consumers or producers of different types of manufactured products in China are likely to bear the greater burden of this increase in costs. [10]
  - (b)** Discuss how soaring costs in China might affect the total revenue earned by producers of manufactured products worldwide. [15]
  
- 2** Whatsapp is a mobile messaging app that allows for exchange of messages without having to pay for SMS. In the light of increasing use of mobile apps, Singtel has kept prices on mobile service plans rigid and instead reduced data bundles on their mobile service plans from 12GB to between 2GB and 4GB. Starhub and M1 have also announced similar plans to discontinue their 12GB bundles.

  - (a)** Explain which market structure best describes the market for mobile apps and the market for mobile service plans. [10]
  - (b)** Discuss the view that barriers to entry are most significant in determining whether firms in the same market structure as that of the telecommunications industry in Singapore make similar decisions to their competitors in price and product offerings. [15]
  
- 3** Assess the economic case for government intervention in the market for public transport and discuss the most appropriate policies that the Singapore government could adopt to intervene in this market. [25]

**Section B**

**One or two** of your three chosen questions must be from this section.

- 4 “Different economies are prone to different causes of recession and unemployment. [25]  
Hence different policies are required to tackle these problems.” Discuss.
- 5 (a) Explain the possible conflicts in the achievement of macroeconomic aims when [10]  
using demand-management policies.
- (b) In the light of these conflicts, discuss whether governments should rely solely on [15]  
supply-side policies to achieve its macroeconomic aims.
- 6 Already three years in the making, the Trans-Pacific Partnership (TPP) has been billed a "21st-  
century" trade agreement that goes beyond tariff reduction and tackles a wide range of barriers  
to trade and investment.

*Source: The Straits Times, 8 October 2013*

Discuss the likely effects of signing free trade agreements on Singapore's economic [25]  
performance and Singaporeans' standard of living.

**-- End of Paper --**

# **National Junior College Economics Department**

## **Preliminary Examination 2014 Answer Booklet**

**Senior High 2  
H2 Economics**

(Syllabus 9732)

**Examiners' Report for 2014 H2 Economics Prelims****Case Study Question 1**

- (a) (i) **Compare the year-on- year growth of online sales of total e-retail with that of e-retail excluding mobile from Q1 2012 to Q2 2014.** [2]

Similarity: Both experienced positive year on year growth of online sales throughout the period. [1m]

OR

The year-on-year growth for both total e-retail and total e-retail excluding mobile have declined. [1m]

Difference: Year-on-year growth of online sales of e-retail excluding mobile has declined greater than the year-on-year growth of online sales of total e-retail. [1m]

- (ii) **Account for the difference that you have observed.** [1]

Year-on-year growth of online sales of e-retail excluding mobile has declined greater than the year-on-year growth of online sales of total e-retail because of a change in the taste and preference of consumers. According to extract 1, online shoppers migrate from desktops and laptop computers to mobile devices such as smartphones and tablet devices which provide them with greater accessibility, convenience and confidence.[1m]

- (b) **With the aid of a diagram and reference to the data in Extract 1, explain what has happened to prices of online retail products.** [6]

Prices of online retails products are likely to fall due to an increase in supply of online retail products exceeding the increase in demand.

According to Extract 1, demand of online retail products increases due to the increase in taste and preference towards the consumption of online products and services, because of the increasing tight working schedule, changing lifestyle, convenience and flexibility of shopping and option of free home delivery. Supply of online retail products increases due to the increase in the number of sellers. According to Extract 1, the online fashion retailing industry is burgeoning and numerous sites have cropped up in the past few years. [3m]

As mentioned in Extract 1, consumers are most likely to gain from the increasingly competitive prices. This suggests that the extent of the increase in supply is likely to be greater than the increase in the demand of online retail products, which results in the fall in price. [1m]

With reference to figure 1, the increase in demand will lead to a rightward shift in demand curve from D0 to D1, and the increase in supply will lead to a rightward shift in supply curve from S0 to S1. [1m for diagram and reference to diagram]

At the existing equilibrium price P0, quantity supplied is greater than quantity demanded which results in a surplus of Qs-Qd. The existence of surplus will cause a downward pressure on the price and hence price falls from P0 to P1. [1m]

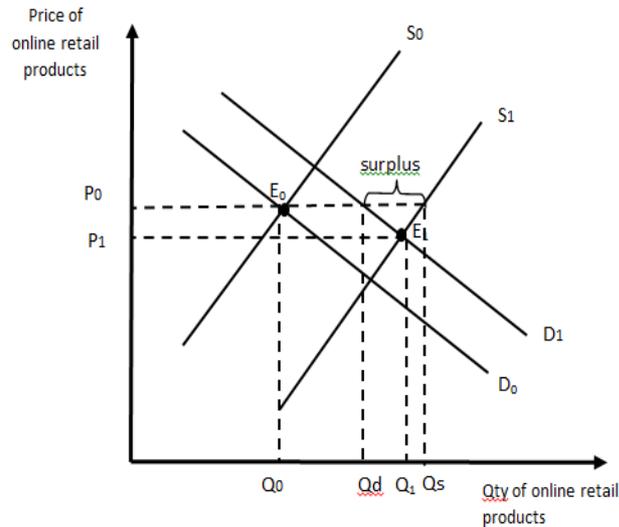


Figure 1: Online retail products market

(c) Explain the type of market structure in which the e-retail industry operates. [3]

Oligopoly [1m]

Any 2 explanations below (must be supported with case materials):

The existence of a few dominant large ventures such as Amazon, Flipkart and Snapdeal in the e-retail industry. [1m]

The existence of mutual interdependence where the e-retail firms are interdependent and cannot act independently of each other, as mentioned in Extract 2, suggest that the e-retail industry is oligopolistic in nature. For example, considering the possibility of their close rivals reducing prices, the e-retail firms are adopting several models to ensure that merchants on their portal offer discounted prices. [1m]

High barriers to entry where dominant firms such as Amazon and Flipkart are able to produce at a large scale and reap substantial internal economies of scale to offer low prices in the market. Potential competitors, who are small and unable to reap substantial internal economies of scale, will not be able to offer such low prices and compete with these dominant firms. Hence, they are prohibited from entering the industry. [1m]

OR

Monopolistic competition [1m]

Any 2 explanations below (must be supported with case materials):

According to Extract 1, numerous sites crop up in the past few years. Hence there are relatively low barriers to entry and exit, as the set up cost in the e-retail industry is relatively low. [1m]

There is a large number of small firms, each with an insignificant market share. This is evident from extract 1, where numerous sites crop up in the past few years to claim their share of a very satisfying retail pie. [1m]

Differentiated products are produced in the market where portals sell a wide range of different products and enhance their services by providing free home delivery. [1m]

(d) Discuss whether rampant discounts given by online retailers are beneficial to society. [8]

### Introduction

Rampant discounts can benefit the consumers in terms of increasing their consumer surplus. However according to Extract 3, rampant discounts adopted by some dominant firms in the online marketplaces are indeed leading to predatory pricing, which can be harmful to society.

Define predatory pricing: A pricing strategy where the product or service is set at a very low price (below its MC) intending to drive competitors out of the market, or create barriers to entry for potential new competitors; only to increase prices after it has regained its dominant position.

### Thesis: Rampant discounts are beneficial to society

Impact on consumers:

- Rampant discounting brings about the lowering of prices and allows for the affordability of online purchases. This will result in an increase in consumer surplus. Consumer surplus is the difference between the total amount that consumers are willing and able to pay for a good or service and the total amount that they actually do pay.
- Rampant discounting can lead to predatory pricing which might drive competitors (e.g. traditional retailers and firms that do not give rampant discounts) out of the market due to the loss in profits. By driving competitors out of the online marketplaces, the dominant firms will be able to produce at a larger output and reap internal economies of scale. Such cost savings might be passed down to consumers in terms of lowered prices.
- Attempts by the dominant firm to charge sustained higher prices once the competitor has exited may be defeated if the competitor is likely to re-enter, or if other firms are likely to come into the market and replace the lost competitive constraint. This is likely to happen due to the relatively low barriers to entry and exit in the online marketplaces. And without higher prices in the future, the low prices currently being charged can only benefit consumers.

Impact on the dominant firms :

- Predatory pricing pays off if the dominant firms can then raise prices enough to recover the previous losses, making enough extra profit thereafter to justify the risks. In essence, the dominant firm undergoes short-term pain for long-term gain. This reduction or elimination of competition potentially allows the dominant firms subsequently to exercise increased market power and earn supernormal profit.
- By gaining a greater market share, the dominant firm will expand its output and is thus able to reap internal economies of scale. It can also afford to invest in R&D due to its higher profits and hence experience dynamic efficiency.

Impact on the competitors:

- Actual competitors are not likely to be foreclosed from the market as a result of a dominant firm's low prices unless those prices result in a significant shift in sales from the competitor to the dominant firm. If the dominant firm does not have sufficient available capacity to absorb the sales of its competitors, a predatory pricing strategy will not succeed.
- Foreclosure may also depend on the nature of competition. For example, if the price elasticity of demand is low or products are highly differentiated, a price cut might result in few sales shifting to the dominant firm, reducing the likelihood that rivals will exit the market. However, smaller shifts of sales may be sufficient in some markets to support a predatory pricing strategy.

Evaluation: However due to the availability of close substitutes in online marketplaces where consumers view the demand for online services to be relatively price elastic, a price cut by the dominant firm will cause a significant shift of sales to the dominant firm, driving competitors out of the market.

Impact on efficiency

- If inefficient firms that were unable to compete were forced out of the market and therefore firms left in the market were those that were more productively efficient, productive efficiency would improve.

- In order to remain in the market, if the competitors innovate to reduce costs and to provide better goods and services, dynamic efficiency would improve.

Anti-thesis: Rampant discounts might not be beneficial to society

Impact on consumers:

- Rampant discounting can lead to predatory pricing which might drive competitors out of the market due to the loss in profits. This will limit the choices that consumers can make in the online retail market.

Evaluation: If consumers have alternatives to the product sold by the dominant firms to which they could switch in the face of a later price increase, consumers are not likely to be harmed as a result of the allegedly predatory pricing scheme.

- Predatory pricing is considered to be anti-competitive, and therefore not in the best interest of consumers in a market. Consider in the online marketplaces where demand from customers is very sensitive to price (high price elasticity of demand). A potential new entrant to the market has an exciting new product which it believes customers will value and demand. The existing competitors in the market see the new entrant about to launch - and immediately begin to lower prices to retain their customers. If the new entrant cannot match the lower price (or provide a product which customers still believe represents value for money) then they may choose not to enter the market. Hence, consumers are denied a wider choice and they lose out, leading to a fall in consumer welfare. Price has therefore become a barrier to entry.

Impact on the dominant firms:

- In the short term predatory pricing through sharp discounting reduces profit margins, as would a price war, and will cause profits to fall. Yet businesses like Amazon, Flipkart and Snapdeal may engage in predatory pricing as a longer term strategy. However, the strategy may fail if competitors are stronger than expected, or are driven out but replaced by others. In either case, this forces the dominant firm to prolong or abandon the price reductions. The strategy may thus fail if the dominant firm cannot endure the short-term losses, either because of it requiring longer than expected or simply because it did not estimate the loss well.
- Predatory pricing can lead to monopolization conduct which results in allocative inefficiency and productive inefficiency in the society. With an increase in monopoly power, the dominant firm can now charge a higher price and restrict total output, thereby reducing welfare. This reduction in welfare is transferred to the producer through higher profits, but some of the loss is not reassigned to any other agent. This is known as the deadweight welfare loss or societal loss. The lack of competition would also lead to the dominant firm not producing on the LRAC and hence not able to attain productive efficiency, resulting in welfare not maximised.

Evaluation: By driving competitors out of the market, existing dominant firms are able to reap a greater market share and hence carry out innovation to improve on the quality of their goods and services which is essential in the online marketplaces which focus on high speed and frequency of the e-services provided.

Impact on competitors:

- Competitors who are not as financially stable or strong may suffer even greater loss of revenue or reduced profits. If the demand of their goods and services are deemed to be relatively cross elastic, a price cut by the dominant firm will cause a significant fall in competitors' sales revenue. Hence, they face the possibility of being driven out of the industry.

Impact on efficiency

- If predatory pricing was successful and therefore the dominant firms restricted output to charge high prices, the price minus marginal cost gap would be widened and hence there would be higher allocative inefficiency.
- If predatory pricing was successful and therefore resulting in significantly lower level competition, the dominant firms might become complacent thus lax on cost control

and hence suffer from x-inefficiencies. Overall, productive inefficiency might worsen.

Synthesis:

Whether or not rampant discounts are beneficial to society depend on the sustainability of the rampant discounting. If it is sustained over a relatively long period with firms having the intention to drive out competition and raise prices in the future, then we consider it to be predatory pricing. And whether or not rampant discounting is beneficial to society depends on the price elasticity of demand for online goods and services. Given that the differentiation of online goods and services is limited; its demand is likely to be relatively price elastic. Hence a price cut by the dominant firm is likely to drive competitors out of the market, leading to the dominant firm seizing monopolistic power which can be harmful in the online marketplaces, where consumers value competitive prices on top of qualitative services.

In many countries, predatory pricing is considered illegal and there are legal restrictions upon using this pricing strategy, which may be deemed anti-competitive. However a significant price discount over a short period of time may be offered as part of a sales promotion instead of so-called predatory pricing. It is only when the rampant discounting is sustained over a relatively long period so that it has the desired competitive effect, that we consider it to be predatory pricing.

Mark Scheme

L2	4-6 marks	<ul style="list-style-type: none"> <li>• Good recognition of how rampant discount might lead to predatory pricing.</li> <li>• Balanced consideration of both positive and negative impacts of rampant discounting <u>and</u> predatory pricing.</li> <li>• Good scope of discussion by analysing the impacts on consumers, predatory firm and competitive firms, and allocative efficiency (social welfare).</li> <li>• Good rigour of elaboration.</li> <li>• Reference to case material in explanation.</li> </ul>
L1	1-3 marks	<ul style="list-style-type: none"> <li>• Lack of balance in consideration of the impacts of rampant discounting <u>and/or</u> predatory pricing.</li> <li>• Limited scope of discussion by analysing the impacts on consumers, predatory firm and competitive firms, and allocative efficiency (social welfare).</li> <li>• Weak rigour of elaboration</li> <li>• No or minimal reference to case material in explanation.</li> </ul>
E2	2 marks	<ul style="list-style-type: none"> <li>• Well-reasoned overall assessment of the impacts of rampant discounts on the society.</li> </ul>
E1	1 mark	<ul style="list-style-type: none"> <li>• Some attempt at assessing the impacts of rampant discounts on the society.</li> </ul>

(e) **As an economic advisor to the government, discuss the case for government intervention in the throwaway fashion industry by encouraging the creation of eco-friendly fashion.** [10]

Introduction

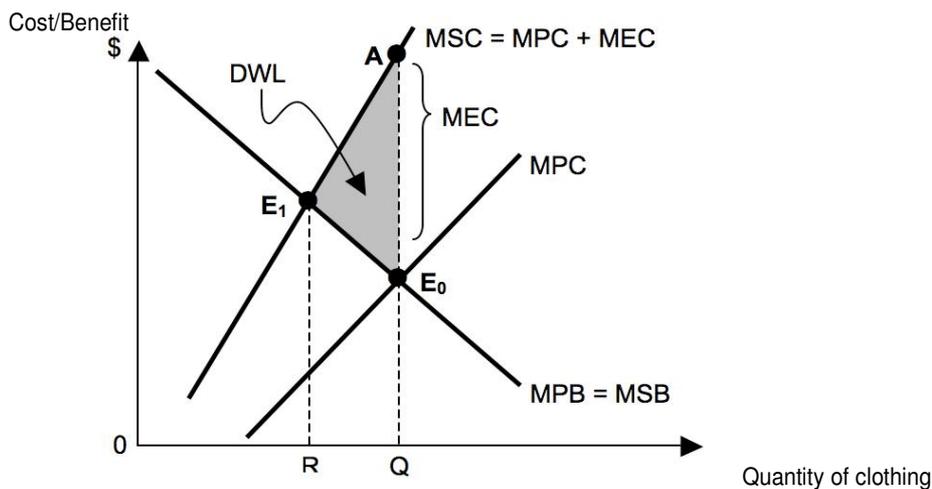
Define market failure: Market failure occurs when the market fails to allocate resources in its most optimal and efficient manner.

Thesis: Government intervenes due to the presence of negative externality from consumption in the throwaway fashion industry

- Identify that market failure is caused by the presence of negative externalities from the consumption of clothing.
- Establish that negative externality from consumption - occurs when external costs are imposed on society from the consumption of clothing by individuals, e.g. people blaming the rapid consumption for pollution according to Extract 4. Air pollution by factories may cause respiratory illnesses, water pollution from the dumping of toxic

industrial waste, mercury toxins produced result in an external cost (MEC) to society that is not internalized (3rd party effects).

- Consumers will over-consume since they do not accurately perceive how bad the consumption of clothing from non-biodegradable fabric, possibly due to imperfect information, resulting in allocative inefficiency.
- Identify and explain that in the case of throwaway fashion industry:
  - Private benefit (MPB): refers to the enjoyment, the satisfaction of consuming stylish and trendy clothing
  - Private cost (MPC): refers to the cost of paying for the clothing consumed
  - External Cost (MEC): refers to the cost imposed on third parties, i.e. the environmental cost of consuming clothing manufactured from non biodegradable fabric and non organic cotton, as well as pollution arising from the excessive disposal of clothes.
- Show there is a divergence between private costs and social costs.
- Diagram that is well explained to show how the market failed in optimal resource allocation with clear identification of  $MPB = MPC$  and  $MSB = MSC$ .
- At the free market equilibrium, producers and consumers will only consider private costs and benefits and produce at  $MPB = MPC$ .
- With the existence of negative externality,  $MSC > MPC$ . Assuming that  $MSB = MPB$  (no positive externality), the market will consume at the output  $Q$  where  $MPB = MPC$ , which is greater than the socially optimal output of  $R$  where  $MSC = MSB$ .
- The free market leads to an over consumption of clothing by  $RQ$  units, where the welfare loss to society is represented by area  $AE_1E_0$  thereby resulting in allocative inefficiency.



**Figure 2:** Negative Externality of consumption in the throwaway fashion industry

- Government intervention to encourage the creation of eco-friendly fashion can be in the form of subsidizing the firms in producing eco-friendly clothing, education and campaigns to inform the public of the importance of consuming eco-friendly fashion.
- Government intervention to encourage the creation of eco-friendly fashion by encouraging the use of eco-friendly materials such as organic cotton, recycled cotton, recycled polyester, hemp and Tencel will lead to consumers switching their consumption from non-biodegradable fabrics to these eco-friendly materials, assuming that they are

close substitutes in consumption ( $XED > 1$ ). This will help to reduce the amount of air pollution and water pollution from the dumping of toxic industrial waste, hence reducing the amount of external costs, correcting the market failure.

Anti-thesis 1: Government should not intervene in the throwaway fashion industry as the free market has worked well

- Government intervention to encourage the creation of eco-friendly fashion in the throwaway fashion industry is inappropriate as current measures are sufficient i.e. the environmentalists have been effective in raising the public's consciousness on environmental protection in the fashion industry. This is evident from movement of big brands such as H&M who has made many efforts to create eco-friendly fashion. As such government intervention will lead to resources being used wastefully, which could be used for other areas such as government spending on infrastructure, subsidising the lower income groups to increase the country's welfare. Hence opportunity cost is incurred.

Anti-thesis 2: Government should not intervene in the throwaway fashion industry due to the existence of government failure

(Any limitations of the government policies used to intervene in the throwaway fashion industry)

- Government intervention could result in bureaucracy, time lags and inefficiency. Government intervention involves administrative costs. The more wide-reaching and detailed the intervention, the greater the number of people, material resources and processes that will be involved.
- For instance, subsidy given by the government to increase consumption of eco-friendly clothing could be overestimated, and results in the over consumption of eco-friendly clothing instead of consuming at the socially optimal level of output. Hence, this will still lead to the presence of deadweight loss in the society. Opportunity cost is incurred as the resources used to subsidize firms in the eco-friendly fashion industry could be used for other areas such as healthcare, educational and other sectors. Worse still, if the government is facing a budget deficit, the use of subsidy would further strain on government budget position.
- Regulation to increase the consumption of eco-friendly clothing can be imposed. The problem with all legislation/regulation is in enforcement. Constant checking is needed and this can translate into high costs for the government.

Anti-thesis 3: Government should not intervene by encouraging the creation of eco-friendly fashion as government could implement other measures to regulate the consumption and production of the non-eco-friendly fashion

- The government can levy a specific tax at the socially optimal level of output that approximates the value of external costs (MEC) generated per unit of output. Through this tax, the government attempts to make the offending firm(s) in the throwaway fashion industry internalise the external costs. The advantage of taxation includes giving incentives to firms to produce eco-friendly fashion instead. The tax acts as a source of revenue for the government to intervene in the throwaway fashion industry by subsidising the research and development required in the eco-friendly fashion.

*Evaluation: there is a problem of assessing the exact monetary value of external costs at the socially optimal level of output (e.g. measuring the external costs generated by negative externalities), which in turn implies that the appropriate level of tax is difficult to determine. Too high a tax amount would lead to a less than optimal level of output, while too low a tax amount would still result in over-production. Furthermore the administrative costs of collecting the tax may be very high. Firms may also have the incentive to evade such taxes.*

- The use of education, campaigns and advertisements could be implemented to

allow the external cost from the consumption of fast fashion to be made known to the individuals. It is hoped that, as a result, consumption for these goods would be discouraged due to a change in tastes & preference of consumers and producers. And instead, the consumption of eco-friendly fashion would increase given that these 2 types of clothing are close substitutes in consumption with  $XED > 1$ .

*Evaluation: However, the benefits from these measures must outweigh the costs of implementing them. Furthermore, one must consider the duration needed for the effects of such measures to be felt, especially if the problem of external cost is a serious one that must be dealt with in the short run. The effect from these measures might only take place in the long run, given that time is needed to change consumers' mindsets as well as their tastes and preferences.*

Synthesis

Government intervention in the throwaway industry is necessary due to the presence of negative externality from consumption. Whether or not government intervention is appropriate to encourage the creation of eco-friendly fashion in the throwaway fashion industry depends on how successful the environmentalists have been in raising the public's consciousness on environmental protection in the fashion industry. As this is a relatively new initiative, government intervention to further publicise it may be necessary to raise public awareness and encourage more clothing firms to follow the footsteps of H&M. Nevertheless, government intervention would result in a strain in its resources and is only appropriate if government has excess resources to intervene in it.

However, it is important to note that government intervention to encourage the creation of eco-friendly fashion alone is not enough to correct the market failure in the throwaway fashion industry. Rather effective policies should preferably be a combination of solutions. Alternative policy includes regulation on the consumption of non-eco-friendly fashion. Government can implement laws and rules to stop consumers from excessive consumption and disposal of non-biodegradable clothing.

**Mark Scheme**

L3	6-8 marks	<ul style="list-style-type: none"> <li>• Excellent explanation of negative externality of consumption as the source of market failure in the throwaway fashion industry.</li> <li>• Excellent rigour of elaboration (e.g. inclusion of -ve externalities diagram)</li> <li>• Excellent balance in elaboration of thesis and anti-thesis</li> <li>• Depth of content and rigour of analysis are excellent.</li> <li>• Excellent reference to case material in explanation.</li> </ul>
L2	4-5 marks	<ul style="list-style-type: none"> <li>• Good explanation of negative externality of consumption as the source of market failure in the throwaway fashion industry.</li> <li>• Good rigour of elaboration (e.g. inclusion of -ve externalities diagram)</li> <li>• Good balance in elaboration of thesis and anti-thesis</li> <li>• Some rigour of analysis.</li> <li>• Some reference to case material in explanation.</li> </ul>
L1	1-3 marks	<ul style="list-style-type: none"> <li>• Limited knowledge on the source of market failure in the throwaway fashion industry with either mere listing or limited explanation.</li> <li>• Limited scope of discussion in thesis and/or anti-thesis. Answer may have focused on government policies to correct market failure instead of discussing whether there was a case for government intervention in the first place.</li> <li>• Weak rigour of elaboration</li> <li>• No or minimal reference to case material in explanation.</li> </ul>

E2	2 marks	<ul style="list-style-type: none"><li>Well-reasoned overall assessment of whether government intervention to encourage the creation of eco-friendly fashion in the throwaway fashion industry is appropriate</li></ul>
E1	1 mark	<ul style="list-style-type: none"><li>Some attempt at assessing whether government intervention to encourage the creation of eco-friendly fashion in the throwaway fashion industry is appropriate</li></ul>

**Case Study Question 2**

- (a) (i) **Define the balance of trade of a country.** [1]

The balance of trade is the value of a country's exports of goods and services (or export revenue) minus the value of its imports of goods and services (or import expenditure).

OR

The difference between a country's export revenue (value of exports) and import expenditure (value of imports).

Note: "BoT is the sum of visible trade and invisible trade balance" is not accepted, unless "visible and invisible trade balance" are also defined.

- (ii) **Compare the change in Japan's balance of trade with that of Spain between 2009 and 2012.** [2]

Japan's balance of trade position has worsened from a surplus to a deficit [1 mark], whereas Spain's balance of trade position has improved from a deficit to a surplus [1 mark] over the period 2009 to 2012.

OR

Japan's balance of trade has worsened while Spain's balance of trade has improved over the period 2009 to 2012. [1 mark]

Japan's balance of trade changed from a surplus to deficit, while Spain's balance of trade changed from deficit to surplus. [1 mark]

- (iii) **With reference to the information in Extract 6, explain one factor that could cause Japan's exports to fall.** [2]

Any of the points below:

- **The tsunami and earthquake** could have destroyed production facilities and infrastructure, resulting in a **fall in AS** and **rise in costs of production**. This makes Japan's exports **less competitive (or more expensive)**, resulting in a fall in quantity demanded of Japan's exports.  
(Alternatively, there is a **fall in domestic supply** of goods and services, which reduces the quantity of goods available for exports ie Japanese producers need to reduce their exports in the short-run in order to meet the **shortage in the domestic market**.)
- The **appreciation (rise) of the yen** due to economic woes in other countries causing investors to shift their funds into the yen ("hot money" inflow) makes **Japanese exports more expensive in foreign currencies (or less competitive)**, resulting in a **fall in demand** for Japan's exports.
- **Uncertainty in Europe** caused Japan's exports to the EU to fall by 23% in the third quarter. This is because the uncertainty could have caused households and firms to be **cautious about spending** and to **save more** instead. The fall in spending **reduces their demand for imports**, hence reducing Japan's exports to the EU.
- **Eurozone's slide back in double-dip recession** means a **fall in their income** and hence purchasing power. This results in a **fall in consumption** and hence a **fall in their demand for imports**. This leads to a fall in Japan's exports to the EU.

- (b) **With reference to the data, explain how GDP growth might affect the government's budget balance.** [3]

Looking at the year-to-year changes for Japan, Spain and US, an increase in GDP growth generally corresponds with an improvement in the government budget balance (reduction in deficit as % of GDP) and vice versa. [1 mark]

Note for students' understanding (Not required in answer): For example, Japan's

increase in GDP growth from -5.5% in 2009 to 4.7% in 2010 corresponds with a fall in its government budget deficit from 7.6% to 6.7% of GDP, whereas the fall in Spain's GDP growth from 0.1% in 2011 to -1.6% in 2012 corresponds with an increase in the government budget deficit from 3.6% to 9.0% of GDP.

One possible reason is that an increase in GDP growth means that generally incomes are rising at a faster rate. This results in an increase in government tax revenue from income taxes. Also, the increase in income leads to higher consumption spending which increases government revenue from indirect taxes on goods and services.

AND

With the rising income, there is less need for social security and welfare aid. At the same time, and the increase in output leads to a fall in unemployment. Hence this causes a fall in government expenditure on unemployment benefits and social welfare.

- (c) **Explain 1 reason why the size of a country's multiplier could become larger.** [2]

The size of a country's multiplier is determined by its marginal propensity to save (mps), marginal propensity to tax (mpt) and marginal propensity to import (mpm).

$$K = 1/(mps + mpt + mpm)$$

The multiplier could become larger if there is a fall in mps, mpt or mpm.

Any one of the reasons below:

Mps – a fall in mps could be due to consumer expectations. For example, if consumers expect prices to increase in future, they may increase their purchase of goods and services before their prices increase. Alternatively, mps may fall if consumers are optimistic about the future and expect their incomes to rise. They will thus have a greater tendency to spend. Hence, households may save a smaller proportion of an increase in their income.

Mpt – a fall in mpt could be caused by a fall in tax rates. This could be due to the government's expansionary fiscal policy, reducing tax rates so as to increase consumption spending. The fall in tax rates means a fall in the amount of taxes withdrawn from a given change in income.

Mpm – a fall in mpm could be due to the government imposing import restrictions or a change in consumers' taste and preferences in favour of domestic products. This results in a fall in demand for imports and hence a fall in the proportion of any increase in income spent on imports.

- (d) **Using data from Table 2, account for the trend in Spain's central government debt.** [2]

Table 2 shows that Spain's central government debt as a percentage of GDP has increased from 2009 to 2012. [1 mark]

This is due to the government's budget balance being in deficit over the period. [1 mark]

(Explanation not required but included below for clarity)

The government budget deficit means that the government would need to borrow to finance its spending. Hence this leads to an increase in the government debt.

- (e) **It is mentioned in Extract 7 that Spain has the capacity to suck in and destroy all around it. Discuss how the economic conditions in Spain could impact other countries in the eurozone.** [8]

Introduction:

The statement "Spain has the capacity to suck in and destroy all around it" suggests that the economic conditions in Spain can have an adverse impact on other countries in the region. This is especially so because of the "interconnected nature of modern economies" as mentioned in Extract 4.

Body

- Loss of confidence → capital outflow and fall in C and I

One major problem facing Spain is the financial crisis arising from bad bank loans which threaten the survival of some of its banks. According to Extract 4, "poorly

performing bank loans will need to be indemnified by the government or be allowed to fail". Either course of action will have impact on the eurozone. In order to bail out the affected banks, the Spanish government will need to borrow additional funds from the EU. This would increase the government debt which is already high at 67.6% of GDP. The concern whether the Spanish government could service its debt may trigger a loss of confidence in the eurozone as it could cause a financial crisis in the eurozone if Spain defaults on the debt it owes to the EU. On the other hand, if Spain allows its banks to fail, there will also be a financial crisis and loss of confidence in the region as the collapse of these banks could result in losses suffered by banks, people and governments of other countries in the region which had lent to or deposited money in the affected banks. The **loss of confidence** by investors will lead to **capital outflow from the eurozone**, causing a **worsening of the Capital and Financial Account** and hence the balance of payments in these countries. The loss of confidence could also result in a **fall in consumption and investment** spending (both domestic I and FDI), which leads to a fall in AD and hence **fall in national income and economic growth**.

**Diagram** to show fall in AD in eurozone (due to fall in C and I arising from loss of confidence) → fall in real output and economic growth → fall in dd for labour → **increase in cyclical unemployment**

- Recession in Spain → fall in demand for exports from eurozone  
The **negative outlook** for Spain as well as government's **austerity measures** to cut spending will result in a fall in AD, causing a **recession in Spain**. This is shown by the negative GDP growth in 2012 in Table 2. Due to the falling income in Spain, there will be a **fall in consumption and hence demand for imports**. This reduces Spain's demand for exports from other countries in the eurozone. The **fall in exports in the eurozone countries** will cause a **worsening of their balance of trade** position, and hence their balance of payments, ceteris paribus. In addition, the **fall in (X-M)** causes a fall in AD and leads to a **fall in the economic growth** and **increase in unemployment**.

(Note: Arguments that the failure of banks could lead to a shortage of liquidity/ fall in SS of loanable funds/ credit crunch thus causing rise in  $i/r$  and fall in I and C can also be accepted, altho this assumes that the banks are allowed to fail.)

Mitigating factors due to Spain's economic conditions:

- However, the negative impact on the eurozone could be mitigated by the likely depreciation of the euro.
- Fall in exchange rate of euro → increase in international competitiveness  
Due to the **capital outflow** and **decline in exports** in the eurozone as explained above, there will be less demand for the euro, causing the **exchange rate of the euro to fall**. The depreciation of the euro makes exports from eurozone countries cheaper in foreign currencies, thus making their exports more competitive in the rest of the world. This could help to boost exports (including tourism) in the eurozone countries, thus **increasing (X-M)** and hence AD, which will help to **increase economic growth** and **reduce cyclical unemployment**.

At the same time, the **depreciation of the euro** makes it **relatively cheaper for foreign investors to invest in the eurozone**. As the exchange rate of the euro declines, foreign investors may be attracted to invest in the eurozone again, leading to an **increase in capital inflow** and **improving the Capital and Financial Account** of the BOP. An **increase in FDI inflow** will also help to increase AD as well as productive capacity and hence LRAS. This results in an **increase in actual and potential growth**.

### Synthesis and Conclusion

On the whole, it is more likely that the economic conditions of poor economic outlook, high government debt and banking crisis in Spain will have a detrimental impact on the eurozone. The interconnectedness of Spain to the eurozone countries means that the eurozone will also be affected by a loss of confidence which could trigger capital

outflow and fall in spending, causing their economic growth to decline as well. In addition, their close trade links also mean that exports of the eurozone countries to Spain will also decline, worsening their balance of trade and economic growth.

However, it is likely that the impact could be different for different countries in the eurozone depending on their links to Spain. Countries that export more to Spain or have lent to Spain or put their money in the affected banks in Spain will be more adversely affected. Those which have less linkages to Spain may in fact benefit as the possible depreciation of the euro will help to make their exports more competitive in the world market as well as make investments in their country more attractive.

(Evaluative comments that the impact depends on the state of the economy can also be accepted. Some may argue that countries already at full employment and experiencing DD-pull inflation may benefit from the decrease in I and (X-M). But this is less likely in the context of the case as it is mentioned that the eurozone is sliding back into recession. This will earn at most 1 evaluation mark.)

Mark Scheme

L3	5-6	Excellent discussion of how economic conditions in Spain can impact countries in the eurozone, well supported by analysis and reference to case materials. There is balance of negative effects and mitigating factors.
L2	3-4	Good discussion of how economic conditions in Spain can impact countries in the eurozone, which may not be well developed. May be one-sided ie only negative effects.
L1	1-2	The answer is largely irrelevant or may have some relevant points which are not well developed. There may be conceptual errors in the explanation or analysis.

E2	2	Excellent evaluation of the likely impact of Spain's economic conditions on the eurozone countries, identifying factors that could affect the impact.
E1	1	Some evaluation of the impact of Spain's economic conditions on the eurozone countries but may not be well explained.

- (f) **With reference to the countries mentioned in the data, discuss whether domestic factors or external factors have the greater impact on a government's choice of macroeconomic policies.** [10]

Introduction:

In general, the government of a country can adopt demand-management policies such as fiscal and monetary policies and/or supply-side policy to achieve its macroeconomic aims. The choice of which policy to adopt may, however, be determined by various factors, both domestic or external.

Thesis: Domestic factors have the greater impact on the choice of economic policies than external factors.

(Any 1 or 2 domestic factors as explained below. The policy choice should be explained)

- The **government's debt** can affect **the choice between fiscal and monetary policy**. For example, both UK and US have incurred a high government debt. US government debt is over 90% of GDP, and is reaching the government's debt limit. The government is therefore required to cut its spending and raise taxes to reduce its budget deficit. This limits the government's ability to adopt expansionary fiscal policy to achieve economic growth. Expansionary fiscal policy refers to the discretionary increase in government spending and/or cut in taxes to increase AD and hence the level of economic activity. This will tend to worsen the government budget balance and result in a budget deficit. As mentioned in Extract 1, fiscal expansion will result in "a

burgeoning public debt that would drive interest rates up” and discourage investment and consumption spending. Hence, the government will have to rely more on monetary policy to stimulate economic growth, which means that “monetary policy will continue to take most of the strain in the UK, as it will in the US and the eurozone”, as mentioned in Extract 1.

- The country's **current interest rate** and **financial market conditions** can affect the **choice of monetary policy**. Monetary policy (MP) refers to the discretionary control of money supply or interest rate to influence the level of AD. To tackle recession, the government may want to implement expansionary MP by lowering interest rate. This reduces the cost of borrowing and thus encourages more investment and consumption spending, leading to an increase in AD and hence economic growth. However, if the interest rate in the country is already very low, “there may be a limit to what further easing of monetary policy can do to stimulate activity”, as mentioned in Extract 1. For example, the extremely low interest rate could mean that the economy is at the liquidity trap, where demand for money is infinitely elastic. Any increase in money supply will simply be held as idle cash balances with no effect on interest rate and borrowing. Hence, monetary policy may not be effective, and the government **may have to choose to adopt fiscal policy or exchange rate policy instead**.
- The **state of the economy** can affect the government's **choice between demand management policies and supply-side policies**. Both the UK and US economies are experiencing weak growth, and are struggling to recover from the recession in 2009. For example, Extract 2 mentions that the US “fiscal cliff would threaten the recovery of the US economy”. Hence their governments have chosen to adopt expansionary monetary policy to stimulate economic activity. As mentioned in Extract 1, “monetary policy will continue to take most of the strain in the UK, as it will in the US and the eurozone”. Likewise, the deflation and weak growth experienced by Japan means that expansionary fiscal and monetary policies are needed to stimulate demand in the economy. However, if the economy is near or at full employment (ie Classical range of the AS curve), then expansionary fiscal policy would be less appropriate as it would lead to DD-pull inflation, and the government would need to adopt supply-side policies instead.
- The size of the multiplier can also affect the choice of macroeconomic policies. The multiplier principle is that the national income will increase by a multiple of the initial autonomous change in AE. A larger multiplier will mean a larger increase in national income and vice versa. According to Extract 4, the IMF believes the multiplier effect to be larger than expected. This means that contractionary fiscal policy such as cutting government spending and raising taxes will lead to a larger than expected decline in national income, possibly resulting in more serious recession. Hence a larger multiplier could cause the government to decide not to implement contractionary fiscal policy. Conversely, a smaller multiplier could make expansionary AD management policies less effective, and cause governments to choose SS-side policies instead of AD management policies to stimulate economic growth.

Anti-thesis: External factors have the greater impact on the choice of economic policies than domestic factors

(Any 1 or 2 external factors as explained below. The policy choice should be explained)

- **Trade and political relations with other countries** affect a country's economic performance and hence the government's choice of economic policies to address the problem. For example, Japan's political dispute with China over the sovereignty of islands in the East China Sea resulted in a boycott of Japanese products in China, hence causing a slump in Japan's exports. This would lead to the government having to implement **expansionary AD policies** such as interest rate cut (monetary policy) or increase in government spending (fiscal policy) to stimulate domestic demand to counter the fall in exports, and increase economic growth. Alternatively, the Japanese government may choose to adopt **trade policy** such as signing more Free Trade Agreements with other countries to diversify its markets in response to the boycott by China.

- **Rising exchange rate** can influence the choice of economic policies. As explained in Extract 2, the economic woes in other countries caused foreign investors to put their funds into the yen. This has resulted in an appreciation of the yen which causes a rise in the price of Japan's exports in foreign currencies and makes investing in Japan more expensive. This causes a fall in demand for Japan's exports and hence a fall in export revenue. At the same time, imports become cheaper in yen, resulting in an increase in quantity demanded of imports. The rising yen would thus cause a fall in  $(X-M)$ , assuming Marshall-Lerner condition ( $PED_x + PED_M > 1$ ) holds. At the same time, the stronger yen makes it more expensive for foreign investors to invest in Japan, and this could cause a fall in FDI inflow into Japan. The fall in  $(X-M)$  and fall in FDI leads to a fall in AD which causes a fall in economic growth and increase in unemployment. Hence the government would need to adopt **expansionary demand-management policies** such as fiscal and monetary policies to **tackle the fall in AD** or **SS-side policies** to improve export competitiveness to counter the effect of the yen's appreciation. Examples of SS-side policies include promoting skills training, R&D and innovation through subsidies and infrastructure development.
- **Uncertainty and weak economic growth in other countries** can affect the type of policies adopted by a government. For example, the uncertainty and weak growth in Europe means that people and firms are more cautious about spending. If there is an actual fall in income as the eurozone slides into a double-dip recession, consumption spending will decrease. This leads to a fall in demand for imports in EU and hence a fall in Japan's exports to the EU, which plunged 23% as mentioned in Extract 3. The magnitude of the fall in imports in the EU depends on the marginal propensity to import (mpm). The higher the mpm, the greater will be the fall in imports as income falls in the EU, hence resulting in a greater fall in Japan's exports. This can cause the government to adopt **expansionary AD policies, exchange rate depreciation or sign FTAs** with other countries to diversify its export markets.
- **Economic or financial crisis in a neighbouring country** can also have an impact on a country and hence affect its choice of economic policies. For example, the financial crisis in Spain arising from the need to bail out certain banks could cause a loss of investor confidence in the eurozone countries. This could trigger an outflow of capital from the eurozone as well as fall in consumption and investment spending due to negative expectations. Governments in the eurozone would then have to adopt **expansionary AD policies** (such as fiscal and monetary policies) to stimulate their economies.
- A country's **economic integration with other economies** can affect the policy options available to the government. For example, as a member of the eurozone, Spain uses the euro as a common currency together with the other eurozone members. This means that Spain has **no control over its exchange rate and money supply**, as the exchange rate and the supply of the euro would be controlled by the European Central Bank. The ECB also sets the interest rate for the eurozone as a whole. Spain therefore has no control over its monetary policy. Hence, the Spanish government would have to **choose fiscal policy** to manage its country's aggregate demand.

#### Synthesis and Conclusion:

From the above discussion, it can be seen that a government's choice of macroeconomic policies can be influenced by both domestic and external factors. It may not be possible to say with certainty whether external or domestic factors have the greater impact on policy choice, as the extent of the impact of these factors is likely to differ for different countries due to the different nature of their economies.

In general, whether domestic factors or external factors have the greater impact on a government's choice of macroeconomic policies could depend on:

**(Any 2 evaluation points for maximum evaluation marks)**

- Size and openness of the economy – For a large country like the US with a large domestic market and less reliance on imports, domestic factors could play a bigger

role in influencing the choice of macroeconomic policies. For a small and open economy like Singapore which is highly dependent on trade and foreign investments, external factors are likely to have the greater impact on the choice of policies.

- Degree of integration or connectedness with other countries – If a country is more closely integrated with other countries eg. the eurozone, its choice of macroeconomic policies will be subjected to the policies of the economic grouping, and hence external factors will have a greater impact on its policy choice.
- Level of government debt – A country with a large government debt may not be able to implement expansionary fiscal policy, and will have to choose other demand management policies. Hence its policy choice is more affected by the domestic factor of high government debt.
- Priority of the government – A country may be experiencing both domestic and external macroeconomic problems such as high unemployment, severe balance of trade deficit and rising costs of imports causing cost-push inflation. It may face a conflict in its macroeconomic aims in choosing certain macroeconomic policies. Eg. adopting exchange rate appreciation may help to reduce prices of imports and tackle cost-push inflation, but could worsen the trade deficit and unemployment. In this case, whether the external or domestic factors have a greater impact on the government's macroeconomic decision could depend on the government's priority with respect to which macroeconomic aim they want to address.

However, it could also be argued that both domestic and external factors are interrelated and affect each other. For example, a high government debt may be considered a domestic factor, but it could cause a loss of confidence in the economy and result in capital outflow which becomes an external factor. A global recession which is an external factor could lead to a fall in exports of a country, causing its exporting industries to decline and resulting in high unemployment, which becomes a domestic factor. Hence it may not be possible to say whether domestic or external factors have the greater impact on the choice of macroeconomic policies.

Mark Scheme

L3	6-8 marks	Excellent discussion of the impact of both domestic and external factors on the choice of macroeconomic policies that is well developed with good rigour of analysis, supported by references to the case materials.
L2	4-5 marks	Impact of either domestic OR external factors on policy choice is well developed with rigour of analysis Or there is discussion of impact of BOTH domestic and external factors on the choice of policies, but may lack rigour in analysis. Lack of reference to case materials.
L1	1-3 marks	Largely irrelevant with some relevant points that are not clearly explained. Major conceptual errors may be found.

E2	2 marks	Excellent evaluation with good conclusion of the relative impact of domestic factors and external factors on the choice of policies that is supported by analysis.
E1	1 mark	Some evaluation of the relative impact of domestic factors and external factors on the choice of policies

**Essay Question 1**

China is the world's largest manufacturing power, producing a large part of the world's televisions, smartphones, steel pipes and many other products. However the era of cheap China products may be drawing to a close as costs such as wages and rents are soaring.

- (a) Explain what determines whether consumers or producers of different types of manufactured products in China are likely to bear the greater burden of this increase in costs. [10]
- (b) Discuss how soaring costs in China might affect the total revenue earned by producers of manufactured products worldwide. [15]

**Suggested Answer:****(a)****Introduction**

- Increase in costs such as wages and rents will affect supply of producers
- Some of the costs will be passed on to consumers in the form of higher prices
- Whether consumers or producers bear the greater burden of this increase in costs would depend on the relative price elasticity of demand and supply
- PED measures the responsiveness of quantity demanded to a change in price
- PES measures the responsiveness of quantity supplied to a change in price

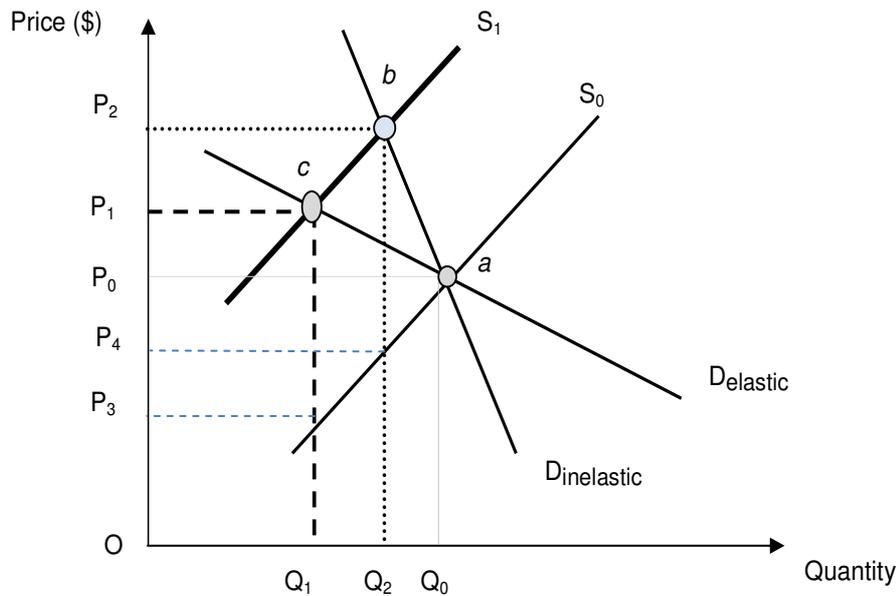
Scenario 1: Where  $PED > PES$  or where PED is high

- If the producer is manufacturing products with many close substitutes, the demand for his product is likely to be highly price elastic. For example, a producer of smartphones will likely find that there are many other producers making smartphones which are very close substitutes.
- Similarly if the producer is manufacturing products which make up a large proportion of consumers' incomes, the demand for his product is likely to be highly price elastic. For example, a producer of cars may find that expenditure on cars takes up a considerably large proportion of a consumer's income.
- PES may be lower than PED as the supply of manufactured products like smartphones and cars may take time. These products require spare parts from many suppliers and it may take a while for firms to respond to increases in demand as they may need time to increase their orders from various suppliers and assemble their products.
- When the prices of such goods increase, the quantity demanded of such goods falls more than proportionately. Hence the producers will have to bear a larger burden of any cost increases as they will not be able to pass much of the cost increases to consumers.
- Assuming that  $S_0$  shifts to  $S_1$  due to the increase in wages and rents, with  $D_{elastic}$  as the demand curve, the price increases from  $P_0$  to  $P_1$ .
- The increase in costs is illustrated by the distance  $P_1P_3$ .
- Thus producers bear a greater burden of the cost increase, illustrated by  $P_0P_3$ .

Scenario 2: Where  $PED < PES$  or where PED is low

- On the other hand, if the producer is manufacturing products which make up a small proportion of consumers' incomes, the demand for his product is likely to be highly price inelastic. For example, a producer of stationery like pens and erasers will likely find that expenditure on these items takes up a very small proportion of a consumer's income.
- PES may be higher than PED as the supply of stationery may be relatively price elastic. Stationery can be easily stored in warehouses at low costs since they are not perishable items and are generally non-bulky items. Hence there will usually be excess stock which can be drawn upon when demand increases. Thus, supply is responsive to changes in prices.
- When the prices of such goods increase, the quantity demanded of such goods falls less than proportionately. Hence the producers will be able to pass on a greater part of this cost increase.
- Assuming that  $S_0$  shifts to  $S_1$  due to the increase in wages and rents, with  $D_{inelastic}$  as the demand curve, the price increases from  $P_0$  to  $P_2$ .
- The increase in costs is illustrated by the distance  $P_2P_4$ .
- Thus producers bear a smaller burden of the cost increase, illustrated by  $P_0P_4$ .

Note: The above analysis can also be done with the assumption that PED is constant and with the consideration of differing values of PES.



**Conclusion**

- The higher the PED relative to PES, the greater the burden of the increase in costs is borne by the consumers.
- For the same given increase in costs, when the demand is relatively more price elastic, consumers bear P0P1 of the cost increase only but producers bear P0P3.
- When the demand is relatively more price inelastic, consumers bear P0P2 of the cost increase but producers bear P0P4 only.

**Mark Scheme**

Level	Descriptors
<b>Level 3 (9-10)</b>	<ul style="list-style-type: none"> <li>• Answer shows excellent knowledge about PED and/or PES, including factors affecting PED and/or PES</li> <li>• Answer must recognise that it is the <b>RELATIVE PED and PES</b> which determines who bears the greater burden of increases in cost.</li> <li>• Good use of examples which are contextualised</li> <li>• Excellent rigour of analysis which includes                             <ul style="list-style-type: none"> <li>- an excellent use of diagram to explain who bears the greater burden of the cost increase</li> <li>- at least 2 different scenarios where producers bear the larger burden in one and consumers bear the larger burden in the other</li> </ul> </li> <li>• There are no errors in explanation</li> </ul>
<b>(7-8)</b>	<ul style="list-style-type: none"> <li>• Answer shows good knowledge about PED and/or PES, including factors affecting PED and/or PES</li> <li>• Good rigour of analysis which includes                             <ul style="list-style-type: none"> <li>- a well-explained diagram to explain who bears the greater burden of the cost increase</li> </ul> </li> <li>• There are no major errors in explanation</li> </ul>
<b>Level 2 (5-6)</b>	<ul style="list-style-type: none"> <li>• Answer shows some knowledge about PED and/or PES, including factors affecting PED and/or PES</li> <li>• Some rigour of analysis which may include                             <ul style="list-style-type: none"> <li>- a diagram to explain the price changes when there is a fall in supply</li> </ul> </li> </ul>

<p><b>Level 1</b> (1-4)</p>	<ul style="list-style-type: none"> <li>• Answer is mostly irrelevant.</li> <li>• Answer may not consider PED/PES</li> <li>• Answer may have multiple concept errors.</li> </ul>
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**Suggested Answer:**

(b)

**Introduction**

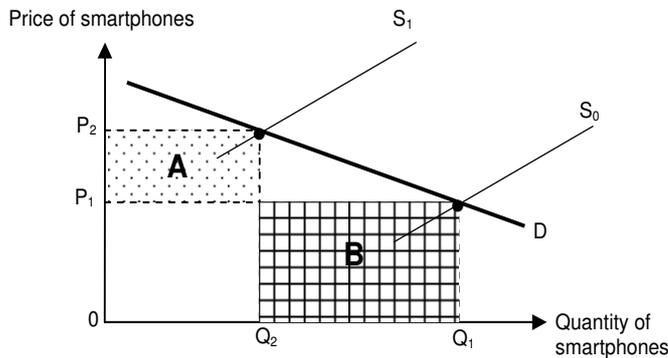
The soaring costs in China will affect not just the total revenue earned by producers of manufactured products in China, they would also affect the total revenue earned by producers in other parts of the world. This is because other producers in the world may produce related goods (either substitutes or complements to China's manufactured products), or depend on producers in China for intermediate manufactured products for their production of other goods.

**Main Body 1 (Producers in China,  $PED > 1$ )**

As mentioned in (a), producers in China face different demand curves, depending on the type of manufactured products they produce.

- For producers of manufactured goods such as smartphones which have a price elastic demand, with the increase in price, there will be a more than proportionate fall in quantity demanded.
- In Figure 1, as  $S_0$  shifts to  $S_1$ , the price increases from  $P_1$  to  $P_2$ .
- The fall in quantity demanded from  $Q_1$  to  $Q_2$  is more than proportionate to this price increase.
- The gain in revenue from the price increase (Area A) is smaller than the fall in revenue from the fall in quantity demanded (Area B).
- This results in a fall in TR.

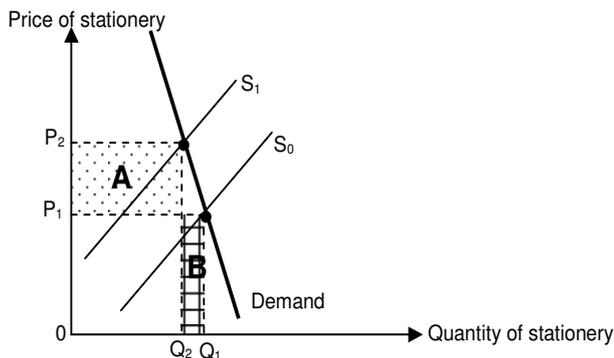
Figure 1



**Main Body 2 (Producers in China,  $PED < 1$ )**

- For producers of manufactured goods such as stationery which have a price inelastic demand, with the increase in price, there will be a less than proportionate fall in quantity demanded.
- In Figure 2, when  $S_0$  shifts to  $S_1$ , the price increases from  $P_1$  to  $P_2$ .
- The fall in quantity demanded from  $Q_1$  to  $Q_2$  is less than proportionate to the rise in price.
- The gain in revenue from the increase in price (Area A) is more than the fall in revenue from the fall in quantity demanded (Area B).
- This results in a rise in TR.

Figure 2

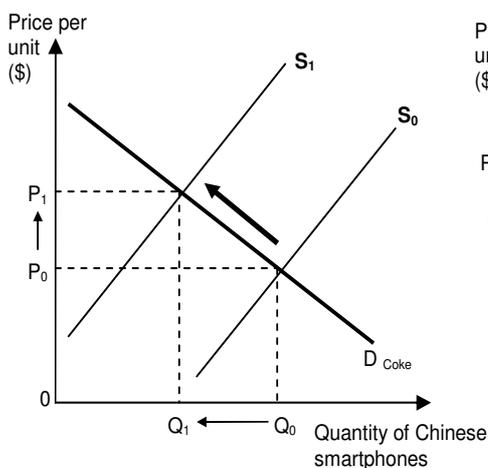


**Main Body 3 (Producers in other countries, XED>0)**

There are many producers in other parts of the world who may also produce similar manufactured products.

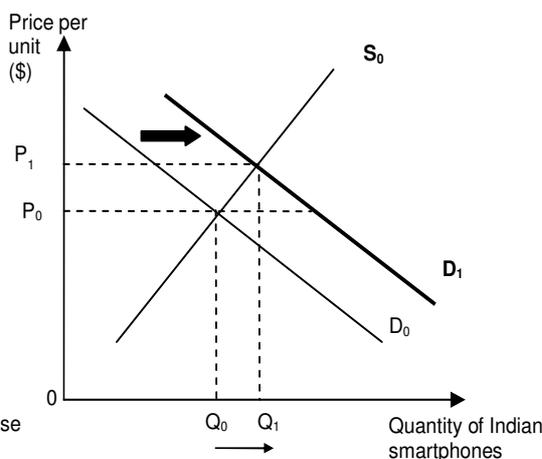
- For example, India may also manufacture smartphones which can be considered as close substitutes to smartphones made in China
- This means that the cross elasticity of demand (XED) of smartphones produced in India, with respect to smartphones produced in China, is positive and large.
- XED measures the degree of responsiveness of the quantity demanded of smartphones produced in India, with respect to a change in price of smartphones made in China.
- In Figure 3, when S0 shifts to S1 in the market for Chinese smartphones due to increase in costs, the price of Chinese smartphones increases from P0 to P1.
- Since Indian smartphones are a substitute to Chinese smartphones, the demand for Indian smartphones increases from D0 to D1 in Figure 4.
- This results in an increase in TR for Indian producers from  $0P_0 \times 0Q_0$  to  $0P_1 \times 0Q_1$  in Figure 4.

Figure 3



Market for smartphones made in China

Figure 4



Market for smartphones made in India

**Main Body 4 (Producers in other countries, XED<0)**

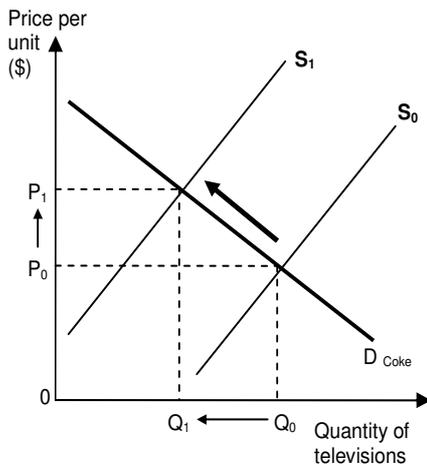
There are producers in other parts of the world who may also produce complementary manufactured products.

- For example, South Korea may produce many DVDs and DVD players which are complements to the televisions made in China.
- This means that the cross elasticity of demand (XED) of DVDs produced in Korea, with respect to televisions produced in China, is negative.
- In Figure 5, when S0 shifts to S1 due to the increase in costs in China, the price of televisions made in China increases from P0 to P1.
- Since Korean DVDs are a complementary good, the demand for these DVDs falls from D0 to D1 in

Figure 6.

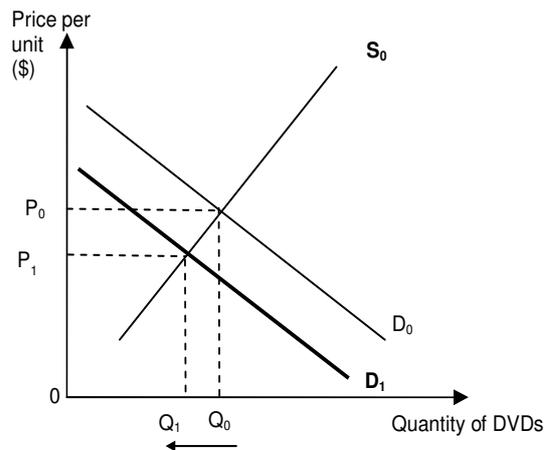
- This results in a fall in TR for Korean producers, from  $P_0 \times Q_0$  to  $P_1 \times Q_1$  in Figure 6.

Figure 5



Market for televisions made in China

Figure 6



Market for DVDs made in South Korea

**Main Body 5 (Producers in other countries who depend on China’s intermediate goods)**

Because China is the world’s largest manufacturing power, there are many producers in other parts of the world who depend on China’s manufactured parts to produce their manufactured products.

- For example, countries like Singapore and US may import steel pipes in order to make sewage pipes, cars, ships, electrical appliances etc.
- Thus if the prices of steel pipes goes up, the cost of production for producers in Singapore and US would similarly increase.
- Whether or not their TR would increase or decrease would again, depend on the PED of the final manufactured goods they produces.
- In addition, depending on whether they were producing substitutes or complements to China’s manufactured products, their demand would increase or decrease.
- Hence, the overall change in TR would depend on the relative shifts of demand and supply. If the supply shifted more than demand, than PED would help in determining the overall effect on TR. If demand increase more than the fall in supply, the TR should increase.

**Conclusion**

- The increase in costs in China would have a direct impact on the TR of Chinese producers. Whether the TR increases or decreases depends on the PED of their manufactured goods.
- However, given the interconnectedness of the world we live in, the increase in costs in China would also affect producers worldwide.
- Whether other producers’ TR increases or decreases would depend on whether their products were substitutes or complements to China’s manufactured products. If they were substitutes, their TR might increase as Chinese products lose competitiveness. However, the extent of this effect might still depend on whether Chinese products still remain much cheaper than these substitutes. If so, Chinese products may still remain competitive and the TR of other producers may not increase as much.
- Also, the cost increases in China will likely to be passed onto the rest of the world since many producers worldwide import Chinese manufactured parts in their production of other manufactured goods. The extent of how much the costs are passed on would depend on the relative PED/PES values which were discussed in (a).
- Thus, although the causes of the cost increase appear to be domestic in nature (i.e. wages and rents in China), it is likely that worldwide producers will also face an increase in costs of production, resulting in an increase in prices and their TR will be affected.

Mark Scheme

Level	Descriptors
Level 3 9-11	<ul style="list-style-type: none"> <li>Answer shows <b>excellent knowledge</b> of the effect of soaring costs on the TR of producers in China <b>AND</b> outside of China</li> <li>Answer shows <b>excellent knowledge</b> of PED <b>AND</b> XED</li> <li><b>Excellent development and rigour</b> in economic analysis throughout which includes:                             <ul style="list-style-type: none"> <li>Well explained diagrams to show the change in Chinese producers' TR when <math>PED &lt; 1</math> <b>AND</b> <math>PED &gt; 1</math> <b>AND</b></li> <li>Well explained diagrams to show the change in TR of other producers outside of China when <math>XED &gt; 0</math> <b>AND</b> <math>XED &lt; 0</math></li> </ul> </li> <li>Answer shows <b>consideration of the dependence of other producers on Chinese producers</b> for intermediate manufactured products and hence a recognition that the extent of shifts in demand and supply would affect the TR too</li> <li><b>Good use of real world examples.</b></li> </ul>
Level 2 7-8	<ul style="list-style-type: none"> <li>Answer shows <b>good knowledge</b> of the effect of soaring costs on the TR of producers in China <b>AND/OR</b> outside of China</li> <li>Answer shows <b>good knowledge</b> of PED <b>AND</b> XED</li> <li><b>Good development and rigour</b> in economic analysis which includes:                             <ul style="list-style-type: none"> <li>Somewhat explained diagrams to show the change in Chinese producers' TR when <math>PED &lt; 1</math> and <math>PED &gt; 1</math> <b>AND/OR</b></li> <li>Somewhat explained diagrams to show the change in TR of other producers outside of China when <math>XED &gt; 0</math> <b>AND/OR</b> <math>XED &lt; 0</math></li> </ul> </li> </ul>
6	<ul style="list-style-type: none"> <li>Answer shows <b>fair knowledge</b> of the effect of soaring costs on the TR of producers in China <b>AND/OR</b> outside of China</li> <li>Answer shows <b>good knowledge</b> of PED <b>AND/OR</b> XED</li> <li><b>Some development and rigour</b> in economic analysis which <b>may</b> include:                             <ul style="list-style-type: none"> <li>Diagrams to show the change in Chinese producers' TR when <math>PED &lt; 1</math> and <math>PED &gt; 1</math> <b>AND/OR</b></li> <li>Diagrams to show the change in TR of other producers outside of China when <math>XED &gt; 0</math> <b>AND/OR</b> <math>XED &lt; 0</math></li> </ul> </li> </ul>
Level 1 4 - 5	<ul style="list-style-type: none"> <li>Answer shows <b>some knowledge</b> of the effect of soaring costs on the TR of producers in China and/or outside of China</li> <li><b>Little development and rigour</b> in economic analysis.</li> <li>Answer may be a mere listing of points.</li> <li>Answer may not have considered elasticity concepts.</li> </ul>
1 - 3	<ul style="list-style-type: none"> <li>Answer is <b>mostly irrelevant</b>.</li> <li>Only a few valid points incidentally in an irrelevant context.</li> </ul>
<b>Evaluation</b>	
E1 (3-4)	For a well-reasoned judgment on how soaring costs affects the TR of producers in China and outside of China which includes clear use of criteria/factors to explain why effects may differ
E2 (1-2)	For a mainly unexplained judgment on how soaring costs affects the TR of producers in China and outside of China

**Essay Question 2**

Whatsapp is a mobile messaging app that allows for exchange of messages without having to pay for SMS. In the light of increasing use of mobile apps, Singtel has kept prices on mobile service plans rigid and instead reduced data bundles on their mobile service plans from 12GB to between 2GB and 4GB.

Starhub and M1 have also announced similar plans to discontinue their 12GB bundles.

(a) Explain which market structure best describes the market for mobile apps and the market for mobile service plans. [10]

(b) Discuss the view that barriers to entry are most significant in determining whether firms in the same market structure as that of the telecommunications industry in Singapore make similar decisions to their competitors in price and product offerings. [15]

**(a)**

**Suggested answer**

**Introduction:**

- State that the market features that define a market structure include number and size of firms, nature of product, presence of barriers to entry and imperfect information.
- Define a mobile app to be a computer program designed to run on smartphones, tablet computers and other mobile devices. State that the market for mobile apps is best described as a monopolistic competitive market.
- The market for mobile service plans is best described as an oligopoly.

**Body:**

*Candidates are to elaborate with the support of appropriate contextual examples on how the market features best describe each market.*

1. Explain that the market for mobile apps is best described as a monopolistic competitive market.
  - Number and size of firms: There are a large number of producers of mobile apps, and these producers tend to be small in size. For example, the famous Flappy Bird (a 2013 mobile game) was developed by Vietnam-based developer Dong Nguyen and published by GEARS Studios, a small, independent game developer also based in Vietnam. Game developer firms are typically small in size, having a small number of employees and each occupies a small share of the market of mobile apps. During Apple's 2012 Worldwide Developers Conference, Apple CEO Tim Cook announced that the App Store has 650,000 available apps to download, indicating the large number of producers in the market of mobile apps.
  - Nature of product: There are various categories of mobile apps, including game mobile apps, photo-editing mobile apps, messaging mobile apps and so on. For each category of mobile apps, there are many similar products that are close substitutes for each other. For example, there are various messaging mobile apps including WeChat, WhatsApp, Line and so on. There are also numerous game mobile apps that are close substitutes of each other. Even when mobile apps serve similar purposes, such as WhatsApp and Line which provide a platform for consumers to communicate, there are slight differences. For example, Line provides various "stickers" that allows consumers to insert in when communicating with their friends. Thus, there is a high level of product differentiation in the market for mobile apps.
  - Presence of Barriers to Entry: There are minimal or no barriers to entry into the market for mobile apps. There are many software developers that produce and launch mobile apps on the various app distribution platforms including Apple's App store and Google Play. Even a consumer with software writing skills is able to launch a mobile app. As such, the average number of apps launched per day by consumers climbed from 7.2 in 2010 to 7.9 in 2012, demonstrating the ease of entry into the market for mobile apps (source: [www.flurry.com](http://www.flurry.com)).
  - Imperfect information: There is presence of imperfect information in the market for mobile apps. Consumers are not fully aware of all available products in the mobile app market and producers are also not fully aware of how their competitor's products are developed. They are also not fully aware of the price (if any) of their competitor's product and when it will be made available on the various distribution platforms.
  - Since the market for mobile apps is characterised by a large number of small firms, differentiated product, minimal or no barriers to entry and presence of imperfect information, it is best described as a monopolistic competitive market.

2. Explain that the market for mobile service plans in Singapore is best described as an oligopoly.
- **Number and size of firms:** There are only a few operators providing mobile telecommunication services in Singapore. These include SingTel Mobile, Starhub and M1, each having at least 2 million subscribers. Thus, each firm accounts for a dominant share in the market of mobile service plans in Singapore.
  - **Nature of Product:** The mobile plans sold by the 3 mobile service providers are similar. For example, all mobile service providers sell postpaid mobile service plans that include a bundled package of mobile calls, SMS and data usage. However, each mobile service plan is slightly differentiated and differs across the 3 mobile service providers. For example, M1 provides unlimited free calls to 3 M1 numbers on its mobile service plans while SingTel offers the Mobile Multi-Line discount of up to 30% where consumers are able to nominate their family member's SingTel mobile lines to obtain the discount.
  - **Barriers to Entry:** There are significant barriers to entry, including legal barriers and contrived barriers. Legal barrier is present in the market for mobile service plans as a mobile service provider has to obtain a license from Infocomm Development Authority of Singapore ('IDA'). Thus, potential entrants have to meet the requirements set by IDA as well as pay for the licence fee in order to enter the market in Singapore. There is also presence of contrived barriers to entry where incumbent mobile service providers attempt to keep their market share by having extensive advertising budget to upkeep their branding.
  - **Imperfect information:** There is presence of imperfect information in the market for mobile service plans. Each competitor in the Singapore market for mobile plans are not fully aware of each other's costs structure and the promotional plans. Consumers are also not fully aware the availability of all mobile service plans and promotional plans by the mobile service providers. For example, during the launch of iPhone 5s, consumers are not fully aware of the stock availability of the phone model by each mobile service provider.
  - Since the market for mobile service plans is characterised by a few dominant mobile service operators, differentiated product, presence of barriers to entry and imperfect information, it is best described as an oligopoly.

**Conclusion:**

- Given the defining market features as explained with examples, the market for mobile apps is best described as a monopolistic competitive market and the market for mobile service plans is best described as an oligopoly.

**Mark Scheme**

Level	Descriptors
Level 3 (9-10)	<ul style="list-style-type: none"> <li>• Answer shows <u>excellent</u> knowledge about the market features of monopolistic competition <u>and</u> oligopoly.</li> <li>• There is excellent rigour in elaboration of the market features (e.g. explain size of firms by linking clearly to market share or number of employees, recognition of different types of barriers to entry etc.)</li> <li>• Balanced analysis on both markets of mobile apps and mobile service plans.</li> <li>• Excellent real-world examples included.</li> </ul>
(7-8)	<ul style="list-style-type: none"> <li>• Answer shows <u>good</u> knowledge about the market features of monopolistic competition <u>and</u> oligopoly.</li> <li>• There is good rigour in elaboration of the market features.</li> <li>• Balanced analysis on both markets of mobile apps and mobile service plans.</li> <li>• Some examples included.</li> </ul>
Level 2 (5-6)	<ul style="list-style-type: none"> <li>• Answer shows <u>fair</u> knowledge about the market features of monopolistic competition <u>and/or</u> oligopoly.</li> <li>• There is fair rigour in elaboration of the market features.</li> <li>• Answer may be one-sided, either focusing on the market of mobile apps or mobile service plans. Or answer includes knowledge of both markets of mobile apps and</li> </ul>

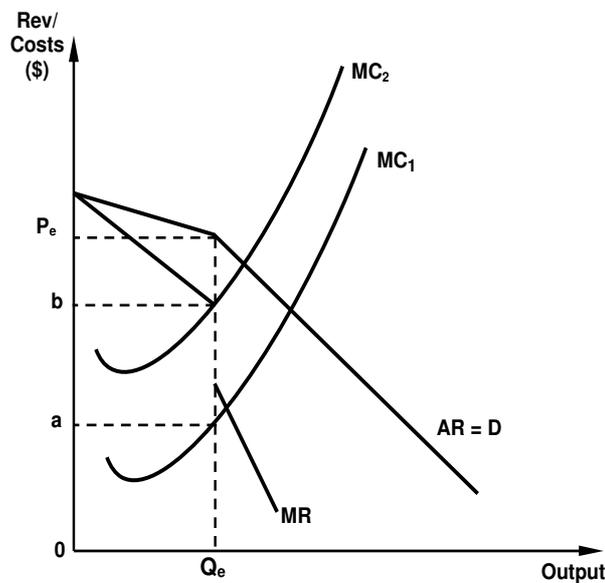
	<p>mobile service plans but explanation is not well developed.</p> <ul style="list-style-type: none"> <li>Minimal or no examples included.</li> </ul>
<b>Level 1 (1-4)</b>	<ul style="list-style-type: none"> <li>Answer is mostly irrelevant.</li> <li>There may be a few incidentally valid points which do not clearly address the question.</li> <li>Answer shows some knowledge of market features, but conceptual errors are evident in analysis.</li> </ul>

**(b)****Suggested answer**

- State that the existence of high barriers to entry is one of the market features that describe an oligopoly market, which is the market structure of telecommunications companies in Singapore.
- State that given the characteristic mutually interdependent behaviour of oligopolistic firms, there is no single economic theory to explain their market behaviour i.e. price and product offerings. There are thus various possible market behaviours of oligopolistic firms.
- State that similar decisions made by oligopolistic firms to their competitors are characteristic of mutually interdependent behaviour. An example of such similar behaviour would be the decision to keep prices rigid and reduce the data bundle of telecommunication companies in Singapore.
- There are however other similar decisions (i.e. mutually interdependent behaviour) that may also occur in an oligopoly, such as price leadership, price wars.
- As such, other market features, as well as other demand and supply factors, may be more important in explaining the similar behaviour of oligopolistic firms to their competitors.
- Oligopolistic firms may also not always make similar decisions. For example, oligopolistic firms may make dissimilar decisions on product offerings by carrying product differentiation in terms of packaging, design etc.

**Body:**

- Thesis - *Explain that the presence of barriers to entry will lead firms to make similar decisions on price.*
  - As explained in part (a), barriers to entry are present in the market for mobile service plans and this helps to establish the market as an oligopoly. The presence of barriers to entry also implies that the number of firms in the market will remain small. For example, the restrictive requirements to apply for a telecommunications operator license put in place by IDA would prevent entry of new firms and thus incumbent operators are able to maintain their dominant market share.
  - As such, it is expected that firms in markets with barriers to entry are likely to be characterised by oligopolistic market behaviour i.e. mutually interdependent behaviour. Mutual independence means that each firm is affected by its rivals' decisions. Likewise, its decisions will affect its rivals.
  - Price rigidity is an example of mutually interdependent firms' behaviour. This is characteristic of a firm's behaviour in the market for mobile service plans. Even though costs facing mobile service providers have changed over the years, their prices have not. This behaviour can be explained by a kinked demand curve facing an oligopolistic firm.
  - When one firm lowers its price, all other firms are likely to match this price fall rather than risk losing a share of the market. Thus the demand curve facing the firm if it lowers the price is very price-inelastic.
  - On the other hand, when one firm raises its price and no one follows, its sales will fall rapidly. Thus the demand curve facing the firm if it raises its price is very price-elastic. Other firms will not follow suit, because by keeping their prices constant, they can capture a larger market share.
  - Because of the above twin assumptions on pricing behaviour, any price change will result in fall in total revenue for the firm and holding all else constant, the profit for the oligopolistic firm will fall, which deviates from the profit-maximising objective of the firm. As a result, the firm has a kinked demand curve, a demand curve with two distinct segments – one that is very price-elastic and one that is very price-inelastic.



**Figure 1** Equilibrium Position of a Non-collusive Oligopolistic Firm

- Figure 1 shows the kinked demand curve  $DD$  of an oligopolist. The demand curve is kinked at the current price  $P_e$ , demand being significantly more price elastic above the current price than below. The effect of this is to create a situation of price rigidity at  $P_e$ . Figure 1 also depicts the unusual-looking  $MR$  curve for the firm. It has a discontinuous section. At  $Q_e$ , there is an entire range of  $MR$  values from point  $a$  to  $b$ . In other words, there is a vertical section of the  $MR$  curve between these 2 points.
  - 
  - The price and output of the oligopolistic firm are thus not sensitive to changes in production cost. As profits are maximised when  $MC = MR$ , the  $MC$  curve can be anywhere between  $MC_1$  and  $MC_2$  (i.e. between points  $a$  and  $b$ ), and the profit-maximising price and output will be  $P_e$  and  $Q_e$ . This gives the oligopolistic firm a great deal of price rigidity.
  - As such, the presence of barriers to entry that resulted in mutual interdependence of firms in markets has led to price rigidity.
  - Due to the rigid prices and rising costs due to high data usage, mobile service providers thus made similar decisions to reduce data bundles instead.
  - In addition, it should be noted that even if incumbent firms were to reduce data bundles, there would not be any concerns of loss of consumers as new entrants will not be able to enter the markets due to presence of barriers to entry.
2. Anti-thesis 1 – Explain that the presence of barriers to entry may lead firms to make dissimilar decisions on product offerings.
- If price rigidity results as explained in thesis, then oligopolistic firms will thus compete in terms of product offerings, by having product differentiation instead.
  - Firms may thus have dissimilar decisions by having differentiated products in terms of packaging, design of product and so on. For example, mobile phone producers such as Apple and Samsung compete in an oligopolistic market and make dissimilar decisions on product offerings. For example, Apple has not increased the width of the screen of its iPhone product and instead has focused on upgrading its iOS and enhancing on the user-interface. Samsung has however, continuously increased the screen size of its smartphones.
- (Note: It is also possible to argue that the decision to engage in product differentiation is a “similar decision” and thus this could be an acceptable argument in the Thesis also. But student should be explicit and clear in their essay on whether the firms’ decisions are considered to be similar or dissimilar.)*
3. Anti-thesis 2 – State that barrier to entry may not be the most important in determining whether oligopolistic firms make similar decisions on price and product offerings. Explain how other

*reasons (i.e. other market features, industry's demand and supply factors) may be more important in influencing similar (or dissimilar) decisions on price and product offerings.*

- State that there are other forms of similar decisions on prices, such as price leadership and price wars that oligopolistic firms may undertake. Other market features and industry demand and supply factors may thus be more important in influencing the likelihood of such similar pricing behaviour instead.
- Size of firm – Mobile plan providers have fairly similar market share, thus explaining the price rigidity. In contrast, if there is a presence of a market share leader, then price leadership may be a more likely pricing behaviour. This is the case in the taxi market where ComfortDelGro is a dominant market share leader. Following the dominant price leadership model, when ComfortDelGro increases its fares, other taxi companies in Singapore would follow suit. This is because taxi companies with a smaller market share would not dare to under-cut ComfortDelGro as it can and may retaliate with predatory pricing given that it has lower average costs as it has greater ability to reap internal EOS given its significant market share. Thus, smaller taxi companies will follow the market leader's increase in prices.
- Nature of product – If products are more similar or even homogenous, then mutually interdependent firms may more likely compete on prices instead. In such a case, then similar pricing decision in terms of price wars may be more likely. For example, in the case of petrol stations in Singapore, given that the product offering of petrol is almost homogeneous, there have been instances of price wars. Alternatively, if products are similar or homogeneous, this may encourage the formation of a cartel. Usually, the fewer the number of producers and the lower the transaction costs of negotiations, the more likely such a collusive outcome may result instead. An example of a cartel would be OPEC (i.e. Organisation of the Petroleum Exporting Countries) where OPEC nations collude and have similar pricing decisions.
- Other factors may be more important in influencing the similar decisions of firms on price and product offerings; demand and supply factors that impact the profitability of an industry will result in similar decisions of firms in their price and product offerings.
- Firms' decisions depend on the similarity in cost structures. Due to the similarity of cost structures, price rigidity is more likely. With similar cost structures, no one firm can sustain lower prices and capture a larger market share as other firms will follow, as stated in one of the twin assumptions under the kinked demand curve theory. However, if firms had different cost structures where for example, a firm had a greater ability to reap internal economies of scale due to perhaps availability of spare capacity, then such a firm would have the incentive to lower prices. Thus, price wars would be more likely instead.
- It depends on the changes in demand of the industry. For example, in the case of telecommunications industry in Singapore, firms made similar decisions to reduce data bundles perhaps to mitigate fall in demand for sms and voice-calls. The increase in implicit price of data services with the reduction in the data bundle will lead to an increase in demand for voice-calls and sms-es. Given that data service is a close substitute for sms and voice-calls, the cross elasticity of demand is positive and larger than 1. As such, the decision to reduce the data bundles may result in a significant diversion of consumers towards increasing consumption of mobile service plans with higher minutes of voice-calls and higher number of sms-es.
- It depends on the changes in the supply factors of the industry. For example, in the case of telecommunications industry in Singapore, there has been increase in costs due to heavy use of data by consumers. Due to the increasing popularity and use of mobile apps, there is a significant increase in demand for data usage as these are highly complementary and thus have a high negative cross-elasticity of demand value. This increase in data use has led to higher costs for mobile service operators. Thus, to reduce costs, mobile service operators have reduced the data bundles on the mobile service plans.

*(Note: Students may also argue that other factors are more significant in affecting dissimilar decisions on price and product offering. Students however should be explicit in their explanation that these decisions are dissimilar and ensure that economic concepts/theories support their explanations.)*

#### **Conclusion/ Evaluation:**

- There is no single theory to explain oligopolistic firm's behaviour. As such, barriers to entry is unlikely to be the only reason in the similar decisions on price and product offerings.
- While oligopolistic firms may be expected to have similar pricing decisions, the relative importance

- of market features in explaining the similar decision depends on which type of pricing behaviour i.e. price rigidity, price leadership or price wars.
- While market features are important in explaining similarity in pricing decisions, other factors e.g. industry demand and supply factors are perhaps more important in explaining similarity in product offerings. For example, the most significant reason for the similar decision of telecommunication companies to reduce the data bundle could be due to costs instead. Given the highly complementary nature of data service and mobile apps, the rapid expansion of data usage has resulted in increasing costs for mobile service providers, thus triggering the decision to reduce data bundles.
  - In fact, oligopolistic firms may likely compete in terms of product offerings and offer differentiated products in terms of packaging or branding instead.

**Mark Scheme**

Level	Descriptors
<b>L3 (9 – 11)</b>	<ul style="list-style-type: none"> <li>• Answer shows excellent knowledge of how barriers to entry influence the likelihood of mutually interdependent behaviour (e.g. link barriers to entry to number and size of firms) in both price and product offerings.</li> <li>• Balanced discussion is included.</li> <li>• Excellent explanation of price rigidity in the context of an oligopolistic market (e.g. Kinked demand curve theory).</li> <li>• Excellent application of relevant diagram (e.g. Kinked demand curve diagram)</li> <li>• Good elaboration of at least <u>2</u> anti-thesis points:                             <ul style="list-style-type: none"> <li>✓ either other market characteristics <u>and/or</u></li> <li>✓ demand/supply factor</li> </ul> </li> <li>• Excellent contextualisation.</li> </ul>
<b>L2 (7 – 8)</b>	<ul style="list-style-type: none"> <li>• Answer shows good knowledge of how barriers to entry influences the likelihood of mutually interdependent behaviour in both price and/or product offerings.</li> <li>• Balanced discussion is included.</li> <li>• Good explanation of price rigidity in the context of an oligopolistic market (e.g. Kinked demand curve theory).</li> <li>• Good application of relevant diagram (e.g. Kinked demand curve diagram)</li> <li>• Good elaboration of at least <u>1</u> anti-thesis point:                             <ul style="list-style-type: none"> <li>✓ either other market characteristics <u>or</u></li> <li>✓ demand/supply factor</li> </ul> </li> <li>• Good contextualisation.</li> </ul>
<b>L2 (6)</b>	<ul style="list-style-type: none"> <li>• Answer shows good knowledge of how barriers to entry influence the likelihood of mutually interdependent behaviour in both price and/or product offerings..</li> <li>• Discussion may be one-sided or both sides are included but not well explained.</li> <li>• Some explanation of price rigidity in the context of an oligopolistic market (e.g. Kinked demand curve theory).</li> <li>• Minimal or no contextualisation.</li> </ul>
<b>L1 (1 – 5)</b>	<ul style="list-style-type: none"> <li>• Answer is mostly irrelevant.</li> <li>• Elaboration is mainly descriptive and lists points without much further elaboration.</li> <li>• Severe conceptual errors evident.</li> <li>• Only few valid points made incidentally with little economic analysis.</li> </ul>
<b>Evaluation</b>	
<b>E2 (3 – 4)</b>	Judgment based on economic analysis.
<b>E1 (1 – 2)</b>	Mainly unexplained judgments.

**Essay Question 3**

Assess the economic case for government intervention in the market for public transport and discuss the most appropriate policies that the Singapore government could adopt to intervene [25] in this market.

**Suggested Answer**

- Candidates are required to explain the possible causes of market failure in the free market for

public transport and explain possible policies to correct the market failure in the context of Singapore together with comments on the appropriateness of the policies discussed to reach a reasoned judgement on the most appropriate policies for Singapore public transport market.

(NB: Answers that considered the market failure in the PRIVATE transport market and then justified that government intervention in PUBLIC transport market was necessary to help correct the market failure would be accepted as alternative answer. However, candidates are advised to employ a more direct approach to answer the question.)

### **Introduction**

- Define market failure i.e. market failure exists when the free market fails to allocate resources in an optimum and efficient manner.
- Identify the causes of market failure in the market for public transports e.g. merit good, market dominance and income inequality.
- Suggest appropriate market based and non-market based policies to correct the market failure in the context of Singapore public transport market.

### **(A) Explain the potential causes of market failure in the market for public transport**

#### **(i) Public transport as a merit good.**

Explain why public transport is a merit good.

- o State that public transport can be considered a merit good.
- o Define merit goods i.e. merit goods are goods and services that usually generate positive externalities when consumed and thus the government deemed it as socially desirable but feel that individuals will under consume without any form of government intervention, possibly because of information failure, where individuals lack information of the full benefits of consumption.
- o Define positive externalities e.g. occurs when some benefits associated with the production/consumption of a good 'spills over' onto third parties, that is, to parties other than the immediate seller or buyer, for which no compensation was paid.
- o Provide examples of private benefits (e.g. to reach destination), private costs (e.g. fares paid) and external benefits (e.g. reduce road congestion especially in Central Business Districts which lead to increased efficiency and reduce pollution which lead a more pleasant environment) arising from the use of public transport.
- o External benefits may not be internalised by private commuters and bus/trains operators because they only account for their private costs and benefits (i.e. self-interest) or may not be fully internalised possibly because of information failure about the full benefits of using public transport; thus resulting in underutilisation of public transport.

Using a merit good diagram, explain how the free market fails to allocate resources in an optimal and efficient manner in the public transport market.

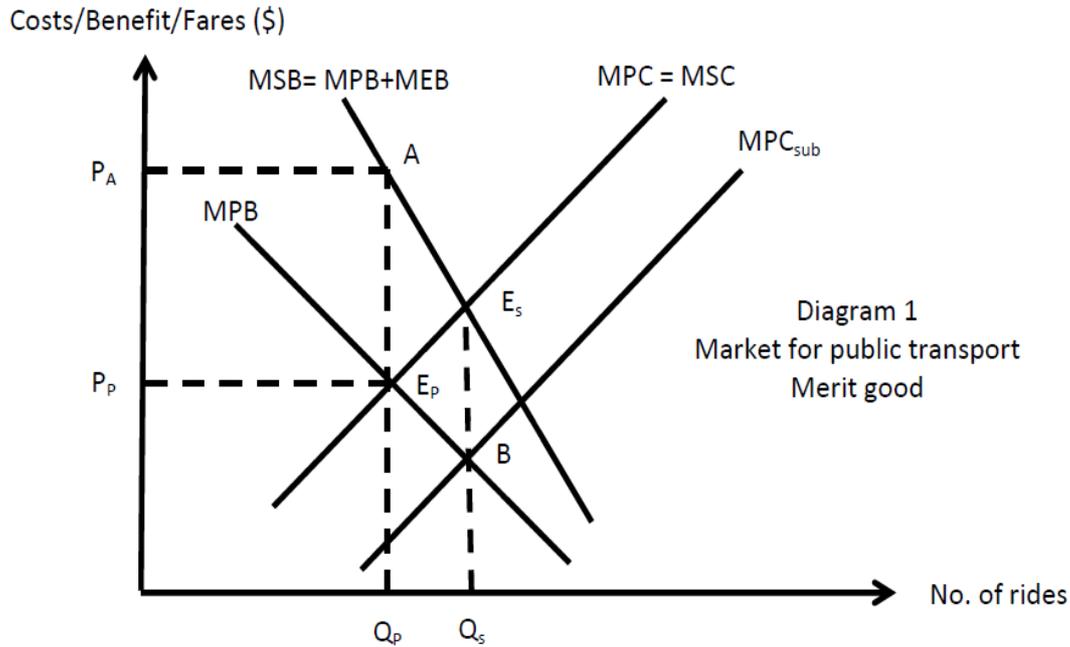


Diagram 1  
Market for public transport  
Merit good

- Existence of the positive externalities causes a divergence between  $MPB$  and  $MSB$  by the amount of  $MEB$  at  $Q_p$ .
- Assume  $MEC=0$  thus  $MPC=MSC$ .
- Free market equilibrium point where  $MPB=MPC$  at  $E_p$  with equilibrium quantity  $Q_p$  while social optimal point where  $MSB=MSC$  at  $E_s$  with social optimal quantity  $Q_s$ .
- Underutilisation of public transport illustrated by distance  $Q_p Q_s$ .
- At  $Q_p$ , society values additional usage of public transport at  $P_A$  which is higher than what the society values the alternative good/service the resources could otherwise produce ( $P_p$ ) suggesting that additional usage of public transport can increase social welfare.
- Deadweight loss of area  $E_p A E_s$  because total social benefits forgone of area  $Q_p A E_s Q_s$  is larger than total social cost savings of area  $Q_p E_p E_s Q_s$ .

(ii) Existence of **market dominance**.

Explain the existence of market dominance in the market for public transport. (NB: Answers that considers the public transport market as a natural monopoly are equally acceptable.)

- Define barriers to entry.
- High barriers to entry resulting in few dominant bus/train operators each having large market shares suggesting the lack of close substitutes hence the demand for public transport is relatively price inelastic.
- Provide examples of both natural (e.g. high costs of purchases buses and trains) and artificial barriers to entry (e.g. licensing) and examples of dominance bus/train operators (e.g. SBS Transit and SMRT Corporation in the case of Singapore) in the public transport market.

Using a monopoly diagram, explain how the free market fails to allocate resources in an optimal and efficient manner in the public transport market.

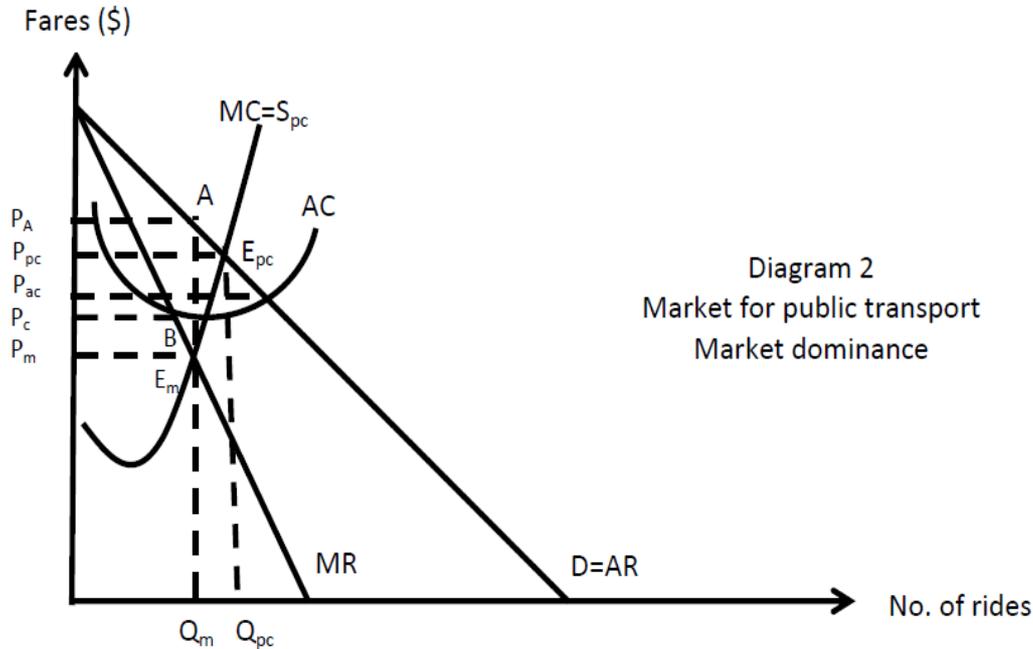


Diagram 2  
Market for public transport  
Market dominance

- Profit maximising where  $MR=MC$  at  $Q_m$  while social optimal where  $S_{pc}=D$  at  $Q_{pc}$ .
- Under production of public transport illustrated by distance  $Q_m Q_{pc}$  and hence less than optimal amount of resources allocated to the market for public transport.
- At  $Q_m$ , society values additional usage of public transport at  $P_A$  which is higher than what the society values the alternative good/service the resources could otherwise produce ( $P_m$ ) suggesting that additional unit of public transport can increase social welfare.
- Deadweight loss of area  $E_{pc} A E_m$  because total social benefits forgone of area  $Q_m A E_{pc} Q_{pc}$  is larger than total social cost savings of area  $Q_m E_m E_{pc} Q_{pc}$ .

Explain that due to lack of competition, public transport operators may not achieve productive and dynamic efficiencies.

(iii) Existence of **Income inequality**.

Explain the unequal distribution of income in the market for public transport.

- Given the market power, dominant bus/train operators restrict output ( $Q_m$ ) to charge high prices at  $P_A$  to maximise profit illustrated by supernormal profit area  $P_A A B P_c$  (Diagram 2).
- The profits are not widely distributed because the ownership of the bus/train operators is largely in the hands of upper income groups thus the owners tend to benefit at the expense of the rest of the society.
- The high price could also deprive the lower income commuters from enjoying the benefit from using the basic necessity due to their inability to pay.

**(B) Discuss the policies that the SINGAPORE government COULD adopt to correct the market failure and evaluate their appropriateness.**

(i) **Subsidies or funding for infrastructures**

- Indirect per unit subsidies resulting in cost of production reduction of amount equal to marginal external cost at  $Q_s$  (distance  $E_s B$ ) to internalise the externalities (Diagram 1). For example, the free MRT ride scheme which encourages commuters to travel early so as to spread out the passenger load and ease over-crowding. Efficiency is improved as commuters are distributed more evenly.
- Illustrated by the parallel shift of the MPC curve to  $MPC_{sub}$ .
- Social optimal no. of rides achieved at  $Q_s$  thus no deadweight loss. (Note that the use of direct subsidies is also acceptable)

- Also, funds could be given for the development of public transport infrastructure (e.g. rail lines and bus interchanges). This could address the equity issue by making public transport more affordable for the lower income households.
- Bus/train operators in Singapore (e.g. SBS Transit and SMRT Corporation) have to only bear the operating and maintenance costs as well as investments in service improvements. With more funds available to finance maintenance and service improvement thus better services, consumers' willingness to take public transport might increase and thus reducing the underutilisation, hence reduce the inefficiency.
- **Limitation:** The demand for public transport is price inelastic in Singapore as travelling by private cars are not considered good alternatives to buses and trains so even if the fares of public transport fall, the quantity demanded is unlikely to increase much because private car owners find it hard to give up the convenience and comfort of their cars. To achieve  $Q_s$ , large amount of subsidies are required because the cost saving passed through from the public transport operators to the commuters would be small thus the effects on increasing ridership to  $Q_s$  would be limited.
- **Limitation:** Government failure could arise because government may not know the full costs and benefits thus it is difficult to establish a monetary value of the external benefits. If government severely over subsidise, it may result in a larger deadweight loss and hence worsen the inefficiency. As such, indirect subsidies may not be a good way to correct the market failure.
- **Evaluation:** Both funding of costly infrastructure and indirect subsidies involve high opportunity costs (e.g. forgoing the building of a school or a hospital involving the same amount of funds), but funding of infrastructure would be more appropriate because the public transport operators have to ensure that their services are relevant and also have the incentive to operate efficiently so that the revenue generated can cover the operating and maintenance costs to be viable in the long term. In addition, the full funding of infrastructure would also greatly reduce the high initial capital outlay thus lower the barriers of entry to allow potential operators to enter the market.

### (ii) Deregulation

- Objective is to introduce competition to address the problem of market dominance so as to improve efficiency and raise service standards while keeping costs competitive e.g. shortening of the operating licenses validity from 30-40 years to 15-19 years.
- With an increasing number of operators, the market share of each operator would be smaller and hence the demand for each operator would fall. Due to the increased number of substitutes, the demand would also be more price elastic. Overall, price would fall and usage would be higher thus reduce the under-consumption hence reduce the DWL.
- Also, because of increased competition, operators would want to increase the demand for their services and make it more price inelastic via providing better services (e.g. arriving on time) and would also want to keep their cost low to earn higher profit. As such, the operators would be more willing to reduce x-inefficiencies and to engage in R&D to enjoy dynamic efficiency. The cost savings if passed to commuters in terms of lower prices would increase the usage of public transport and would also make public transport more affordable thus reducing market failure due to the under-consumption and inequity.
- For example, SBS Transit and SMRT Cooperation each runs different MRT lines and a network of bus routes in different regions so that via the benchmark competition, it would be harder for an operator to claim that it could not reduce costs thus there is a need to charge high fares.
- **Limitation:** The public transport market may have some elements of a natural monopoly because of the high initial capital outlay to cover the cost of infrastructure. Economies of scale are likely to be significant that average costs can only be minimised if there is only a sole operator.
- **Evaluation:** The "most appropriate policies" would thus have to involve deregulation to introduce competition together with subsidies to fund entirely the costs of infrastructure development. Moreover, the "most appropriate policies" would also require the Singapore government to move towards introducing contestability e.g. allow operators to bid to operate a package of bus routes for a fixed period of time and operators who do not perform up to mark risk losing their licences thus provides a stronger incentive to be efficient and cost-effective.

### (iii) Fare regulation

- Objective is to ensure public transport remains affordable to address the problems of equity and market dominance while maintaining the long-term financial viability of the public transport system.
- For example, Public Transport Council (PTC) in Singapore ensures that fare increases are justified on the basis that they allow public transport operators to cope with the increase in cost of production and but yet provide them with a reasonable return, so that operators have an incentive to innovate to gain dynamic efficiency.
- Implementation of MC pricing at  $P_{pc}$  (Diagram 2) would reduce fares from  $P_A$  to  $P_{PC}$  and allows operators to still make supernormal profit. However, at  $P_{pc}$  equity might be an issue and some very low income commuters may still not be able to afford the use of public transport.
- **Limitation:** The balance between commuter's interest and viability of the public transport system is difficult to achieve especially with the existence of imperfect information e.g. the intangible aspect of commuter interest is at best subjectively measured.
- **Evaluation:** The "most appropriate policies" would thus have to involve MC pricing to ensure operators have the incentive to innovate together with additional subsidies for lower income commuters (see below on WTCS). Also, with the benchmarking against public operators in other countries such as Hong Kong, PTC can better ensure that public transport operators in Singapore remain cost-efficient and competitive.

(v) **Information providing**

- Campaigns to promote use of public transport via providing information on the accessibility and convenience of taking public transport e.g. the Park and Ride scheme or "Go Green with SMRT". This would shift MPB nearer to MSB and thus reduce the underutilisation (i.e. closing the gap between  $Q_s$  and  $Q_p$ ).
- Increase the number of commuters using public transport as their taste and preferences change towards using public transport, hence there is a higher demand and thus the under-consumption is reduced.

(vi) **Workfare Transport Concession Scheme (WTCS)**

- Objective is to ensure fares are affordable to address equity problem e.g. providing low wage commuters with monthly gross income of less than \$1900 a 15% discount off adult fares.
- **Limitation:** The scheme cost the government about \$50 million a year thus similar to subsidies, WTCS involves high opportunity cost.

**Evaluative conclusion**

In Singapore, a mix of government funding of infrastructure and regulation to support private provision of public transport services in a contestable market would be the "most appropriate policies" given the merit good nature of public transport and existence of market dominance in Singapore public transport market. To reduce market failure arising from the existence of income inequality, the "most appropriate policies" to ensure affordability for the low income commuters would be the use of MC pricing together with WTCS.

**Mark Scheme**

Levels	Marks	Descriptors
High L3	18 - 21	<ul style="list-style-type: none"> <li>• For an answer that shows                             <ul style="list-style-type: none"> <li>➤ EXCELLENT knowledge of the economic case for government intervention in the market for public transport                                     <ul style="list-style-type: none"> <li>- e.g. merit good and market dominance as causes of market failure must be well explained together with an explanation of income inequality as a cause of market failure</li> </ul> </li> </ul> </li> <li><b>AND</b></li> <li>➤ EXCELLENT knowledge of the policies that Singapore government could adopt to intervene in Singapore public transport market</li> </ul>

		<ul style="list-style-type: none"> <li>- e.g. subsidies (market based) and deregulation (non-market based) must be well explained together with an explanation of one other policy to ensure affordability</li> <li>• VERY GOOD recognition of Singapore context is required.</li> <li>• All policies explained must be related to the identified causes of market failure.</li> </ul>
Low L3	15 - 17	<ul style="list-style-type: none"> <li>• For an answer that shows                             <ul style="list-style-type: none"> <li>➢ VERY GOOD knowledge of the economic case for government intervention in the market for public transport                                     <ul style="list-style-type: none"> <li>- e.g. merit good and market dominance as causes of market failure must be well explained</li> </ul> </li> </ul> </li> <li><b>AND</b></li> <li>➢ VERY GOOD knowledge of the policies that Singapore government could adopt to intervene in Singapore public transport market                             <ul style="list-style-type: none"> <li>- e.g. subsidies (market based) and deregulation/fare regulation (non-market based) must be well explained</li> </ul> </li> <li>• GOOD recognition of Singapore context is required.</li> <li>• Out of the 2 or more policies discussed, at least one of the policies explained must be related to the identified causes of market failure.</li> </ul>
High L2	12 - 14	<ul style="list-style-type: none"> <li>• For an answer that shows                             <ul style="list-style-type: none"> <li>➢ GOOD knowledge of the economic case for government intervention in the market for public transport                                     <ul style="list-style-type: none"> <li>- e.g. at least 2 causes of market failure with EITHER merit good OR market dominance well explained</li> </ul> </li> </ul> </li> <li><b>AND</b></li> <li>➢ GOOD knowledge of the policies that Singapore government could adopt to intervene in Singapore public transport market                             <ul style="list-style-type: none"> <li>- e.g. at least 2 policies must be well explained and one of the well explained policies must be subsidies OR deregulation OR fare regulation</li> </ul> </li> <li>• SOME recognition of Singapore context is required.</li> <li>• Policies explained may be weakly related to the identified causes of market failure.</li> </ul>
Low L2	10 - 11	<ul style="list-style-type: none"> <li>• For an answer that shows                             <ul style="list-style-type: none"> <li>➢ SOME knowledge of the economic case for government intervention in the market for public transport e.g. 1 cause well explained or 2 insufficiently explained causes</li> </ul> </li> <li><b>AND</b></li> <li>➢ SOME knowledge of the policies that Singapore government could adopt to intervene in Singapore public transport market e.g. 1 policy well explained or 2 insufficiently explained policies</li> <li>• May have LITTLE recognition of Singapore context.</li> <li><b>OR</b></li> <li>➢ EXCELLENT knowledge of the economic case for government intervention in the market for public transport but little or no policies discussed</li> <li><b>OR</b></li> <li>➢ EXCELLENT knowledge of the policies that Singapore government could adopt to intervene in Singapore public transport market but little or no analysis of the economic case for government intervention</li> </ul>
High L1	6 - 9	<ul style="list-style-type: none"> <li>• For an answer that shows                             <ul style="list-style-type: none"> <li>➢ AT LEAST SOME knowledge of the economic case for government intervention in the market for public transport</li> </ul> </li> <li><b>AND/OR</b></li> <li>➢ AT LEAST SOME knowledge of the policies a government could adopt to intervene in the public transport market</li> <li>• There may be some conceptual errors in the explanation, showing lack</li> </ul>

		of understanding of the economic concepts. <ul style="list-style-type: none"> <li>Theoretical explanation which may COMPLETELY LACK application.</li> </ul>
Low L1	1 - 5	<ul style="list-style-type: none"> <li>For an answer that is MOSTLY IRRELEVANT.</li> <li>Contains only a few valid points made incidentally in an IRRELEVANT CONTEXT.</li> </ul>

**Evaluation**

Levels	Marks	Descriptors
E2	3 - 4	<ul style="list-style-type: none"> <li>For a WELL-REASONED judgement, with clear criteria, on the most appropriateness policies Singapore government could adopt to intervene in Singapore public transport market.</li> </ul>
E1	1 - 2	<ul style="list-style-type: none"> <li>For a MAINLY UNEXPLAINED judgement on the most appropriateness policies Singapore government could adopt to intervene in Singapore public transport market.</li> </ul>

**Essay Question 4**

"Different economies are prone to different causes of recession and unemployment. Hence different policies are required to tackle these problems". Discuss. [25]

**Suggested Answer:**

Using the unique features of different economies, candidates are required to explain the main causes of recession and unemployment in different economies. Candidates are then required to suggest and explain appropriate policies to tackle the problems depending on the main causes identified. Reasoned judgement on the differences in effectiveness of different policies in tackling the different problems in different economies due to the different causes is required.

**Introduction**

- Define recession (i.e. fall in real national income/output) and unemployment.
- State that recession could largely result from a fall in AD due to a fall in demand from external sector and/or domestic sector, or a fall in SRAS due to cost-push/imported inflation.
  - Recession due to fall in LRAS is uncommon unless the economies encounter supply shocks such as massive earthquakes that destroyed the productive capacity of the economy.
- State that unemployment could largely be of structural, cyclical and/or real wage in nature.
  - Frictional and seasonal unemployment are too trivial to be considered problems that warrant important policy solution.

**1. Explain that recession in a small and open economy like Singapore is largely caused by recession (fall in AD) and inflation (fall in SRAS) of her major trading partners/supply shocks and her unemployment is largely structural in nature.**

- Main causes of recession in Singapore
  - Explain how recession in major trading partners of Singapore would cause a significant fall in Singapore AD and hence a fall in Singapore real national income via a worsening of BOT due to Singapore openness to exports, noting that Singapore is heavily dependent on export for growth (i.e. Singapore export earnings is about 250% of her GDP while Singapore domestic consumption expenditure is only about 40% of her GDP due to the smallness of her domestic market). Graphical illustrations of the fall in AD and real national income are required.
  - Explain how inflation in major trading partners of Singapore and/or a supply shock (e.g. world prices of crude oil increase) would cause a significant fall in Singapore SRAS and hence a fall in Singapore real national income via cost-push/imported inflation due to Singapore openness to imports, noting that Singapore is heavily dependent on imports for production and consumption (i.e. Singapore import expenditure is about 200% of her GDP). Graphical illustration of the fall in SRAS and real national income is required.

- Main causes of unemployment in Singapore
  - Explain how a structural change via a shift in comparative advantage in the production of manufactured goods from Singapore to, for example, China due to China opening of doors to trade and becoming a 'world factory' for manufacturing goods would cause structural unemployment in Singapore, noting Singapore openness to trade. Brief explanation of differences in comparative advantage of different countries in production is required.

**2. Explain that recession in a large and less open economy like US is largely caused by domestic factors and her unemployment is largely demand deficit and real-wage in nature.**

- Main causes of recession in US
  - Explain how a fall in, for example, consumers and investors' confidence in US economy perhaps due to a poor outlook for the economy as a result of US budget deficit problem would cause a significant fall in US AD and hence a significant fall in US real national income via a fall in C+I, noting that US is heavily dependent on her domestic sector for growth (i.e. US consumption expenditure is about 70% of her GDP due to the largeness of her domestic market while despite being an open economy, import expenditure is only about 32% of her GDP and export earnings is only about 40% of her GDP). Graphical illustration of the fall in AD and real national income is required.
  - State that given the large multiplier size in the US, the significant fall in US AD due to the fall in C+I would lead to a significantly larger fall in US real national income. Brief explanation of why US multiplier is large is required.
- Main causes of unemployment in US
  - State that given the significant fall in US AD which resulted in an even more significant fall in US real national income, there will be a significant increase in demand-deficit unemployment in US as firms cut down on production significantly thus leading to significant fall in employment.
  - Explain that real wage unemployment is also a main concern in US because of the existence of strong trade unions that lobby for higher wages frequently to protect the interests of their members i.e. with wage rate kept above market equilibrium wage rate, quantity supplied of workers is largely than quantity demanded for workers leading to real wage unemployment.

**3. Discuss that in Singapore, a complementary mix of exchange rate policy and supply side policies would be more effective in tackling the identified main causes of recession and unemployment.**

- Exchange rate policy in Singapore
  - Explain that on one hand, a depreciation of SGD given that Marshall-Lerner condition holds can help Singapore tackle the recession but on the other hand, it can also contribute to the recession by lowering SRAS via increasing cost-push/imported inflation.
    - Explain how a depreciation of SGD would lead to an improvement of Singapore BOT given that Marshall-Lerner condition (i.e.  $|PED_X + PED_M| > 1$ ) holds in Singapore. For example, despite Singapore gradual appreciation approach in managing SGD, Monetary Authority of Singapore adopts a zero-appreciation approach or depreciation of SGD (by lowering the trading band) slightly to boost net exports during the 2008 global financial crisis. Brief explanation of why Marshall-Lerner holds in Singapore is required.
    - Explain that however, a depreciation of SGD can cause an increase in price of raw material in terms of SGD and thus a significant increase in cost of production hence a significant decrease in SRAS therefore worsen the recession.
      - **Evaluation:** State that the effect on real national income due to the significant increase in AD as a result of the increase in (X-M) would however be limited by the small size of Singapore multiplier. Brief explanation of why Singapore multiplier is small is required.
    - State that given the trade-offs and limitations, supply side policies are also needed to effectively tackle recession in Singapore.
- Supply side policies in Singapore
  - Explain how the use of supply side policies can help tackle the identified main causes of recession in Singapore e.g. to reduce the negative effect on export competitiveness due to the

- increase in cost of production as a result of the depreciation of SGD.
- State that Singapore focuses on quality-competitiveness of export instead of low price and thus depends on the use of strict standards and advanced technology to boost the quality competitiveness of Singapore exports.
  - State that Singapore government provides funds for research and development in areas of quality improvement and cost reduction e.g. large amount of funds provided for the research and development of Singapore high quality water purification technology and tax reduction for investment in cost efficient machineries and equipment.
    - **Evaluation:** Supply side policies take time for effects to be felt thus there is a need to complement with exchange rate policies which can deliver timely effects to deal with current problems in Singapore, make possible by Singapore use of managed float exchange rate system.
    - Explain how the use of supply side policies can help tackle identified main causes of unemployment in Singapore.
  - Explain and exemplify the use of cost reduction policies to tackle unemployment in Singapore e.g. Jobs Credit Scheme was used to save jobs by subsidising wages during the 2008 recession and rental rebates and utilities rebates were also provided.
  - Explain and exemplify the use of training and upgrading of skills as a supply side policy to tackle structural unemployment in Singapore.
    - **Evaluation:** State that supply side policies are highly costly thus incur high opportunity costs. Nevertheless, supply side policies associated with skills improvement would also contribute to increasing LRAS and SRAS thus contribute to growth in real national income and reduction in unemployment. In the long run, the government may be able to collect higher tax revenue which could offset the cost of the supply side policies.

**4. Discuss that in US, a complementary mix of monetary and fiscal policies would be more effective in tackling the identified main causes of recession and unemployment, noting US budget deficit.**

- Monetary policy in US
  - Explain how the use of monetary policy via lowering of interest rate (i.e. indirect mechanism) can increase C+I in US.
    - Briefly explain that because C and I in US are highly responsive to changes in interest rates, lowering interest rate would have a significant impact on increasing US real national income. Explanation of why C and I in US are highly responsive to changes in interest rate is required.
  - Explain how the use of monetary policy via quantitative easing (i.e. direct mechanism) can help increase C+I.
  - State that because US has a well-developed financial market with wide variety of financial assets, quantitative easing would be effective in US.
  - State that because US has a large multiplier, the increase in AD would cause a significantly more than proportionate increase in nominal national income thus tackling the recession.
    - **Evaluation:** State that the effectiveness of the monetary policies would largely depend on the level of confidence consumers and investors have in the US economy. If the confidence level is low, the use of monetary policy would have limited effects e.g. investors would not invest in the country even if interest rate is low due to high level of uncertainty especially when US is having a twin deficit – budget and BOP deficits.
- Fiscal policy in US
  - Explain how the use of fiscal policy via increasing G and decreasing taxes can help increase C+I in US.
  - State that similarly because of US large multiplier, fiscal policy would be effective.
    - **Evaluation:** However, given US budget deficit problems, the use of fiscal policy might lower confidence in the US economy thus might worsen recession in US. Nonetheless, the confidence in US economy might increase with the use of expansionary fiscal policy in US to deal with the recession if the mix of the fiscal policy is appropriate. For example, US should increase government expenditure on increasing US productive capacity instead of increasing spending on inefficient public procurement. The focus of US fiscal policy

should also be on decreasing tax especially cooperate taxes instead of increasing expenditure because of the positive effects of tax reduction on US potential growth via investment. Boosting the confidence of consumers and investors would contribute to increasing the effectiveness of US monetary policy. US would thus need to seek a balance between managing its budget deficit and the use of its expansionary fiscal policy.

**Evaluative conclusion**

- State that different economies have different causes of recession and unemployment because of the differences in the nature of their economies and thus different policies would be required to effectively tackle their problems.
  - For example, real wage unemployment due to strong trade union demanding for higher than market equilibrium wage rate is not a concern in Singapore as compared to US because of the strong commitment to the tripartite partnership among Singapore government, the workers and Singapore National Trade Union Congress (SNTUC).
  - For example, the use of interest rate policy in Singapore would largely not be effective as the use of interest rate policy in US to deal with recession and unemployment as explained by the policy trilemma and also because consumption and investment in Singapore are not responsive to changes in interest rate. In addition, C and I make up a relatively small percentage of Singapore AD and multiplier in Singapore is small thus changes in C+I would have an insignificant effect on the Singapore economy.
- However, similar policies can also be used for different causes of recession and unemployment in different economies e.g. broad based education would provide workers with different skills required to work in different sectors thus lower the problem of structural unemployment and it would also make them more productive thus manage firms cost of production hence lower increase in SRAS while providing the more productive workers higher income that can lead to higher consumption hence increase AD. Also because the cost of production is managed and workers are more productive, comparative advantage can be established and maintained.

**Mark Scheme**

Levels	Marks	Descriptors
High L3	18 - 21	<ul style="list-style-type: none"> <li>• For an answer that shows                             <ul style="list-style-type: none"> <li>➢ EXCELLENT knowledge of the different causes of recession and unemployment for at least 2 different economies</li> </ul> </li> <li><b>AND</b></li> <li>➢ EXCELLENT knowledge of the different policies a government could adopt to tackle the recession and unemployment in at least 2 different economies</li> <li>• All policies explained must be related to the identified causes of recession and unemployment.</li> </ul>
Low L3	15 - 17	<ul style="list-style-type: none"> <li>• For an answer that shows                             <ul style="list-style-type: none"> <li>➢ VERY GOOD knowledge of the different causes of recession and unemployment for at least 2 different economies</li> </ul> </li> <li><b>AND</b></li> <li>➢ VERY GOOD knowledge of the different policies a government could adopt to tackle the recession and unemployment in at least 2 different economies</li> <li>• Policies explained must be related to the identified causes of recession and unemployment.</li> </ul>
High L2	12 - 14	<ul style="list-style-type: none"> <li>• For an answer that shows                             <ul style="list-style-type: none"> <li>➢ GOOD knowledge of the causes of recession and unemployment</li> </ul> </li> <li><b>AND</b></li> <li>➢ GOOD knowledge of the policies a government could adopt to tackle the recession and unemployment</li> <li>• SOME analysis of differences between economies is required.</li> <li>• Policies explained may be weakly related to the identified</li> </ul>

		causes of recession and/or unemployment.
Low L2	10 - 11	<ul style="list-style-type: none"> <li>• For an answer that shows                             <ul style="list-style-type: none"> <li>➢ SOME knowledge of the causes of recession and/or unemployment</li> </ul> </li> <li><b>AND</b></li> <li>➢ SOME knowledge of the policies a government could adopt to tackle a recession and/or unemployment</li> <li>• May have LITTLE analysis of the differences between economies</li> <li>• Policies explained are not related to the identified causes of recession and/or unemployment</li> <li><b>OR</b></li> <li>➢ EXCELLENT knowledge of different causes of recession and unemployment in different economies</li> <li><b>OR</b></li> <li>➢ EXCELLENT knowledge of the policies that a government could adopt to tackle the recession and unemployment</li> </ul>
High L1	6 - 9	<ul style="list-style-type: none"> <li>• For an answer that shows                             <ul style="list-style-type: none"> <li>➢ SOME / GOOD / VERY GOOD knowledge of the causes of recession and/or unemployment</li> </ul> </li> <li><b>OR</b></li> <li>➢ SOME / GOOD / VERY GOOD knowledge of the policies a government could adopt to tackle a recession and/or unemployment</li> <li>• There may be some conceptual errors in the explanation, showing lack of understanding of the economic concepts.</li> </ul>
Low L1	1 - 5	<ul style="list-style-type: none"> <li>• For an answer that is MOSTLY IRRELEVANT.</li> <li>• Contains only a few valid points made incidentally in an IRRELEVANT CONTEXT.</li> </ul>

**Evaluation**

Levels	Marks	Descriptors
E2	3 - 4	<ul style="list-style-type: none"> <li>• For a WELL-REASONED judgement, with clear criteria, on the appropriateness/effectiveness of policies a government could adopt to tackle recession and/or unemployment.</li> </ul>
E1	1 - 2	<ul style="list-style-type: none"> <li>• For a MAINLY UNEXPLAINED judgement on the appropriateness/effectiveness of policies a government could adopt to tackle recession and/or unemployment.</li> </ul>

**Essay Question 5**

(a)	Explain the possible conflicts in the achievement of macroeconomic aims when using demand-management policies.	[10]
(b)	In the light of these conflicts, discuss whether governments should rely solely on supply-side policies to achieve its macroeconomic aims.	[15]

(a)  
**Suggested Answer:**

**Introduction**

- When using demand management policies, there may be conflicts in the achievement of macroeconomic aims which arise.
- The most common conflict is the conflict between achieving full employment and price stability.
- There are also other conflicts such as those between achieving internal and external stability.

**Main Body 1 – Conflict between achieving full employment and price stability**

- Demand management policies such as expansionary FP and MP are often used to achieve full employment.
- For example, when there is an increase in G as governments spend on building infrastructure to boost economic activity, there is an increase in AD and hence an increase in real NY.
- As more resources are employed, the economy operates closer to full employment.
- However the economy will also face demand pull inflation as demand rises and bids up costs of factors of production.
- Many fast developing countries like China with fast-rising AD and increasingly less spare capacity will likely face this conflict.
- [Include a well-explained AD-AS diagram to illustrate the increase in GPL as the economy moves towards achieving full employment]

Note: Alternatively, can explain that using contractionary FP and MP to reduce inflation conflicts with economic growth and employment.

**Main Body 2 – Conflict between achieving economic growth and healthy BOP**

- As expansionary demand management policies are used to achieve economic growth, the BOP may worsen.
- For example, if interest rates are lowered to reduce costs of borrowing, households will borrow more to spend on consumer durables and firms may also invest more as expected net profitability increases.
- This leads to an increase in AD and real national income.
- However, the demand for imports and hence import expenditure increases too. This is because many consumer durables may be imported and firms may also import raw materials and machineries for their investments.
- Assuming that export revenue does not rise as quickly, the balance of trade worsens.
- Ceteris paribus, the current account and hence BOP worsens.
- Thus countries like Singapore with high mpm will be more likely to suffer from this conflict. This is because the increase in import expenditure is larger when national income increases.

Note: Alternatively, can explain that using contractionary DD-management policies to correct BoT deficit can conflict with economic growth and employment  
OR

- If a country wants to achieve economic growth, it may choose to use expansionary MP to increase AD.
- When interest rates are lowered, the cost of borrowing is lowered. This causes households to borrow more to purchase consumer durables such as televisions and refrigerators. This causes C to increase. Firms will also find that expected profitability of investment increases as costs of borrowing falls, given that economic conditions remain the same and returns on investments do not change. Thus I increases. Since C and I are components of AD, AD will increase, resulting in an increase in real national output and hence actual economic growth.
- However, in an open economy, the lower interest rates would likely result in capital outflow. If there is massive capital outflow as funds move to countries which offer higher interest rates, the capital and financial account will worsen. This leads to a worsening BOP.
- Hence, the desire to achieve actual growth via expansionary MP can conflict with the desire to achieve a healthy BOP.

**Main Body 3 – Conflict between achieving healthy BOP and price stability**

- If a country is facing a deficit in its current account and BOP, it may make use of demand management policies to improve the current account.
- For example, an expenditure switching policy of currency depreciation would help decrease the price of exports in terms of foreign currency and increase the price of imports in terms of domestic currency.

- As export competitiveness increases, the demand for exports and hence export revenue increases. At the same time as imports become more expensive, consumers switch to purchasing domestic goods instead.
- Assuming that Marshall Lerner condition holds i.e.  $IPED_x + PED_{m1} > 1$ , BOT improves. Since X-M increases, AD increases and general price levels increase too.
- However, if the economy is import-reliant, the depreciation of the currency could lead to imported inflation as the prices of imported raw materials increase. This causes the SRAS to fall and the general price level to increase. Thus a healthy BOP is achieved at the expense of price stability.
- An example of this would be Singapore, where imported inflation is likely to happen if the currency depreciates. This explains why Singapore is reluctant to depreciate its currency even when BOT is worsening.

Note: Alternatively, can explain that using exchange rate appreciation to control demand-pull inflation can conflict with BOP and economic growth

Note: Any other well-explained possible conflict which arises from the use of demand management policies will be accepted.

**Conclusion**

Thus, there is a need to consider the use of supply side policies in some cases to minimise these trade-offs. Alternatively, a suitable mix of policies may be considered to mitigate the unintended consequences which may arise.

**Mark Scheme**

Level	Descriptors
<b>Level 3 (9-10)</b>	<ul style="list-style-type: none"> <li>• Answer shows excellent knowledge of at least 3 different conflicts in the achievement of macroeconomic aims when using demand-management policies.</li> <li>• Excellent rigour of analysis which includes excellent use of diagrams where appropriate</li> <li>• There are no errors in explanation</li> <li>• Good use of real world examples.</li> </ul>
<b>(7-8)</b>	<ul style="list-style-type: none"> <li>• Answer shows excellent knowledge of at least 2 different conflicts OR good knowledge of 3 conflicts in the achievement of macroeconomic aims when using demand-management policies.</li> <li>• Good rigour of analysis which may include good use of diagrams where appropriate</li> <li>• There are no major errors in explanation</li> </ul>
<b>Level 2 (5-6)</b>	<ul style="list-style-type: none"> <li>• Answer shows good knowledge of at least 1 conflict in the achievement of macroeconomic aims when using demand-management policies or some knowledge of 2 conflicts but may not be well developed.</li> <li>• Some rigour of analysis which may include a diagram</li> </ul>
<b>Level 1 (1-4)</b>	<ul style="list-style-type: none"> <li>• Answer is mostly irrelevant.</li> <li>• Answer may list conflicts without much economic analysis</li> <li>• Answer may have multiple concept errors.</li> </ul>

**(b)**

**Suggested Answer:**

**Introduction**

- In the light of these conflicts, supply-side policies which focus on shifting the SRAS and LRAS can be used to avoid these conflicts instead.
- However, supply-side policies also have limitations and may also result in other conflicts.
- Hence, it may not necessarily be true that governments should rely solely on them.

**Thesis: Governments should rely solely on supply-side policies.**

**Thesis 1: Supply-side policies should be used to avoid conflict between achieving full employment and price stability.**

- Since expansionary demand management policies will always lead to inflationary pressures, especially as the economy approaches full employment, supply-side policies should be used instead.

- If governments focus on increasing productivity of the economy, for example through subsidizing R&D efforts and retraining programmes, the LRAS of the economy will increase.
- This allows the economy to achieve both actual and potential growth, while keeping general price levels low.
- There is thus no conflict between increasing real output and employment and price stability.
- [Include a well-explained AD-AS diagram to illustrate the rightward shift of LRAS, resulting in an increase in  $Y$ ,  $Y_f$  and lowering of GPL]

Evaluation:

- However, as LRAS shifts to the right, the increase in full employment level means that there is still a gap between real output and full employment level.
- To achieve full employment level, the economy must necessarily tolerate some inflation.
- However, as long as the economy is still facing actual growth and more new jobs are created, this may not be a serious cause for concern.
- The potential growth which keeps in pace with actual growth ensures sustainable economic growth which is a key macroeconomic aim of most economies.

**Thesis 2: Supply-side policies should be used to avoid conflict between achieving healthy BOP and price stability.**

- Since currency depreciation to keep exports competitive may result in imported inflation, supply-side policies should be used to maintain export competitiveness instead.
- For example, the government may choose to encourage firms to invest in R&D, through the use of tax rebates, in order to use more efficient production techniques. This can cause costs of production to fall and prices of exports can remain competitive.
- For example, the US government has anti-monopoly laws to encourage more competition. This may give firms more incentive to improve the quality of their products and exports can also be more competitive if their quality is superior to products made in other countries.
- These would help boost the demand for exports and increase export revenue. The demand for imports might fall if local consumers prefer buying domestic goods. Import expenditure may fall too.
- This causes the current account and hence the BOP to improve.
- At the same time, because of the increase in R&D across industries, the productive capacity of the economy may increase and LRAS may increase.
- This helps to keep general price levels low. Hence there is no conflict between achieving a healthy BOP and price stability.

Evaluation:

- When  $(X-M)$  increases, AD would increase and if the economy is approaching full employment level, there would be inflationary pressures.
- Thus the extent to which price stability can be achieved depends on the pace of the increase in LRAS. If the LRAS is increasing at the same pace as AD, price stability can be maintained. If AD rises much faster, the conflict with price stability would still arise.

**Thesis 3: Supply-side policies should be used to avoid conflict between achieving healthy BOP and economic growth**

- When expansionary demand management policies to help achieve economic growth, there will be an increase in import expenditure, resulting in a worsening current account and hence BOP.
- However if supply-side policies are used to attract FDI to promote economic growth instead, the capital and financial account is likely to improve.
- For example, the government might lower corporate tax rates or offer foreign firms incentives such as tax rebates in order to attract them. They may also reduce the red-tape to make application processes for new foreign businesses more efficient.
- If there is a net inflow of FDI, the capital and financial account will improve and this may offset the worsening current account. Hence BOP may improve.

Evaluation:

- However, in the LR, the current account may worsen even more as profits from foreign firms are sent back to their home country.

**Antithesis 1: Supply-side policies have their limitations and hence governments should not rely solely on them.**

- While it is true that supply-side policies can help to some extent to avoid some of the conflicts in

- achieving macroeconomic aims, they also have their shortcomings.
- For example, supply-side policies like encouraging firms to invest in R&D can not only be costly, they may take a long time before any effects are seen, and even then, the success of these policies is very uncertain.
  - Subsidising R&D can cause a strain on the government budget, depending on how substantial the subsidies are. Since R&D efforts tend to be costly, firms would probably only be incentivized to invest in R&D if the subsidies are significant. This is in contrast with demand management policies like MP where the government need not tap on budget reserves.
  - Furthermore, there is no guarantee that R&D efforts would lead to increase efficiency. The effects of research can be uncertain and often takes many years before a breakthrough brought about by technology or discovery of new methods can be seen.
  - Hence, it may be wise to also make use of some demand-management policies which may have more certain and immediate effects. This is especially so if the economy is facing a recession and needs to get out of it quickly.
  - [Include a well-explained AD-AS diagram to illustrate how shifts in LRAS will do little to increase real NY especially if economy is at the Keynesian range.]
  - If there is severe demand-pull inflation, the government may need to take quick action to reduce AD in order to reduce general price levels. Using supply-side policies to shift the LRAS may take too long, especially if the policies are targeted at increasing productivity through technology, training and R&D. If AD is in the Classical range and there is DD-pull inflation, shifting SRAS downward eg. by subsidizing costs may not help either, since there is no more spare capacity to increase output even if costs are reduced. The inflation will thus not be alleviated. Thus it would not be wise to solely rely on supply-side policies.
  - Both demand management and supply-side policies can be used together. While expansionary FP or MP can be used to stimulate AD and growth, supply-side policies can be used to ensure that LRAS can continue to increase so that when the economy recovers from the recession, the general price levels may still be kept relatively low.
  - [Include a well-explained AD-AS diagram to illustrate how both the shifts in AD and LRAS will help to further increase Y. At the same time, as  $Y_f$  increases, the rise in GPL is mitigated.]

**Antithesis 2: When using supply-side policies, there may also be conflicts in the achievement of macroeconomic aims which arise and hence governments should not rely solely on them.**

- When supply-side policies such as investment in more R&D and technology are used, there are also other conflicts which may arise. Hence it may not be wise to solely depend on supply-side policies as they also bring about unintended consequences.
- For example, in Singapore, with the government's push to increase productivity through encouraging more firms to use technology (e.g. through PIC scheme), not all workers will be able to adapt. Some workers without the relevant skills may find themselves out of a job. Also, with the rise in the use of technology, some workers may be replaced by machines. If these workers do not have other skills which are relevant to the changing needs of employers, they will face structural unemployment.
- Hence, pursuing actual and potential growth quickly via supply-side policies may result in a conflict with achieving low unemployment.
- However, this does not mean that supply-side policies should not be used. Instead, there can be other policies put in place to mitigate these unintended consequences. For example, governments can put in place retraining programmes and provide subsidies to firms to encourage them to upgrade the skills of their employees.

**Synthesis: In the light of these conflicts, whether or not governments should rely solely on supply-side policies depends on**

- The macroeconomic aims the government is trying to pursue  
If the government wants to achieve sustainable economic growth, it would be wise not to depend only on supply-side policies. This is because supply side policies tend to help achieve potential growth but can be slow in achieving actual growth. If both demand management and supply-side policies are used, actual and potential growth can be achieved together. This helps ensure sustainable economic growth.  
Some conflicts between macro-economic aims can be avoided when using supply-side policies as discussed above. Hence, supply-side policies alone may be adopted where appropriate. However, it is important to note that supply-side policies may also result in other problems and hence in

- those instances, relying solely on supply-side policies may not be appropriate.
- The prevailing economic conditions  
If the economy is facing cost-push inflation, the government may want to rely solely on supply-side policies to increase SRAS in order to reduce general price levels. Using demand management policies in such a situation may be inappropriate because while general price levels may fall with contractionary FP/MP, there will be a conflict with growth as real output falls.  
If the economy is facing a severe recession, the economy is likely to be operating rather far away from the full employment level. This means that expansionary demand management policies are unlikely to cause a conflict with price stability. Thus, the best measure may be to use expansionary FP/MP which has quicker and more certain effects than supply-side policies.
  - The nature of the economy  
If the economy has a small  $k$ , the effectiveness of demand-management policies may be limited. For example, in Singapore, due to high  $mpm$  and  $mps$ , the  $k$  is small, any increase in  $G$  would lead to a small increase in real  $NY$ . Thus the government tends to focus on the use of supply-side policies. However, this does not mean that the Singapore government relies solely on the use of supply-side policies. A mix of both demand management and supply-side policies are considered too.

**Mark Scheme**

Level	Descriptors
Level 3 10-11	<ul style="list-style-type: none"> <li>• Answer shows <b>excellent knowledge</b> of:</li> <li>• how supply-side policies avoid <b>at least 2 conflicts</b> mentioned in (a)</li> <li>• how supply-side policies also have limitations (including consideration of appropriateness of shifting SRAS/LRAS depending on economic conditions)</li> <li>• how supply-side policies may also result in conflicts between macroaims</li> <li>• <b>Excellent development and rigour</b> in economic analysis throughout which includes well explained AD-AS diagrams</li> <li>• Good recognition of the term “solely is needed</li> <li>• <b>Good use of real world examples</b></li> </ul>
9	<ul style="list-style-type: none"> <li>• Answer shows <b>excellent knowledge</b> of <b>at least 2</b> of these areas:                             <ul style="list-style-type: none"> <li>- how supply-side policies avoid <b>at least 1</b> of the <b>conflicts</b> mentioned in (a)</li> <li>- how supply-side policies also have limitations</li> <li>- how supply-side policies may also result in conflicts between macroaims</li> </ul> </li> <li>• <b>Excellent development and rigour</b> in economic analysis throughout which includes well explained AD-AS diagrams</li> <li>• Some recognition of the term “solely is needed</li> </ul>
Level 2 7-8	<ul style="list-style-type: none"> <li>• Answer shows <b>good knowledge</b> of <b>at least 2</b> of these areas:                             <ul style="list-style-type: none"> <li>- how supply-side policies avoid the <b>at least 1</b> of the conflicts mentioned in (a)</li> <li>- how supply-side policies also have limitations</li> <li>- how supply-side policies may also result in conflicts between macroaims</li> </ul> </li> <li>• <b>Good development and rigour</b> in economic analysis throughout which includes well explained AD-AS diagrams</li> </ul>
6	<ul style="list-style-type: none"> <li>• Answer shows <b>fair knowledge</b> of <b>at least 1</b> of these areas:                             <ul style="list-style-type: none"> <li>- how supply-side policies avoid <b>at least 1</b> of the conflicts mentioned in (a)</li> <li>- how supply-side policies also have limitations</li> <li>- how supply-side policies may also result in conflicts between macroaims</li> </ul> </li> <li>• <b>Some development and rigour</b> in economic analysis throughout which includes well explained AD-AS diagrams</li> </ul>
Level 1 4 - 5	<ul style="list-style-type: none"> <li>• Answer shows <b>some knowledge</b> of the pros and cons of supply-side policies</li> <li>• <b>Little development and rigour</b> in economic analysis.</li> <li>• Answer may be a mere listing of points.</li> </ul>
1 - 3	<ul style="list-style-type: none"> <li>• Answer is <b>mostly irrelevant</b>.</li> <li>• Only a few valid points made incidentally in an irrelevant context.</li> </ul>

Evaluation	
<b>E1 (3-4)</b>	For a well-reasoned judgment on whether governments should rely solely on supply-side policies which includes the use of clear criteria to consider
<b>E2 (1-2)</b>	For a mainly unexplained judgment on whether governments should rely solely on supply-side policies

**Essay Question 6**

Already three years in the making, the Trans-Pacific Partnership (TPP) has been billed a "21st-century" trade agreement that goes beyond tariff reduction and tackles a wide range of barriers to trade and investment.

Source: The Straits Times, 8 October 2013

Discuss the likely effects of signing free trade agreements on Singapore's economic performance and Singaporeans' standard of living. [25]

**Suggested Answer:****Introduction**

Briefly explain the importance of free trade agreements (FTAs) to Singapore: FTAs serving as superhighways that connect Singapore to major economies and new markets.

Provide examples of FTAs that Singapore has with other countries: ASEAN Free Trade Agreement, FTAs with Australia, India and USA, Trans-Pacific Partnership (TPP) etc.

Define economic performance as the different aspects of measuring how the economy is doing and is tied to the 4 macroeconomic objectives, high economic growth, low and stable inflation, low unemployment and healthy balance of payment

Define Standard of Living: *Standard of living (SOL)* refers to the level of economic welfare and social well-being of an individual or household. It includes the quantitative (material) and qualitative (non-material) aspects of living.

**Body**

Signing free trade agreements is a form of trade liberation to lower trade barriers and promote international trade.

A free trade agreement is a legally binding agreement between 2 or more countries that agree to remove some trade barriers between the signatories.

- May target at reducing barriers to foreign investment (and even labour restrictions)

Signing of FTAs will help boost free trade, especially between countries with **comparative advantage in different industries**.

For example, assuming that there are 2 countries (Singapore and Vietnam) and 2 goods (electronic components and clothes),

Due to the higher current level of technology that Singapore possesses, Singapore has absolute advantage in the production of both electronic components and clothes. However, due to differences in factor endowments (Heckscher-Ohlin Theory), the 2 countries have comparative advantage in different industries.

Singapore has a comparative advantage in production of electronic components due to its capital-intensive nature of production and the relative abundance of capital goods in the country whereas Vietnam has a comparative advantage in production of clothes due to its labour-intensive nature of production and the relative abundance of labour in the country.

Thus Singapore has lower opportunity costs in producing electronic components (in terms of clothes) and Vietnam, lower opportunity costs in producing clothes (in terms of electronic components)

Thus Singapore will benefit from the increase in production if Singapore specialises based on its comparative advantage and will be able to benefit from increase in consumption if the two countries trade based on a set of mutually beneficial terms of trade. Signing of FTAs will result in the lowering of barriers to trade and encourage production and specialisation based on comparative advantage.

### **AD-AS analysis**

#### Effects on AD

Signing of FTAs means that barriers to trade such as tariffs are reduced or removed completely. Removal of the barriers will lead to a lowering of prices for both imports and exports for Singapore.

If Price Elasticity of Demand for exports (PED<sub>x</sub>) is higher than PED<sub>m</sub>, then net export revenue will increase and this will lead to an improvement of balance of trade and ultimately in balance of payment position. As Singapore tends to have a high PED for exports, due to the availability of close substitutes for Singapore's exports (e.g. electronic components) and a low PED for imports, due to degree of necessity and dependence on imported raw materials and basic necessities, there will a net increase in net exports (X-M). [Student may also make use of YED concepts to analyse the long-term changes as a result of freer trade due to the FTAs]

Lowering barriers to investment into Singapore will allow Singapore to benefit from an influx of foreign direct investment by foreign multinational enterprises (MNEs). This is especially so as firms choose to outsource production to countries with lower opportunity costs of production. For example, Singapore, which has a comparative advantage in capital-intensive industries, is a net recipient of such foreign direct investment.

Assuming that net exports (X-M) and FDI increases, there will be an increase in aggregate demand (AD) and this results in actual growth for the economy.

#### Effect on AS

Signing of free trade agreements will have a direct impact on the prices of imports, lowering the prices of imports through the lowering of tariffs and other forms of barriers. In the longer term, the agreements help to diversify Singapore's import sources and reduce dependence on any one source of import and this will reduce Singapore's vulnerability and decrease the market power and ability of any of the importers to increase prices. This will reduce the occurrence of imported inflation and possibility of cost-push inflation, thus leading to an increase in SRAS. [Alternatively, the removal of barriers to trade such as tariffs will result in less governmental restrictions on trade and a decrease in structural rigidities, thus leading to a decrease in the cost of imported raw materials and a decrease in cost of production for firms and thus leading to an increase in SRAS.]

The MNEs are likely to invest in capital-intensive, knowledge-intensive sectors in which Singapore has a comparative advantage in. The influx of FDI will also improve the quality of factors of production and the level of technology in the domestic economy. There will also be dynamic gains from trade through innovation, technological advances and productivity improvements through the increase in competition with the entry of multinational enterprises. The increase in competition will reduce the onset of x-inefficiency and enabling firms to be productively efficient as well as increase the pace of innovations to attract consumers thus resulting in dynamic efficiency. These will lower cost of production as well as increase the productive capacity of the economy, increasing SRAS and LRAS.

*(Illustrate with diagram showing increase in AD and the increase in SRAS and LRAS).*

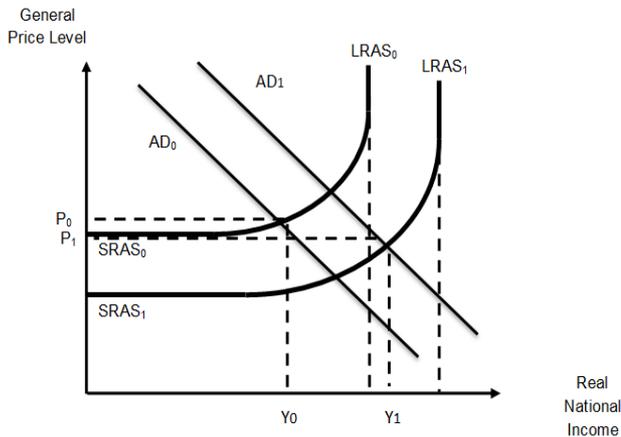


Fig 1: Increase in AD and AS with FTAs

As illustrated in Fig 1, there is an increase in AD (from  $AD_0$  to  $AD_1$ ) due to the increase in net exports and FDI and an increase in SRAS (from  $SRAS_0$  to  $SRAS_1$ ) and LRAS (from  $LRAS_0$  to  $LRAS_1$ ) due to the influx of investment. There is an increase in national income from  $Y_0$  to  $Y_1$ .

### Impact on economic performance

#### **Economic growth, inflation and Balance of Payment**

**Economic Growth and Inflation:** The increase in real national income results in an increase in economic growth, both actual and potential growth. If the growth of SRAS and LRAS keeps pace with the growth in AD, there will be sustainable economic growth, alleviating fears of demand-pull inflation and any inflationary pressure.

**Balance of Payment:** With growth of FDI and (X-M), there will be an improvement in both the capital and financial account and current account. Since Singapore is experiencing a balance of payment (BOP) surplus, this will lead to a larger BOP surplus.

Evaluation:

- Whether Singapore enjoys a net inflow of investment and increase in net export revenue or not depends on the nature of countries and the specific terms of the free trade agreement. The specific terms of the FTAs depends on the bargaining power that Singapore has in its negotiations with the other signatories.
- However, considering the many complementary schemes by the Singaporean government to attract Foreign Direct Investment (FDI), there may be a net inflow of FDI, this will lead to an improvement in the capital and financial account of BOP, although this may cause a worsening of current account due to factor incomes outflow in the long run.
- Signing of free trade agreements will have a direct impact on the prices of imports. In the longer term, the agreements help to diversify Singapore's import sources and reduce dependence on any one source of import and this will reduce Singapore's vulnerability and decrease the market power and ability of any of the importers to increase prices. This will reduce the occurrence of imported inflation and possibility of cost-push inflation. This will also alleviate the onset of demand-pull inflation as a result of increased aggregate demand arising from the increase in FDI and (X-M).
- However, if there is world-wide inflation, the negative impact on Singapore will be greater due to increased exposure to imported inflation.

#### **Unemployment**

Due to the increased production of goods and services, derived demand for labour will increase thus

reducing cyclical unemployment.

Evaluation:

- However, due to structural changes brought about by signing of FTAs, there will be creation of new job opportunities in the capital intensive, knowledge-intensive industries while labour intensive industries will see more jobs made obsolete and it is unlikely that the new industries, which does not require as much labour inputs, will be able to absorb the excess labour due to the retrenchments.
- This will then result in structural unemployment, especially for the older, low-skilled workers who may find it difficult to transit to the newly developed industries. Structural unemployment will thus increase with the restructuring of the economy, and become a source of chronic unemployment. This is especially so with the increasing pace of technological advancements and innovations that may lead to technological unemployment.
- The occurrence of cyclical unemployment will ultimately depend on Singapore's trade position (whether it is having a balance of trade surplus or deficit). If the FTA includes labour provisions that remove the restrictions on foreign labour, there might be increased competition from foreign labour, resulting in increased unemployment and increased income inequality that lowers the standard of living in Singapore.

### **Impact on SOL**

#### **Positive Impact**

- Increase in economic growth → increased availability of goods and services for consumption → increased material SOL.
- Inter-industry Trade: Assuming mutually beneficial terms of trade, Singapore will benefit from an specialisation and an increase in trade based on inter-industry trade with increased consumption for the Singaporean population and an increase in material standard of living for the signatories.
- Even if both countries signing the FTA have similar comparative advantages, Singapore can also benefit from intra-industry trade, with companies in both Singapore and the other signatory (e.g. USA) being able to continue reaping internal economies of scale even as consumers benefit from the increased variety of goods and services that are now available with trade → improvement in non-material SOL. Increase in competition with entry of foreign firms may also result in price and non-price competition that leads to lower prices and increased variety of goods → Improvement in non-material SOL.

#### **Negative Impact**

- Unemployment and negative impact on the society's overall standard of living with a permanent class of unemployed, who may result to crime (causing negative externalities) and bring about a variety of social ills on Singapore.
- To add on to the problem of income inequality, the profits repatriated by Singaporean firms from foreign markets are likely to benefit only a small group of shareholders and workers, thus increasing the differences between the rich and poor in Singaporean society.
- Problem of openness and volatility: Signing more FTAs will make Singapore ever more reliant on the external sector for employment and economic growth, this will make Singapore even more vulnerable, especially in the event of a worldwide recession. The increased vulnerability, unpredictability and volatility will add on to the stress of Singaporeans and is definitely a negative impact on Singaporean's non-material standard of living.
- Problem of increased pollution and depletion of natural resources: With the increased economic activity and investment, this may lead to increased pollution and depletion of natural resources. For instance, with the investment in petrochemical industries in Jurong Island, there is an increase in carbon emissions and emissions of other pollutants into the air. However, there are other types of investments such as investments in the banking sector and increase in economic activities that are unlikely to contribute much to pollution and depletion of resources.

### **Evaluation and Conclusion**

Signing of FTAs tend to take a long time to negotiate and the effects often take a long time to materialise. The effects also depend on the specific terms of the free trade agreements.

Based on the analysis, signing of FTAs is likely to have a net positive effect on Singapore's standard of living and economic performance, especially in terms of material SOL and on Singapore's BOP position, economic growth and inflationary pressures but negative effects for employment as well as on non-material SOL. However, the effects of FTAs are further contingent on the following factors:

- State of the economy: The state of Singapore's economy, whether it is near full employment level of output or not will affect the impact of FTAs. If Singapore is already producing near the full employment level of output, an increase in net exports and FDI may result in overheating of the economy with little actual economic growth.
- Depends on conditions in the global economy: Signing FTAs lead to increased openness of Singapore's economy and vulnerability to worldwide conditions. If there is a worldwide recession, Singapore will be even more adversely affected by a fall in trading partners' income.
- Depends on the nature of economy of trading partners and worldwide conditions: The type of trading partners that Singapore has an FTA with also affects the impact on SOL and economic performance. For example, signing of FTA with India, a country with a different comparative advantage would confer different costs and benefits as compared to signing a FTA with a comparatively similar country like the USA and affect different domestic industries in Singapore.
- Type of government policies to mitigate/complement the effects: If the Singaporean government enacts income redistribution policies to provide assistance to the unemployed and the "losers" from the FTAs, the negative effects on SOL can be minimised.

**Mark Scheme**

Levels	Marks	Descriptors
High L3	18 - 21	<ul style="list-style-type: none"> <li>• For an answer that shows excellent knowledge of how the signing of FTAs affect standard of living AND economic performance (at least 3 macroeconomic aims) through both positive and negative effects on trade and investment flows</li> <li>• Theory of comparative advantage as the underlying motivation for free trade is clearly examined.</li> <li>• Answer must cover both positive and negative impact on macroeconomic aims and standard of living</li> <li>• Excellent reference to AD-AS framework</li> <li>• There is excellent consideration of Singapore's context where Singapore's unique characteristics and nature of economy are examined with specific and relevant examples.</li> </ul>
Low L3	15 - 17	<ul style="list-style-type: none"> <li>• For an answer that shows good knowledge of how the signing of Free Trade Agreements affect standard of living AND economic performance (at least 3 macroeconomic aims) through its effects on trade and investment flows</li> <li>• Theory of comparative advantage as the underlying motivation for free trade is clearly examined.</li> <li>• Answer must cover both positive and negative impact on macroeconomic aims and standard of living</li> <li>• Good reference to AD-AS framework</li> <li>• There is good consideration of Singapore's context where Singapore's unique characteristics and nature of economy are examined with relevant examples</li> </ul>
High L2	12 - 14	<ul style="list-style-type: none"> <li>• For an answer that shows fair knowledge of how the signing of Free Trade Agreements affect standard of living AND economic performance (at least 2 macroeconomic aims) through its effects on trade and/or investment flows</li> <li>• Theory of comparative advantage as the underlying motivation for free trade is somewhat examined</li> <li>• Answer may cover either positive or negative impact on macroeconomic aims and standard of living</li> </ul>

		<ul style="list-style-type: none"> <li>• Some reference to AD-AS framework</li> <li>• There is some consideration of Singapore's context where Singapore's unique characteristics and nature of economy are examined</li> </ul>
Low L2	10-11	<ul style="list-style-type: none"> <li>• For an answer that shows fair knowledge of how the signing of Free Trade Agreements affect standard of living and/or economic performance (at least 2 macroeconomic aims) through its effects on trade OR investment flows</li> <li>• Theory of comparative advantage as the underlying motivation for free trade may not be examined.</li> <li>• Answer may cover either positive or negative impact on macroeconomic aims and standard of living</li> <li>• There is little consideration of Singapore's context</li> </ul>
High L1	6 - 9	<ul style="list-style-type: none"> <li>• For an answer that shows little knowledge of how the signing of free trade agreements affect standard of living and economic performance through its effects on trade.</li> <li>• Theory of comparative advantage as the underlying motivation for free trade is not examined.</li> <li>• There is little/no consideration of Singapore's context</li> </ul>
High L2	1-5	<ul style="list-style-type: none"> <li>• For an answer that is mostly irrelevant</li> <li>• Contains only a few valid points made incidentally in an irrelevant context</li> </ul>

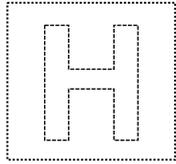
**Evaluation**

Levels	Marks	Descriptors
E2	3 - 4	<ul style="list-style-type: none"> <li>• For a well-reasoned judgment on the effects of free trade agreements on economic performance and standard of living</li> </ul>
E1	1 - 2	<ul style="list-style-type: none"> <li>• For a mainly unexplained judgment on the effects of free trade agreements on economic performance and standard of living</li> </ul>

Name: \_\_\_\_\_

Centre No. / Index No.: \_\_\_\_\_ / \_\_\_\_\_

Class: \_\_\_\_\_



PIONEER JUNIOR COLLEGE, SINGAPORE  
PRELIMINARY EXAMINATIONS 2014  
Higher 1

**ECONOMICS**

**8819/01**

Paper 1

18 September 2014

3 hours

Additional Materials: Answer Paper



**READ THESE INSTRUCTIONS FIRST**

Write your Centre number, index number and name on all the work you hand in.

Write in dark blue or black pen on both sides of the paper.

You may use a soft pencil for any diagrams, graphs or rough working.

Do not use staples, paper clips, highlighters, glue or correction fluid.

Section A

Answer **all** questions.

Section B

Answer **one** question

Answer each question on a fresh sheet of paper.

At the end of the examination, fasten all your work securely together.

Fasten your answers to Question 1, Question 2, Question 3/4 SEPARATELY.

The number of marks is given in brackets [ ] at the end of each question or part question.

This document consists of **8** printed pages.



Pioneer Junior College



Ministry of Education

## Section A

Answer all questions

**Question 1 Battling with congestion - A tale of two cities****Table 1: GDP Growth (annual %) of selected countries**

Country/Year	2008	2009	2010	2011	2012	2013
China	9.6	9.2	10.4	9.3	7.7	7.7
United Kingdom	-0.8	-5.2	1.7	1.1	0.3	1.7

Source: worldbank.org, accessed 7 Aug 2014

**Table 2: Growth in Passenger Car Registrations (annual %)**

Country/Year	2008	2009	2010	2011	2012	2013
China	6.7	51.8	35.3	4.3	8.3	15.4
United Kingdom	-5.0	-15.8	3.1	-3.0	6.3	11.8

Source: www.tradingeconomics.com UK: The Society of Motor Manufacturer and Traders, China: China Association of Automobile Manufacturers, accessed 7 Aug 2014

**Extract 1: Beijing to introduce congestion charge**

Expats won't be welcoming Beijing's latest efforts to become more western – a congestion charge. The city is regarded as the political and cultural capital of China, attracting thousands of expats each year. Western goods and services are easily accessible, helping to make the transition to the capital city smoother for foreigners.

However, Beijing has now announced plans to introduce a congestion charge in the city centre to ease its crowded roads. The blueprints for the city's five-year traffic plan were released jointly by Beijing Municipal Commission of Transport and the Beijing Municipal Commission of Development and Reform. "Beijing faces a serious test in the next five years with the rapid growth in population and number of vehicles," a spokesman said. The plan didn't include details of how much the congestion charge will be or when it will be imposed.

The move will remind many British expats of home as London has operated a controversial traffic levy since 2003. Kevin Gilbert, a British engineer working in Beijing, said: "The roads have definitely become more crowded in recent years but I think a congestion charge will have limited effect on this. Beijing, like many other Chinese cities, is going through a period of rapid growth and heavier traffic is inevitable during this time." The Chinese capital already limits the number of new car registrations to 20,000 a month to ease traffic jams and cut pollution, while capping the use of private vehicles on designated days. As of June 2012, three mega cities in China – Shanghai, Beijing and Guangzhou – have implemented quota policy to control car ownership growth.

Beijing is one of the most congested cities in China with a population of around 20 million. The city saw its car-owning population move to above five million earlier this year, as its middle classes grow along with its economic prosperity.

Source: Adapted from telegraph.co.uk, 31 Aug 2012 and Land Transport Authority 2013

**Extract 2: Fighting to get a share of the car market**

As the Chinese middle-class continues to balloon, automakers are stepping up efforts to design and expand production of low-cost passenger cars in order to appeal to the more price sensitive customers and first time buyers. General Motors, through its joint venture SAIC-GM-Wuling Automobile Ltd, opened another manufacturing unit in China to boost the production its low-cost models such as the Bajoun, the sales of which exceeded 10,000 units in October. The new plant will help the automaker raise its capacity by 400,000 units eventually.

Most of the sales are skewed towards the smaller, low-cost vehicles in developing countries which is hardly surprising since a majority of them are purchased by first-time owners or customers with limited earnings relative to the car prices. Furthermore, a significant percentage of the population still cannot afford even the least expensive cars available in the market.

Source: Adapted from Forbes 27 Nov 2012

**Extract 3: Traffic congestion costs UK economy £4.3bn a year**

Traffic congestion is costing the economy more than £4.3bn a year. More than £426m is wasted on fuel alone a year, the survey said. The cost in terms of lost time is £331 per commuter a year, or £2.7bn, while hold-ups to business or freight vehicles amounts to £1.1bn annually being added to household costs. Around 40 percent of the gridlock costs occur in London, with drivers spending 66.1 hours a year stuck in jams. Traffic congestion impacts everything from how long it takes us to get to work and the amount of fuel we consume in our vehicles to the costs of food at the grocery store. As the UK continues facing times of austerity and high unemployment, the efficient movement of people and commerce across our road networks is essential to fostering a healthy, vibrant economy.

Source: Adapted from telegraph.co.uk, 10 Dec 2012

**Extract 4: Growth is straining London's infrastructure**

In 2005, the mayor of London introduced a congestion charge on vehicles coming into central London, which initially cut such traffic by 20% and improved traffic flows. Since then, some streets have been given over to pedestrians, pavements have been widened and traffic-light phasing has been changed in favour of people on foot. All this has made the city a nicer place to wander round in but, with higher growth and traffic volumes, London is seeing increased congestion once more.

There are various ways of freeing up roads. Investment in public transport—of which there has been a great deal—is one. The London Underground has improved markedly over the past years. The Tube upgrade should increase the system's capacity which should both keep up with the population increase and ensure that travelling in London is not as painful as it used to be.

Cycles are another way, though they are costly too. Londoners can pick up one of 8,300 "Boris bikes" from a rack of their choice and drop it back at another. It is cheap for users—the first half hour is free and the next hour costs £4 to encourage commuter use—but expensive for taxpayers. They have shelled out slightly more than half of the total cost of £120m, with Barclays Bank, the sponsor, covering the rest. The average cost per bike is £14,460.

Source: Adapted from The Economist, 30 Jun 2012

**Extract 5: Keeping Singapore on the move**

Runway prices of certificates of entitlement (COE) tend to reawaken the debate on the vehicle quota system here. The larger question, of course, is how the car population, in particular, can be curbed in a fair and sensible manner over the long term to avoid the traffic gridlock seen in other cities.

The root of the problem is the irrepressible desire to own a car, even when it makes little economic sense to pay so much to buy and maintain one. The reasons for personal transport are many: genuine family needs, the poor appeal of public transport and the pursuit of social prestige. It is revealing that Hong Kong, Tokyo and New York, cities also driven by affluence and aspirations but which have no quota system or high taxes on cars, have been able to manage the penchant for car ownership. Potential car buyers there are deterred by traffic jams and limited parking spaces. Commuters enjoy a good rail network.

The Government intends to spend billions more to improve the transport system. But infrastructure has its limits on a small island. Ultimately, more sustainable and holistic solutions must be found to keep people moving smoothly. Such discussions can gain more traction when Singaporeans learn to yearn less for one of the common Cs of aspiration by shedding the notion that the car is something to have and to hold.

Source: Adapted from The Straits Times, 11 May 2012

**Questions**

- (a) Consider whether the information in Tables 1 and 2 suggests that there is a stable relationship between GDP growth and growth in passenger car registrations. [2]
- (b) (i) Describe the change in passenger car registrations in China from 2011 to 2013. [2]
- (ii) Despite the implementation of government policies to control car ownership in major cities, growth of passenger car registrations remains positive. Using demand and supply analysis, examine the reasons for the above change in passenger car registrations from 2011 to 2013. [4]
- (c) Explain how, for the UK, 'the efficient movement of people and commerce across our road networks is essential to fostering a healthy, vibrant economy.' [4]
- (d) (i) Explain the likely value of price elasticity of demand for cars in China given that customers have "limited earnings relative to the car prices". [2]
- (ii) Explain how the knowledge of PED is useful to a car manufacturer such as GM. [2]
- (e) Explain the rationale for government intervention in the use of car in cities. [6]
- (f) Based on the experience of London and Singapore, discuss the policy options Beijing should adopt to reduce congestion. [8]

[Total: 30]

**Question 2****Reducing Government Debt****Extract 6: France budget: Taxes favoured over spending cuts**

France has unveiled its budget for 2013, avoiding big austerity spending cuts in favour of higher taxes on the wealthy and big businesses. In its first budget, the Socialist government insisted its promise to cut the annual deficit to the eurozone limit of 3% of GDP next year. Official figures on Friday showed that French public debt had hit 91% of GDP between April and June this year, up from 89.3% at the end of March, which was still well above the eurozone limit of 60%. The BBC's Chris Morris noted that many of the government's policies come from raising taxes rather than cutting spending as compared with other countries in Europe pushing through painful austerity. Mr Ayrault, French Prime Minister, called it "a courageous, responsible budget". Some of the measures in the budget include:

- A new 75% tax on the richest earning more than 1m euros
- A 45% income tax rate on incomes over 150,000 euros a year
- A freeze in government spending, excluding debt repayments and pensions
- The reduction of tax exemptions for loan payments by large corporations
- Capital gains and dividends will now be subject to the income tax regime

"The government has understood that the increase in the public debt has got to be halted but the way that they are doing it is not the right way," said Eric Chaney, chief economist at French insurer Axa. "It amounts to strongly increasing the tax burden on companies, their shareholders and executives, in other words those who create added value. It will lead to an even bigger loss of competitiveness and so a reduction in long-term growth." The budget has been controversial, with some top earners threatening to leave the country as a result of the planned tax rises. Opposition parties have argued that more savings should have been found from cutting public spending so fewer tax rises would have been necessary.

Source: Adapted from BBC News, 28 Sep 2012

**Extract 7: US Avert Fiscal Cliff<sup>1</sup> With Entitlement Cuts, Tax Increases**

The U.S. has paid extremely low rates on its debt for several years now. Net interest last year totalled 1.5 percent of gross domestic product, half what it was in 1997. But with \$11 trillion in public debt, or about 73 percent of output, that privilege won't last. It wouldn't be prudent to test the market's patience before the market demands much higher interest rates, forcing a sudden and painful belt-tightening on every American. Failure to modify the tax increases and spending cuts would almost certainly induce a recession. Can it be done? Here are suggestions based on a 10-year road map:

- Raise the retirement age to 69 from 66. Savings: \$249 billion.
- Require more Medicare cost-sharing by discouraging its overuse by increasing deductibles and co-payments and means-test Medicare benefits so that the well-to-do elderly pay more. Savings: \$353 billion.
- Raise taxes on the wealthy. Savings: \$740 billion.
- End corporate tax breaks/rebates. Savings: \$160 billion.
- Overhaul other government programs such as eliminating some farm subsidies and have the U.S. Postal Service go to five-day delivery. Savings: \$213 billion.

Source: Adapted from The Editors, Bloomberg, 2 Oct 2012

<sup>1</sup> the automatic tax increases and spending cuts by US government set for the end of 2012

**Extract 8: US jobs data reveals economy is bouncing back strongly from recession**

The latest US employment data has confirmed that the American economy is on the path to recovery after the recession of 2008-2009, despite the slowdown engulfing other G20 nations. In the last 31 months, private sector employment rose by 5.2 million and the unemployment rate is now below 8% for the first time in nearly four years. But it is still more than two percentage points above the long-run value that most economists view as normal when the economy is operating near its potential. Moreover, the number of long-term unemployed (27 weeks or longer) is about 40% of the total. So the US labour market, while healing, is still far from where it should be.

Demand has grown slowly, despite unprecedented fiscal and monetary stimulus, and that explains why the unemployment rate remains high. Indeed, businesses cite uncertainty about the strength of demand as the main factor holding back job creation. Public sector demand has also contracted, owing to state and local governments' deteriorating budgets.

Recent reports suggest that there are more than three million unfilled job openings, and about 49% of employers say that they have difficulty filling positions, especially in information technology, engineering, and skilled trades. This has fanned speculation that a "mismatch" between workers' skills and employers' needs is a significant factor behind the elevated unemployment rate. The skills gap also shows up in rising inequality as it is becoming increasingly difficult for workers with low levels of educational attainment to find high-paying jobs in any sector, even when the economy is operating near full capacity.

Source: Adapted from Laura Tyson, The Guardian, 17 Oct 2012

**Extract 9: Climate change and poverty have not gone away**

In the shadow of the euro crisis and America's fiscal cliff, it is easy to ignore the global economy's long-term problems. But, while we focus on immediate concerns, they continue to fester, and we overlook them at our peril.

The most serious is global warming. While the global economy's weak performance has led to a corresponding slowdown in the increase in carbon emissions, it amounts to only a short respite. And we are far behind the curve: because we have been so slow to respond to climate change achieving the targeted limit of a 2C rise in global temperature will require sharp reductions in emissions in the future. Some suggest that, given the economic slowdown, we should put global warming on hold. On the contrary, retrofitting the global economy for climate change would help to restore aggregate demand and growth.

Next is the worldwide crisis in inequality. The problem is not only that the top income groups are getting a larger share of the economic pie, but also that those in the middle are not sharing in economic growth. An economic and political system that does not deliver for most citizens is one that is not sustainable in the long run.

The market will not, on its own, solve any of these problems. To make the structural transitions that the world needs, we need governments to take a more active role – at a time when demands for cutbacks are increasing in Europe and the US.

Source: Adapted from Joseph Stiglitz, Guardian.com, 7 Jan 2013

**Table 3: Selected Economic Statistics of France**

	2009	2010	2011	2012
GDP per capita (USD current PPPs)	33 794	34 408	35 505	36 249
Real GDP growth (%)	-3.1	1.7	2.0	0.0
Gross fixed capital formation (% of GDP)	-10.6	1.4	2.9	-1.2
Government budget balance (% of GDP)	-7.6	-7.1	-5.3	-4.8
General government debt (% of GDP)	91.4	95.5	99.2	109.3
Public expenditure on health (% of GDP)	9.0	9.0	8.9	9.0
Current account balance of payments (% of GDP)	-1.3	-1.4	-1.8	-2.2
Inflows of foreign direct investment (millions USD)	24 216	33 628	38 582	25 094
Inflation rate: all items (%)	0.1	1.5	2.1	2.0
Unemployment rate: total labour force (%)	9.5	9.7	9.6	10.2
Life expectancy at birth (years)	81	82	82	83
Infant mortality per 100,000 live births	3.9	3.6	3.5	3.5

**Table 4: Selected Economic Statistics of USA**

	2009	2010	2011	2012
GDP per capita (USD current PPPs)	46 927	48 287	49 782	51 689
Real GDP growth (%)	-2.8	2.5	1.8	2.8
Gross fixed capital formation (% of GDP)	-13.1	1.1	3.4	5.5
Government budget balance (% of GDP)	-13.34	-11.16	-10.06	-8.68
General government debt (% of GDP)	105.0	115.3	120.6	122.5
Public expenditure on health (% of GDP)	8.3	8.4	8.5	8.3
Current account balance of payments (% of GDP)	-2.7	-3.0	-3.0	-2.7
Inflows of foreign direct investment (millions USD)	150443	205851	230224	166411
Inflation rate: all items (%)	-0.4	1.6	3.2	2.1
Unemployment rate: total labour force (%)	9.3	9.6	9.0	8.1
Life expectancy at birth (years)	78	79	79	79
Infant mortality per 100,000 live births	6.6	6.5	6.2	6

Sources: OECD Statistics, <http://www.oecd.org>  
 World Bank <http://data.worldbank.org>

**Questions**

- (a) Compare the government budget balance of USA and France from 2009 to 2012. [2]
- (b) Explain how increasing the tax burden on the companies and executives by the government of France will affect the competitiveness of her economy. [4]
- (c) Comment on the effects on standard of living when France chooses to increase tax rather than cut government spending to reduce its national debt. [4]
- (d) Using the data, explain the negative effects on the US economy if she did not reduce her debt burden. [4]
- (e) Discuss how far supply-side policies can be used to reduce the problem of high unemployment in the USA. [8]
- (f) Reducing national debt might lead to problems such as falling economic growth and rising global warming. Assess the extent to which the above problems will limit the ability of the government of France to reduce her national debt. [8]

[Total: 30]

**Section B**

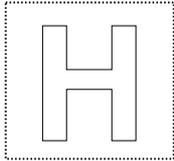
Answer **one** question from this section

- 3 (a) Using examples, distinguish between public and merit goods. [10]
- (b) Discuss the view that the role of the government should be restricted to the provision of public and merit goods. [15]
- 4 It has been claimed by some politicians that globalisation was the underlying cause of today's economic problems and that protectionism was the answer.
- (a) Explain any **two** economic problems that may be caused by globalisation. [10]
- (b) To what extent is protectionism the best answer to these economic problems? [15]

Name: \_\_\_\_\_

Centre No. / Index No.: \_\_\_\_\_ / \_\_\_\_\_

Class: \_\_\_\_\_



PIONEER JUNIOR COLLEGE, SINGAPORE  
PRELIMINARY EXAMINATIONS 2014  
Higher 2

## ECONOMICS

9732/01

Paper 1

18 September 2014

2 hours 15 minutes

Additional Materials: Answer Paper



### READ THESE INSTRUCTIONS FIRST

Write your Centre number, index number and name on all the work you hand in.

Write in dark blue or black pen on both sides of the paper.

You may use a soft pencil for any diagrams, graphs or rough working.

Do not use staples, paper clips, highlighters, glue or correction fluid.

Answer **all** questions.

At the end of the examination, fasten all your work securely together.

Fasten your answers to Question 1 and Question 2 SEPARATELY.

The number of marks is given in brackets [ ] at the end of each question or part question.

This document consists of **8** printed pages.



Pioneer Junior College



Ministry of Education

Answer **all** questions

**Question 1****Transport Economics in UK and China****Extract 1: Competition regulator outlines bus market shake-up**

Bus deregulation has failed to deliver lower prices and better services in many part of Britain, the Competition Commission said as it unveiled proposals to shake-up the industry. The Competition Commission confirmed that in many areas bus operators faced little or no competition, with passengers facing less frequent services and "higher fares than where there is some form of rivalry".

Under the proposals of opening up the market, firms will have to share bus stations with rivals and accept "multi-operator ticketing schemes" which refers to a system where passengers are able to use the same ticket on services provided by different operators. They will also be prevented from taking direct measures to keep out new rivals, such as over-bussing - where a firm increases the frequency of its service to kill off a competitor.

Competition and potential competition can drive standards up for passengers – that was the intention behind deregulation, but the reality is that in too many areas of the country, competition has stagnated and the incumbent providers know that they face little in the way of serious challenge." This has meant little incentive to improve services and lower fares. "Operator behaviour" has been blamed in the report for keeping rivals out.

Out of the 1,245 bus companies operating in England, Scotland and Wales, five big operators - Arriva, FirstGroup, Go-Ahead, National Express and Stagecoach - carry 70 percent of all the 2.9bn passengers a year.

Source: Adapted from telegraph.co.uk, 20 Dec 2011

**Extract 2: Growth is straining London's infrastructure**

In 2005, the mayor of London introduced a congestion charge on vehicles coming into central London, which initially cut such traffic by 20% and improved traffic flows. Since then, some streets have been given over to pedestrians, pavements have been widened and traffic-light phasing has been changed in favour of people on foot. All this has made the city a nicer place to wander round in but, with higher growth and traffic volumes, London is seeing increased congestion once more.

There are various ways of freeing up roads. Investment in public transport—of which there has been a great deal—is one. The London Underground has improved markedly over the past years to keep up with population growth. With upgraded and computerised control rooms and lines allowing for automatic trains, capacity has risen from 24 trains to 30 an hour at peak times.

Cycles are another way, though they are costly too. Londoners can pick up one of 8,300 "Boris bikes" from a rack of their choice and drop it back at another. It is cheap for users—the first half hour is free and the next hour costs £4 to encourage commuter use—but expensive for taxpayers. They have shelled out slightly more than half of the total cost of £120m, with Barclays Bank, the sponsor, covering the rest. The average cost per bike is £14,460.

Source: Adapted from www.economist.com, 30 Jun 2012

**Extract 3: Traffic congestion costs UK economy £4.3bn a year**

Traffic congestion is costing the economy more than £4.3bn a year. More than £426m is wasted on fuel alone a year, the survey said. The cost in terms of lost time is £331 per commuter a year, or £2.7bn, while hold-ups to business or freight vehicles amounts to £1.1bn annually being added to household costs. Around 40 per cent of the gridlock costs occur in London, with drivers spending 66.1 hours a year stuck in jams. Traffic congestion impacts everything from how long it takes us to get to work and the amount of fuel we consume in our vehicles to the costs of food at the grocery store. As the UK continues facing times of austerity and high unemployment, the efficient movement of people and commerce across our road networks is essential to fostering a healthy, vibrant economy.

Source: Adapted from telegraph.co.uk, 10 Dec 2012

**Extract 4: Beijing to introduce congestion charge**

Beijing is one of the most congested cities in China with a population of around 20 million with its car-owning population moving to above five million earlier this year. Beijing has now announced plans to introduce a congestion charge in the city centre to ease its crowded roads. Beijing faces a serious test in the next five years with the rapid growth in population, growing middle class and economic prosperity. Many other cities also impose such charges for city centre road users, including London, Milan, Stockholm and Singapore. Kevin Gilbert, a British engineer working in Beijing, said: "The roads have definitely become more crowded in recent years but I think a congestion charge will have limited effects on this."

Source: Adapted from telegraph.co.uk, 31 Aug 2012

**Extract 5: Shanghai vigorously pushes for development of public transportation**

Shanghai's public transport reform began in March 2009, before the World Expo Shanghai 2010. Since then, an improved structure of urban transit system has taken shape in Puxi, Pudong and outlying suburban districts. The reform has given district governments the power to design and operate bus lines, which has greatly aroused the enthusiasm of local authorities. The service standard of Shanghai public transport has gone up significantly through the reform. Recently, authorities in Shanghai asked their bus drivers to wait a bit longer for passengers and give way to pedestrians crossing the road. The reform has made bus companies and their employees more motivated and enthusiastic. Workers are paid more and the buses are cleaner. Revenues from car plate auctions have all been used to develop public transport, purchase public transport services and support the construction of traffic facilities.

To solve the problem of "last-kilometer" disconnection between Metro stations and homes, authorities have opened 60-plus new bus lines, even though some of these are losing money. The "last kilometer" disconnection became a problem due to urban expansion resulting in long walking distances from homes to supermarkets, hospitals and schools. Sixty-four bus routes have been added since last year and 20 more are in planning. Subsidies are given to commuters taking the "last kilometer" buses, making these rides free. The authorities will evaluate the efficiency of these new bus lines and make adjustment according to actual needs.

Source: Adapted from Information Office of Shanghai Municipality, 11 Oct 2012

**Extract 6: Car sales set to rise in China**

China's automobile sales are set to rise faster this year as the economy strengthens. China's auto market, the world's largest, had a disappointing year in 2012 because of several factors, including slowing economic growth and restrictions on auto purchases by some big-city governments in an effort to control traffic congestion. Last year, Guangzhou and Guiyang joined Beijing and Shanghai in putting such restrictions in place, seeking to reduce traffic and limit air pollution.

While the macroeconomic rebound and the trend of urbanization will make automobile demand firm over the long run, the outlook for commercial vehicles such as trucks and lorries could be hampered by the government's effort to shift away from investment-led growth, which could mean decreased activity in construction and heavy industry.

Source: Adapted from [online.wsj.com](http://online.wsj.com), 11 Jan 2013

**Table 1: GDP Growth (annual %) of China and UK**

Country/Year	2008	2009	2010	2011	2012	2013
China	9.6	9.2	10.4	9.3	7.7	7.7
United Kingdom	-0.8	-5.2	1.7	1.1	0.3	1.7

Source: [worldbank.org](http://worldbank.org), accessed 7 Aug 2014

**Table 2: Growth in Passenger Car Registrations (annual %)**

Country/Year	2008	2009	2010	2011	2012	2013
China	6.7	51.8	35.3	4.3	8.3	15.4
United Kingdom	-5.0	-15.8	3.1	-3.0	6.3	11.8

Source: [www.tradingeconomics.com](http://www.tradingeconomics.com) UK: The Society of Motor Manufacturer and Traders, China: China Association of Automobile Manufacturers, accessed 7 Aug 2014

**Questions**

- (a) Consider whether the information in Tables 1 and 2 suggests that there is a stable relationship between GDP growth and growth in passenger car registrations. [3]
- (b) Explain how, for the UK, 'the efficient movement of people and commerce across our road networks is essential to fostering a healthy, vibrant economy.' [4]
- (c) (i) Explain the rationale for government intervention in the use of cars in cities. [5]
- (ii) Based on the experience of the UK government in controlling congestion in London, discuss the policy options recommended for Beijing to reduce traffic congestion. [8]
- (d) In the UK, there has been deregulation in the bus market, with private firms providing bus services, while in Shanghai, bus services are directly provided by the government. [10]

Discuss whether direct provision of bus services such as that in Shanghai would be the most appropriate way of improving efficiency in the bus market in the UK.

[Total: 30]

**Question 2****Reducing Government Debt****Extract 7: France budget: Taxes favoured over spending cuts**

France has unveiled its budget for 2013, avoiding big austerity spending cuts in favour of higher taxes on the wealthy and big businesses. In its first budget, the Socialist government insisted its promise to cut the annual deficit to the eurozone limit of 3% of GDP next year. Official figures on Friday showed that French public debt had hit 91% of GDP between April and June this year, up from 89.3% at the end of March, which was still well above the eurozone limit of 60%. The BBC's Chris Morris noted that many of the government's policies come from raising taxes rather than cutting spending as compared with other countries in Europe pushing through painful austerity. Mr Ayrault, French Prime Minister, called it "a courageous, responsible budget". Some of the measures in the budget include:

- A new 75% tax on the richest earning more than 1m euros
- A 45% income tax rate on incomes over 150,000 euros a year
- A freeze in government spending, excluding debt repayments and pensions
- The reduction of tax exemptions for loan payments by large corporations
- Capital gains and dividends will now be subject to the income tax regime

"The government has understood that the increase in the public debt has got to be halted but the way that they are doing it is not the right way," said Eric Chaney, chief economist at French insurer Axa. "It amounts to strongly increasing the tax burden on companies, their shareholders and executives, in other words those who create added value. It will lead to an even bigger loss of competitiveness and so a reduction in long-term growth." The budget has been controversial, with some top earners threatening to leave the country as a result of the planned tax rises. Opposition parties have argued that more savings should have been found from cutting public spending so fewer tax rises would have been necessary.

Source: Adapted from BBC News, 28 Sep 2012

**Extract 8: US Avert Fiscal Cliff<sup>1</sup> With Entitlement Cuts, Tax Increases**

The U.S. has paid extremely low rates on its debt for several years now. Net interest last year totalled 1.5 percent of gross domestic product, half what it was in 1997. But with \$11 trillion in public debt, or about 73 percent of output, that privilege won't last. It wouldn't be prudent to test the market's patience before the market demands much higher interest rates, forcing a sudden and painful belt-tightening on every American. Failure to modify the tax increases and spending cuts would almost certainly induce a recession. Can it be done? Here are suggestions based on a 10-year road map:

- Raise the retirement age to 69 from 66. Savings: \$249 billion.
- Require more Medicare cost-sharing by discouraging its overuse by increasing deductibles and co-payments and means-test Medicare benefits so that the well-to-do elderly pay more. Savings: \$353 billion.
- Raise taxes on the wealthy. Savings: \$740 billion.
- End corporate tax breaks/rebates. Savings: \$160 billion.
- Overhaul other government programs such as eliminating some farm subsidies and have the U.S. Postal Service go to five-day delivery. Savings: \$213 billion.

Source: Adapted from The Editors, Bloomberg, 2 Oct 2012

<sup>1</sup> the automatic tax increases and spending cuts by US government set for the end of 2012

**Extract 9: US jobs data reveals economy is bouncing back strongly from recession**

The latest US employment data has confirmed that the American economy is on the path to recovery after the recession of 2008-2009, despite the slowdown engulfing other G20 nations. In the last 31 months, private sector employment rose by 5.2 million and the unemployment rate is now below 8% for the first time in nearly four years. But it is still more than two percentage points above the long-run value that most economists view as normal when the economy is operating near its potential. Moreover, the number of long-term unemployed (27 weeks or longer) is about 40% of the total. So the US labour market, while healing, is still far from where it should be.

Demand has grown slowly, despite unprecedented fiscal and monetary stimulus, and that explains why the unemployment rate remains high. Indeed, businesses cite uncertainty about the strength of demand as the main factor holding back job creation. Public sector demand has also contracted, owing to state and local governments' deteriorating budgets.

Recent reports suggest that there are more than three million unfilled job openings, and about 49% of employers say that they have difficulty filling positions, especially in information technology, engineering, and skilled trades. This has fanned speculation that a "mismatch" between workers' skills and employers' needs is a significant factor behind the elevated unemployment rate. The skills gap also shows up in rising inequality as it is becoming increasingly difficult for workers with low levels of educational attainment to find high-paying jobs in any sector, even when the economy is operating near full capacity.

Source: Adapted from Laura Tyson, The Guardian, 17 Oct 2012

**Extract 10: Climate change and poverty have not gone away**

In the shadow of the euro crisis and America's fiscal cliff, it is easy to ignore the global economy's long-term problems. But, while we focus on immediate concerns, they continue to fester, and we overlook them at our peril.

The most serious is global warming. While the global economy's weak performance has led to a corresponding slowdown in the increase in carbon emissions, it amounts to only a short respite. And we are far behind the curve: because we have been so slow to respond to climate change achieving the targeted limit of a 2C rise in global temperature will require sharp reductions in emissions in the future. Some suggest that, given the economic slowdown, we should put global warming on hold. On the contrary, retrofitting the global economy for climate change would help to restore aggregate demand and growth.

Next is the worldwide crisis in inequality. The problem is not only that the top income groups are getting a larger share of the economic pie, but also that those in the middle are not sharing in economic growth. An economic and political system that does not deliver for most citizens is one that is not sustainable in the long run.

The market will not, on its own, solve any of these problems. To make the structural transitions that the world needs, we need governments to take a more active role – at a time when demands for cutbacks are increasing in Europe and the US.

Source: Adapted from Joseph Stiglitz, Guardian.com, 7 Jan 2013

**Table 3: Selected Economic Statistics of France**

	2009	2010	2011	2012
GDP per capita (USD current PPPs)	33 794	34 408	35 505	36 249
Real GDP growth (%)	-3.1	1.7	2.0	0.0
Gross fixed capital formation (% of GDP)	-10.6	1.4	2.9	-1.2
Government budget balance (% of GDP)	-7.6	-7.1	-5.3	-4.8
General government debt (% of GDP)	91.4	95.5	99.2	109.3
Public expenditure on health (% of GDP)	9.0	9.0	8.9	9.0
Current account balance of payments (% of GDP)	-1.3	-1.4	-1.8	-2.2
Inflows of foreign direct investment (millions USD)	24 216	33 628	38 582	25 094
Inflation rate: all items (%)	0.1	1.5	2.1	2.0
Unemployment rate: total labour force (%)	9.5	9.7	9.6	10.2
Life expectancy at birth (years)	81	82	82	83
Infant mortality per 100,000 live births	3.9	3.6	3.5	3.5

**Table 4: Selected Economic Statistics of USA**

	2009	2010	2011	2012
GDP per capita (USD current PPPs)	46 927	48 287	49 782	51 689
Real GDP growth (%)	-2.8	2.5	1.8	2.8
Gross fixed capital formation (% of GDP)	-13.1	1.1	3.4	5.5
Government budget balance (% of GDP)	-13.34	-11.16	-10.06	-8.68
General government debt (% of GDP)	105.0	115.3	120.6	122.5
Public expenditure on health (% of GDP)	8.3	8.4	8.5	8.3
Current account balance of payments (% of GDP)	-2.7	-3.0	-3.0	-2.7
Inflows of foreign direct investment (millions USD)	150443	205851	230224	166411
Inflation rate: all items (%)	-0.4	1.6	3.2	2.1
Unemployment rate: total labour force (%)	9.3	9.6	9.0	8.1
Life expectancy at birth (years)	78	79	79	79
Infant mortality per 100,000 live births	6.6	6.5	6.2	6

Sources: OECD Statistics, <http://www.oecd.org>  
World Bank <http://data.worldbank.org>

**Questions**

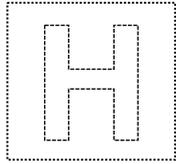
- (a) Compare the government budget balance of USA and France from 2009 to 2012. [2]
- (b) Explain how increasing the tax burden on the companies and executives by the government of France will affect the competitiveness of her economy. [4]
- (c) Explain a possible benefit on standard of living when France chooses to increase tax rather than cut government spending to reduce its national debt. [2]
- (d) Using the data, explain the negative effects on the US economy if she did not reduce her debt burden. [4]
- (e) Discuss how far supply-side policies can be used to reduce the problem of high unemployment in the USA. [8]
- (f) Reducing national debt might lead to problems such as falling economic growth and rising global warming. Assess the extent to which the above problems will limit the ability of the government of France to reduce her national debt. [10]

[Total: 30]

Name: \_\_\_\_\_

Centre No. / Index No.: \_\_\_\_\_ / \_\_\_\_\_

Class: \_\_\_\_\_



PIONEER JUNIOR COLLEGE, SINGAPORE  
PRELIMINARY EXAMINATIONS 2014  
Higher 2

**ECONOMICS**

**9732/02**

Paper 2

23 September 2014

2 hours 15 minutes

Additional Materials: Answer Paper

**READ THESE INSTRUCTIONS FIRST**

Write your Centre number, index number and name on all the work you hand in.

Write in dark blue or black pen on both sides of the paper.

You may use a soft pencil for any diagrams, graphs or rough working.

Do not use staples, paper clips, highlighters, glue or correction fluid.

Answer **three** questions in total, of which **one** must be from Section A, **one** from Section B and **one** from **either** Section A or Section B.

At the end of the examination, fasten all your work securely together.

Fasten your answers to each question SEPARATELY.

The number of marks is given in brackets [ ] at the end of each question or part question.

This document consists of 2 printed pages and **no** blank page.



Pioneer Junior College



Ministry of Education

Answer **three** questions in total.

### Section A

**One or two** of your three chosen questions must be from this section.

- 1 The Fukushima nuclear disaster led to public pressure on the Japanese government to shutdown their nuclear reactors. The void in the nuclear power supply will result in an energy crunch. Fears of radiation have affected the demand for Japanese food exports.

With the use of demand, supply and elasticity concepts, discuss the effects of the above on the consumers and producers in Japan. [25]

- 2 (a) With examples, distinguish between internal and external economies of scale. [10]

(b) The conventional assumption in most economic models is that firms maximize profits. Discuss the assertion that the pursuit of profits will always lead to a few large firms dominating the market for each and every product. [15]

- 3 In the UK, private firms organize air shows and sell tickets for entry to the event area at prices up to £25. Popular as these shows may be, some choose to watch the air shows from the hills surrounding the event area. The Singapore Air Show, which is also organized by a private firm, is considered to have a strategic national interest.

(a) Explain why the markets for public goods and merit goods may not work efficiently. [12]

(b) Discuss the view that air shows should be provided by the government. [13]

### Section B

**One or two** of your three chosen questions must be from this section.

- 4 In 2013, the Singapore's Ministry of Manpower (MOM) continued its approach of taking progressive steps to raise the quality of the foreign workforce and moderate foreign employment growth. This is part of the Government's effort to achieve quality economic growth driven by sustained productivity improvement.

Source: Ministry of Manpower Website

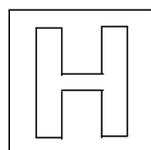
(a) Explain how the nature of the Singapore's economy affects the government policy decision to focus on supply-side rather than demand-side policies. [10]

(b) Assess the impact of Singapore's approach to foreign labour on the macroeconomic aims of the economy. [15]

- 5 (a) Explain how a rise in interest rates would improve the balance of payments position of a country. [10]

(b) Assess the view that the government should focus on achieving a healthy balance of payments as its main macroeconomic goal. [15]

- 6 Explain the trend towards globalization and discuss the view that globalization is the main cause of economic problems in Singapore. [25]



**RAFFLES INSTITUTION**  
**2014 YEAR 6 Preliminary Examination**

Higher 1



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## ECONOMICS

8819/01

Paper 1: Case Studies and Essays

3 September 2014

3 hours

Additional Materials: Answer Paper

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### READ THESE INSTRUCTIONS FIRST

**DO NOT open this booklet until you are told to do so.**

Write your name, index number and CT class on all the work you hand in.

Write in dark blue or black pen on both sides of the paper.

You may use a soft pencil for diagrams, graphs or rough working.

Do not use paper clips, highlighters, glue or correction fluid.

Answer **all** questions

**Begin answering each question on a fresh sheet of writing paper.**

**At the end of the examination,**

- Fasten your answer to each question **separately**
- Fasten cover sheet with your answers from Case Study 1.
- Fasten cover sheet with your answers from Case Study 2.

You are advised to spend several minutes per question reading through the data before you begin writing your answers.

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This document consists of **8** printed pages



Raffles Institution

**Question 1 Tourism and Hospitality Industry****Table 1: Tourism Industry Performance for Singapore**

	2010	2011	2012	2013
<b>Total visitors (000)</b>	11,641.7	13,171.3	14,496.1	15,567.9
<b>Region (000)</b>				
Americas	524.8	563.7	616.4	641.5
Mainland China	1171.5	1577.5	2034.2	2269.9
Europe	1373.5	1,401.5	1,537.3	1,591.2

Source: <http://www.singstat.gov.sg/statistics>**Table 2: Short-Run Own-Price Elasticities  
by Source Market**

<b>Hong Kong</b>	-1.209
<b>Macau</b>	-1.598
<b>Singapore</b>	-0.876
<b>South Korea</b>	-0.518

Source: How competitive is Hong Kong against its competitors

**Extract 1: Singapore Tourism Board pushes for quality tourism**

For the long-term sustainable growth of Singapore's tourism industry, Singapore Tourism Board (STB) is promoting high-quality tourism by embarking on a series of customised marketing campaigns catered to different consumers, while it continues to strive to establish industry competencies to help upgrade the skills of workers in the F&B and hotel industries. In the meantime, Singapore pushes to restructure its economy by raising productivity and reducing its reliance on foreign workers. Challenges to the tourism industry include higher foreign worker levies, rising rentals and wages, coupled with an appreciating Singapore dollar.

STB's target of 17m annual visitors by 2015 implies an increase of 6.6% per annum. While emerging markets like Mainland China remain the top 3 on lists of visitor arrivals to Singapore, visitors from China have dropped 27 percent in the five months through May 2013 from a year earlier, due to slower economic growth on the mainland and the impact of a new Chinese law that clamps down on cut-price shopping tours. This is further exacerbated by the continuing strengthening of the S\$ exchange rate against the Yuan and a sales tax that Chinese tourists don't encounter in neighbouring Hong Kong.

The STB aims to offer more innovative experiences to cater to the ever-changing needs of the customers. The opening of the new cruise ship terminal Marina Bay Cruise Centre Singapore (MBCCS) in October 2012 allows Singapore to tap into the increasing number of people in Asia who are taking leisure trips on luxury vessels and allows Singapore to become a cruise gateway to Asia. STB has extended its Cruise-Fly products to the MBCCS. Together with the expansion of networks and partnerships with other airlines, more passengers will be able to enjoy convenient, seamless transfers to and from Changi Airport.

The push for medical and education tourism continues as Asian economies continue to grow. With the novelty effect of the integrated resorts wearing off, and Singapore facing stronger competition from neighbouring economies, new tourist attractions such as the River Safari and the National Art

Gallery are being introduced. The opening of the MBCCS will also help support regional cruises which are well received among South East Asian travellers, who dislike long haul flights or have tighter budgets. Singapore's travel and tourism landscape is likely to remain positive.

Source: adapted from Bloomberg 2014 & other various sources

### **Extract 2: How competitive is Hong Kong against its competitors?**

This demand elasticity analysis provides insights into Hong Kong's competitiveness as an international tourist destination in comparison with its neighboring competitors: Macau, Singapore and South Korea. The study recognizes that differences between markets should be taken into consideration in evaluating a destination's competitiveness. Overall, this study finds that Hong Kong has a competitive advantage over Macau. However, Singapore and South Korea appear to be in a better competitive position than Hong Kong.

Source: [www.elsevier.com](http://www.elsevier.com) – Tourism Management

### **Extract 3: Medical tourism in Asia**

Medical tourism is a practice where patients travel abroad to purchase medically necessary services, such as heart surgeries and hip replacements; elective treatments, such as cosmetic surgeries or reproductive services; and experimental treatments, such as stem cell therapies.

Medical tourism in Asia is booming. People from both Asia and the West are being attracted to cities and 'hubs' of medical excellence in a number of countries, such as Malaysia, Thailand, India, Singapore, Taiwan and South Korea. This tourism is a reversal of medical travel's historic trend of being from low- to high-income countries. But the travel for cheaper treatments, including cosmetic, dental and transplantation surgery, has risks as well as benefits for the host countries.

National governments anticipate many benefits from medical tourism. There are financial benefits generated from health services and associated visitor spending. Health services exports could potentially diversify regional economies. Industry promoters say it can increase foreign direct investment into the private health sector, help countries retain their existing health workforce, increase training opportunities for health workers, and ensure that the local health sector has access to the latest technological advances. Positive spillovers may include the expansion of health-sector infrastructure and also roads and telecommunications. Equity benefits are potentially created by hospitals cross-subsidising care for domestic patients, or helping to fund capital investment. Capital investments, such as MRI scanners, can then be used by all patients in the hospital or health system. Taken together, these benefits can provide local populations with the opportunity to access cutting-edge and high-quality health services at home.

So do these anticipated benefits occur? The truth is that we simply do not have enough data on country indicators. While some evidence suggests medical tourism generates modest contributions to GDP, there are concerns that the medical tourism also creates social and health risks for countries investing in the sector. Investment in medical tourism can drain resources from the public health sector and divert attention away from the less profitable health needs of the local population.

Source: Adapted from [www.eastasiaforum.org/2014](http://www.eastasiaforum.org/2014)

### **Extract 4: Healthcare system in Singapore**

The Singaporean healthcare system comprises of public and private healthcare. Good, affordable basic healthcare is available to Singaporeans through subsidised medical services at public

hospitals and clinics. Singapore's healthcare system is a mix of public and private care financing. It is based on individual responsibility, coupled with government subsidies to keep basic health care affordable. The government ensures that good and affordable basic medical services are made available to all Singaporeans through the provision of heavily subsidized medical services at the public hospitals and government clinics. The basic medical package will reflect good, up-to-date medical practice, which is cost-effective and of proven value. But it will not provide the latest and best of everything. It will exclude non-essential or cosmetic services, experimental drugs and procedures of unproven value.

Source: [www.sgc.org.sg](http://www.sgc.org.sg)

**Questions**

(a) (i) With reference to Table 1, compare the changes in the number of visitors from the different regions to Singapore between 2010 and 2013. [2]

(ii) According to Extract 1, "visitors from China have dropped 27 percent in the five months through May 2013 from a year earlier". [1]

Explain why "the continuing strengthening of the S\$ exchange rate against the yuan" has reduced the number of Chinese visitors to Singapore.

(b) Identify and explain one possible relationship between cruise travel and air travel. [2]

(c) (i) Explain the concept of price elasticity of demand. [2]

(ii) Explain how the information in Table 2 will affect a Singapore travel agency's pricing policy for the different destinations. [4]

(d) (i) Using a demand and supply diagram, explain how subsidized medical services impose a greater burden on the government the more price elastic its demand. [3]

(ii) The "Singapore health care delivery system is based on individual responsibility, coupled with government subsidies to keep basic health care affordable." [8]

Discuss whether the government should subsidise healthcare services in Singapore.

(e) According to Extract 3, "Medical tourism in Asia is booming... But the travel for cheaper treatments, including cosmetic, dental and transplantation surgery, has risks as well as benefits for the host countries." [8]

Discuss whether the booming medical tourism industry brings about more benefits than risks for these host countries in Asia.

**[Total: 30m]**

**Question 2 Myanmar, a New Emerging Economy**

**Table 3: Myanmar, Trade in Goods with World**

Period	Exports (Million €)	Imports (Million €)
2009	4,239	5,072
2010	4,868	7,502
2011	5,974	9,836
2012	6,435	13,232

Source: European Commission

**Table 4: Myanmar, Trade with European Union**

Items	Exports (Million €)					Imports (Million €)				
	2009	2010	2011	2012	2013	2009	2010	2011	2012	2013
Vegetable products	7	10	14	15	19	1	0	0	1	1
Products of the chemical or allied industries	0	0	0	0	0	23	19	33	31	50
Footwear, hats and other headgear	2	2	4	3	1	0	0	0	0	0
Optical and photographic instruments, etc.	0	0	0	0	0	4	5	13	13	34

Source: European Commission

**Table 5: Gross Domestic Product (GDP) and its Components in selected Economies (% of Total), 2012**

	Myanmar	Singapore
<b>Total GDP (US\$ billion) 2012</b>	54.53	272.8
Composition:	%	%
Private consumption	80.8	39.2
Government consumption	3.8	9.7
Gross fixed investment	17.0	27.0
Exports of goods and services	18.9	200.7
Imports of goods and services	-20.4	-178.5

Source: CIA World Factbook

**Extract 5: Opportunities and Challenges to Myanmar's opening up**

Myanmar has recently opened itself up to the outside world after long years of self-imposed isolation. While many observers remain uncertain whether the ongoing reforms are real or just cosmetic, it is undeniable that Myanmar is moving towards greater openness. In this process, the influx of foreign direct investment has had an immense impact on the country and the people, for better and for worse. Myanmar is a country blessed with abundant natural resources. From precious stones and raw materials to natural gas, the country has always been of interest to foreign investors. Now that Myanmar is embracing an open-door economic policy, foreign direct investment could stimulate the economy and improve the livelihood of the people.

McKinsey reported last month that Myanmar's Gross Domestic Product (GDP) could quadruple to about US\$200 billion (S\$250 billion) in 2030 from US\$45 billion in 2010 with an annual growth rate of 8 per cent. That may help to lure US\$170 billion in capital inflows, including foreign direct investment totalling US\$100 billion.

The Myanmar government has already begun adjusting its policy towards foreign direct investment. It has allowed more political freedom and loosened controls over the economy, luring in large conglomerates such as Ford Motor and Coca-Cola. Newly elected opposition member of the government, Ms Aung San Suu Kyi has appealed to investors and potential investors "to put a premium on respect for the law, on environmental and social factors, on the rights of workers, on job creation and on the promotion of technological skills". She believed that this approach would lead, in the long run, to greater benefits for all concerned.

Myanmar's labour force, numbering 31 million, could gain the most from incoming capital investment. Unemployment in the country could be as high as 37 per cent, with more than a quarter of its 60 million people living in poverty. Foreign direct investment does not just mean more jobs. It also gives workers the opportunity to learn new skills. This is particularly so in core industries with high growth potential and higher productivity.

But not everything that flows from foreign investment is good. The appropriation of land for large projects such as gas pipelines, and the impact of dam construction on Myanmar's major rivers, involving the relocation of villagers without adequate compensation, are often cited as negative effects stemming from foreign direct investment inflows.

While the opening up of Myanmar's economy has created many business opportunities, it has also generated a myriad of economic and social problems. These problems will not be fixed overnight. But they require tough action on the part of the government to minimise the exploitation stemming from foreign direct investment.

Source: Adapted from The Straits Times, accessed 19 June 2014

**Extract 6: Effects of Myanmar opening up on neighbouring countries**

Thailand has benefited from open access to Myanmar's natural resources – more than half of Bangkok's electricity supply relies on gas piped from its western neighbour. Thai companies have also moved into property development and service industries there, hence benefitting from Myanmar's opening. While Myanmar's opening has resulted in significant benefits for its neighbouring countries, this has also undeniably resulted in costs on these countries involved. For one, Myanmar is drawing away a steady stream of tourists, one of Thailand's mainstay service industries, and is targeting close to 1m visitors in 2014, up from about 300,000 in 2011.

Other south-east Asian countries are not spared either. Myanmar, with a labour force that is largely unskilled and with wages as low as 700Kyat (Myanmar's currency) a day for a worker in a garment factory, it could compete with many of the other neighbouring low-cost manufacturing destinations, such as Vietnam and Thailand. Increasingly, garment factories in these two neighbouring countries have been scaling down their operations in the face of such stiff competition.

Amidst the challenges posed on its neighbouring countries, the International Monetary Fund (IMF) said in January that it saw "high growth potential" for Myanmar. Citing stronger commodity exports and higher inward investments, the IMF estimated Myanmar's economic growth of 5.5% in the 2011-12 fiscal year, which could potentially be a silver lining for its neighbouring countries.

On the other hand, inflation, projected at 4.2% for the 2011 financial year, is on the rise and is expected to pick up to 5.8% or higher given the likely increase in foreign investment and aid flows. This could in turn damage Myanmar's export competitiveness, while transferring the rise in prices to its trading partners. As for Myanmar's own companies: "We're jittery," says one local executive with a pharmaceuticals importer. "Big foreign investors have economic scale and access to markets – they can easily overwhelm us ... We have had discussions with the government about this; we can't compete with multinationals."

Source: Adapted from Financial Times, accessed 18 April 2012

### Questions

- (a) (i) With reference to Table 3, describe the trend of Myanmar's trade balance with the world from 2009 to 2012. [2]
- (ii) Using a relevant diagram, explain how Myanmar's exchange rate is likely to be affected by its trade balance. [4]
- (b) Explain how the theory of comparative advantage is reflected in the trade flows between EU and Myanmar in Table 4. [4]
- (c) (i) Identify an injection from Table 5. [1]
- (ii) To what extent does Table 5 suggest that there is a difference in the size of the multiplier between Myanmar and Singapore? [3]
- (d) *"...the opening up of Myanmar's economy has created many business opportunities, it has also generated myriad of economic and social problems."* [8]
- In light of the above, discuss whether the opening up of her economy is beneficial to Myanmar.
- (e) With reference to the data where relevant, evaluate appropriate policies you would recommend to the policy makers of the countries affected by the opening up of the Myanmar economy. [8]

**[Total:30]**

**Section B**

Answer **one** question from this section.

- 3 Car certificate of entitlement (COE) prices are likely to rise as the Land Transport Authority (LTA) continued to shrink supply to a record low.  
Source: <http://transport.asiaone.com>. Jan 14, 2014.
- (a) Distinguish between a public good and a demerit good. [10]
- (b) Discuss whether shrinking the supply of COE is the most desirable policy to curb traffic congestion in Singapore. [15]
- 4 (a) With the aid of examples, explain the factors influencing the pattern of trade between Singapore and her trading partners. [10]
- (b) Due to uncertainties in the global economy, Singapore economy recorded slower growth in the first quarter of 2014. However, unemployment rate remained low at 2.0%. Inflation rate is expected to stay elevated at 2 to 3% as domestic cost pressures are likely to remain strong. The rapid pace of globalisation has also contributed to increasing income inequality in Singapore. [15]

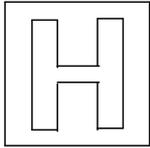
Source: <http://www.mas.gov.sg>

In view of the above report regarding Singapore's current economic performance, discuss which goal should be the priority of the Singapore government.

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Question 1	Table 2	© <a href="http://www.elsevier.com">www.elsevier.com</a> – Tourism Management
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**RAFFLES INSTITUTION**  
**2014 YEAR 6 Preliminary Examination**

Higher 1



**ECONOMICS**

Paper 1: Case Studies

**8819/01**

# COVER SHEET

Name: \_\_\_\_\_

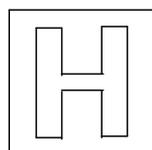
Civics Class: \_\_\_\_\_

Economics Tutor: \_\_\_\_\_

Question No.	Marks
	<b>/30</b>



Raffles Institution



RAFFLES INSTITUTION  
2014 YEAR 6 Preliminary Examination

Higher 2



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## ECONOMICS

Paper 1: Case Studies

9732/01

3 September 2014

2 hours 15 minutes

Additional Materials: Answer Paper

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### READ THESE INSTRUCTIONS FIRST

**DO NOT** open this booklet until you are told to do so.

Write your name, index number and CT class on all the work you hand in.

Write in dark blue or black pen on both sides of the paper.

You may use a soft pencil for diagrams, graphs or rough working.

Do not use paper clips, highlighters, glue or correction fluid.

Answer **all** questions

**Begin answering each question on a fresh sheet of writing paper.**

**At the end of the examination,**

- Fasten your answer to each question **separately**
- Fasten a cover sheet with your answers from Case Study 1
- Fasten a cover sheet with your answers from Case Study 2

You are advised to spend several minutes per question reading through the data before you begin writing your answers.

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This document consists of **8** printed pages



Raffles Institution

Answer all questions

**Question 1 Tourism and Hospitality Industry****Table 1: Tourism Industry Performance for Singapore**

	2010	2011	2012	2013
<b>Total visitors (000)</b>	11,641.7	13,171.3	14,496.1	15,567.9
<b>Region (000)</b>				
Americas	524.8	563.7	616.4	641.5
Mainland China	1,171.5	1,577.5	2,034.2	2,269.9
Europe	1,373.5	1,401.5	1,537.3	1,591.2
<b>Tourism Receipts (\$m)</b>	18,931	22,277	23,081	23,469
<b>Number of Tourist Hotels</b>	96	98	101	117
<b>Standard Average Room Rate (S\$)</b>	217.9	247.1	261.7	257.8
<b>Room Revenue (S\$m)</b>	2,091.0	2,643.5	2,818.4	2,928.3

Source: <http://www.singstat.gov.sg/statistics/>**Extract 1: Singapore Tourism Board pushes for quality tourism**

For the long-term sustainable growth of Singapore's tourism industry, Singapore Tourism Board (STB) is promoting high-quality tourism by embarking on a series of customised marketing campaigns catered to different consumers, while it continues to strive to establish industry competencies to help upgrade the skills of workers in the F&B and hotel industries. In the meantime, Singapore pushes to restructure its economy by raising productivity and reducing its reliance on foreign workers. Challenges to the tourism industry include higher foreign worker levies, rising rentals and wages, coupled with an appreciating Singapore dollar.

STB's target of 17m annual visitors by 2015 implies an increase of 6.6% per annum. While emerging markets like Mainland China remain the top 3 on lists of visitor arrivals to Singapore, visitors from China have dropped 27 percent in the five months through May 2013 from a year earlier, due to slower economic growth on the mainland and the impact of a new Chinese law that clamps down on cut-price shopping tours. This is further exacerbated by the continuing strengthening of the S\$ exchange rate against the Yuan and a sales tax that Chinese tourists don't encounter in neighbouring Hong Kong.

The STB aims to offer more innovative experiences to cater to the ever-changing needs of the customers. The opening of the new cruise ship terminal Marina Bay Cruise Centre Singapore (MBCCS) in October 2012 allows Singapore to tap into the increasing number of people in Asia who are taking leisure trips on luxury vessels and allows Singapore to become a cruise gateway to Asia. STB has extended its Cruise-Fly products to the MBCCS. Together with the expansion of networks and partnerships with other airlines, more passengers will be able to enjoy convenient, seamless transfers to and from Changi Airport.

The push for medical and education tourism continues as Asian economies continue to grow. With the novelty effect of the integrated resorts wearing off, and Singapore facing stronger competition from neighbouring economies, new tourist attractions such as the River Safari and the National Art Gallery are being introduced. The opening of the MBCCS will also help support regional cruises which are well received among South East Asian travellers, who dislike long haul flights or have tighter budgets. Singapore's travel and tourism landscape is likely to remain positive.

Source: adapted from Bloomberg 2014 &amp; other various sources

**Extract 2: How competitive is Hong Kong against its competitors?**

This demand elasticity analysis provides insights into Hong Kong's competitiveness as an international tourist destination in comparison with its neighboring competitors: Macau, Singapore and South Korea. The study recognizes that differences between markets should be taken into consideration in evaluating a destination's competitiveness. Overall, this study finds that Hong Kong has a competitive advantage over Macau. However, Singapore and South Korea appear to be in a better competitive position than Hong Kong.

Source: www.elsevier.com – Tourism Management

**Table 2: Short-run own-price elasticities by source market**

<b>Hong Kong</b>	-1.209
<b>Macau</b>	-1.598
<b>Singapore</b>	-0.876
<b>South Korea</b>	-0.518

Source: How competitive is Hong Kong against its competitors?

**Table 3: Short-run cross-price elasticities by source market**

Hong Kong with respect to the price of South Korea	0.560
South Korea with respect to the price of Hong Kong	0.279

Source: How competitive is Hong Kong against its competitors?

**Extract 3: Mainlanders buoy Hong Kong GDP**

Hong Kong's Gross Domestic Product (GDP) is likely to have grown above 3% year on year. The number was helped by solid domestic demand, which contributes over two-thirds of Hong Kong's GDP. Hong Kong has benefited from a wave of spending from mainland Chinese who go there on vacation and to shop. Data shows the number of mainland tourists grew by about 20% each year between 2008 and 2012. The share of mainland tourists relative to all visitors rose to about 72% in 2012, up from 57% in 2008.

About a third of all retail spending, a major contributor to local demand, comes from visitors. Last year, mainland Chinese made HK\$119 billion (US\$15.2 billion) of retail purchases, up from HK\$43 billion in 2008, according to data from the census department. In 2012, local residents spent HK\$287 billion.

Source: Adapted from Wall Street Journal 2013

**Extract 4: Too much, too fast**

Calls have been made to review Hong Kong's tourism policy. Tourism is not an industry per se but a collection of interrelated industries, which sell products and services to tourists as well as to a range of other customers: hotels, tour operators and travel agents, airlines, etc. Until recently, all tourism was seen as beneficial. It is inevitable that large numbers of outsiders have consequences beyond creating employment and income. Inbound tourism contributed around 2% of Hong Kong's GDP in 2008, 4% in 2011 and 5% in 2012. About 50 million tourists come to Hong Kong every year. Hong Kong's resident population is 7.1million and the sheer number of tourists is creating demand that has not been planned for. A shortage of manpower during peak seasons like Chinese New Year has exacerbated the problem.

Hong Kong is struggling to absorb the impact of these tourists. Shopping centres are dominated by high-price goods that are no longer relevant to the daily needs of local people. Prices of

services, accommodation and property are being driven up by what the outsiders pay, rather than "real" demand. Famous local shops and eateries are being turfed out due to higher rentals for chain stores that cater mainly to monied tourists. This is driving out small businesses, narrowing job opportunities, while benefiting mainly landlords, big retailers and seasonal workers.

The effect is now being felt beyond the shopping centres, with tourists swamping campsites, Repulse Bay and country parks, dominating areas that are also places for local recreation. Any tourism incurs costs, whether it is in the allocation of resources such as land, the disposal of waste, traffic congestion or general pollution.

Benefits from tourism must be sustainable and seen in the context of what is good for the lifestyle of Hong Kong residents. Hong Kong cannot keep building new attractions to keep its visitors keen and happy. An example is the huge area of land set aside for tourism activities and hotel development at Kai Tak, 6 hectares of land to be developed along the waterfront; and the proposal to build a border shopping town for tourists who just want to shop. A rational reassessment of the best use of such land is needed. Setting aside the land for community use or as open space would improve the quality of life for local residents.

The contribution of tourism to the Hong Kong economy, at about 5 per cent of gross domestic product, is actually quite small. Hong Kong should develop its other sectors, instead of tourism. Calls to avoid low-quality, low-yield mass tourism and more focus on medical and eco-tourism may be a solution. Meanwhile, there are calls for the government to curb the influx and limit the number of tourists.

Source: Adapted from South China Morning Post, accessed 20 April 2013

### Questions

- (a) Compare the trends in the number of visitors from the different regions to Singapore [2] between 2010 and 2013.
- (b) Using Extract 1, comment on the possible relationships between air travel and the [4] cruise industry.
- (c) To what extent would a hotel owner in Singapore benefit from developments in [8] Singapore's travel and tourism sector?
- (d) (i) With reference to Table 2, explain why all the 'own price elasticities' are [2] negative.
- (ii) Explain one possible reason why the demand for South Korea as a holiday [2] destination is less price elastic than that for Macau.
- (e) Using Table 3, explain the values shown in the table for the cross price elasticities for [2] Hong Kong and South Korea.
- (f) Discuss the view that Hong Kong should 'avoid low-quality, low yield mass tourism and [10] focus on medical and eco-tourism'.

[Total: 30]

**Question 2 Myanmar, a New Emerging Economy**

**Table 4: Myanmar, Trade in Goods with World**

Period	Imports (Million €)	Exports (Million €)
2009	5,072	4,239
2010	7,502	4,868
2011	9,836	5,974
2012	13,232	6,435

Source: European Commission

**Table 5: Myanmar, Trade with European Union**

Items	Exports (Million €)					Imports (Million €)				
	2009	2010	2011	2012	2013	2009	2010	2011	2012	2013
Vegetable products	7	10	14	15	19	1	0	0	1	1
Products of the chemical or allied industries	0	0	0	0	0	23	19	33	31	50
Footwear, hats and other headgear	2	2	4	3	1	0	0	0	0	0
Optical and photographic instruments, etc.	0	0	0	0	0	4	5	13	13	34

Source: European Commission

**Table 6: Gross Domestic Product (GDP) and its Components in selected Economies (% of Total), 2012**

	Myanmar	Singapore
<b>Total GDP (US\$ billion) 2012</b>	54.53	272.8
Composition:	%	%
Private consumption	80.8	39.2
Government consumption	3.8	9.7
Gross fixed investment	17.0	27.0
Exports of goods and services	18.9	200.7
Imports of goods and services	-20.4	-178.5

Source: CIA World Factbook

**Extract 5: Opportunities and Challenges to Myanmar's opening up**

Myanmar has recently opened itself up to the outside world after long years of self-imposed isolation. While many observers remain uncertain whether the ongoing reforms are real or just cosmetic, it is undeniable that Myanmar is moving towards greater openness. In this process, the influx of foreign direct investment has had an immense impact on the country and the people, for better and for worse. Myanmar is a country blessed with abundant natural resources. From precious stones and raw materials to natural gas, the country has always been of interest to foreign investors. Now that Myanmar is embracing an open-door economic policy, foreign direct investment could stimulate the economy and improve the livelihood of the people.

McKinsey reported last month that Myanmar's Gross Domestic Product (GDP) could quadruple to about US\$200 billion (S\$250 billion) in 2030 from US\$45 billion in 2010 with an annual growth rate of 8 per cent. That may help to lure foreign direct investment inflows totaling US\$100 billion.

The Myanmar government has already begun adjusting its policy towards foreign direct investment. It has allowed more political freedom and loosened controls over the economy, luring in large conglomerates such as the Ford Motor Company and Coca-Cola. Newly elected opposition member of the government, Ms Aung San Suu Kyi has appealed to investors and potential investors "to put a premium on respect for the law, on environmental and social factors, on the rights of workers, on job creation and on the promotion of technological skills". She believes that this approach will lead, in the long run, to greater benefits for all concerned.

Myanmar's labour force, numbering 31 million, could gain the most from incoming capital investment. Unemployment in the country could be as high as 37 per cent, with more than a quarter of its 60 million people living in poverty. Foreign direct investment does not just mean more jobs, it also gives workers the opportunity to learn new skills. This is particularly so in core industries with high growth potential and higher productivity.

But not everything that flows from foreign investment is good. The appropriation of land for large projects such as gas pipelines, and the impact of dam construction on Myanmar's major rivers, involving the relocation of villagers without adequate compensation, are often cited as negative effects stemming from foreign direct investment inflows.

While the opening up of Myanmar's economy has created many business opportunities, it has also generated a myriad of economic and social problems. These problems will not be fixed overnight. But they require tough action on the part of the government to minimise the exploitation stemming from foreign direct investment.

Source: Adapted from The Straits Times, accessed 19 June 2014

**Extract 6: Effects on neighbouring countries of Myanmar opening up**

Thailand has benefited from open access to Myanmar's natural resources – more than half of Bangkok's electricity supply relies on gas piped from its western neighbour. Thai companies have also moved into property development and service industries there, hence benefitting from Myanmar's opening up. However, while this increased openness has resulted in significant benefits for its neighbouring countries, it has also undeniably resulted in costs for the countries involved. For one, Myanmar is drawing away a steady stream of tourists, one of Thailand's mainstay service industries, and is targeting close to 1m visitors in 2014, up from about 300,000 in 2011.

Other south-east Asian countries are not spared either. Myanmar, with a labour force that is largely unskilled and with wages as low as 700Kyat (<US\$1) a day for a worker in a garment factory, it could compete with many of the other neighbouring low-cost manufacturing destinations, such as Vietnam and Thailand. Increasingly, garment factories in these two neighbouring countries have been scaling down their operations in the face of such stiff competition.

Notwithstanding the challenges posed for its neighbouring countries, the International Monetary Fund (IMF) said in January that it saw "high growth potential" for Myanmar. Citing stronger commodity exports and higher inward investments, the IMF estimated Myanmar's economic growth of 5.5% in the 2011-12 fiscal year, which could potentially be a silver lining for its neighbouring countries.

On the other hand, inflation, projected at 4.2% for the 2011 financial year, is on the rise and is expected to pick up to 5.8% or higher given the likely increase in foreign investment and aid flows. This could in turn damage Myanmar's export competitiveness, while transferring the rise in prices to its trading partners. As for Myanmar's own companies: "We're jittery," says one local executive with a pharmaceuticals importer. "Big foreign investors have economic scale and access to markets – they can easily overwhelm us ... We have had discussions with the government about this; we can't compete with multinationals."

Source: Adapted from Financial Times, accessed 18 April 2012

### Questions

- (a) (i) Describe the trend of Myanmar's trade balance with the world from 2009 to 2012. [2]
- (ii) Using a relevant diagram, explain how Myanmar's exchange rate is likely to be affected by its trade balance. [4]

- (b) Explain how the theory of comparative advantage is reflected in the trade flows between EU and Myanmar in Table 5. [4]

- (c) Compare the likely size of the multiplier in the two economies as shown in Table 6. [2]

- (d) *"...the opening up of Myanmar's economy has created many business opportunities, it has also generated a myriad of economic and social problems."* [8]

In light of the above, discuss whether opening up of her economy is beneficial to Myanmar.

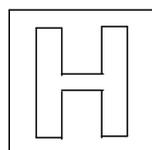
- (e) With reference to the data where relevant, evaluate appropriate policies you would recommend to the policy makers of the countries affected by the opening up of the Myanmar economy. [10]

[Total:30]

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RAFFLES INSTITUTION  
2014 YEAR 6 Preliminary Examination

Higher 2



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## ECONOMICS

9732/02

Paper 2: Essay

18 September 2014

2 hours 15 minutes

Additional Materials: Answer Paper

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### READ THESE INSTRUCTIONS FIRST

**DO NOT** open this booklet until you are told to do so.

Write your name, index number and CT class on all the work you hand in.

Write in dark blue or black pen on both sides of the paper.

You may use a soft pencil for diagrams, graphs or rough working.

Do not use paper clips, highlighters, glue or correction fluid.

Answer **three** questions in total, of which **one** must be from Section A, **one** from Section B and **one** from **either** Section A or Section B.

**Begin answering each question on a fresh sheet of writing paper.**

At the end of the examination,

- Fasten your answer to each question **separately**
- Fasten each **cover sheet** on top of each of your answers

You are advised to spend several minutes per question reading through the data before you begin writing your answers.

This document consists of 2 printed pages



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Answer **three** questions in total

**Section A**

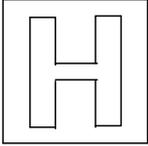
**One or two** of your three chosen questions must be from this section

- 1 Against a backdrop of steadily rising household incomes, the Malaysian government has decided to reduce government subsidies on fossil fuels in Malaysia. Assess the impact of these changes on total expenditure in the market for fossil fuels and related markets. [25]
  
- 2 (a) Using appropriate examples, explain how small and large firms can coexist in the food and beverage industry. [10]  
  
(b) Discuss whether the strategies of these two groups of firms will differ when faced with a recession and rising labour costs. [15]
  
- 3 (a) Explain using examples, how factor immobility and market dominance exacerbate income inequality. [10]  
  
(b) Evaluate the policies a government can adopt to tackle factor immobility and market dominance. [15]

**Section B**

**One or two** of your three chosen questions must be from this section

- 4 Discuss the extent to which Singapore's growth is in her own hands. [25]
  
- 5 Recent uncertainty about Eurozone growth, coupled with East Europeans' migration into the UK, has changed the UK's labour market; this includes adversely affected UK residents in manual occupations, who do not have the skills to move to other occupations.  
  
(a) Explain the causes and costs of unemployment to a country like the UK. [10]  
  
(b) Discuss if labour migration may help a country achieve its macroeconomic objectives. [15]
  
- 6 Traditional trade theory explains that differences in relative opportunity cost result in countries specialising and trading according to their comparative advantages. In recent years countries are also increasingly trading in goods within the same industry, and at the same time experiencing the phenomenon of off-shoring, where firms have relocated parts of their production process overseas.  
  
(a) Explain how Singapore has benefitted from opening its door to trade and capital flows. [10]  
  
(b) To what extent are recent changes in global trade and capital flows attributed to differences in opportunity cost? [15]



**RAFFLES INSTITUTION**  
**2014 YEAR 6 Preliminary Examination**

Higher 2



**ECONOMICS**

Paper 2: Essays

**9732/02**

# COVER SHEET

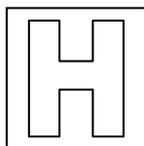
Name: \_\_\_\_\_

Civics Class: \_\_\_\_\_

Question No.	Marks
	<b>/25</b>



Raffles Institution



RIVER VALLEY HIGH SCHOOL  
YEAR 6 Preliminary Examination  
in preparation for General Certificate of Education Advanced Level  
Higher 1

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**ECONOMICS**

**8819/01**

Paper 1

**16 September 2014**

**3 hours**

Additional Materials: Answer Paper

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**READ THESE INSTRUCTIONS FIRST**

Write your index number and name on all the work you hand in.  
Write in dark blue or black pen on both sides of the paper.  
You may use a soft pencil for any diagrams, graphs or rough working.  
Do not use staples, paper clips, highlighters, glue or correction fluid.

**Section A**

Answer **all** questions.  
Start each case study on a **new** sheet of paper.

**Section B**

Answer **one** question.  
Start this question on a **new** sheet of paper.

At the end of the examination, fasten all your work securely together.  
Your answers for each case study in Section A and the essay in Section B are to be handed in **separately**.

The number of marks is given in brackets [ ] at the end of each question or part question.

**Section A (70%)**

Answer **all** questions in this section.

**Question 1**

**Issues on sugar and ethanol**

**Extract 1: US sugar subsidies and the Caribbean’s sugar economies**

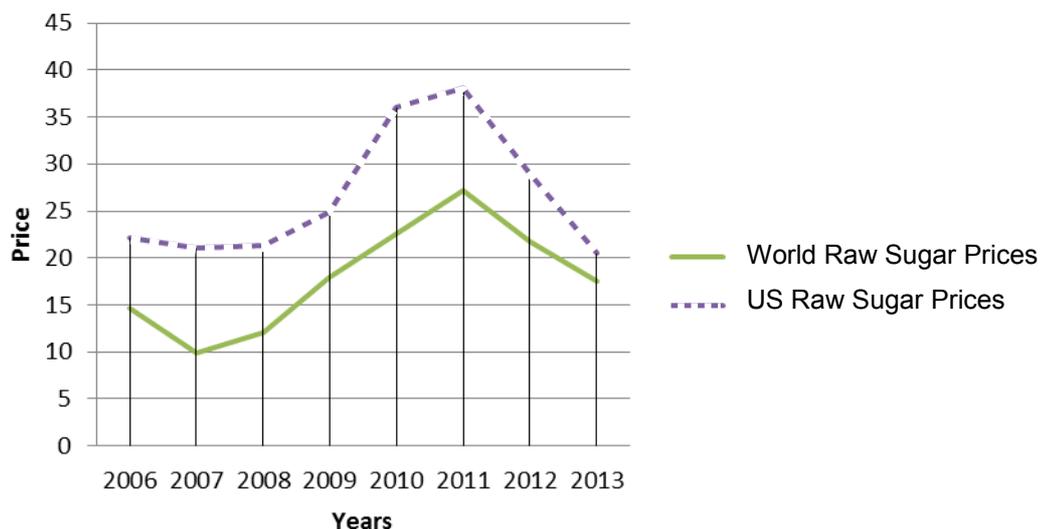
The US government heavily subsidizes its sugar sector, imposes quotas on sugar imports but yet expects developing countries to cut back on their own subsidies. Under the quota system, quantities of imports above the quota limit are subject to stiff duties. Sugar imports that exceed set quotas are struck with “a prohibitively high duty of 16 cents per pound”. Some Caribbean countries e.g. Brazil, face the most restrictive penalties, keeping their sugar out of the US market and lead to sugar prices in the US remaining above the free market price. Many of these impoverished Caribbean countries have been producing sugar for centuries, as their tropical, naturally fertile land and perfect weather conditions make them innately suitable for growing sugar.

In contrast, subsidies to US sugar farmers are transmitted via a complex system of loans and quotas. Loans are usually granted directly to sugar processors instead of farmers, so there is hardly any wealth transfer from top to bottom. This quarter, the US Department of Agriculture (USDA) plans to buy sugar from processors at an approximate cost of US\$38 million in order to increase sugar prices. USDA then sells this sugar to ethanol-producing firms for a much lower price, resulting in huge losses for the government.

In relative terms, producing an ounce of sugar in the US is much more expensive than producing the same ounce in the Caribbean. A report by the Commerce Department revealed that each preserved job in the US sugar industry represents three jobs lost in confectionery manufacturing due to the resulting hike in sugar costs.

Source: *Council on Hemispheric Affairs*, 31 July 2013

**Figure 1: Commodity Market Price for Sugar (cents/ pound)**



Source: New York Board of Trade

**Extract 2: Mexican sugar producers deny imports threaten US industry**

US sugar processors have accused Mexico of “dumping” subsidized sugar across the border in a complaint with the US International Trade Commission which could lead to duties on Mexican imports and spark retaliation against US exports.

The tightly controlled US sugar industry has strict caps on imports – except for those from Mexico, which has unlimited, duty-free access under the North American Free Trade Agreement (NAFTA). US sugar processors who allege dumping margins of 45%, said a doubling in Mexican imports in the last year had pushed prices to a decade low and would cost them nearly \$1 billion in net income in 2013-14.

Despite calls for the US government to limit excessive sugar imports from Mexico and bolster prices, many manufacturers in US feel that restrictions on Mexican imports will nonetheless, harm their companies and many others who depend on a consistent, reliable supply of sugar.

Source: [www.reuters.com](http://www.reuters.com), accessed 18 April 2014

**Extract 3: Sugar prices not so sweet**

The price of raw sugar on the global market is fast declining towards the cost of production in No.1 sugar-cane grower Brazil. And speculators are betting that it will fall even further. Benchmark sugar prices have been decreasing since July on expectations that Brazilian producers would reap their largest harvest ever. That supply should continue to hammer prices through the summer.

Unlike oil or copper, where the well or mine can be shut down when prices slide below production costs, sugar-cane mills can't just leave the cane in the fields, nor do they have the capacity to store the sugar they make until prices rise.

Source: [www.online.barons.com](http://www.online.barons.com), accessed 27 July 2013

**Extract 4: Brazil's ethanol sector buffeted by man-made and natural forces**

This should be a golden era for Brazil's farming frontier, where some of the world's biggest corporations have invested billions to turn sugar cane into ethanol. But oil – the fuel that ethanol was supposed to be slowly replacing, got in the way.

The discovery of cheap gas and oil from tight shale formations in the US swiftly reduced the need for ethanol in the US. Then, in a policy to help reduce the rising cost of living in Brazil, the government began to provide generous subsidies for gasoline, enabling it to be sold at steeply discounted prices. This made gasoline cheaper than ethanol for motorists. On the other hand, the cost of cane and ethanol production depends on costs of pesticides, cost of labour, and these have gone up due to a general rise in prices in Brazil.

Virtually all cars manufactured in Brazil are flex-fuel, which means they can run on ethanol or gasoline. In 2008, 50% of the fuel sold in Brazil was ethanol. Now, it's just above 30%, a drop that is particularly painful to the ethanol industry because car sales are skyrocketing due to cheap credit.

Source: *The Washington Post*, 7 January 2014

**Questions**

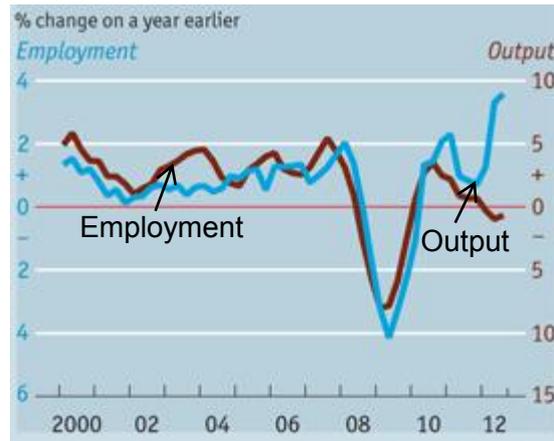
- (a) (i) Compare the US price of sugar and the world price of sugar between 2010 and 2013. [2]
- (ii) Explain any difference that you have observed. [3]
- (b) Using a supply and demand diagram, explain why the sales volume of ethanol fell despite rocketing car sales in Brazil. [5]
- (c) What can you conclude from the evidence in Extract 3 about the price elasticity of supply of sugar in Brazil? [2]
- (d) (i) State the theory of comparative advantage. [2]
- (ii) Explain what the US and the Caribbean countries should be doing, based on the theory of comparative advantage. [3]
- (e) The extracts refer to the use of fuel subsidies by governments. Comment on whether such government intervention should be removed. [5]
- (f) How far does the use of protectionist measures achieve the aim of helping US sugar farmers? [8]

**[Total: 30]**

## Question 2

## The UK productivity Puzzle – Did productivity really fall?

Figure 2: UK Employment and Output Growth, 2000-2012



Source: Office for National Statistics

**Extract 5: The job-rich depression**

Britain's economy has had an odd five years. In output terms, things have been terrible. The slump that started in 2008 is far worse than the 1930s depression. Yet the job market is humming. Employment has topped previous peaks. The combination of economic slowdown and plentiful jobs means output per worker has fallen. Britain is now startlingly unproductive compared with other rich countries.

One explanation is that British firms are hoarding labour. A recent survey reported that close to a third had more staff than they needed to fulfil current orders. Most said they were anxious to retain their skills base. Indeed, it might make sense to let some workers stand idle if this cuts hiring and firing costs and avoids delays in training new workers when demand recovers.

But the hoarding theory does not quite fit with a deeper dig into the data, says Joe Grice, the chief economist of the Office for National Statistics (ONS). Plenty of people have lost their jobs, but even more jobs have been created. So most British workers are not sitting idle in firms shielding them from the sack. The productivity puzzle is genuine: Britons are working harder to produce less. There are lots of reasons for this, suggests Kevin Daly of Goldman Sachs, many of them temporary. Jobs that involve winning contracts are tough in a slump: estate agents and the like must hunt harder for clients. In such sectors more hours do not necessarily imply more output. In manufacturing firms, production techniques can be adjusted to reflect the fact that labour is cheap but investing in machines is costly. Companies might delay investment and work existing equipment harder by putting on night shifts. Such trends keep employment up and output down. They are fairly easy to reverse as the economy recovers.

Source: *The Economist*, 26 Jan 2013

**Extract 6: UK productivity puzzle baffles economists**

Productivity is still lower four years after the downturn began. It is true whether you look at output per worker or per hour. The ONS research concludes that there is no single factor that provides an explanation, but identifies several that may have contributed.

It comes as no surprise that the financial crisis itself is probably the cause of some of the damage. Productivity in financial services and insurance was rising before the crisis. Since 2009 it has fallen. It is a sector that also affects the productivity of the rest of the economy, because of its role in providing finance for business investment. During the boom years, it may have channelled too much into investments that turned out not to be very profitable. Now, it could be struggling to finance new projects that might have high productivity. A flexible labour market is another possible reason. Firms have less need to fire people if pay rises are modest or if they are willing to work fewer hours. Both have happened, though the downside is that a lot more people are working less than they would like.

So we have a puzzle, with some ideas of what is behind it. But is it a problem? After all, it is the side effect of more people having jobs than we might expect, and that surely is a very good thing. Ian Brinkley of The Work Foundation agrees with that for the short term, but he says we need strong productivity in the long term to raise living standards and to maintain our competitiveness. That calls for investment in physical and digital infrastructure and in skills. That is needed, he says, to give companies the incentive to invest, which they are not currently doing.

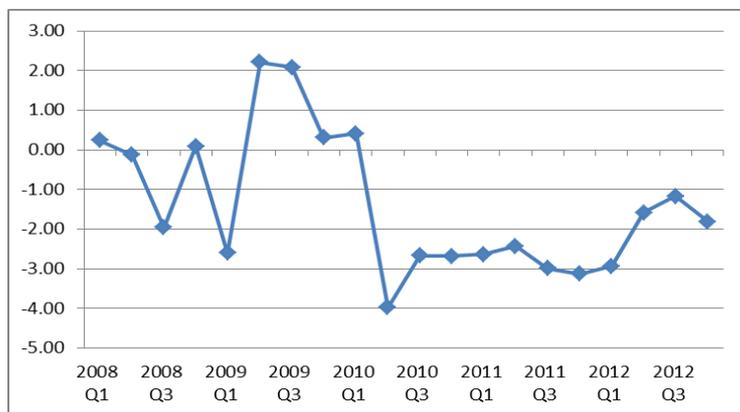
Source: *BBC*, 17 October 2012

**Extract 7: There is no productivity puzzle, says economists' group**

TheCityUK's Independent Economists' Group (IEG) suggested in its latest report that "there is no productivity puzzle". Analysing the reasons behind Britain's productivity slowdown, the IEG cited a number of factors including a fall in output among sectors with the highest value per worker such as financial services. Another reason highlighted was a loose monetary policy that was meant to stimulate the sluggish economy but has enabled the survival of weaker businesses and contributed to lower productivity.

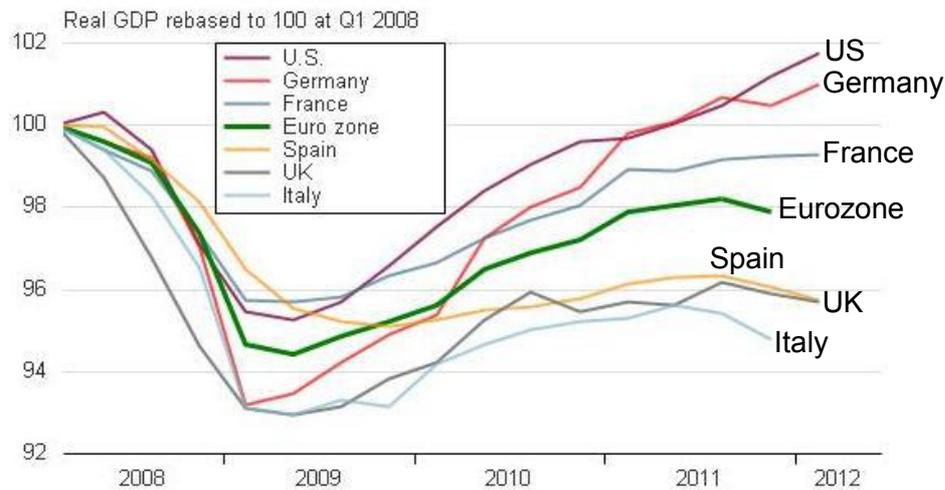
Source: *The Telegraph*, 12 Jun 2013

**Figure 3: UK real wage growth percentage change on the same quarter a year ago**



Source: Office for National Statistics

Figure 4: Eurozone, UK and US Gross Domestic Product



Source: Thomson Reuters

Questions

- (a) (i) With reference to Figure 2, state the relationship between output growth and employment growth in the UK from 2000 to 2009. [1]
- (ii) Suggest possible reasons for this relationship. [2]
- (b) (i) State what happened to the level of productivity observed in the UK economy during the “job-rich depression”. [1]
- (ii) Explain why this “job-rich depression” might not currently be a concern for the British government. [6]
- (c) Explain what is meant by “we need strong productivity in the long term to raise living standards and to maintain our competitiveness”. [4]
- (d) (i) Identify the evidence that suggests Britain’s economic slump in 2008-2009 could turn out to be a severe one. [3]
- (ii) Using AD/AS analysis, explain how the above evidence eventually led to a severe slump in the UK. [5]
- (iii) In view of the reasons above, discuss alternative policies the government might consider adopting to stimulate the British economy. [8]

[Total: 30]

**Section B (30%)**

Answer **one** question from this section.

- 3** (a) Explain why a government would provide the following services directly:
- (i) street lighting,
  - (ii) education. [10]
- (b) Discuss the view that government policies to deal with negative externalities can be potentially damaging and ineffective. [15]
- 4** Despite the increased pace of globalisation, protectionism has been undertaken by nearly every region of the world as economic growth slowed or stalled during an economic crisis.
- (a) Explain why protectionism is undertaken by governments around the world. [10]
- (b) Discuss the view that problems associated with globalisation have outweighed the benefits in the case of Singapore. [15]

**2014 Y6 H1 Prelim CSQ1 -- Suggested Answers**

(ai) Compare the US price of sugar and the world price of sugar between 2010 and 2013. [2]

Similarity [1]

- Both prices **decreased generally** OR
- US price of sugar **moved in tandem** with world sugar price OR
- Both US and world price of sugar share a positive relationship

Difference [1]

- However, the **US price of sugar is consistently higher than the world price** of sugar OR
- The US price of sugar decreased by more compared to the decrease in world price of sugar in the same time period

(a ii) Explain any difference that you have observed. [3]

- **The US price of sugar is consistently higher than the world price of sugar** because US imposes a quota on sugar imports.
- This **restricts the amount of sugar** entering the US market. With **supply kept within a certain limit**, this helps to keep price in US at a certain level
- On the other hand, **imports above the quota are likely to end up in world markets, thus leading to a much larger supply of sugar** in world markets.
- As such, this leads to a world price of sugar which will be lower than that in US

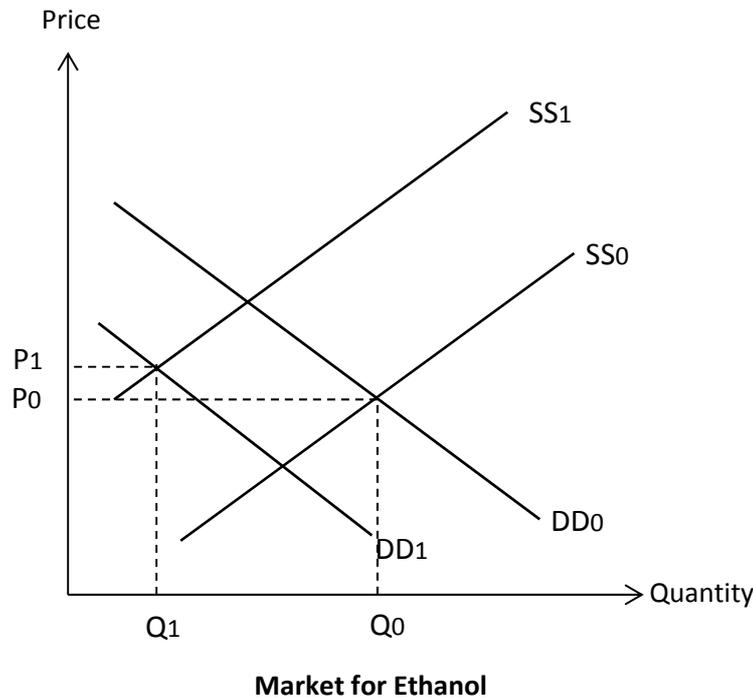
Alternative (if students give the other difference)

- **The decrease in the price of US sugar is greater than the decrease in the world price of sugar** because there may be **more imports of sugar entering the US market during 2011 to 2013**. [1]
- Although US imposes a quota on imports, Mexico is exempted from it because of the NAFTA (Extract 2)
- This may lead Mexico to export an unlimited amount of sugar to the US, rather than sell in world markets.
- Given this substantial *increase* in supply of sugar in US rather than in the world, perhaps the price of sugar in US is likely to fall by a greater extent, compared to that of world price.

(b) Using a supply and demand diagram, explain why the sales volume of ethanol fell despite rocketing car sales in Brazil [5]

- Extract 4 notes that cars in Brazil can run on ethanol or gasoline, which means **ethanol and gasoline are substitutes in consumption**.
- Since the Brazilian government has given generous subsidies for gasoline to mitigate the rising cost of living, this makes **gasoline cheaper than ethanol** in Brazil, encouraging consumers to switch from ethanol to gasoline instead i.e. **Demand for ethanol falls**.
- Referring to Fig. 1,  $DD_0$  shifts left to  $DD_1$ .
- On the other hand, the **cost of producing ethanol has increased** due to the rising costs of labour and pesticides as noted in Extract 4.
- This leads to a **fall the supply of ethanol**, reflected by a leftward shift of supply curve from  $SS_0$  to  $SS_1$ .

- In this case, the **quantity of ethanol will definitely decrease** from  $Q_0$  to  $Q_1$ , indicating a fall in sales of ethanol.



(c) **What can you conclude from the evidence in Extract 3 about the price elasticity of supply of sugar in Brazil?** [2]

- Price elasticity of Supply (PES) of sugar in Brazil is likely to be **less than one**.
- This is because Extract 3 notes that **sugar cane mills cannot just leave the canes in the fields**, given that sugar cane is a perishable good.
- Furthermore, mills are also unable to store the sugar. As such, the **lack of storage space** for sugar means that the **producers cannot decrease/ increase output quickly** without a substantial rise in costs. i.e. **producers are less responsive to changes in price**.

(di) **State the theory of comparative advantage.** [2]

- The theory of comparative advantage suggests that countries should specialise in producing and export the good which they have comparative advantage i.e. incur lower opportunity cost in producing.
- They should then trade to obtain goods which they have comparative disadvantage. Doing so will enable both countries to be better off in terms of an increase in consumption of all goods and services.
- \*Note to markers: Students need to state that the theory entails specialising and exporting the good which countries have comparative advantage in producing [1] and subsequently, trading will lead to an increase in consumption for countries [1] i.e. those who simply stop at stating comparative advantage leads to lower opportunity cost will not be awarded full credit

(dii) Explain what the US and the Caribbean countries should be doing, based on the theory of comparative advantage [3]

- Extract 1 notes that the Caribbean countries are endowed with naturally fertile land and perfect weather conditions suitable for growing sugar. This suggests that these countries face lower opportunity costs and thus should specialise in growing sugar and export it.
- In contrast, the US protects her sugar industry with subsidies and quotas, which means they are unlikely to have comparative advantage in growing sugar.
- Moreover, US seems to incur much higher opportunity costs in producing sugar, judging from the fact that three jobs are lost in confectionary manufacturing when there is a hike in sugar costs.
- In view of these, US should be importing sugar instead of producing it herself.

(e) The extracts refer to the use of fuel subsidies by governments. Comment on whether such government intervention should be removed. [5]

Thesis: Yes, fuel subsidies should be removed. Why? What benefits result from this?

① Long term sustainability of resources

- Removal of subsidies exposes consumers to the true cost of using fuel (e.g. gasoline)
- Higher price of petrol encourages consumers to find ways to economize on their use of scarce resources e.g. they might switch to cheaper substitutes such as bio-fuels or even cut down on use of cars altogether (reduce over-consumption)
- Removal of subsidies might also spur R&D in alternative energy sources which are beneficial in the long term as cleaner energy will be developed and this will reduce the negative externality released into the environment when fossil fuels are burnt
- Long term sustainability of the world is also ensured as the rate of depletion of non-renewable resources slows

Anti-thesis: No, fuel subsidies should not be removed. Why?

① Negative Impact of rising cost of living

- As fossil fuels are regarded as necessity to power vehicles, the removal of fuel subsidies will lead to higher cost of living (e.g. higher transport cost) for countries, especially in those where there is a lack of close substitutes for fuel
- For countries which already have fuel subsidies in place for quite some time, the removal might possibly lead to widespread social discontent or worse, may escalate into conflict and war between countries as they fight for limited resources.

(f) How far does the use of protectionist measures achieve the aim of helping US sugar farmers? [8]

Thesis: Yes. Protectionist measures do help to achieve the aim of helping farmers. How?

- ① Subsidies provided to the sugar farmers partially helps to reduce their costs of production e.g. farmers can use it to offset some of their operating costs or buy fertilizers etc.
- Theoretically this enables farmers to produce more sugar given the same amount of resources that they have
  - Alternatively, the reduction in cost may leave them with excess cash as profits, assuming no change in total revenue received

- ② **Tariffs** imposed on the imports above the quota limit will **raise the price of sugar imports**
- This implies that the **price of sugar sold in US would correspondingly also be higher.**
- Although the higher price leads to US consumers buying less sugar, it is likely that less is imported and consumers buy more domestically produced sugar compared to before
- If so, then US farmers get to produce more and capture a larger share of the market now, which is likely to increase their revenue

**Anti-Thesis: No. Protectionist measures do not exactly help sugar farmers. Why?**

- ① Extract 1 notes that subsidies to farmers are transmitted via loans but these are usually **granted directly to sugar processors instead of farmers.**
  - If **processors choose not to pass on the gains from the loans to farmers** (e.g. by offering them better prices for their sugar), then **farmers may still struggle to pay for the raw materials and labour costs** without the financial help.
  - As hinted in Extract 1, there is **little wealth transfer from top to bottom**, suggesting a high chance that the farmers do not receive the monetary help despite the protectionist measures
- ② Another reason why protectionist measures might not work is evident in Extract 2 where **Mexico seems to be dumping cheap sugar in US.**
  - Due to the NAFTA, Mexican sugar can be imported into US at tariff-free rates.
  - This means that even though the price of sugar in US should theoretically be high due to the protectionist measures, the **influx of Mexican sugar may still increase the supply in US** and thereby **limit any increase in price**
  - If so, **US farmers are still not receiving a higher price** despite the protectionist measures

<b>L3</b>	Developed discussion on how the use of protectionist measures may or may not necessarily help US farmers. *If students do not give a reasoned conclusion – capped at 7m	<b>7-8</b>
<b>L2</b>	Undeveloped discussion on how the use of protectionist measure may or may not necessarily help US sugar farmers in the end. (discusses both thesis and anti-thesis superficially) OR Developed explanation on how the use of protectionist measures may or may not necessarily help US sugar farmers. (One-sided; either thesis or anti-thesis is explained.)  <i>'Developed'</i> - Makes reference to context, explicitly explains how farmers gain (in the form of increased income and total revenue/ lower COP etc.) or lose out (depressed prices/ no transfer of wealth)  <i>'Undeveloped'</i> - Lifts off from extracts without elaborating on specific areas gained or lost by farmers; little use of economic concepts to explain	<b>4-6</b>
<b>L1</b>	Smattering of valid points	<b>1-3</b>

**Question 2 The UK Productivity Puzzle – Did productivity really fall?**

**(a) (i) With reference to Figure 1, state the relationship between output growth and employment growth in the UK from 2000 to 2009. [1]**

- positive / direct relationship / move in tandem

**(a) (ii) Suggest possible reasons for this relationship. [2]**

- Higher output growth  $\Rightarrow$  more workers needed  $\Rightarrow$  higher employment growth
- higher employment growth  $\Rightarrow$  more people have jobs  $\Rightarrow$  higher income  $\Rightarrow$  higher C  $\Rightarrow$  higher AD  $\Rightarrow$  higher output growth

**(b) (i) State what happened to the level of productivity observed in the UK economy during the “job-rich depression”. [1]**

- During a “job-rich depression”, output falls yet employment stays strong. Hence, output per worker falls, leading to a fall in productivity observed.

**(b) (ii) Explain why this “job-rich depression” might not currently be a concern for the British government. [6]**

- Rising employment despite falling output  $\Rightarrow$  could avoid problems such as falling SOL, loss of skills, fiscal costs, social costs, etc typically associated with recessions
- Rising employment  $\Rightarrow$  could potentially boost C and support economic recovery (AD)
- If the situation is mainly caused by labour hoarding and a flexible labour market, output can increase quickly when dd recovers  $\Rightarrow$  it can propel the economy forward when it recovers eventually
- Fall in productivity is not alarming if it is mainly due to difficulty in winning contracts / delay in investment / labour hoarding during a slump  $\Rightarrow$  can be resolved on its own once the economy recovers

**(c) Explain what is meant by “we need strong productivity in the long term to raise living standards and to maintain our competitiveness”. [4]**

- $\uparrow$ productivity  $\Rightarrow$   $\uparrow$ LRAS  $\Rightarrow$  sustained non-inflationary growth ( $\uparrow$ NY)  $\Rightarrow$  higher SOL (material or non-material elaborate)
- $\uparrow$ productivity  $\Rightarrow$   $\downarrow$ COP or greater value-addedness  $\Rightarrow$  more competitive export or more competitive FDI destination  $\Rightarrow$  maintain international competitiveness

**(d) (i) Identify the evidence that suggests Britain’s economic slump in 2008-2009 could turn out to be a severe one. [3]**

- Figure 2: weak real wage growth – negative growth in Q3 2008 & Q1 2009
- Figure 3: substantial fall in GDP across Eurozone, and in US
- Extract 2: banks struggling to finance new projects due to financial crisis

**(d) (ii) Using AD/AS analysis, explain how the above evidence eventually led to a severe slump in the UK. [5]**

- Figure 2: weak real wage growth – negative growth in Q3 2008 & Q1 2009  $\Rightarrow$  fall in purchasing power  $\Rightarrow$  fall in C

- Figure 3: substantial fall in GDP across Eurozone, UK and US => fall in foreign income => fall in X + worsened outlook => fall in C & I
- Extract 2: banks struggling to finance new projects due to financial crisis => fall in I
- Diagram: fall in AD=> fall in NY

**(d) (iii) In view of the reasons above, discuss alternative policies the government might consider adopting to stimulate the British economy. [8]**

**Exp. FP**

- increase G: giving transfers to households to increase their purchasing power=>increase C, building physical & digital infrastructure also helps to encourage I
- reduce T: PIT rebate => higher disposable income => higher C, CIT rebate => higher after-tax profit => greater incentive & ability to invest

Limitations:

- time lags
- fiscal position
- poor outlook => C & I may not increase, k also may be small due to low MPC

**Policies to promote lending**

- QE: govt buys up bad debts from banks to give them more cash to lend out to new projects => increase I
- Risk-sharing b/w govt and banks to reduce banks' risk of lending => encourage them to lend => increase I
- Lower i/r not accepted since qn asks for "alternative" policies

Limitations:

- Poor outlook may still prevent banks from lending
- Fiscal position

**ERP**

- Weaken British Pound => cheaper exports in foreign currency, more expensive imports in Pound => increase NX if MLC satisfied

Limitations:

- May not be sufficient to offset the fall in DD for Xs
- J curve effect => worsen slump in short run

**SSP**

- Invest in infrastructure & skills => encourage more I
- Productivity might have really fallen => fall in LRAS => SSP to increase LRAS to enable actual growth without inflation

L3	Developed discussion on at least 2 alternative policies that the UK government might consider adopting to stimulate the British economy.	7-8
L2	Undeveloped discussion.	4-6
L1	Smattering of valid points.	1-3

## Y6 H1 Prelim 2 Q3

(a) Explain why a government would provide the following services directly:

- (i) street lighting;
- (ii) education.

[10]

### (i) Street lighting

Street lighting is a public good. A public good is a good / service that has the characteristics of non-excludability and non-rivalry in consumption. Non-excludability means it is impossible or prohibitively expensive to exclude any non-payers from using the good / service. Non-rivalry means the consumption of the good by one does not diminish the amount available for consumption by others.

Due to the non-excludable nature of street lighting, people who do not pay for it also get to enjoy it. This gives rise to the problem of free-ridership, where no one is willing to pay for street lighting since non-payers can also consume the good. And since no profit-seeking producer will be willing to produce a good that nobody is willing to pay for, the free market will not produce street lighting, though consumers want the good.

On the other hand, due to the non-rival nature of street lighting, the marginal cost of serving an additional road user is zero. With zero marginal cost, the principle of optimal resource allocation calls for provision of street lighting to anyone who wants it at no charge. Any non-zero price would discourage some users from consuming the good, thereby causing a reduction in society's total welfare. Therefore, from the point of view of allocative efficiency, street lighting should be provided at zero price to all road users.

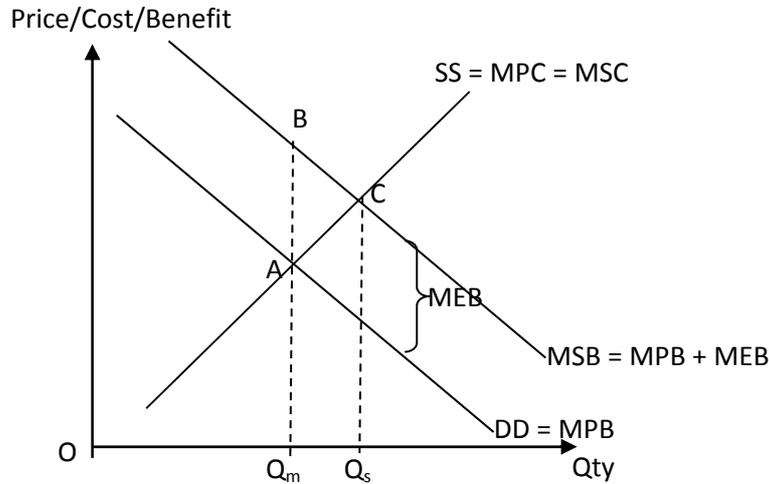
To sum up, allocative efficiency requires street lighting to be provided to all who want the good at zero price. However, the free market fails to provide street lighting due to the problem of free-ridership. This means allocative inefficiency in the free market and welfare loss to society.

Hence, to restore allocative efficiency, the government needs to intervene by directly providing street lighting for free.

### (ii) Education

Education is a merit good. A merit good is a good that is deemed socially desirable by the government and yet perceived by the government to be under-consumed. This under-consumption can be attributed to individuals disregarding positive externalities (external benefits).

External benefits are beneficial side-effects of producing / consuming a good on third parties who are not involved in the production / consumption of the good. The external benefits of education include higher productivity for future co-workers and employers, and a steady supply of skilled labour which contributes to economic growth that brings about higher standard of living for all including the less educated. When external benefits are ignored by consumers and producers of education, under-consumption results.



**Figure 1 Under-consumption of education due to positive externalities**

Refer to Figure 1. The existence of external benefits cause the marginal social benefit (MSB) to be higher than the marginal private benefit (MPB) of education. The market output of education is  $Q_m$ , given by the intersection of demand and supply (or marginal private benefit MPB, and marginal private cost MPC). The external benefits on third parties (i.e., marginal external benefits, MEB) are not considered when consumers and producers decide how much education to consume and produce. However, the socially optimal level of education is  $Q_s$ , given by the intersection of marginal social benefit (MSB) and marginal social cost (MSC), since society's welfare is maximised when  $MSB=MSC$ . Since  $Q_m < Q_s$ , there is under-consumption of education. The welfare loss to society (i.e. deadweight loss) is given by Area ABC.

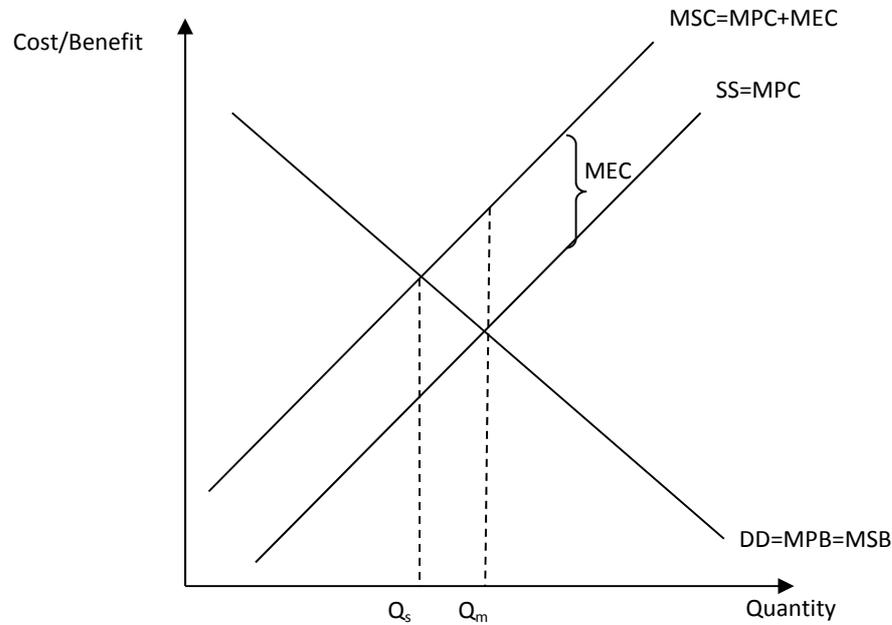
To increase the level of consumption and restore allocative efficiency, the government could increase the supply of education through direct provision (e.g., setting up government schools) to bring  $Q_m$  closer to  $Q_s$ .

L3	Developed explanation why govt provides the two goods directly	8-10
L2	Undeveloped explanation why govt provides the two goods directly	4-7
L1	Smattering of valid points	1-3

**(b) Discuss the view that government policies to deal with negative externalities can be potentially damaging and ineffective. [15]**

Negative externalities refer to harmful side effects of production or consumption on third parties who are not involved in the production and consumption of a good. One example is harmful pollutants emitted in the process of industrial production. The air pollution generated has adverse health effects on the general population, especially residents living in the vicinity of the industrial hubs. Pollutants such as greenhouse gases also contribute to global warming, which have severe negative impact on the environment we live in.

The existence of negative externalities (or external costs) causes the divergence between social costs and private costs, since social costs is the sum of private costs and external costs.



**Fig. 2: Over-consumption / production due to negative externalities**

Refer to Fig.2. Marginal social cost (MSC) is higher than marginal private cost (MPC) due to the existence of marginal external cost (MEC). Actual market output is  $Q_m$  where demand = supply (or marginal private benefit MPB = marginal private cost MPC), as external costs such as pollution are ignored by producers and consumers when they decide how much to produce / consume. However, the socially optimal level of output is  $Q_s$  where marginal social cost MSC = Marginal social benefit MSB, as society's welfare is maximized when MSB = MSC. Since  $Q_m > Q_s$ , there is over production / consumption of the good, which leads to welfare loss to society (as given by the shaded area). This means that the free market fails to allocate resources in a way that maximizes society's welfare (i.e., allocative inefficiency). Thus, market failure results.

To deal with negative externalities such as industrial emissions, the government could implement a cap-and-trade system. Under this scheme, the government sets a cap on the total amount of a pollutant that can be emitted by all factories. This limit is allocated to the firms in the form of emissions permits. Firms are allowed to trade their emission permits.

However, this policy can be potentially ineffective in correcting market failure. It is usually difficult for the government to determine the optimal cap on total pollution, or the 'correct' number of permits to be issued. Too much or too little would not bring about allocative efficiency.

Moreover, a cap-and-trade system can be potentially damaging. If the government issues too few permits, the permits could become overpriced, which will unnecessarily undermine the cost competitiveness of the industry in the international market. Also, volatility in permit price may discourage investment in green technology, as firms cannot know for certain whether or not the future payoff from the sale of permits justifies the adoption of emissions-reducing technologies. Lastly, high costs could be incurred by the government in administering and enforcing the scheme.

An alternative policy the government could adopt is indirect taxation, which increases the MPC of the producers, causing them to internalise the external costs. When the size of the tax is set to be equal to the MEC, the MPC would increase to coincide with the MSC, bringing market output  $Q_m$  down to the socially optimal level  $Q_s$ .

However, the policy can be potentially ineffective due to government failure. As the true monetary costs of negative externalities (e.g., pollution) are hard to estimate, the government may not be able to impose the correct amount of tax to bring about allocative efficiency.

Also, indirect taxation can be potentially damaging for consumers and producers. As indirect taxation raises cost of production (MPC) and reduces supply, consumers would have to pay a higher price yet enjoy a lower quantity of the good, leading to lower consumer welfare (or consumer surplus). For producers, indirect taxation means additional costs which lower their profitability and reduce their international competitiveness (especially against rival firms in other countries where indirect taxation is not implemented).

### **Conclusion**

As shown above, it is true that government policies to deal with negative externalities can be potentially damaging and ineffective under specific circumstances.

L3	Developed discussion on at least two policies – how they are effective / ineffective / damaging	8-11
L2	Undeveloped discussion	4-7
L1	Smattering of valid points	1-3

E2	Substantiated evaluative comments	3-4
E1	Evaluative statements with no substantiation	1-2

**2014 Y6 H1 Prelims II Macro Essay**

Despite the increased pace of globalisation, protectionism has been undertaken by nearly every region of the world as economic growth slowed or stalled during an economic crisis.

(a) Explain why protectionism is undertaken by governments around the world. [10]

(b) Discuss the view that problems associated with globalisation have outweighed the benefits in the case of Singapore. [15]

**Suggested Mark Scheme – (a)**

Knowledge, Understanding, Application & Analysis		
<b>L3</b>	<b>Developed</b> explanation of at least 3 reasons why protectionism is undertaken, with examples to illustrate (preferably recent e.g. rather than generic elaboration of points); All points are consistently elaborated  'Developed' → Explanation explicitly states the benefits that can be enjoyed by countries which undertake protectionism or the negative consequences that results if protectionism is not undertaken i.e. link to economic variables such as employment, income, BOP, export revenue etc.	<b>8-10</b>
<b>L2</b>	<b>Undeveloped</b> explanation of 3 reasons why protectionism is undertaken, contains only generic elaboration/ examples; Points are not consistently elaborated nor well structured  'Undeveloped' → superficial & generic; little reference to current e.g.; no explicit link to how undertaking protectionism affects various economic variables	<b>4-8</b>
<b>L1</b>	Smattering of valid points	<b>1-3</b>

**Suggested Mark Scheme – (b)**

Knowledge, Understanding, Application & Analysis		
<b>L3</b>	<b>Developed</b> discussion of how problems associated with globalisation may or may not outweigh benefits in the case of Spore  'Developed' → Clear, detailed explanation of problems & benefits associated with globalisation, with explicit link to the impact on relevant economic variables.; Current e.g. of Spore provided with good elaboration & reference to context	<b>9-11</b>
<b>L2</b>	<b>Undeveloped</b> discussion OR developed explanation for one side  'Undeveloped' → Superficial/ generic explanation of problems & benefits associated with globalisation i.e. asserted rather than linked explicitly to economic variables such employment, BOP, NY, AD etc.; limited e.g. of Spore with little reference to context	<b>4-8</b>
<b>L1</b>	Smattering of valid points OR one-sided answer	<b>1-3</b>

Evaluation		
<b>E2</b>	Able to form a judgment on the issue after looking at both sides. For e.g., students are able to take into consideration the fact that Spore's nature does not really give her much choice in her stand on globalisation/ project into the future and suggest the general direction that the government should be heading towards if she hopes for benefits to continue outweighing problems	<b>3-4</b>
<b>E1</b>	Able to make some comments on whether problems outweigh benefits, but statements tend to be generic and superficial	<b>1-2</b>

**Suggested answer points – (a)**

**INTRODUCTION**

- Protectionist measures distort market forces in order to give a competitive advantage to the domestic industries of an economy
- E.g. import tariffs, import quotas, administrative restrictions, exchange control and export subsidies
- Countries adopt protectionism so as to enjoy the benefits it gives/ prevent negative consequences if they do not

**DEVELOPMENT**

- For 10 marks, it is suffice to give **3** points/ arguments for protectionism
- (1) Governments may undertake protectionist measures during periods of recession
- negative growth rates, declining incomes and loss of jobs
  - protectionist measures so as to restrict the amount of imports into her country
  - income that is generated in the economy is spent on domestically produced goods instead of leaked out as import expenditure
  - mitigates the negative impact of a recession
- Provide e.g. to illustrate above point e.g. during 2008/9 global financial crisis, what did governments around the world do in this aspect
- (2) Governments may also undertake protectionism because they want to protect infant industries in their economy
- Infant industries refer to newly emerging or just established industries in their early stage of development
    - perceived by the government to have comparative advantage (CA) in the production of certain goods, but are currently too small to be able to produce goods at a cost low enough to compete with well-established foreign producers
    - Need protection so that they can be competent enough to handle foreign competitors even though the former may truly have CA in the production of certain goods
  - Provide e.g. to illustrate above point
- (3) Governments undertake protectionism could be because they wish to protect domestic producers against dumping
- Dumping occurs when goods are sold in overseas markets at a price below marginal cost with the aim of driving out domestic competitors in these markets and subsequently establishes monopoly power
  - Foreign producers can 'dump' in another country if she is heavily subsidised by her government, enabling her to undercut rivals abroad
  - Protectionist measures are justified so that domestic country can compete on equal grounds with foreign trading partners

**CONCLUSION**

- In sum, governments around the world undertake protectionism for various reasons, some of which may not be very valid based on economic theory. Regardless the reason, there are short-term benefits to be reaped by the country
- This helps ensures a certain level of domestic employment, income generation or even improvement in the balance of payments.

**\*Other reasons for protectionism are also accepted as long as they are well explained with e.g.**

**Suggested answer points – (b)**

**INTRODUCTION**

- Globalisation refers to the closer integration of countries and peoples of the world through the ease of movement of goods and services, capital and labour
- Facilitated by the enormous reduction in the costs of transport and communications; breaking down of trade barriers via the formation of trading blocs and deregulation of financial markets, which allowed funds to flow more freely across financial markets around the world

**DEVELOPMENT**

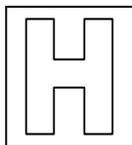
- Exposes Singapore to external shocks (i.e. global boom or recession) will thus have an impact on both her goods and financial markets
- E.g. 2009 global financial crisis
  - drop in demand for Singapore's exports of goods and services, causing her to fall into a recession
  - Since exports constitute a large percentage of GDP, this led to a substantial fall in Singapore's GDP and a rise in cyclical unemployment, especially in export related sectors
- 'Contagion effect' led many financial institutions and investors to withdraw their funds from Singapore
  - As a result, Singapore suffered short term and long term capital outflows which adversely affected her financial account.
- E.g. US adoption of Quantitative Easing
  - huge influx of funds into Singapore in pursuit of assets with higher returns
  - Fuel inflationary pressures in Singapore for several quarters
- Easier for firms to relocate their operations to countries where production costs are much cheaper
  - Hastened the pace of industrial development and caused changes to Singapore's comparative advantage (CA)
  - E.g. some firms have relocated their manufacturing plants to Malaysia & Indonesia in order to tap on their relatively abundant and cheap labor
  - Increases unemployment in the short term, especially among the lower skilled
  - Greater likelihood of structural unemployment
- Rising income disparity → skilled workers working in industries that cater to international markets are better able to command higher wages compared to workers in the declining industries
  - income disparity is compounded by the availability of low skilled foreign workers who are 'direct competitors' to Singapore counterparts

Benefits are still enjoyed by Singapore in this process e.g.

- Greater access to more overseas markets such as China, India and the Middle East, enabling Singapore firms to export to more countries
- Easier for Singapore to source for and obtain cheaper supplies of raw materials. This is especially important given that she is resource scarce and thus need to import not just final goods and services but also inputs
- Greater flows of investment and capital across borders since FDI facilitates the transfer of technology and expertise
- Implication on AD and AS
- Singapore firms now find it easier to invest/ venture overseas to take advantage of growth opportunities
- As globalisation also helps facilitate the movement of labour, this benefits Singapore since it allow us to augment our labour force to meet her growth needs

**CONCLUSION**

- In sum, for the benefits of globalisation to really outweigh the problems, the government may need to adopt more aggressive efforts to help those affected so that the subsequent generations can reap the gains
- Embracing globalisation remains more of necessity than a choice for Spore



RIVER VALLEY HIGH SCHOOL  
YEAR 6 Preliminary Examination 2  
in preparation for General Certificate of Education Advanced Level  
Higher 2

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**ECONOMICS**

**9732/01**

Paper 1 Case Study

**16 September 2014**

**2 hours 15 minutes**

Additional Materials: Answer Paper

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**READ THESE INSTRUCTIONS FIRST**

Write your index number and name on all the work you hand in.  
Write in dark blue or black pen on both sides of the paper.  
You may use a soft pencil for any diagrams, graphs or rough working.  
Do not use staples, paper clips, highlighters, glue or correction fluid.

Answer **all** questions.  
Start each case study on a **new** sheet of paper.

At the end of the examination, fasten your work securely together.  
Your answers for each case study are to be handed in **separately**.  
The cover sheet provided is to be placed on top of your answers for Question 2.

The number of marks is given in brackets [ ] at the end of each question or part question.



Answer **all** questions.

**Question 1****Distortions in the energy markets****Extract 1: Wind farm subsidies to top £1billion this year**

According to an analysis of official figures by the think-tank Renewable Energy Foundation (REF), the total annual subsidy for onshore and offshore wind farms in the UK has topped £1bn. The disclosure comes ahead of a long-awaited government announcement to cut the size of the subsidy which has benefited the big energy companies but is added on to household electricity bills as a levy.

The subsidies were introduced by the Labour government to encourage green energy projects, including wind farms. However, it is now generally accepted that the subsidies are too generous due to advances in technologies. REF estimates that on current renewable energy targets, and with only modest cuts, the energy companies will have received £100 billion in subsidies by 2030. REF said it expects 10 companies, between them, to pocket £800million through subsidies over the next 12 months.

Out of the top 10, only two of the companies are British-owned. The remaining energy companies that make money out of British wind farms and British consumers are based in Germany, Norway, Spain and Italy.

Source: The Telegraph, 14 Jul 2012

**Extract 2: Wind power still gets lower public subsidies than fossil fuel**

Public subsidies for the development of wind power in the UK are far less than the tax breaks given to fossil fuels. Financial support for fledgling renewable energy industries has increasingly come under attack in recent months, but the new data shows that the older industries benefit to a far greater extent.

The UK's greater subsidies for fossil fuels mirrors the global situation, with the International Energy Agency (IEA) recently showing that in the 37 countries it analysed, oil, gas and coal received \$409bn (£261bn) in 2010 compared with \$66bn for renewable energy.

Almost 90% of the fossil fuel subsidy in UK comes from the reduced rate of VAT paid by households. In the UK, VAT on gas and electricity is 5% rather than 20% charged on most other goods. If such price cuts were intended to reduce energy costs for poorer households, they were a very blunt tool.

The former chief executive of British Petroleum (BP), has backed wind power subsidies. "People forget the government supported the oil and gas supply chain in its early days: with generous tax incentives, training programmes, strategic infrastructure and supportive regulation," he said in 2011. "The result today is a world leading industry, creating jobs in manufacturing and engineering across the UK."

The government acknowledged that investing in wind, marine, solar and other renewable energy sources will help meet the nation's greenhouse gas emissions target, as well as provide economic opportunities for the UK and a less volatile energy market. It points to rising global gas prices as the major reason for the sharp rise in home energy bills in recent years. Opponents argue that investing in renewables is unaffordable in this economic climate.

Source: The Guardian, 27 February 2012

### **Extract 3: Fossil fuel subsidies**

One of the most surprising and alarming issues in the climate and energy arena is the fact that the fossil fuels causing global warming continue to receive substantial government support. While government support given to environmentally beneficial renewable power sources is subject to seemingly endless media and political scrutiny, the 500% larger subsidies given to oil, gas and coal rarely get much attention.

The IEA's analysis focuses on the government policies designed directly to reduce the price of fossil fuels. The bulk of these "consumption subsidies" are given out in developing and transitional economies. One thing that is immediately striking here is that consumption subsidies tend to be biggest in nations that export a lot of fossil fuels, whether it is Saudi oil or Russian gas. In Egypt, subsidised low petrol prices were sustainable while domestic oil production were high but as the oil industry has declined, subsidies have become a huge burden. And Egypt is not alone, many countries in Middle East, South East Asia, South America and Africa heavily subsidise petrol.

Source: The Guardian, 18 January 2012

### **Extract 4: Phasing out fossil fuel subsidies could provide half of global carbon target**

Eliminating subsidies for coal, gas and oil could save as much as Germany's annual greenhouse gas emissions each year by 2015 and such a move could provide half of the carbon savings needed to stop dangerous levels of climate change. While the G20 nations pledged in 2009 to phase out such fossil fuel subsidies in the "medium term", the hundreds of billions that governments spend each year rose in 2010. As such, this has been undermining the competitiveness of renewables.

Most developed countries have already phased out policies that directly subsidise fossil fuel consumption. But recent analysis by the OECD suggests that these nations continue to prop up the oil, gas and coal industries in less obvious ways, such as providing tax breaks or favourable access to land and infrastructure. These indirect mechanisms are worth an estimated \$45–75bn. Coal, the most polluting of the three main fossil fuels, currently receives 39% of this support, mostly as a result of governments in Europe, and to a lesser extent Australia, Canada, Korea and the US, trying to ensure that changes to their coal-mining industries happen gradually rather than overnight.

Source: The Guardian, 19 January 2012

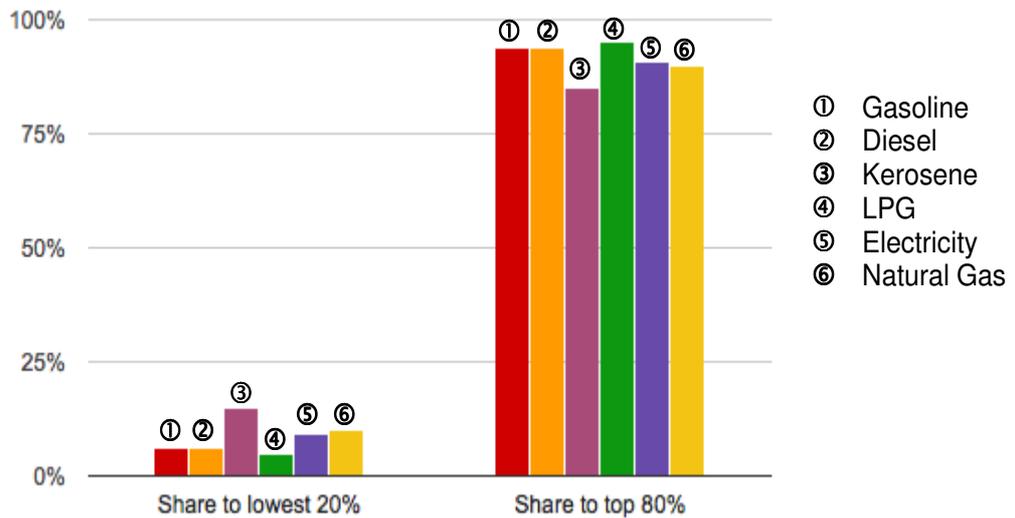
**Table 1: Own price elasticities of energy sources for selected countries**

Country	Oil	Gas	Coal
Japan	-0.03	-0.00	-0.19
UK	-0.04	-0.13	-0.18
USA	-0.01	-0.00	-0.03
China	-0.01	n/a	-0.04
India	-0.00	n/a	-0.04

n/a = not available

Source: World Bank, 2010

**Share of fossil fuel subsidies received by the lowest 20% income group in surveyed economies, 2010**



Source: International Energy Agency, 2011

**Figure 1**

**Questions**

- (a) With reference to the data in Table 1,
- (i) state how the own price elasticities of energy sources help to determine the nature of the good. [1]
  - (ii) explain what determines the effectiveness of an increase in the price of oil in reducing total energy consumption in the UK. [4]
- (b) Explain how advances in technologies affect the level of subsidies given to encourage green energy projects. [3]
- (c) Explain how investing in renewable sources of energy can help to mitigate the rise in home energy bills. [2]
- (d) Using the concept of opportunity cost, explain whether there is justification for consumption subsidies to be high in nations that export a lot of fossil fuels. [2]
- (e) With reference to the data where appropriate, discuss the view that fossil fuel subsidy to consumers are likely to bring about more costs than benefits. [8]
- (f) Extract 4 states that 'eliminating subsidies for coal, gas and oil could ... provide half of the carbon savings needed to stop dangerous levels of climate change'. Using demand and supply analysis, discuss the policy options available to governments in the fossil fuels and related market to meet their carbon target. [10]

**[Total: 30]**

## Question 2

## The Russian Economy

Table 2: Economic growth of selected emerging economies

	2007	2008	2009	2010	2011	2012
China	14.2	9.6	9.2	10.4	9.3	7.7
Russia	8.5	5.2	-7.8	4.5	4.3	3.4
India	9.8	3.9	8.5	10.3	6.6	4.7

Source: World Bank

**Extract 5: Monetary policy shift in Russia**

The global financial crisis that started in 2008 deeply affected Russia's economy and financial markets. It also precipitated a monetary policy shift that had been on the policy agenda for the previous few years. The Bank of Russia has since entered into a transition path from an exchange rate-based monetary policy to one focused on price stability. Increased exchange rate flexibility and, ultimately, a shift to a floating exchange rate regime are considered by the Bank of Russia to be part of its medium-term strategy. Exchange rate flexibility has proved to be a crucial precondition for a more effective interest rate policy.

Source: Central Bank of the Russian Federation

**Extract 6: Russian Economy Slow to Recover, World Bank Says**

Russia is rebounding from the global recession too slowly. According to a report by the World Bank, ageing population, unproductive workers, the reluctance to invest over the long term due to risk in general and concerns about Russia are factors weakening the Russian economy. The report highlighted low capital investment a particular concern. Russia is spending on factory equipment, trucks and airplanes at a level typical of more developed economies like Germany. And the problem of Russia's workers is not helping. They are far less productive than their counterparts in the wealthy countries in the OECD. Hour for hour, Russian workers produce only 43 percent of what their counterparts in developed countries do, the report said.

Nonetheless, Russia's public finances still appear robust compared with ailing European neighbours despite government welfare spending was up from 11 percent of Russian household income in 2007 to 18 percent in 2011. Russia had a budget surplus equivalent to 0.8 percent of GDP last year. Its public-sector debt is only 10 percent of the GDP, compared with more than 100 percent for many European states. Indeed, high oil prices have helped obscure these economic vulnerabilities.

Source: The New York Times, 27 Mar 2012

**Extract 7: Reviving Russia's growth**

The slowdown of Russia's economy highlights the challenges facing the world's largest energy exporter as oil prices are forecast to stagnate this year and Europe's stumbling economy saps demand for Russian commodity exports. The government began an open campaign this month to push the central bank to lower rates, a step the regulator is resisting because of concerns the economy is already growing near its potential. Fixed-capital investment contracted in annual terms in December for the second time in four months, the Federal Statistics Service in Moscow said in a report last week.

The central bank raised borrowing costs in September, becoming the largest emerging market to do so last year. First Deputy Chairman Alexei Ulyukayev said he does not see any potential gains from reducing interest rates. The joblessness rate fell to 5.3 percent in December, putting it below the full employment rate of about 6 percent, according to Aton's Westin.

The government is looking to investment as a source for growth amid signs that household consumption, which accounts for about half the economy, is stumbling. Real wages advanced at the slowest pace in more than three years in December, which may sap buying power.

Putin ordered his government on the day of his inauguration for a third term as president, to increase investment to 25 percent of economic output by 2015, up from 21 percent in 2011. Russia is currently 112<sup>th</sup> position in the World Bank's Ease of Doing Business Index, behind countries including Egypt, Pakistan and Papua New Guinea.

Source: Bloomberg, 31 Jan 2013

**Extract 8: Russia's entry to the WTO**

Russia's acceptance into the World Trade Organization last month opened a door to free up global trade with a nation that is one of the world's largest oil producers and home to the globe's biggest natural gas reserves and second largest coal reserves.

According to Martina Bozadzhieva, a senior analyst at Frontier Strategy Group, WTO accession will increase the competitiveness of the Russian economy and foreign direct investment inflows over the long term. Russia has committed to fully apply all WTO provisions and lower its tariffs on a wide range of products. But do not expect that to happen all at once. Moreover, for energy exports, Russia has not made any commitment to reduce its export tariffs in its agreement with the WTO and "it has made it clear it will continue to subsidize domestic energy prices for the foreseeable future," said Bozadzhieva.

"The entry to the WTO has opened up opportunity for China to achieve its growth in the past ten years," said Cong Li, a chief investment officer at Mirae Asset Global Investments. Compared with Russia, however, "China has an advantage in terms of its large scale, cheap labor force as well as efficient infrastructure and logistics built by public investment."

Source: The Wall Street Journal, 20 Jan 2012

**Extract 9: Excitement over Russia's WTO deal**

With the Russians finally gaining access to the World Trade Organization, the temptation is to compare this with China's 2001 acceptance into the WTO, which set off a bonanza in global trade and ushered in a golden age of export-led growth for China. But this is an entirely different ballgame. Russia is not so interested in boosting its exports as it is in stimulating its economy through more consumer spending, higher income, and increased efficiency.

While its new WTO membership will certainly open opportunities for Russian businesses to export more, the big benefits will come from companies selling into Russia's \$2 trillion economy at more competitive prices. As tariffs slowly fall, Russian industry will either have to evolve or die. For many sectors, like the Russian automotive industry, that process is well under way. Nonetheless, in the long run, Russia stands to gain an extra 11 percent annually in GDP (\$162 billion) due to increased trade, according to a World Bank study from March.

Charles Kupchan, a senior fellow at the Council on Foreign Relations, is cautious about how big an impact Russia's WTO deal will have on global trade. While its economy, like China's, is fueled by exports, Russia's is much more commodity-based, one that lacks China's low-wage structure. "The Russians don't have a fleet-footed economy that will embrace these reforms quickly," says Kupchan.

Source: Businessweek, 22 August 2012

**Questions**

- (a) With reference to Table 2, identify how the Russian economy had fared against the other emerging economies. Justify your answers. [3]
- (b) Explain why increased exchange rate flexibility is a crucial precondition for a more effective interest rate policy. [3]
- (c) Explain why the robust Russia's public finance might not continue. [4]
- (d) State two possible reasons why Russia has not made any commitment to reduce its export tariffs for its energy exports in its agreement with the WTO. [2]
- (e) Discuss whether a rate cut, favoured by the Russian government, is the best policy approach to revive Russia's economic growth. [8]
- (f) Discuss how far Russia would benefit from its accession into the WTO. [10]

**[Total: 30]**

**RVHS 2014 Y6 H2 Prelim 2 Case Study 1**  
**Answers:**

<b>(a)</b>	With reference to the data in Table 1,
	<b>(i)</b> state how the own price elasticities of energy sources help to determine the nature of the good. [1]
	<ul style="list-style-type: none"> <li>▪ <math> PED  &lt; 1</math>, necessity</li> </ul>
	<b>(ii)</b> explain what determines the effectiveness of an increase in the price of oil in reducing total energy consumption in the UK. [4]
	<ul style="list-style-type: none"> <li>▪ Effectiveness of an increase in the price of oil in reducing total energy consumption depends on the price elasticities of demand. Since demand for oil in the UK is price inelastic (<math> PED =0.04</math>), an increase in price will cause a less than proportionate fall in quantity demanded.</li> <li>▪ Effectiveness also depends on the value of cross elasticities of demand (XED) between oil and other sources of energy (e.g. gas, coal). E.g. if value of XED between oil and gas is high, an increase in the price of oil will lead to an increase in the demand for gas by a large extent which may offset the fall in qty demanded of oil to some extent. Hence the effect of an increase in the price of oil on the overall fall in the total consumption of energy in the UK may be small and ineffective.</li> </ul>
	<b>(b)</b> Explain how advances in technologies affect the level of subsidies given to encourage green energy projects. [3]
	<ul style="list-style-type: none"> <li>▪ Govt subsidies to producers of green energy projects lower COP, SS curve shift right, price falls and Qty dd increases</li> <li>▪ Advances in technologies have the same effect on COP which makes production of green energy cheaper. This will further increase SS and shift the SS curve to the right</li> <li>▪ Hence, with cost savings derived from advances in technologies, the level of government subsidy can be reduced to meet the current renewable energy output targets</li> </ul>
	<b>(c)</b> Explain how investing in renewable sources of energy can help to mitigate the rise in home energy bills. [2]
	<ul style="list-style-type: none"> <li>▪ Renewable sources of energy e.g. wind, solar, marine and fossil fuels are factor inputs in the generation of power supply to households</li> <li>▪ Increase in the number of sources of factor inputs allows for more diversified and less volatile energy supply which can mitigate the rise in home energy bills (assuming demand constant)</li> </ul>
	<b>(d)</b> Using the concept of opportunity cost, explain whether there is justification for consumption subsidies to be high in nations that export a lot of fossil fuels. [2]
	<ul style="list-style-type: none"> <li>▪ Opportunity cost refers to the benefits of the next best alternative forgone</li> <li>▪ In nations that export a lot of fossil fuels, if they choose to provide consumption subsidies on fossil fuel, opportunity cost is still incurred as expenditure in other areas such as education/ health care will be forgone.</li> <li>▪ Hence concept of opportunity cost cannot be used to justify the high consumption subsidies given in these nations.</li> </ul>
	<b>(e)</b> With reference to the data where appropriate, discuss the view that fossil fuel subsidy to consumers are likely to bring about more costs than benefits. [8]
	<p><u>Types of fossil fuel consumption subsidies:</u></p> <ul style="list-style-type: none"> <li>▪ Extract 1: Almost 90% of the fossil fuel subsidy in UK comes from the reduced rate of VAT paid by households. In the UK, VAT on gas and electricity is 5% rather than 20%</li> </ul>

charged on most other goods.

- Extract 3: subsidised low petrol prices to consumers, many countries in Middle East, South East Asia, South America and Africa heavily subsidise petrol.

Intent and objective:

- price cuts were intended to reduce energy and fuel costs for poorer households

Costs	Benefit
<p>① disproportionately benefit the rich</p> <ul style="list-style-type: none"> <li>▪ Figure 1: the lowest 20% income group receive disproportionately small amount of the benefits of the fossil fuel subsidies</li> <li>▪ All households, both rich and poor, benefit from the consumption subsidies by paying lower prices for their energy and petrol uses. If the intent was to help the poorer household, this blanket approach is a blunt tool which will disproportionately benefit those who can afford to pay the market price for energy.</li> <li>▪ The poorest in developing economies do not own cars or power-guzzling appliances and hence benefit little from cheap petrol and electricity.</li> </ul> <p>② more costly in terms of government funding</p> <ul style="list-style-type: none"> <li>▪ Subsidies make energy and petrol prices artificially cheap encourage excessive consumption which leads to unsustainable demand patterns.</li> <li>▪ Expensive for governments, and therefore taxpayers, to finance and can hinder governments' efforts to reduce budget deficits. Significantly reduce tax revenue and drain govt coffers. Compete with other priority areas in public spending on roads, schools, and healthcare.</li> </ul> <p>Others</p> <ul style="list-style-type: none"> <li>▪ Accelerates the depletion of natural resources.</li> <li>▪ Reduce the incentive for investment in other forms of cleaner energy.</li> <li>▪ The rich pay taxes and fuel consumption subsidies funded via taxation, increase in fossil fuel subsidies can hurt the rich</li> </ul>	<ul style="list-style-type: none"> <li>▪ Help to reduce the cost of basic essentials to lower income families e.g. electricity costs. Stabilise prices in view of rising commodities and energy prices worldwide, reduce the inequity issues to ensure the poor have access to basic necessity</li> </ul>

Conclusion:

- Whilst it may be justifiable in the short run, it will be unsustainable in the longer term even for fossil fuel exporting countries as supply of this non-renewable resources dwindle.
- Longer term measures to switch to renewable sources + reduce the demand for fossil (through "right" price signalling)

L3	Developed discussion of the both the costs and benefits of fossil fuel subsidies to consumers with good reference to case data. Comes to a reasoned conclusion on the cost benefit analysis.	7-8
L2	Developed explanation of either the costs or benefits of fossil fuel subsidies to consumers with good reference to case data. But no conclusion reached.	4-6
	Undeveloped explanation of either the costs or benefits of fossil fuel	

	subsidies to consumers.	
L1	Smattering of valid points	1-3

(f) Extract 4 states that 'eliminating subsidies for coal, gas and oil could ... provide half of the carbon savings needed to stop dangerous levels of climate change'. Using demand and supply analysis, discuss the policy options available to governments in the fossil fuels and related market to meet their carbon target. [10]

Intro

There is a need for the government to intervene in the market for industrial production due to the existence of negative externalities that cause the market to fail. These negative externalities arise because of the use of fossil fuel in industrial production. As such there is a need for the government to intervene in both the markets for fossil fuel and renewable energy.

How market failure results from industrial production

- $MEC > 0 \rightarrow$  Divergence btwn MPC & MSC as  $MSC = MPC + MEC$
- Market output is at  $Q_m$ , socially optimal output is at  $Q_s$
- $Q_m > Q_s \rightarrow$  overproduction

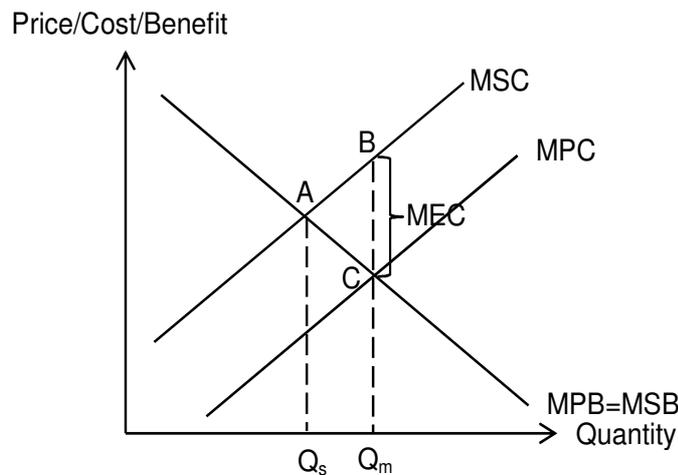


Figure 3: Negative externalities arising from industrial production

The following measures will reduce the divergence between MPC and MSC  $\rightarrow$  industrial production will switch to using more renewable energy

<b>Market for fossil fuel</b>	
<ul style="list-style-type: none"> <li>• consumers of fossil fuel <math>\rightarrow</math> firms that use fossil fuel as a factor input in the production of goods and services</li> <li>• producers of fossil fuel <math>\rightarrow</math> firms that extract fossil fuel</li> </ul>	
Decreasing the supply for fossil fuel	Decreasing the demand for fossil fuel
<p>(1) Removal of measures that have been propping up the industry (e.g. tax breaks, favourable access to land &amp; infrastructure)</p>	<p>(3) Carbon tax</p> <p>⊗:</p> <ul style="list-style-type: none"> <li>• Not a sustainable solution in the long</li> </ul>

<p>⊗:  <ul style="list-style-type: none"> <li>Extract 4: “nations continue to prop up the oil, gas and coal industries in less obvious ways, such as providing tax breaks or favourable access to land and infrastructure ... trying to ensure that changes to their coal-mining industries happen gradually rather than overnight.” → protectionism for fossil fuel industry (declining industry)</li> </ul> <p><b>(2) Removal of fossil fuel consumption subsidies</b></p> <ul style="list-style-type: none"> <li>Fossil fuel consumption subsidies are given to consumers → Extract 2: “Almost 90% of the fossil fuel subsidy in UK comes from the reduced rate of VAT paid by households.”</li> </ul> <p>⊗:  <i>Students should not be awarded for this as points are already mentioned in part (e)</i></p> </p>	<p>run</p> <ul style="list-style-type: none"> <li>some firms may even find it more cost efficient to relocate their manufacturing processes to other countries with lax environmental regulations.</li> </ul> <p><b>(4) Tradeable permits</b></p> <p>⊗:  <ul style="list-style-type: none"> <li>It is difficult to accurately estimate the number of tradeable permits</li> <li>It is also difficult to estimate the level of pollution that is optimal for society.</li> <li>Furthermore, fluctuations in tradeable permit prices may result in firms being reluctant to invest in green energy projects</li> </ul> </p>
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<b>Market for renewable energy</b>	
<b>Increasing the supply for renewable energy</b>	<b>Increasing the demand for renewable energy</b>
<p><b>(5) More subsidies for the production of renewable energy</b></p> <p>⊗ Subsidies            → Difficult to remove in the long run            → should be targeted at domestic green energy firms rather than foreign firms            Extract 1 → “Out of the top 10, only two of the companies are British-owned. The remaining energy companies that make money out of British wind farms and British consumers are based in Germany, Norway, Spain and Italy.”</p> <p><b>(6) Government-funded / led R&amp;D into renewable energy technology</b></p> <p>⊗ May not be cost effective to invest resources into R&amp;D</p>	<p>Governments shouldn't just focus on increasing the SS of renewable energy, they have to adopt demand-side measures too.</p> <p><b>(7) Tax breaks given to factories that use renewable energy</b></p> <p>⊗ The effectiveness of such a measure depends on the amount of tax breaks give .</p>

Conclusion

- There's a need to tackle both the fossil fuel and renewable energy market.
- However, measures must also be adopted to encourage the research and

development in the area of renewable energy		
LORMS		
L3	Developed discussion of measures in both the markets for fossil fuel and renewable energy. Full credit will only be awarded for answers that include at least one evaluative comment on the relative effectiveness of the selected policies.	8-10
L2	Developed explanation of measures in either the market for fossil fuel or renewable energy.	4-7
L1	Smattering of valid points	1-3

## 2014 RVHS H2 CSQ2

- (a) With reference to Table 2, identify how the Russian economy had fared against the other emerging economies. Justify your answers. [3]

Russia fared the worst of the 3 emerging economies.

The economic growth of Russia was consistently lower than the other two economies with the exception of 2008, which its growth surpasses that of India.

During 2009 financial crisis, the economy was the only one that contracted.

- (b) Explain why increased exchange rate flexibility is a crucial precondition for a more effective interest rate. [3]

Approach 1

Monetary policy is often used to stimulate growth or dampen inflationary pressure. Suppose the Central Bank desires to increase  $i/r$  to dampen inflationary pressure. When  $i/r$  increases, it will lead to short-term capital inflow, causing the exchange rate to appreciate. This appreciation leads to exports to be relatively more expensive and imports to be relatively cheaper. Assuming Marshall-Lerner condition is satisfied, net-exports will fall. Hence, the increased exchange rate flexibility enables the exchange rate changes to be more significant and hence enabling a more significant impact on net exports.

- (c) Explain why the robust Russia's public finance might not continue. [4]

Any 2 of the 3

Approach 1

From Extract 7, it was mentioned that oil prices were forecasted to stagnate and the economy in Europe was stumbling. These might cause a fall in export revenue from the sale of oil and hence a fall in government revenue given that these oil exporters are likely to be state-owned enterprises.

Approach 2

It was stated that government welfare spending was up from 11% of Russian household income in 2007 to 18% in 2011. This increase in welfare spending was likely to continue especially given the ageing population and the poor economic outlook. With higher government spending, the public finance would likely worsen.

Approach 3

Extract 6 pointed out that ageing population, unproductive workers, the reluctance to invest over the long term and concerns about Russia are factors that would dampen AD and reduce the productive capacity of the Russian economy. With this fall in AD and AS, the national income would be adversely affected. As such, the tax revenue derived by the government would fall. In addition, if expansionary fiscal policy or supply side policies were to be implemented, government expenditure would increase. Both of which would worsen the public finance.

**(d) State two possible reasons why Russia has not made any commitment to reduce its export tariffs for its energy exports in its agreement with the WTO. [2]**

[Any two possible reasons below]

- It is an important source of tax revenue, thereby contributing significantly to the government budget
- To support domestic industries by ensuring there are sufficient supply of the commodities
- To expand Russia's secondary industries via FDI as these foreign firms that have invested in Russia do have access to cheaper commodities.
- To improve terms of trade as the higher price of exports makes it possible for more imports to be exchanged for each unit of export

**(e) Discuss whether a rate cut, favoured by the Russian government, is the best policy approach. [8]**

- **How a rate cut helps?**

From Extract 7, the Russian government had been pushing the central bank to lower interest rates so as to stimulate the economy. By lowering interest rates, cost of borrowing will fall and investments which were previously not viable now become viable. As such investment level will increase, thereby solving the problem of contracting fixed-capital investment mentioned in Extract 7. The lower borrowing cost also implies that consumers will be spending more on big-ticket items such as cars and computers etc. Furthermore, lower interest rates mean less reward for savings, thus encouraging more consumption and fewer saving. These increases in consumption and investment will translate into an increase in AD which will increase national income and employment level, thereby stimulating the economy.

- **Explain why a rate cut does not help?**

**(i) No impact on real national income**

However, the Central Bank in Russia had been resistant to the idea of lowering interest rates because they believed that the economy was already growing near its potential since unemployment rate had fallen to 5.3%, well below the natural rate of unemployment as seen in Extract 7. As such, by lowering interest rates, the increase in consumption and investment will only cause an increase in price with little or no increase in real output.

**(ii) It does not address the root cause of the problem**

However, the fundamental problems which the Russian economy faced are ageing population, unproductive workers, and business executives who are reluctant to invest due to the risks involved. By reducing interest rates or keeping interest rates constant will not solve these issues. Instead, the Russian government should focus on supply side policies such as education and retraining to raise employability of workers and labour productivity so as to ensure the supply of highly skilled workers in the labour market. The training will also help to prevent structural unemployment. As such, policies such as education and retraining will increase potential output and contribute to a faster or sustained economic growth. Nonetheless, the success of skills training and upgrading depends on the level of education, age and personal inclination of the workers. Some workers might resist the idea of skills upgrading or retaining for another job, especially older workers and those with low education. Alternatively, the Russian

government may implement policies such as extending maternity leave to encourage higher women labor force participation in order to increase the quantity of labour thereby increasing potential growth. Nonetheless, overly-generous maternity leave will make employers think twice before hiring women in the first place.

In view of the ageing population, the Russian government could introduce measures to encourage older workers to find work and stay employed. Alternatively, the government could incentivize employers to hire the older workers by subsidizing a portion of their wages. These would help to retain the older workers in the workforce, ensuring that productive capacity does not shrink. However, these measures would require the government to increase their expenditure which may worsen the budget position.

As mentioned in Extract 6, one of the reasons cited for low level of investments in Russia was because of the risks involved in general. Risks involved here may refer to corruption, bureaucratic pressures, political instability etc. When there is political instability, investors are unwilling to invest because their investments are now subjected to higher risks of loss of assets, production disruptions and possibly a run on the exchange rate as well. Also, there could be inconsistency in policy decisions due to conflicts from different political parties. Hence, in order to improve the investment climate in Russia, the government should ensure political stability as well as to be more transparent in corporate governance.

Also, in order to increase the ease of doing business in Russia, the Russian government can deregulate by removing the barriers to entry into various industries or to eliminate or reduction of government regulations of private sector activities. This would also improve the investment climate in Russia, thereby stimulating the economy.

### **Conclusion**

While these measures will increase the attractiveness of Russia as a choice destination for investment, thereby increasing the productive capacity in the longer term, it is to be noted that the effects can only be seen in the long run. Therefore, even though manipulating interest rates may not solve the crux of the problem, it may stimulate investment in the short run and raise the productive capacity in the long run. To ensure it will not cause unnecessary inflation the central bank fear of, the government can perhaps use moral suasion or regulation to influence the type of lending by the banks.

(f) Discuss how far Russia would benefit from its accession into the WTO. [10]

The benefits Russia would derive from its accession into the WTO can be analysed by examining the benefits of increased flow of goods and services, capital and probably labour between Russia and the rest of the world.

However, there could also be problems faced by Russia or the benefits that Russia gets from joining WTO could be limited too.

#### Thesis: Russia would benefit from its accession into WTO

With Russia opening its door to trade, Extract 8 mentioned that Russia will lower its tariff on a wide range of products. This will result in lower prices of imports for Russia and thus, **increase the amount of goods and services** that can be enjoyed by the Russians. In addition, the **variety of goods** enjoyed by Russians is likely to increase too.

Besides benefitting the consumers, producers in Russia will also benefit if they rely on imported raw materials for production as the cheaper imported raw materials will mean a **lower cost of production** and thus, results in higher profits for producers.

With Russia's accession into WTO, it also opens up new export markets as producers in Russia are now **better able to export their goods** to more countries given the reduction of import tariffs towards Russian goods. With new and larger markets comes greater volumes of exports and this can help producers in Russia to reap significant **economies of scale** compared to before.

With Russia as one of the world's largest oil producers and home to the globe's biggest natural gas reserves and second largest coal reserves, as highlighted in Extract 8, Russia has the comparative advantage in energy exports and this can result in potentially higher net export revenue and hence, national income. The large amount of energy resources that Russia has is also likely to attract large amount of foreign direct investment (FDI) into Russia as they can avoid incurring higher energy prices.

The increase in investment and exports from the abovementioned points will lead to an increase in employment levels and national income for Russia, thus benefitting the economy. As mentioned in Extract 8, Russian economy is also expected to be more competitive. This comes as a result of the lower cost of production due to the cheaper imported goods, the greater competition on domestic firms given the higher imports as well as the expansion of the productive capacity given the higher FDI.

#### Anti-thesis: Russia would not benefit as much from its accession into WTO

First of all, although tariffs will be reduced on a wide range of products, **it will not happen all at once**. As a result, the benefits as underlined by the theory of comparative advantage that can be reaped may be limited in the short term.

In addition, with the influx of imports and FDI into Russia, it might be **difficult for the non-commodity domestic sector to compete**. This is evidenced in Extract 9, which certain industries, like the automotive industry, might not be able to survive. As such, this might lead to an increase in **structural unemployment** in Russia.

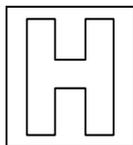
As for the increase in exports, it is stated in Extract 9 that Russia is **not so interested in boosting its exports** and as such, exports is not expected to increase sharply with Russia's accession into WTO. As such, there might be limited increase in national income and employment in export-related industries in Russia.

Similarly, the expected increase of FDI into Russia cannot be overstated as it is difficult to do business in Russia as evidenced in Extract 7. Moreover, unlike China, which has a large scale, cheap labour force as well as efficient infrastructure/logistics built by public investment, Russia's only advantage lies in its abundance of oil, coal and gas and as such, the overall cost of doing business might not be as low. Last but not least, Russians do not have a fleet-footed economy that will embrace economic or structural reforms quickly as compared to China. Based on the above points, the increase in FDIs might turn out to be limited.

Conclusion with justification

Indeed, the benefit from its accession into WTO is unlikely to be significant until protectionism measures are significantly reduced. However, to ensure the benefits are significant when protectionism measures are significantly reduced, Russia has to embrace the structural reforms to make its economy more competitive to withstand the stronger competition expected.

<b>L3</b>	<p>Developed discussion, with a sound justification as to whether Russia will benefit from its accession into the WTO.</p> <p>'Developed' – Explains clearly the benefits and challenges that Russia faces for joining the WTO in terms of goods and services, capital and labour (at least 2 benefits and 2 challenges). Sufficient reference is also made to information given in extracts. Finally, a justified conclusion on whether Russia will benefit or not.</p>	<b>8-10</b>
<b>L2</b>	<p>Undeveloped discussion on whether Russia will benefit from its accession into the WTO. Insufficient reference made to information given in extracts.</p> <p>OR</p> <p>Developed explanation on how Russia benefit or do not benefit from its accession into the WTO.</p>	<b>4-7</b>
<b>L1</b>	Smattering of valid points.	<b>1-3</b>



RIVER VALLEY HIGH SCHOOL  
YEAR 6 Preliminary Examination  
in preparation for General Certificate of Education Advanced Level  
Higher 2

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**ECONOMICS**

**9732/02**

Paper 2: Essay Questions

**22 September 2014**

Additional Materials: Answer Paper

**2 hour 15 minutes**

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**READ THESE INSTRUCTIONS FIRST**

Write your index number and name on all the work you hand in.  
Write in dark blue or black pen on both sides of the paper.  
You may use a soft pencil for any diagrams, graphs or rough working.  
Do not use staples, paper clips, highlighters, glue or correction fluid.

Answer **three** questions in total, of which **one** must be from Section A, **one** from Section B and **one** from **either** Section A or Section B.  
Start each question on a **new** sheet of paper.

At the end of the examination, fasten your work securely together.  
Your answers for Section A and B are to be handed in **separately**, with the cover page placed on top.

Indicate on the cover page the question(s) you have attempted for that section.

The number of marks is given in brackets [ ] at the end of each question or part question.

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This document consists of **2** printed pages.



**[Turn over**

Answer **three** questions in total.

**Section A**

**One or two** of your three chosen questions must be from this section.

- 1 Increasing affluence and advances in modern technology have contributed to the proliferation of e-reading devices and e-books. In addition, an increasing number of publishing companies have started to produce e-books.
- Discuss how these developments might affect the revenue earned from the sales of e-books and related products. [25]
- 2 The degree of market dominance is often associated with the size of a firm.
- (a) Explain how the degree of market dominance affects the amount of profits earned by a firm. [10]
- (b) Discuss whether economic analysis favours large firms over smaller ones. [15]
- 3 (a) Using the product and resource markets, explain the signalling and incentive functions of prices. [10]
- (b) Discuss the extent to which these functions of prices are reliable. [15]

**Section B**

**One or two** of your three chosen questions must be from this section.

- 4 Faced with a huge budget deficit, the governments of many countries have had their hands tied in reviving their economies.
- (a) Explain the factors that will determine whether a budget deficit is a major concern to an economy. [8]
- (b) Assess the policy options available to stimulate an economy if its budget deficit is of a major concern. [17]
- 5 The IMF highlighted that the first line of defence against slowing growth should be to allow the automatic stabilisers to operate, monetary policy easing and measures to ease the flow of credit.
- (a) Explain how automatic stabilisers and measures to ease the flow of credit are the first line of defence against slowing growth. [8]
- (b) Discuss whether it is useful to adopt a more aggressive fiscal policy. [17]
- 6 Higher oil costs, rising housing rents, more expensive private transportation and unemployment near a three-year low have led the Monetary Authority of Singapore to raise its 2012 inflation forecast.
- Discuss the view that Singapore's ability to achieve price stability is determined by her economic integration with the rest of the world. [25]

### Essay Question 1 Suggested Answers

**Increasing affluence and advances in modern technology have contributed to the proliferation of e-reading devices and e-books. In addition, an increasing number of publishing companies have started to produce e-books.**

**Discuss how these developments might affect the revenue earned from the sales of e-books and related products. [25m]**

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The market for e-books consists of consumers who buy digital books online and publishing companies (e.g. Hachette, HarperCollins, and Penguin Random House) which sell e-books to consumers through online retailers such as Amazon, Apple or Google. Associated markets of e-books include its substitute (e.g. print books) and complement (e.g. e-reading devices). The equilibrium price and quantity in these markets are determined by the intersection of their respective demand and supply. As such, any change in the demand and/or supply will cause a change in the equilibrium price and quantity, and in turn affect total revenue (TR) earned. This is because TR is defined as the amount received from the sale of the good at a given price and is calculated as the price multiplied by the quantity. In this context, the impact on TR earned in the markets involved due to increasing affluence, advances in modern technology and increasing number of publishing companies producing e-books will be examined.

Due to increasing affluence, the income of the people increased. Income elasticity of demand (YED) measures the degree of responsiveness of quantity demanded of a good to change in income, *ceteris paribus*. Since e-book is considered a normal good where  $YED > 0$ , an increase in income would lead to an increase in demand for e-books. Furthermore, due to advancement in modern technology, faster broadband speed and internet connection have changed consumers' taste and preference in favour of e-books due to the ability to purchase and download any book title with just a few clicks on the e-reading device. In addition, technological improvements have produced a wide array of attractive features and functions of dedicated e-book devices such as Kindle. They are light-weighted, possessed advanced screen technology and provide support for on-screen handwritten notes and highlights. All these benefits meant to create a comfortable and convenient reading experience for readers will change consumers' taste and preference towards e-books and hence lead to an increase in demand for e-books.

When demand for e-books increases, both equilibrium price and quantity will increase, leading to an increase in TR for e-books publishers.

Advancement in modern technology has also resulted in the greater ease of creating e-books. Besides having faster broadband speed and internet connection that helps to increase the efficiency of creating e-books, the discovery of advanced scanning

technology and software has also made it fast and easy to digitise print text. Hence, the supply of e-books will increase. Besides, the increasing number of e-books publishers producing e-books increases the number of sellers and further increase the supply of e-books.

With an increase in supply from  $S_0$  to  $S_1$  as shown in Figure 1 below, a fall in price will be accompanied by a rise in its quantity. The extent of this increase in quantity then depends on the price elasticity of demand (PED) for e-books as PED measures the degree of responsiveness of quantity demanded to a change in its price, *ceteris paribus*.

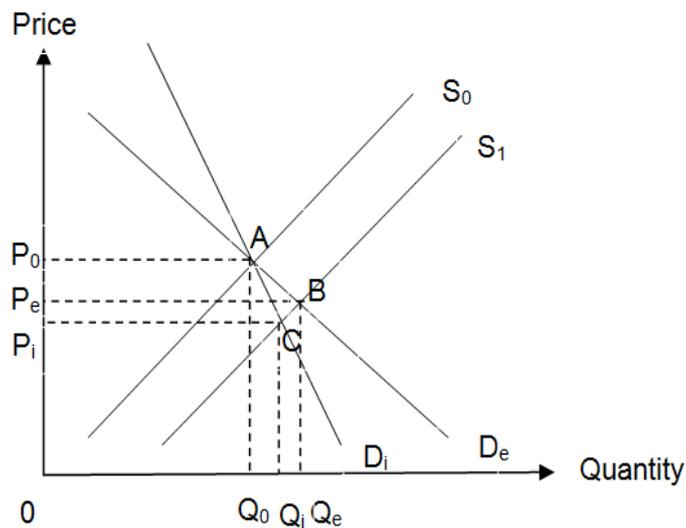


Figure 1: Market for E-books

The demand for e-books is relatively price elastic ( $PED > 1$ ) because of its low degree of necessity and the availability of close substitute such as print books. Given an increase in supply from  $S_0$  to  $S_1$ , the fall in price from  $P_0$  to  $P_e$  will lead to a more than proportionate increase in quantity demanded from  $Q_0$  to  $Q_e$ . Hence, the TR of e-books publishers increases from  $0P_0AQ_0$  to  $0P_eBQ_e$ .

Overall, the combined effect on the market for e-books includes a rise in both its demand and supply. As seen in Figure 2 below, this will cause the equilibrium quantity to rise with the change in price being ambiguous as this is dependent on the extent of change in demand and supply.

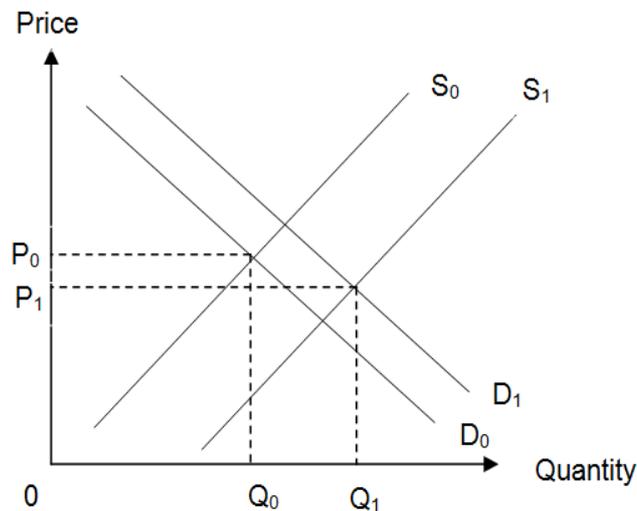


Figure 2: Market for E-books

In this context, it is likely that the increase in supply of e-books will outweigh the increase in demand for e-books. This is because technological advancement and low cost of production have made it increasingly cheap and easy to produce e-books. This is why many established publishers have chosen to produce more e-books instead of print books. In fact, there has also been a sharp rise in the number of self-publishers. On the other hand, the increase the demand may not be as significant because print books still hold a strong appeal for many book-lovers who enjoy reading with the physical touch of the books. Hence, there will be a fall in price from  $P_0$  to  $P_1$  and a rise in quantity from  $Q_0$  to  $Q_1$ .

As explained previously, the rise in demand for e-books, keeping supply unchanged, will cause a rise in TR. And the rise in supply of e-books, keeping demand changed, will result in a rise in TR with the PED being more than one. In this case, whether the extent of increase in demand or supply is greater, TR will still see an overall increase.

However, in the long-run, as more e-book publishers enter the market due to high profitability and low barriers to entry, increased competition will likely reduce the amount of profits enjoyed by each publisher.

With changing taste and preference towards e-books, the demand for print books which include paperback and hardcover books will fall. In addition, as e-books and print books are substitutes, the cross elasticity of demand (XED) between them is positive. The cross elasticity of demand (XED) measures the degree of responsiveness of quantity demanded of one good to a change in the price of another good, *ceteris paribus*. Hence, with the rise in supply of e-books, keeping demand unchanged, the price of e-books will fall. In turn, there will be fall in the demand for print books since the XED value between the two vehicles is positive. Overall, the fall in demand will cause the price and quantity of print books to fall, which decreases TR of print books publishers.

The extent of the fall in demand for print books also depends on the degree of closeness of substitutes between e-books and print book. The closer they are as substitutes, the greater the fall in demand for print books and the greater the fall in TR received by print books publishers.

Lastly, the market for e-reading devices will also be affected. They are devices capable of displaying text on the screen and include dedicated e-readers such as Kindle and Nook, other tablets and smartphones. Since e-reading devices are required for the display of e-books, they are complements in consumption and the XED value between them is negative. Hence, a fall in the price of e-books will cause a rise in the demand for e-reading devices. In turn, both the price and quantity of e-reading devices will increase, thus increasing the TR received by producers.

Again, the extent of the increase in demand for e-reading devices depends on the degree of closeness of complements between e-books and e-reading devices. The closer they are as complements, the greater the increase in demand for e-reading devices and the greater the increase in TR received by producers of these devices.

In conclusion, the TR of e-books and e-reading devices is expected to increase while the TR of print books is expected to fall. However, it is important to note that when we calculate PED, YED or XED, we assume *ceteris paribus*. In reality, there can be many factors affecting demand simultaneously. In addition, many of the elasticity values obtained are historical estimates of consumer behaviour and can limit the usefulness of elasticity measurements.

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Knowledge, Understanding, Application & Analysis		
L3	Upper 18-21	For a <b>developed discussion</b> on how total revenue is affected in the market for e-books and two other associated markets. The answer should include a developed analysis of demand and supply for <b>all three markets</b> with the aid of diagrams, accurate application of YED, PED <b>and</b> XED, and <b>excellent</b> attempts at contextualisation.
	Lower 15-17	For a <b>developed explanation</b> on how total revenue is affected in <b>the e-books market <u>and</u> one of its related market</b> , and an <b>undeveloped explanation for the third market</b> .
L2	10-14	For a <b>developed explanation</b> on how total revenue is affected in <b>either the e-books market <u>or</u> one of its related market</b> , and an <b>undeveloped explanation for the second market</b> .  OR  For an <b>undeveloped explanation</b> on how total revenue is affected in the <b>e-books market <u>and</u> two of its related markets</b> .
L1	Upper 6-9	For an <b>undeveloped explanation</b> on how total revenue is affected <b>only in the market for e-books</b> . Such an answer could include an undeveloped demand and supply analysis for this market, and/or some use of PED and makes no/little attempts at contextualising.  OR  For an <b>undeveloped explanation</b> on how total revenue is affected in the <b>market for e-books and the market for its complement and/or substitute</b> .
	Lower 1-5	Smattering of valid points.

Evaluation		
E2	For a well-reasoned judgment on the likely effects on revenue in the market for e-books and two other associated markets.	3-4
E1	For a generally unexplained judgment on the likely effects on revenue in the market for e-books and two other associated markets.	1-2

2014 Y6 H2 Prelims Essay Q2

The degree of market dominance is often associated with the size of a firm.

(a) Explain how the degree of market dominance affects the amount of profits earned by a firm. [10]

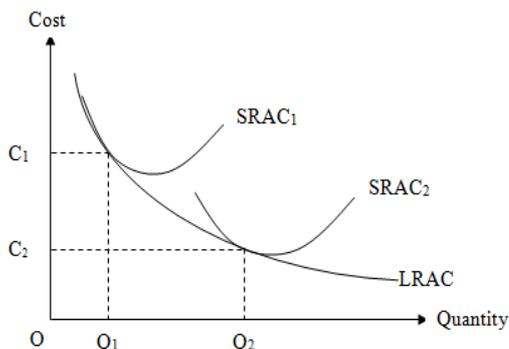
- A firm with market dominance will have a downward sloping demand curve.
- Higher market dominance a firm has, the higher its price setting ability and this results in the form of a more price inelastic demand curve.
- Higher the ability of the firm to increase total revenue (TR) since an increase in price would lead to a less than proportionate fall in its quantity demanded, this would in turn indicate more profits for the firm, assuming no change in the total cost (TC).
- Barriers to entry refer to any man-made or natural which are strong enough to prevent new rival firms from competing on an equal basis with the existing firms.
- A perfectly competitive and monopolistically competitive market structure have no and low barriers to entry and exit respectively. Thus, a perfectly competitive firm possesses no market dominance and a monopolistically competitive firm possesses low market dominance.
- There are substantial barriers to entry and exit in an oligopolistic market and for a monopoly it has the highest level of barriers to entry and exit. Thus, an oligopoly and monopoly possess a high degree of market dominance.
- Due to the varying degrees of barriers to entry, the different market structures will see a different impact on the amount of profits earned in the long run. The amount of profits can take the form of supernormal profits ( $TR > TC$ ), normal profits ( $TR = TC$ ) or subnormal profits ( $TR < TC$ ).
- In a perfectly competitive market, there are no barriers to entry. This implies that firms are free to enter and exit the market.
- Explain using diagrams, how the PC firm eventually makes normal profits
- In contrast, should a perfectly competitive firm be earning subnormal profits initially, this will cause some firms to leave the industry and decrease the market supply. This will in turn increase the market price and diminish the magnitude of subnormal profits. Firms will continue to leave the industry until the remaining firms earn normal profits in the long run.
- Similarly, in a monopolistically competitive market, there are low barriers to entry in reality.
- Explain using diagrams, how the MC firm eventually makes normal profits
- In contrast, a monopoly faces high barriers to entry. If the monopolist is making supernormal profit initially, new firms cannot easily enter the market even when there are supernormal profits to be made. There will be no change to the firm's demand and it can continue to retain its supernormal profits. Likewise for a firm in an oligopolistic market, it also faces considerable barriers to entry. As it is difficult for firms to enter or exit easily, an oligopolistic firm's supernormal profits will not be whittled away and can continue to retain its supernormal profits in the long run.

Knowledge, Application, Understanding and Analysis		
L3	<b>Developed</b> explanation of how market dominance, which is determined by the level of barriers to entry, affects the amount of profits for the different market structures.	8 - 10
L2	<b>Undeveloped</b> explanation of how market dominance, which is determined by the level of barriers to entry, affects the amount of profits for the different market structures.	4 - 7
L1	Smattering of valid points	1 - 3

(b) Discuss whether economic analysis favours large firms over smaller ones. [15]

Economic analysis favours large firms

- Firstly, internal economies of scale are those cost saving that accrue directly to the firm from the expansion of the firm's output, independent of what is happening to other firms. The falling portion of the firm's LRAC reflects internal economies of scale. With reference to Figure 3, a large firm producing at  $Q_2$  will be able to benefit in the form of enjoying a lower average cost at  $C_2$  as compared to a small firm producing at  $Q_1$  with an average cost of  $C_1$ .



- The lower average cost that a large firm enjoys can be derived from various sources.
- Explain with examples the various sources of IEOS. (E.g. marketing, managerial, technical)
- When a large firm is able to reap more internal economies of scale, consumers may benefit in the form of lower prices if firms pass on their cost savings. Firms may also use the cost savings to carry out research and development (R&D) to improve on their production processes, which can bring down the cost of production and eventually be passed on to consumers in the form of lower prices, or improve on the quality of the goods sold, improving the welfare of consumers.
- Large firms are able to earn supernormal profits in the long run as compared to small firms like that of a monopolistically competitive firm as explained in part (a). The large firms' supernormal profits are protected by high barriers to entry, making it difficult for potential firms to enter the industry. This means that large firms will have a higher financial ability to carry out R&D that can benefit consumers as explained previously. And in contrast, small firms don't have the financial ability to do so since they can only earn normal profits in the long run.

Economic analysis do not always favour large firms / Economic analysis favours small firms

- One reason could be due to internal diseconomies of scale. This happens when a firm expands beyond its optimum size. (Explain with reference to diagram)
- This is mainly due to managerial diseconomies. As the size of the firm increases, it becomes increasingly difficult to carry out the management functions of co-ordination, control, and the maintenance of morale → Elaborate with examples
- Large firms may then pass on this higher average cost in the form of higher prices, and this would not be advantageous to consumers.
- In some industries, diseconomies of scale set in early, meaning that the minimum efficient scale (MES) is low and internal economies of scale is exhausted quickly. As such, costs rise sharply as output increases. Any advantage to large-scale production is more than offset by the disadvantage. The optimum size of firms in such industries is small. → Give example.
- The total demand, both domestic and foreign, for the firm's output may be small because the firm is selling a niche product. Such a market may be limited by price. This is true for distinctive products like luxury sports cars, exclusive clothing and high quality jewellery, where only a small group of customers are willing and able to pay for the element of uniqueness and prestige.

- Furthermore, if the product has great bulk in relation to its value or requires special transport arrangement, the transport cost will be high relative to the unit price. Under such circumstances, the market for such products is likely to be local rather than national.
- Another reason for firms remaining small could be the need to cater to consumer's specific or individual requests. In this case, due to the varying nature of such requests, the size of production unit tends to be small. Thus, firms providing services in the area of law or repair services tend to be small. For instance, as cars do not break down in exactly the same way, the 'non-standardised' services make mass production of repair services impossible.
- Explain with diagram how large firms tend to be allocatively inefficient while small firms are allocatively efficient.
- Explain how large firms also tend to be productive inefficient.
- Since large firms' supernormal profits are protected by high barriers to entry, this lowers the firm's incentive to engage in R&D since there is little chance for new firms to enter the industry to erode away its supernormal profits earned, as previously explained in part (a). This will in turn have implications on consumers as there will be little improvements to the quality of goods. As such, large firms may not always be favoured. On the contrary, small firms like a monopolistically competitive firm may have the incentive to engage in R&D since firms making subnormal profits will be the first to leave the industry. Hence, in order to ensure long-term survival and the possibility to earn supernormal profits in the short run, they will have the incentive to innovate.

Knowledge, Application, Understanding and Analysis		
L3	For a <b>developed discussion</b> of how economic analysis favours large <u>and</u> small firms.	10 - 13
L2	For a <b>developed explanation</b> of how economic analysis favours large <u>or</u> small firms.  OR  For an <b>undeveloped discussion</b> of how economic analysis favours large <u>and</u> small firms.	5 - 9
L1	Smattering of valid points	1 - 4
Evaluation		
E2	For an evaluative assessment based on economic analysis.	3 - 4
E1	For an unexplained assessment, or one that is not supported by economic analysis.	1 - 2

**RVHS 2014 Preliminary Examinations II Question 5 Suggested Answers**

The IMF highlighted that the first line of defence against slowing growth should be to allow the automatic stabilisers to operate, monetary policy easing and measures to ease the flow of credit.

- a) Explain how automatic stabilisers and measures to ease the flow of credit are the first line of defence against slowing growth. [8]
- b) Discuss whether it is useful to adopt a more aggressive fiscal policy. [17]

- a) Explain how automatic stabilisers and measures to ease the flow of credit are the first line of defence against slowing growth. [8]

Automatic stabilisers or non-discretionary fiscal policy refers to features of government expenditure and taxation that change automatically (without government intervention) to smooth out the level of fluctuations in the economy while measures to ease the flow of credit refer to policies to ensure that credit is still available to borrowers during times of slowing economic growth.

During times of slowing economic growth, certain sectors may see a contraction and as such, workers in these sectors are likely to see their income falling or even lose their income. In these sectors, automatic stabilisers will kick in automatically to reduce the rate of decrease in income. Examples of automatic stabilisers include progressive income tax and unemployment benefits. Progressive income tax takes away a smaller proportion of income as income level falls. An example of progressive income tax is the personal income tax and in those sectors where income is falling, tax payments to government will fall. Thus, the presence of automatic stabilisers acts as a first line of defence as they help to slow down the rate of fall in economic growth.

During times of slowing economic growth, banks are likely to tighten credit as economic outlook turns pessimistic and banks become more cautious over the prospects of loan recovery. As such, availability of credit tends to fall during periods of slowing economic growth. In view of these, governments tend to row out measures to ease the flow of credit. One example is the special risk-sharing initiative implemented by Singapore during the financial crisis in 2009. The Singapore Government decided to take on a significant share of the risks of bank lending during 2009. Under the special risk-sharing initiative, it includes the New Bridging Loan Programme where Government takes on 80% of the risk for loans made to meet the capital needs of firms and the Trade Financing scheme where Government take on 75% of the risk for loans made to firms for them to fulfill their orders as well as insurance. As such, the special risk-sharing initiative helps viable companies to get the funding that they need to see them through the period of slow economic growth.

Knowledge, Understanding, Application & Analysis		
<b>L3</b>	<b>Developed</b> explanation on how automatic stabilisers and measures to ease the flow of credit help during an economic slowdown.	<b>7-8</b>
	Developed → Explanation of key terms, examples and usage of examples to	

	explain how it is the first line of defence against slowing growth.	
<b>L2</b>	<b>Undeveloped</b> explanation on how automatic stabilisers and measures to ease the flow of credit help during an economic slowdown OR <b>Developed</b> explanation on how either automatic stabilisers or measures to ease the flow of credit help during an economic slowdown.	<b>3-6</b>
<b>L1</b>	Smattering of valid points	<b>1-2</b>

**b) Discuss whether it is useful to adopt a more aggressive fiscal policy. [17]**

A more aggressive fiscal policy is referring to the use of discretionary fiscal policy, which refers to the deliberate changes in government expenditure and taxes to regulate the level of AD so as to achieve the macroeconomic objectives.

Thesis: It is useful to adopt a more aggressive fiscal policy.

Automatic stabilisers just work like 'shock absorbers' to reduce the severity/magnitude of fluctuations in the level of income but it cannot eliminate them completely. In addition, there is a limit as to how progressive the tax structure is or the level of unemployment benefits. Moreover, if the fluctuations are large, then discretionary fiscal policy will have to be used.

In the case of measures to ease the flow of credit and to ensure that credit is available, it might not bring about an increase in consumption or investment and as such, AD and NY might not increase. One of the reason is that if economic outlook is very bad, firms will not borrow to invest or consumers will not borrow to increase consumption even though credit is available.

Because of the above, it will be useful for discretionary fiscal policy to complement automatic stabilisers and measures easing the flow of credit to ensure that the economy improves.

Because of the limitations of automatic stabilisers and measures to ease the flow of credit, it will be useful for the government to undertake a more aggressive fiscal policy during times where there is slowing economic growth. In this case, an expansionary fiscal policy, where government expenditure is increased and / or taxes is being reduced, should be undertaken. Increasing government expenditure is the most direct way of increasing AD and the government can do this through increasing spending on infrastructure projects like building of transportation networks or government offices. A reduction in personal income tax rates increase disposable income and leaves people with more to spend while a reduction in corporate tax increases after-tax profits, thus encouraging private investment. These causes AD to increase and NY will increase by a multiple. Thus, an expansionary fiscal policy helps to raise the level of output, income and employment.

Anti-thesis: It is NOT useful to adopt a more aggressive fiscal policy.

A more aggressive fiscal policy might not be useful to tackle slowing growth because of the limitations of discretionary fiscal policy.

First of all, if the government does not have sufficient tax revenue to finance her spending, it may have to resort to borrowing from individuals or firms. Government borrowing will increase the demand for money and this pushes up the interest rate, assuming that money supply remains constant. The higher interest rate discourages private borrowing, thus crowding out private consumption and investment. If the fall in private consumption and investment is larger than the increase in government expenditure, then AD will fall instead.

Secondly, the effectiveness of fiscal policy depends on the size of the multiplier too. For small and open economies, an increase in government expenditure may not have a significant impact on income and employment due to a small multiplier, which reduce the effectiveness of fiscal policy. Small and open economies like Singapore have a heavy reliance on imports of raw materials and also basic necessities, thus resulting in a small multiplier. This is compounded if the economy has a high savings rate, which implies that any injections into households or businesses are not fully spent but are kept as precautionary savings. If this is the case, a more aggressive fiscal policy might not be useful.

Last but not least, it might not be very useful to adopt a more aggressive fiscal policy because of time lags. Fiscal policies tend to have a longer implementation lag compared to impact lag. Implementation lags happen as it takes time for policy makers to decide on what policy to be implemented and approval has to be sought before the policy takes effect. By the time an expansionary fiscal policy is decided upon and implemented to cure a recession, an economy may have already recovered and thus, will not be useful.

Besides the limitations of discretionary fiscal policy, it is also not useful to adopt a more aggressive fiscal policy if it worsens other objective of the government. For example, by increasing the NY of the economy and as such improving economic growth, it might actually worsen the balance of payment. An increase in national income might bring about an increase in imports, given that imports is a function of NY. If demand for imports is income elastic, import expenditure will increase, which will result in a worsening of the balance of payments.

Conclusion

To decide on whether it is useful to adopt a more aggressive fiscal policy depends on the rate and length of economic slowdown and also the nature of the economy. In addition, aggressive fiscal policy will be more useful for countries which have a large multiplier and also relative large reserves.

Knowledge, Understanding, Application & Analysis		
<b>L3</b>	<p><b>Developed</b> discussion on whether it is useful to adopt a more aggressive fiscal policy.</p> <p>‘Developed’ → Clear explanation on why automatic stabilisers and availability of credit are insufficient and how expansionary fiscal policy works for one side of the discussion. On the other side, clear explanation on 2</p>	<b>10-13</b>

	limitations of expansionary fiscal policy and also how it worsen other objective of the government.	
<b>L2</b>	<b>Undeveloped</b> discussion on both sides of the discussion OR <b>developed</b> explanation for one side of the discussion. 'Undeveloped' → Points on each side of the discussion are not well-explained.	<b>5-9</b>
<b>L1</b>	Smattering of valid points	<b>1-4</b>

<b>Evaluation</b>		
<b>E2</b>	Able to form a judgment on whether it is useful to adopt a more aggressive fiscal policy, based on economic analysis.	<b>3-4</b>
<b>E1</b>	Able to make some comments on whether it is useful to adopt a more aggressive fiscal policy but the comments are superficially stated, rather than substantiated with judgment.	<b>1-2</b>

**Question 6**

“Higher oil costs, rising housing rents, more expensive private transportation and unemployment near a three-year low have led the Monetary Authority of Singapore to raise its 2012 inflation forecast.”

Source: Bloomberg, May 23, 2012

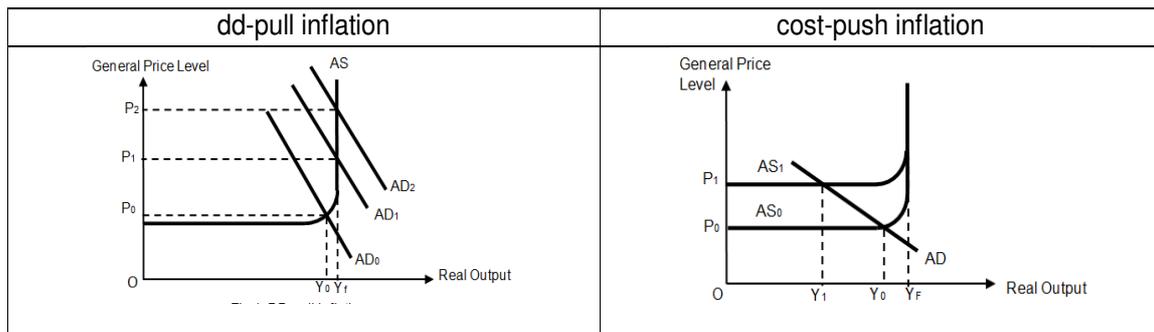
Discuss the view that Singapore’s ability to achieve price stability is determined by her economic integration with the rest of the world. [25]

**Introduction:**

- Inflation refers to a sustained, inordinate and general increase in the prices of g+s.
- Achieving low and stable rate of inflation is one of four important macroeconomic objectives
- In the S’pore context, the consumer price index (CPI) tracks the changes in the average price of a basket of g+s consumed by a typical household with housing, transport and food given higher weights due to the higher proportion of household income spent on these g+s. Hence, increase in CPI is indicative of inflationary pressures in S’pore.
- Globalisation refers to the increasing integration of national economies in terms of growth of international trade in g+s, greater mobility of capital and movement of labour across national boundaries.
- S’pore’s small and open economy has been consistently ranked amongst the most globalised in the world
- The increased economic integration has brought about both positive and negative impact on S’pore’s ability to achieve price stability.
- Besides economic integration, the choice and effectiveness of policy tool to address the root cause of inflation is also an important factor determining the ability to achieve price stability.

**Main:**

- Major causes of inflation in S’pore: both internal and external factors due to dd-pull or cost-push reasons.
- Explanation of dd-pull and cost-push inflation



**Thesis: S’pore’s ability to achieve price stability is determined by her economic integration (i.e. economic integration/globalisation affects the ability of S’pore to achieve price stability.)**

Positive and negative impact of 3 aspects of economic integration on GPL

	Economic integration improves S’pore’s ability to achieve price stability	Economic integration constrains S’pore’s ability to achieve price stability
Increased volume of trade in g+s	Sg economy: poor factor endowment, import factor i/p and fin gds, import-reliant <ul style="list-style-type: none"> <li>▪ ↓P of imported r.m. and fin gds from countries with CA in the prodn.</li> <li>▪ Greater trade links has allowed for diversification of the sources of</li> </ul>	<ul style="list-style-type: none"> <li>▪ Greater vulnerability to supply shocks. Import-reliant, susceptible to imported inflation (external, cost-push inflation) when prices of basic necessities e.g. food and crude oil prices increase.</li> <li>▪ Diversification may not ↓GPL in the event of global ↑ in commodity prices</li> </ul>

	<p>imported r.m. and other commodities. Reduce risk of over-dependence on one market and able to procure at the lowest cost possible</p> <ul style="list-style-type: none"> <li>→ ↓COP → ↑SRAS → ↓GPL (refer to cost-push inflation diag)</li> <li>With access to &gt; exports mkts, S'pore dom firms can expand o/p, tap on eos → ↓AC of prodn → ↓P of g+s</li> <li>Trade ↑competition → ↓mkt dominance. Firms incentivised to keep prices and cost low → ↓GPL</li> </ul>	<ul style="list-style-type: none"> <li>↑volume of trade → Sg X-driven → ↑NX → ↑AD (dd-pull inflation if operating near Yf) → ↑GPL</li> </ul>
Increased Capital flow	<ul style="list-style-type: none"> <li>↑capital flow e.g. FDI → ↑qty + qly of FOPs (↑fixed capital formation, training, technology transfer) → ↑productive capacity → LRAS shifts right → ↓GPL (diagram to illustrate)</li> </ul>	<ul style="list-style-type: none"> <li>↑FDI → ↑AD → dd-pull inflation → ↑GPL</li> <li>↑capital flow, QE in US/UK → ↓i/r + excess liquidity</li> <li>inflow of funds due to S'pore's openness to capital flow → ↑DD for property by foreigners → asset price inflation. (dd-pull inflation)</li> </ul>
Increased Labour mobility	<ul style="list-style-type: none"> <li>Given S'pore small population size, ↑inflow of FW has allowed firms to tap on a ready pool of labour and kept COP low.</li> <li>Augment the qty and qly of workforce → ↑productive capacity → LRAS shift right → ↓GPL</li> </ul>	<ul style="list-style-type: none"> <li>↑no of FWs in S'pore → ↑DD for dom g+s e.g. housing, transport which are heavily weighted in the CPI → ↑GPL (dd-pull inflation)</li> </ul>

**Anti-Thesis: S'pore's ability to achieve price stability is determined by other factors (i.e. other factors affect the ability of S'pore to achieve price stability.)**

Positive and negative impact of government policies on GPL

Govt policies improve S'pore's ability to achieve price stability	Govt policies constrain S'pore's ability to achieve price stability
<ul style="list-style-type: none"> <li>Exchange rate policy: gradual appreciation. ↑ex rate → ↓NX → ↓AD → ↓GPL (dampen dd-pull inflation arising from ↑foreigners' dd for sg g+s)</li> <li>↑ex rate → ↓Pr of import → ↓COP → ↓GPL (dampen cost-push inflation)</li> <li>Macprudential policies: cooling measures e.g. additional sellers' stamp duty, lowering of LTV ratio to reduce speculative dd in the housing market ↓GPL. (dampen dd-pull inflation)</li> </ul>	<ul style="list-style-type: none"> <li>Economic restructuring and pursuit of productivity-driven growth has led to tightening of FW policy</li> <li>E.g. FW levy, lowering of dependency ratio ceiling</li> <li>↑labour costs → ↑COP → ↓SRAS → ↑GPL (cost-push inflation)</li> </ul>

Conclusion:

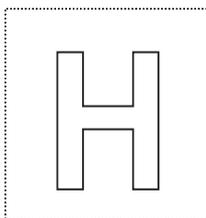
- Critical for the S'pore economy to remain open and integrated with the world economies to tap on the benefits of globalisation which in turn has significant impact both the internal and external sources of inflation.
- How well S'pore can achieve price stability then hinges on the type and frequency of review of policy measure to enhance their responsiveness and inflation targeting

**Knowledge, Application, Understanding and Analysis**

L3	<p>Developed discussion of how economic integration, as opposed to other factors, affect S'pore's ability to achieve price stability</p> <ul style="list-style-type: none"> <li>○ Detailed explanation of how <u>all</u> the 3 characteristics of economic integration (increase trade in goods &amp; services, capital and labour mobility) can both improve <u>and</u> constrain S'pore's ability to achieve price stability</li> <li>○ Detailed explanation of how other factors e.g. government policies can both improve <u>and</u> constrain S'pore's ability to achieve price stability</li> <li>○ Detailed diagrammatic explanation of the causes of demand-pull and cost-push inflation</li> </ul>	15 - 21
L2	<p>Undeveloped discussion of how economic integration, as opposed to other factors, improves and constrains S'pore's ability to achieve price stability</p> <p>Or developed explanation of how economic integration, as opposed to other factors, improves (or constrains) S'pore's ability to achieve price stability</p>	10 - 14
L1	Smattering of valid points i.e. answers show some knowledge of inflation and economic integration.	1 - 9

**Evaluation**

E2	For an evaluative discussion of the determinants which affect S'pore's ability to maintain price stability and based on economic analysis.	3 - 4
E1	Unexplained judgment or one that is not supported by economic analysis.	1 - 2



ST. ANDREW'S JUNIOR COLLEGE  
PRELIMINARY EXAMINATIONS – 2014  
General Certificate of Education Advanced Level  
Higher 2

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**ECONOMICS**

**9732/01**

Paper 1: Case Study Questions

**1 September 2014**

**2 hours 15 minutes**

Additional Materials: Answer Paper

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**READ THESE INSTRUCTIONS FIRST**

Write your name and class on all the work you hand in.

Write in dark blue or black pen on both sides of the paper.

You may use a soft pencil for any diagrams, graphs or rough working.

Do not use staples, paper clips, highlighters, glue or correction fluid.

Answer **all** questions in this section.

At the end of the examination, fasten all your work securely together.

The number of marks is given in brackets [ ] at the end of each question or part question.



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This document consists of **9** printed pages and **1** blank page.

**[Turn Over**

## Answer all questions

## Question 1

## The Olympics: The London Model

**Extract 1: Pricing Strategy by London Organising Committee of the Olympic Games**

The London Organising Committee of the Olympic Games (LOCOG) has revealed the ticket pricing structure across the 26 sports of the Olympic Games. There will be a range of prices.

“Spectators are a vital part of every Olympic Games, providing the atmosphere that inspires athletes to perform, with the range of tickets on offer, people of different ages and preferences will have the chance to attend London 2012.” said Hugh Robertson, Olympics Minister.

Demand was greatest for the Opening Ceremony as well as the popular sports of track, swimming and artistic gymnastics. LOCOG had provided a world-class hub to hold various sport events. One of the sporting venues, the Aquatics Centre, offered two 50-meter pools and a diving pool. Given the large size and the huge turnout for swimming events at the Aquatic Centre, the cost of maintaining the facilities and security were expected to be particularly high.

Pricing of the tickets also depended on allocation of tickets. Some seats were allocated to selected group of people such as the accredited press and broadcast working at the event. They were entitled to seating privileges and hence they did not need to pay. This reduced the number of seats for sale to the public. This applied to some sessions, which include the Finals.

Adapted from [gov.uk](http://gov.uk), 15 Oct 2010, and *The ticketing arrangements for the London 2012 Olympic Games and Paralympic Games*, [www.london.gov.uk/](http://www.london.gov.uk/), Mar 2011

**Table 1: London Olympic Ticket Price to Fencing and Swimming**

Sport Event	Venue	Session Type	Premium Seats	Standard Seats
Fencing	ExCeL London	Preliminary	£65	£20
		Final	£95	£30
Swimming	Olympic Park Aquatic Centre	Preliminary	£150	£40
		Final	£450	£95

Source: Ticketmaster.com

**Extract 2: Hotels matching up with the golden sporting legacy**

Over the seven week period, international visitors are expected to spend a total of £709 million in the UK, an 18% increase on what would be expected if the Olympics Games were not taking place. Overall, the retail, hotel and travel industry look set to be the biggest winners from the Games, benefiting from a combined spending injection of £508.4 million in seven weeks.

Hotels, with a direct reliance on tourists, arguably have more to gain, or lose, from any Olympic effect.

Hoteliers have taken the view that if they have a good business case for building, operating or refurbishing in London, they may as well invest and showcase that new investment to the

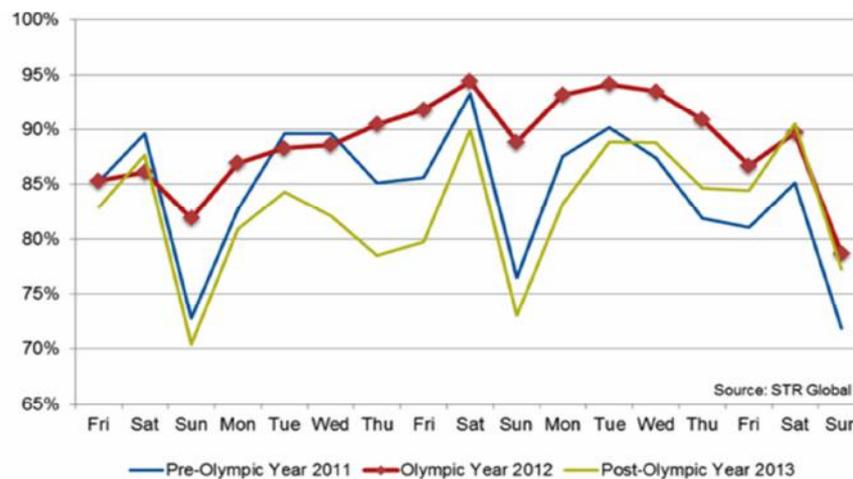
world during the Olympic and Paralympic Games. According to a recent analysis in 2011, there are around 2,400 rooms in 18 hotels under construction or planned in London for 2011 and 2012.

The capital will see several new brands and/or operators joining the current luxury hotel industry. These will include the restored “Gothic St Pancras Renaissance” from the Marriott Hotel Group, the “Shangri-La Hotel at the Shard” and many others.

Holiday Inn, a hotel brand name under a major hotel group named Intercontinental Hotel, has been signed up as main hotel sponsor and the official hotel services provider to London 2012. The deal will mean the company will be able to use the 2012 logo in its advertising in exchange for help and accommodation for the athletes as well as for LOCOG.

Adapted from *Visa Europe's London 2012 Olympic Expenditure and Economic Report*, 11 July 2011, [instituteofhospitality.org](http://instituteofhospitality.org), March 2011 and [bighospitality.com](http://bighospitality.com), 1 Jun 2009

**Figure 1: London daily hotel occupancy (day to day) for the same weeks in the Pre-Olympic year, Olympic year and Post-Olympic Year**



Source: STR Global

**Extract 3: How big a party for hotels in 2012?**

London hoteliers have questioned the assertion from the Government and tourism agencies that the hospitality industry will see a boost in trade from the Olympics in the next two years as hotels begin to assess the impact of the Games.

While one of the upmarket hotels, The Hempel Hotel, had secured a booking for exclusive use of the hotel during the Games, other luxury hoteliers suffered from lower travellers’ interest because of travel warnings to avoid the Olympics-sized hassles and not being so close to the capital. Business had been good in terms of occupancy and average room rate, as was to be expected with the proximity to the Olympic Park, but the events and weddings bookings have disappeared.

When there is a drop in demand and an increase in supply, hoteliers start doing silly things with price. They either have to join the others or stand to their grounds and live with the consequences. Only the smartest hoteliers and operators are going to be successful in 2013

Adapted from [bighospitality.com](http://bighospitality.com), 5 Sep 2012

**[Turn Over**

#### **Extract 4: London Strives for Zero Waste Olympics 2012**

Approximately 80% of Games-time waste was expected to be food packaging. Some of these food packaging waste were made up of non-biodegradable products such as plastics, which would be buried in landfills or incinerated. Such waste disposal methods would

- 1 harm marine life due to the plastic residual in the landfill
- 2 create hazardous emissions from plastic incineration

As such, the aspiration of LOCOG is to stage a zero waste Games – to eliminate waste through the design of products and the way waste is handled. Targets have been established that no waste produced during the Games will be sent to landfill and that 70% of Games time waste will be reused, recycled or composted.

Adapted from: The Environmental Sustainability of the London 2012 Olympic and Paralympic Games, <https://www.london.gov.uk>, 1 June 2008

#### **Extract 5: Sustainable waste management to maximise recycling**

LOCOG would work with all catering suppliers, including international sponsors Coca-Cola and McDonald's, to have a look at the types of alternative materials used for packaging in order to maximise the potential for recycling and composting.

Encouraged by the Olympics, Coca-Cola made a business decision to invest in removing materials which do not comply with the LOCOG's packaging guidelines, in order to improve recyclability of the packaging and make it 100% recyclable. This packaging format has been permanently adopted and continues to be used after the Olympics.

Another road to achieving zero waste to landfill target is waste segregation. A bin system where spectators could separate the waste into three sections: recyclable, residual and compostable was implemented. The bins were different colours with matching bin bags and the residual waste bin was designed to be the smallest. The most innovative idea was that the food packaging was colour-coded to match which bin they should go into.

However, there was a shortage of residual waste bins across all venues, which led to high contamination levels. There were either recyclable materials in the residual waste bins or residual waste in the recyclable bins. A number of factors that contributed to the contamination of bins included the lack of assistance for spectators and potential confusion caused by items which were neither recyclable nor compostable.

Furthermore, in order to ensure that any food packaging used at Games Venues was in line with the waste management infrastructure used, it was important that suppliers met certain criteria when it came to the use of food packaging.

Adapted from *London 2012 Legacy Transfer Report: Packaging*, <http://www.wrap.org.uk/>, Nov 2012 and *GPT, the waste solution*, <http://www.thewastesolution.co.uk/>, last accessed on 11 Aug 2014

**Questions**

- (a) (i) With reference to Table 1, compare the prices of Premium tickets for Fencing and Swimming. **[2]**
- (ii) Explain two possible reasons to account for your observations in (a)(i). **[4]**
- (b) With reference to Table 1, explain whether the differences in price charged for the same session of each sport event could be considered to be an example of price discrimination. **[4]**
- (c) (i) What can you conclude from the information contained in Figure 1 about the impact of the 2012 London Olympic Games on London's daily hotel occupancy rate? **[2]**
- (ii) Using the data where appropriate, discuss the short term and long term impact of the London Olympics on a dominant hotelier in the oligopolistic luxury hotel industry in London. **[8]**
- (d) Do you agree that the promotion of waste segregation is a sufficient measure to achieve an efficient allocation of resources in the market for plastic food packaging? **[10]**

**[Total: 30 marks]**

**[Turn Over]**

**Question 2****Economic Slowdown in US and India****Extract 6: US economic recovery is a dangerous mirage**

While the risk of a disorderly crisis in the Eurozone is well recognised, a more positive view of the United States has prevailed. For the last three years, the consensus has been that the US economy was on the verge of a robust and self-sustaining recovery that would restore growth.

The reality however is the opposite:

- Growth in the second quarter has decelerated from a mediocre 1.8% in January-March, as job creation – averaging 70,000 a month – fell sharply,
- Expectations of the "fiscal cliff" – tax increases and spending cuts (which would result in large spending cuts to education and infrastructure) set for the end of this year – will keep spending and growth lower through the second half of 2012, resulting in a 4.5%-of-GDP drag on growth in 2013
- Private consumption growth in the last few quarters has been slower than growth in real wages. In 2013, as transfer payments are phased out, however gradually, and as some tax cuts are allowed to expire, disposable income growth and consumption growth will slow.
- External forces may further impede US growth: a worsening Eurozone crisis; an increasingly hard landing for China; a generalised slowdown of emerging-market economies, owing to cyclical factors (weak advanced-country growth) and structural causes and the risk of higher oil prices in 2013 as negotiations and sanctions fail to convince Iran to abandon its nuclear program.

Adapted from *The Guardian*, 20 July 2012

**Extract 7: Recovery slowed by 'ill-designed' cuts**

The International Monetary Fund (IMF) said on Friday that an "excessively rapid and ill-designed" deficit reduction plan had hampered the "tepid" recovery in the US economy.

The IMF warned against an early ending to the massive economic stimulus programme being undertaken by the Federal Reserve. In a scheme known as quantitative easing (QE) the Fed is buying \$85bn of treasuries and mortgage-backed securities every month in an effort to hold interest rates at record lows and spur employment growth.

But IMF also warned of the downside of continued QE, saying: "A long period of exceptionally low interest rates may entail potential unintended consequences for domestic financial stability and has complicated the macro-policy environment in some emerging markets."

Source: *The Guardian*, 14 June 2013

**Table 2: Some Economic Statistics for United States, 2009-2013**

	2009	2010	2011	2012	2013
Real GDP growth rate	-2.8	2.5	1.8	2.8	1.9
Inflation rate	-0.4	1.6	3.2	2.1	1.5
Unemployment rate	9.3	9.7	9.0	8.1	-
Budget Balance (% of GDP)	-9.8	-8.8	-8.4	-6.8	-4.1

**Table 3: Some Economic Statistics for India, 2009-2013**

	2009	2010	2011	2012	2013
Real GDP growth rate	8.5	10.3	6.6	4.7	5.0
Inflation rate	10.9	12	8.9	9.3	10.9
Unemployment rate	3.9	3.5	3.4	3.4	-
Budget Balance (% of GDP)	-9.3	-6.9	-8.1	-7.1	-7.8

Source: World Bank, 2013

**Extract 8: A Rough 2012 for India**

“India Shining” has been the unofficial slogan for India since the turn of the 21<sup>st</sup> century. India averaged 8% annual GDP growth in the three years before the recent global financial crisis.

Over the past 12 months, the optimistic mood within India’s economy has taken a sharp dip. GDP growth slowed to 6.3% in 2011-12; the worst it has been in 9 years, and the first quarter of 2012 India grew a measly 5.3%, according to some estimates. While a slowdown in GDP growth has been relatively recent, India has been battling with a rising inflation for the past two years, which included food inflation at between 15-25%.

Although a weakening external demand, due to the Eurozone crises and US economic slowdown has contributed to the slowdown, India’s economy is very much based on internal demand, which has slowed recently partly because of private consumption dropping from 5.5% in 2011/12 from 8.1% the previous year. Low business confidence has also resulted in a sharp decline in the growth of private investment including FDI. India’s economy is showing signs of overheating with a growing demand and inability to match it with supply.

India's biggest challenge is its infrastructure deficit. If you have travelled to India, you have experienced tremendous traffic on poor roads burdened with bottle necks. The problem is exacerbated by an increased gap between supply and demand for electricity. India’s infrastructure deficit problem is nothing new, and the government has been trying to catch up for years.

Source: *The Internationalist*, 2013

**Extract 9: Indian Economic Reforms**

On September 13th came an announcement of a small, but politically important, reduction in diesel subsidies. Through state-owned firms the government has long kept the price of diesel artificially low. But as market prices have soared, the subsidy bill has exploded. The 12% increase in the price of diesel that Indian drivers (and those with generators) are now enduring will be politically difficult, but it is essential. It was the better-off who gained most from costly fuel subsidies, while the fiscal problems hurt the economy as a whole. In the short term, however, the rise in diesel prices will nudge up inflation too.

The next day, September 14th, brought more welcome changes. Once again the government is pushing the idea that foreign supermarkets, like Wal-mart, will operate in India resulting in better logistics, competitive shops, foreign expertise and technology. The arrival of

**[Turn Over**

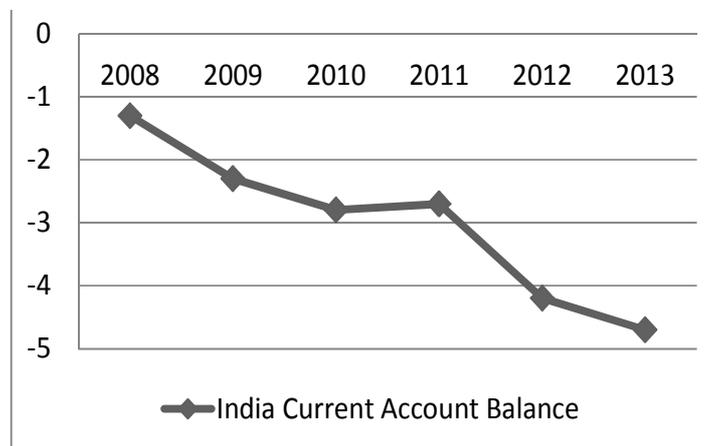
supermarkets can be presented as helping Indian farmers too. Supermarkets may cut out the long chains of inefficient middlemen. The result could be welcome: higher prices for farmers, and lower prices for consumers.

In other areas, too, investors should be pleased. The government will now let foreigners invest more in India's power sector, in domestic broadcasting, and in domestic aviation. To raise funds, too, the government plans a slew of privatisation, selling off government-owned chunks of equity in Hindustan Copper, in Oil India, and other firms.

India's expansionary fiscal policy, intended to fight the 2008 global credit crisis, has led to a dramatic deterioration in the country's fiscal situation. The high central fiscal deficit of around 6% creates a level of vulnerability for India that is a cause for concern. A persistently high fiscal deficit will raise interest rates for the private sector and constrain the government's ability to implement any stimulus measures to prop up the economy when growth slows, as is happening now.

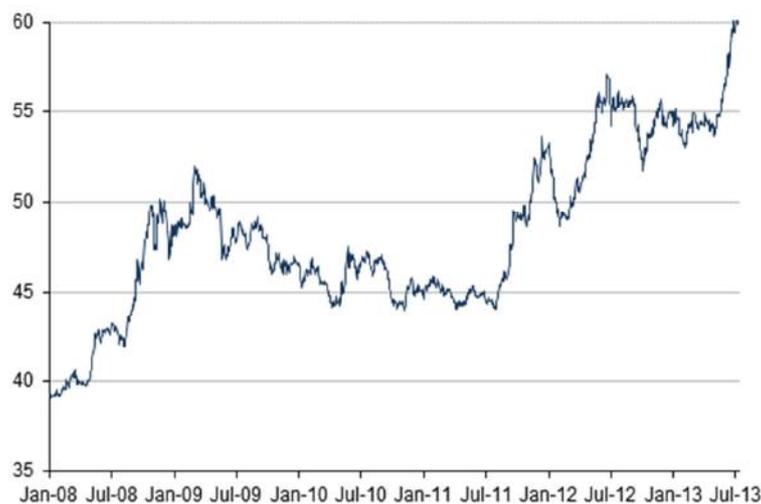
Adapted from *The Economist*, 14 Sept 2012 and [www.voxEU.org](http://www.voxEU.org), 15 Sept 2012

**Figure 2 Current Account Balance of India (% of GDP)**



Source: Reserve Bank of India, 2013

**Figure 3 Exchange Rate of Indian rupee (INR) per US dollar (USD)**



Source: Reuters, 2013

**Questions**

- (a) (i) Describe the trend in the current account balance of India between 2008 and 2013. [2]
- (ii) How might your observation in (a)(i) explain the change in the external value of Indian rupee against the US dollar between 2008 and 2013? [2]
- (b) With reference to Table 2, what conclusion would you draw about the economic performance of the US between 2009 and 2012? [4]
- (c) Using the concept of circular flow of income, explain how the fiscal cliff would affect the equilibrium level of national income in the US. [4]
- (d) Assess whether the benefits of attracting foreign direct investments into India outweigh the costs. [8]
- (e) Using both the case study and your own relevant knowledge, discuss the relative importance of factors that might limit the effectiveness of the policies put in place by the US or India to address the slowdown in economic growth. [10]

**[Total: 30 marks]**

# St. Andrew's Junior College



## Economics Department JC 2 Preliminary Examinations (2014)

### Suggested Answers

### H2 Economics Paper 1 (Syllabus 9732)

Question 1

(a)	(i)	<p><b>With reference to Table 1, compare the prices of Premium tickets to Fencing and Swimming events.</b></p>	[2]
		<p><b>Similarity:</b> The preliminary ticket prices were lower than the tickets for the finals.[1]</p> <p><b>Difference:</b></p> <ul style="list-style-type: none"> <li>• The ticket prices for Swimming event were higher than for Fencing [1]</li> <li>• The <u>percentage</u> difference between preliminary round and final round is higher for swimming than fencing. [1] {do not award marks if students merely state that the difference is greater for swimming compared to fencing, because this shows absolute and not relative comparison of prices}</li> </ul>	
	(ii)	<p><b>Explain two possible reasons to account for your observations in part (a)(i).</b></p>	[4]
		<p><b><u>Justification for the similarity</u></b></p> <p><b>Similarity: Higher demand</b> for tickets to finals as compared to the demand for the tickets to preliminary events.</p> <p><u>Reason:</u> [Taste and Preferences] Spectators would <b>prefer</b> to attend and watch the final events as final events are usually more exciting and they would be able to witness their favourite idols winning the championship during the event.</p> <p><b>Or</b></p> <p><b>Similarity: Higher supply</b> of tickets to preliminary events compared to the supply of tickets to Final events</p> <p><u>Reason:</u> The number of preliminary events is greater than the final events of each sport.</p> <p><b><u>Justification for the difference</u></b></p> <p><b>Difference: Higher demand</b> for tickets to Swimming events compared to the demand for tickets to Fencing events</p> <p><u>Evidence in Extract 1</u> → “demand was greatest for ...as well as the popular sports of ... swimming and artistic gymnastics”</p> <p><u>Reason:</u> [Taste and Preferences] Due to the popularity of the swimming event, spectators would <b>prefer</b> to attend and watch swimming events.</p> <p><b>Or</b></p> <p><b>Difference: Lower supply</b> of tickets to Swimming events compared to the supply of tickets to Fencing events</p> <p><u>Evidence in Extract 1</u> → “costs of maintaining of these pools were rather high.”</p> <p><u>Reason:</u> Due to higher cost of holding the Swimming event, supply of swimming tickets would be lower than that of the Fencing event. This lower supply would in turn result in higher ticket prices for Swimming event. This shows that LOCOG had passed on the higher cost in terms of higher prices to the consumers.</p> <p><b><u>Mark Scheme</u></b></p> <p><b>2 marks - For any <u>one</u> well-explained factor for the similarity</b></p> <p><b>2 marks - For any <u>one</u> well-explained factor for the difference</b></p>	

(b)		[4]
	<p><b>With reference to Table 1, explain whether the differences in price charged for the same session of each sport event could be considered to be an example of price discrimination.</b></p> <p><b>Yes [2 marks]</b></p> <ol style="list-style-type: none"> <li>The cost of hosting the event (e.g. ushers, ticket managers) does not vary for different spectators.</li> <li>There might also be no perceived difference as all spectators are entitled to view the same sporting event.</li> </ol> <p>Thus, it can be viewed as an act of third degree price discrimination.</p> <p><b>No [1 mark]</b></p> <p>There could be cost differences e.g. differences in quality of seats such as different materials, well-spaced out seats. Furthermore, consumers perceived the different categories of seats to be different example Premium seats offered better views of the games compared to Standard seats.</p> <p>Hence, in this case if there is a difference in cost and perceived differences, then the possible reason for the higher price could be the higher cost involved.</p> <p><b>Conclusion [1 mark]</b></p> <p>The price differential could be considered to be an example of price discrimination depends on whether there is indeed cost differences and perceived/real differences. In this case, there is insufficient evidence to conclude due to lacking evidence on the nature of the seats.</p> <p><b><u>Mark scheme</u></b></p> <p>1 mark: Stating of reasons for both sides                  2 - 3 marks: Explanation of reason for both sides                  1 mark: Conclusion                  No marks awarded for definition of price discrimination                  One-sided explanation: max. 2 marks</p>	
(c)	(i) <b>What can you conclude from the information contained in Figure 1 about the impact of the 2012 London Olympic Games on London's daily hotel occupancy rate?</b>	[2]
	<p>During the Olympic period, there was a general increase in daily hotel occupancy rate compared to pre-Olympic period. [1]</p> <p>However, this increase was not sustained as the daily occupancy rate during the post-Olympic period was generally lower than pre-Olympic and Olympic period. [1]</p>	
	(ii) <b>Using the data where appropriate, discuss the short term and long term impact of the London Olympics on a dominant hotelier in the oligopolistic luxury hotel industry in London.</b>	[8]
	<p><b><u>Impact on profits in the SR</u></b></p> <p><b><i>TR increased → Due to increase in demand for luxury hotels</i></b></p> <p>The <b>increase in DD</b> is due to the</p> <ol style="list-style-type: none"> <li>projected increase in visitors             <ul style="list-style-type: none"> <li><u>Evidence: Extract 2, Para1</u> <ul style="list-style-type: none"> <li>"international visitors are expected to spend a total of £709 million in the UK, an 18% increase on what would be expected if the Olympics Games were not taking place"</li> </ul> </li> </ul> </li> <li>ability of luxury hotels (e.g. The Hempel hotel) to secure deals for</li> </ol>	

exclusive bookings. Only bigger firms within the oligopolis industry would be able to enjoy such deals

- Evidence: Extract 4, Para 2:
  - *"The Hempel Hotel, had secured a booking for exclusive use of the hotel during the Game"*

**TR might not increase in the SR → DD for luxury hotel might not increase**

The demand for luxury hotels might not increase because

1. the dominant luxury hotel (e.g. Intercontinental Hotel Group) might forgo potential demand and hence revenue due to sponsorship of the Games in exchange for certain privileges.

- Evidence: Extract 2, para 5  
*"Intercontinental Hotel Group's Holiday Inn brand has been signed up as main hotel sponsor and the official hotel services provider to London 2012 ... the company will be able to use the 2012 logo in its advertising in exchange for help and accommodation for the athletes as well as for (LOCOG)"*

2. the fall in DD for hotel rooms for events and weddings dampened the increase in DD due to the increase in international visitors who came to London for the Olympics.

- Evidence: Extract 3, para 2  
*"Business had been good in terms of occupancy and average room rate, as was to be expected with the proximity to the Olympic Park, but the events and weddings bookings have disappeared"*

3. there was lower travellers' interest during the Games because of travel warnings to avoid the Olympics-sized hassles. Some large luxury hotels were located further away from the Olympic venues and might not be popular with the Olympic international visitors.

- Evidence: Extract 3, para 2  
*"other luxury hoteliers suffered from lower travellers' interest because of travel warnings to avoid the Olympics-sized hassles and not being so close to the capital"*

**TC increased in the SR**

→ construction of new hotels and refurbishment of rooms

- Evidence: Extract 2, para 3  
*"Hoteliers have taken the view that if they have a good business case for building, operating or refurbishing in London"*

Assuming the increase in TR > than the increase in TC → profits increased in the SR.

**Overall increase in revenue might be small while potential revenue was forgone due to sponsorship of rooms and cost incurred for refurbishment. Hence, profits might not increase in the short run.**

**Impact on profits in the LR**

**TR increases in the LR → due to an increase in DD in the LR**

The demand for luxury hotels increased in the LR because

1. Publicity generated via sponsorship → DD increases → TR continue to increase in LR.

	<p>2. Backed by aggressive advertising, aided by availability of funds for dominant oligopolistic luxury hoteliers.</p> <ul style="list-style-type: none"> <li>○ <u>Evidence: Extract 2, para 5</u>  <i>“Intercontinental Hotel Group’s Holiday Inn brand has been signed up as main hotel sponsor and the official hotel services provider to London 2012 ... the company will be able to use the 2012 logo in its advertising in exchange for help and accommodation for the athletes as well as for (LOCOG)”</i></li> </ul> <p><b>TR might not increase → due to possible fall in demand</b></p> <p>The demand for luxury hotels might fall in the LR because</p> <ol style="list-style-type: none"> <li>1. Entrance of new players (contestability in oligopoly market structure) → price war → Evidence of mutual interdependence  <u>Evidence: Extract 3, para 3</u>  <i>“When there is a drop in demand and an increase in supply, hoteliers start doing silly things with price. They either have to join the others or stand to their grounds and live with the consequences”</i></li> <li>2. occupancy rate fall (in the LR after the Olympic event)  <u>Evidence: Figure 1</u></li> </ol> <p>Assuming increase in TR &gt; the increase in TC → profits increased in the LR.</p> <p><b><u>Synthesis/Judgement</u></b>                  Impact on profits depends on</p> <ul style="list-style-type: none"> <li>• extent of increase in TR vs increase in TC which in turn depends on whether the dominant luxury hotel oligopolist could successfully make use of non-price strategies such as advertising and service differentiation to ensure and sustain high occupancy rates even after the Olympic.</li> </ul> <table border="1" data-bbox="379 1261 1268 1888"> <thead> <tr> <th>Level (Marks)</th> <th>Level Descriptor</th> </tr> </thead> <tbody> <tr> <td>L3 (5-6)</td> <td>Well-developed answer that examines both the SR and LR impact on profits of the dominant oligopolistic luxury hotelier with reference to the case material. Max 5 for a well-developed answer that examines both the SR and LR impact on profits of the dominant oligopolistic luxury hotelier without references case materials.</td> </tr> <tr> <td>L2 (3-4)</td> <td>Answer briefly explains the SR and LR impact without explicitly linking to profits. Some reference to the case material.</td> </tr> <tr> <td>L1 (1-2)</td> <td>Answer identifies the impact on either revenue or costs or without distinguish between SR and LR. Little or no reference to the case material.</td> </tr> <tr> <td>E2 (2)</td> <td>Evaluative assessment based on sound economic analysis.</td> </tr> <tr> <td>E1 (1)</td> <td>For an unexplained assessment or one that is not supported by economic analysis.</td> </tr> </tbody> </table>	Level (Marks)	Level Descriptor	L3 (5-6)	Well-developed answer that examines both the SR and LR impact on profits of the dominant oligopolistic luxury hotelier with reference to the case material. Max 5 for a well-developed answer that examines both the SR and LR impact on profits of the dominant oligopolistic luxury hotelier without references case materials.	L2 (3-4)	Answer briefly explains the SR and LR impact without explicitly linking to profits. Some reference to the case material.	L1 (1-2)	Answer identifies the impact on either revenue or costs or without distinguish between SR and LR. Little or no reference to the case material.	E2 (2)	Evaluative assessment based on sound economic analysis.	E1 (1)	For an unexplained assessment or one that is not supported by economic analysis.	
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(d)	<p><b>Do you agree that the promotion of waste segregation is a sufficient measure to achieve an efficient allocation of resources in the market for plastic food packaging?</b></p>	[10]												

Explain that the promotion of waste segregation is an effective measure to achieve an efficient allocation of resources.

- Briefly explain how the over-usage of plastic food packaging will result in negative externality and hence over-allocation of resources
  - Example of MEC: Increase in non-compostable and degradable plastic waste may endanger wildlife and aquatic animals. Increase in plastic waste also takes up landfills, which are limited. If there's insufficient landfills, inappropriate disposal of plastic waste would harm human's health
- Explain how waste segregation in promoting recycling will reduce MEC  
→ show MSC shifting downwards

Explain that the promotion of waste segregation is insufficient even though it is effective. + suggested alternative policies

- Explain that MEC could only be reduced by a smaller extent due to the following factors
  - lack of assistance for spectators, potential confusion caused by items which were neither recyclable nor compostable  
→ not enough campaign conducted before the Olympics on how to distinguish between the recyclable, compostable and residual products
  - The bulk of packaging waste might not be recyclable in the first place resulting in a large amount of residual plastic which needs to be incinerated or buried in landfills, both of which are not environmental friendly.  
Better solution is to collaborate with suppliers such as coca cola to come up with food packaging that are mainly recyclable.  
→ reduce DD for non-recyclable products and hence reduce negative externality

**Synthesis/Judgement**

- Waste segregation is a necessary but not sufficient measure.
- Collaboration with suppliers to come up with totally recyclable food packaging is a more sustainable and long term solution.

To effectively deal with the problem, LOCOG needs to foster cooperation among the LOCOG, suppliers of food packaging and consumers. However, this may not be easy, because it might lead to higher cost of production for the suppliers.

Level (Marks)	Level Descriptor
L3 (6-8)	Well-developed answer that examines whether waste segregation is an effective <b>and</b> sufficient measure. At least one alternative policy is well-analysed. Analysis is based on economic framework (social costs & benefits vs private costs & benefits) and with reference to the case materials.
L2 (4-5)	Answer that attempt to address the sufficiency of waste segregation as a measure to achieve efficient allocation of resources in the market for plastic food packaging. Analysis must be based on economic framework of MSB-MSC analysis though there is reference to case materials.
L1	An answer that lacks both scope and depth. Did not address

		(1-3)	the issue of sufficiency of waste segregation as a measure to achieve efficient allocation of resources in the market for plastic food packaging. Brief mention of alternative if at all.	
		E2 (2)	Evaluative assessment of whether waste segregation is a sufficient measure based on sound economic analysis.	
		E1 (1)	For an unexplained assessment or one that is not supported by economic analysis.	

**Question 2**

(a)	<p><b>(i) Describe the trend in the current account balance of India between 2008 and 2013.</b></p> <p>India's current account as a proportion of GDP has been in deficit (1) and has worsened / deteriorated / increased / widened between 2008 and 2013. (1)</p> <p>Cannot accept: decreasing deficit</p> <p>Note: Because the GDP of India has been increasing (from Table 3), we can draw inferences on the <u>level</u> of current account balance, even though Figure 2 only shows the current account balance <u>as a proportion of GDP</u>.</p>	[2]
	<p><b>(ii) How might your observation in (a)(i) explain the change in the external value of Indian rupee against the US dollar between 2008 and 2013?</b></p> <p>From Figure 3, Indian rupee has <u>depreciated</u> against the USD between 2008 and 2013. (1)</p> <p>A worsening current account deficit may cause <u>relative increase in supply</u> of Indian rupee (increase in SS and/or decrease in DD)          → external value of Indian rupee against USD is likely to fall as reflected in Figure 3. (1)</p>	[2]
(b)	<p><b>With reference to Table 2, what conclusion would you draw about the economic performance of the US between 2009 and 2012?</b></p> <p>From table 2, US economic performance showed an improvement: [2 marks]</p> <ul style="list-style-type: none"> <li>- Inflation is low and stable and may imply an improvement in consumer and investor confidence since the sub-prime crisis in 2009 where there was deflation due to fall in AD.</li> <li>- Unemployment also fell since 2009 implying less wastage of resources.</li> <li>- Real growth rates were positive implying a rise in real income. Material standard of living improves.</li> </ul> <p>However, despite the improvement in most of the key economic indicators, there are still concerns about the economic performance. [1 mark]</p> <ul style="list-style-type: none"> <li>- Unemployment is still high at about 8% and growth rates are relatively low and may be slowing down further leading to stagnant growth.</li> <li>- Although the budget deficit is smaller, government spending is still higher than its revenue implying a greater tax burden on future generations.</li> </ul> <p>In conclusion, while US economy showed signs of recovery, it still has not achieved a fundamentally sound economy. It is necessary for governments</p>	[4]

	to continue its reforms to ensure sustained economic growth./Lack of evidence on other performance indicators, such as BOP. [1 mark]	
(c)	<p><b>Using the concept of circular flow of income, explain how the expected fiscal cliff would affect the equilibrium level of national income in the US.</b></p> <p>Definition of circular flow of income: Illustrates the flow of money as well as goods and services between producers and consumers in an economy.</p> <p>Simple circular flow diagram to indicate the main components with reference to a 4 sector economy.</p> <p>Fiscal Cliff – Increase in tax, Fall in G (1)          → Increase in withdrawals and fall in injection (1)              → <math>W &gt; J</math> → firms reduce production → fall in firms making factor payments to factors of production → fall in national income              → households will then save less, pay less tax and buy less imports until withdrawals fall to match injections. (1)              → Equilibrium level national income is restored at a lower level. (1)</p>	[4]
(d)	<p><b>Assess whether the benefits of attracting foreign direct investments into India outweigh the costs.</b></p> <p><b><u>Introduction</u></b>          Definition of FDI - defined as a company from one country making a physical investment into building a factory in another country which includes direct investment in buildings, machinery and equipment.</p> <p><b><u>Possible Benefits</u></b></p> <ul style="list-style-type: none"> <li>▪ Increase competition and efficiency → reduces unit cost of production → increase in SRAS → higher real GDP and lower cost push inflation.</li> <li>▪ Increase in competition and efficiency → lower unit cost of production → lower prices for consumers → increase in consumer surplus → increase in consumer welfare.</li> <li>▪ Transfer of technology → increase in productivity → lower unit cost of production and increase in productive capacity → increase in SRAS and LRAS</li> <li>▪ Deregulation of power sector → increase foreign investment into energy sector → reduce power shortages → lower unit cost of production → increase in SRAS → higher real GDP and lower cost push inflation.</li> <li>▪ Increase in FDI → higher investment → increase in AD → higher real GDP and employment → higher GDP per capita assuming increase in real GDP &gt; increase in population → higher material SOL</li> <li>▪ Inflow of FDI → c.p. improvement in KFA → c.p. improvement in India's BOP position</li> <li>▪ Increase tax revenue → reduce fiscal deficit</li> </ul> <p><b><u>Possible Costs</u></b></p>	[8]

	<ul style="list-style-type: none"> <li>▪ In SR, further burden on infrastructure → further demand pull inflation</li> <li>▪ May worsen income balance of current account in LR when profits are remitted back</li> <li>▪ May worsen income distribution as demand for skilled workers increase faster than the demand for unskilled workers</li> </ul> <p><b>Evaluation</b></p> <ul style="list-style-type: none"> <li>▪ SR - less benefits as infrastructure may be unable to support the higher investments coming into the country</li> <li>▪ LR more benefits when productive capacity increases and is better able to support the FDI</li> <li>▪ Overall benefits outweigh cost</li> </ul> <table border="1" data-bbox="375 667 1233 1458"> <thead> <tr> <th data-bbox="375 667 523 734">Level (Marks)</th> <th data-bbox="523 667 1233 734">Level Descriptor</th> </tr> </thead> <tbody> <tr> <td data-bbox="375 734 523 840">L3 (5 - 6)</td> <td data-bbox="523 734 1233 840">Well-developed answer that examines both benefits and costs of attracting FDI into India with reference to the case material and good application of economic framework.</td> </tr> <tr> <td data-bbox="375 840 523 1149">L2 (3 - 4)</td> <td data-bbox="523 840 1233 1149">Answer examines either benefits or costs of attracting FDIs into India with good reference to the case material with some application of economic framework or Answer examines both benefits and costs but lacks application of economic framework (AD/AS) or reference to case material Max. 3 marks for an answer that excessively lifts evidence from the data with limited explanation</td> </tr> <tr> <td data-bbox="375 1149 523 1323">L1 (1 - 2)</td> <td data-bbox="523 1149 1233 1323">Smattering of points with conceptual errors or Answer identifies either the benefits or costs of attracting FDI into India with limited application to economic framework</td> </tr> <tr> <td data-bbox="375 1323 523 1391">E2 (2)</td> <td data-bbox="523 1323 1233 1391">Evaluative assessment based on sound economic analysis:</td> </tr> <tr> <td data-bbox="375 1391 523 1458">E1 (1)</td> <td data-bbox="523 1391 1233 1458">For an unexplained assessment or one that is not supported by economic analysis:</td> </tr> </tbody> </table>	Level (Marks)	Level Descriptor	L3 (5 - 6)	Well-developed answer that examines both benefits and costs of attracting FDI into India with reference to the case material and good application of economic framework.	L2 (3 - 4)	Answer examines either benefits or costs of attracting FDIs into India with good reference to the case material with some application of economic framework or Answer examines both benefits and costs but lacks application of economic framework (AD/AS) or reference to case material Max. 3 marks for an answer that excessively lifts evidence from the data with limited explanation	L1 (1 - 2)	Smattering of points with conceptual errors or Answer identifies either the benefits or costs of attracting FDI into India with limited application to economic framework	E2 (2)	Evaluative assessment based on sound economic analysis:	E1 (1)	For an unexplained assessment or one that is not supported by economic analysis:	
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(e)	<p>Using both the case study and your own relevant knowledge, discuss the relative importance of factors that might limit the effectiveness of the policies put in place by US or India to address the slowdown in economic growth.</p> <p><b>Introduction</b></p> <p>Briefly explain how the policies put in place by US works to improve economic growth</p> <p>US:</p> <ol style="list-style-type: none"> <li>1. Quantitative easing → increase money supply &amp; lower interest rates → increase C and I → increase AD and AS</li> </ol> <p><b>Factors that limit effectiveness (extract 1):</b></p> <ul style="list-style-type: none"> <li>- Austerity measures (policy conflict) → spending cuts and fall in transfer payments → Fall in G, C and I → fall in AD</li> <li>- Lower private consumption (signs of low consumer confidence) → fall</li> </ul>	[10]												

in AD

- Weakening external demand → net exports fall → fall in AD
- Cuts to education, science and infrastructure spending could reduce potential growth (Extract 2)
- Students would need to explain how these factors may offset the effect of the expansionary monetary policy put in place to stimulate economic growth.
- Students need to assess the relative importance of the factors discussed above in limiting the effectiveness of the policies.

**Conclusion**

US will need to ensure austerity measures are implemented gradually to avoid hurting economic growth especially in view of weakening global demand.

**OR**

**Introduction**

Briefly explain how the policies put in place by India works to improve economic growth

India:

1. Attract FDI → Increase I → increase AD and AS
2. Privatisation → Increase efficiency and productivity → increase AS
3. Expansionary FP

**Factors that limit effectiveness:**

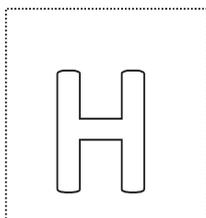
- Infrastructure deficit suggests that India is near full-employment. With an increase in FDI, output may not rise much and is accompanied by further demand-pull inflation. This will further slow down economic growth.
- Weakening external demand
- Competition from foreign firms may deter domestic investment (crowding out effect)
- Fiscal deficit → competition for funds → higher interest rate → crowd out private investment
- Increasing budget deficits → cut in diesel subsidies → increase COP > fall in SRAS
- Students would need to explain how these factors may offset the effect of the policies put in place to stimulate economic growth.
- Students need to assess the relative importance of the factors discussed above in limiting the effectiveness of the policies.

**Conclusion**

India may need to address its infrastructure bottlenecks if it hopes to have sustainable economic growth. Inflation is high and if the economy continues to increase AD without ensuring a rise in AS, it will face higher inflation that may stifle the economy.

Level (Marks)	Level Descriptor
L3	Well-developed answer that examines at least 3 factors that

		<b>(7 - 8)</b>	limit the effectiveness of the policy(s) in place with reference to the case material and good application of economic framework. Answer also makes a considered attempt to rank the limitations from the most serious to the least.	
		<b>L2 (4 - 6)</b>	Answer accurately identifies the policy(s) in place but lacks depth in analysis of the factors that limit the effectiveness of the policy(s). There is some attempt to use economic framework in the analysis. Max. 6 marks for answers that make no attempt at ranking the factors.	
		<b>L1 (1 - 3)</b>	Smattering of points with conceptual errors and weak application of economic framework with regards to policy in place as well as the factors that limit effectiveness.	
		<b>E2 (2)</b>	Evaluative assessment based on sound economic analysis:	
		<b>E1 (1)</b>	For an unexplained assessment or one that is not supported by economic analysis:	



ST. ANDREW'S JUNIOR COLLEGE  
PRELIMINARY EXAMINATION – 2014 (JC2)  
General Certificate of Education Advanced Level  
Higher 2

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**ECONOMICS**

**9732/02**

Paper 2: Essay Questions

**15 September 2014**

**2 hr 15 minutes**

Additional Materials: Answer Paper

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**READ THESE INSTRUCTIONS FIRST**

Write your name and class on all the work you hand in.

Write in dark blue or black pen on both sides of the paper.

You may use a soft pencil for any diagrams, graphs or rough working.

Do not use staples, paper clips, highlighters, glue or correction fluid.

Answer **three** questions in total, of which **one** must be from Section A, **one** from Section B and **one** from **either** Section A **or** Section B.

At the end of the examination, fasten all your work securely together.

The number of marks is given in brackets [ ] at the end of each question or part question.



This document consists of **3** printed pages and **1** blank page.

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**[Turn Over]**

Answer **three** questions in total.

**Section A**

**One or two** of your three chosen questions must be from this section.

- 1 In recent years, there have been increased environmental awareness and improvements in green technology. These have led to changes in demand for and supply of products and services such as electrical appliances, materials used for packaging and garbage disposal services.

Assess how relevant markets could be impacted by the above developments.  
[25]

- 2 The first wave of mergers and acquisitions in Singapore took place in 1998, where Development Bank of Singapore (DBS) acquired Post Office Savings Bank (POSB). As *DPM Lee (2001)* stated, "...if we want strong banks, then they have to be big banks, and if they are to be big banks, then we must have fewer banks." Singapore has three local banks now – DBS, United Overseas Bank (UOB) and The Overseas-Chinese Banking Corporation Limited (OCBC) – which have the highest average credit ratings among banking systems globally.

Adapted from The Straits Times, Jul 17, 2014

- (a) Explain the rationale for mergers and acquisitions among firms. [10]
- (b) In light of the above, examine whether local banks in Singapore should aim to be big in order to stay competitive globally. [15]
- 3 A recent survey by the National Council on Problem Gambling (NCPG) showed a decrease in respondents who felt that gambling would lead to an unhappy family life and an increase in respondents who felt that it was possible to win lots of money by having the right gambling skills.
- (a) Explain how the concept of marginal analysis can be used to understand why the Singapore government may intervene in the market for gambling. [10]
- (b) Discuss whether existing policies to deal with gambling are still relevant in view of the changes in perceptions towards gambling amongst Singaporeans in recent years. [15]

### Section B

**One or two** of your three chosen questions must be from this section.

- 4 Since 1982, monetary policy in Singapore has been centred on the management of the exchange rate. The primary objective has been to promote price stability through modest gradual appreciation as a sound basis for sustained economic growth. On the other hand, countries such as Japan, Switzerland, Columbia and Israel have lowered the value of their currencies.
- (a) Explain the Monetary Authority of Singapore's (MAS) choice of using exchange rate rather than interest rates as an instrument for its monetary policy. [10]
- (b) Assess the extent to which depreciation of the currencies of other countries would affect Singapore's ability to achieve sustained economic growth. [15]
- 5 Singapore's government has been working to reduce the economy's reliance on foreign labour, such as by raising the levy on foreign workers and promoting automation, as part of a push to increase the economy's productivity, but the move has led to a tight labour market, putting upward pressure on wages.

Source: South China Morning Post, 2014

- (a) Explain why improving labour productivity is important to a country. [10]
- (b) Discuss whether the move above to address declining productivity is desirable for Singapore. [15]
- 6 This current wave of globalisation has been driven by policies that have opened economies domestically and internationally. At the same time, taking advantage of new opportunities in foreign markets and technology, corporations have built foreign factories and established production and marketing arrangements with foreign partners.

Source: globalization101.org

Some economists believe that policy forces are the main driver of globalisation, rather than market forces. Discuss how far you agree with this belief.

[25]

# St. Andrew's Junior College



## Economics Department JC 2 Preliminary Examinations (2014)

### Suggested Answers

### H2 Economics Paper 2 (Syllabus 9732)

1	In recent years, there have been increased environmental awareness and improvements in green technology. These have led to changes in demand for and supply of products and services such as electrical appliances, materials used for packaging and garbage disposal services.
	Assess how relevant markets could be impacted by the above developments. [25]
	<p><b><u>Suggested Answer</u></b></p> <p><b>Question Analysis:</b></p> <ul style="list-style-type: none"> <li>• Impact on markets relate to <math>P_e</math>, <math>Q_e</math> and TR.</li> <li>• Markets to be analysed: <ul style="list-style-type: none"> <li>○ The good/service itself</li> <li>○ Substitutes</li> <li>○ Complements</li> <li>○ Factors of production</li> <li>○ Competitive supply</li> </ul> </li> </ul> <p><b>Note:</b> there is no need to repeat the analysis of the above 5 sub-markets for each of the three goods/service given in the pre-amble. However, all five markets should be showcased in the entire essay to gain top marks.</p> <ul style="list-style-type: none"> <li>• Demand and supply framework as well as relevant elasticity concepts are required to produce an analytical response to this question.</li> </ul> <p><b><u>INTRODUCTION</u></b></p> <ul style="list-style-type: none"> <li>• Increased environmental awareness and improvements in green technology were factors that led to changes in demand for and supply of the various markets and also related markets such as their substitutes and complements as well as their respective factor markets.</li> <li>• Impact on such markets refers to the change in <math>P_e</math> and <math>Q_e</math> as well as Total Revenue. Such impact differs both in direction and extent of change, depending on the nature of the goods in question.</li> </ul> <p><b><u>BODY</u></b></p> <ul style="list-style-type: none"> <li>• Framework to be used – Demand and Supply. With aid of diagram, briefly explain how <math>P_e</math> and <math>Q_e</math> might change given a change in factors affecting demand and/or supply. Detailed workings of price mechanism as well as the assumptions are not required.</li> </ul> <p><b>1) <u>More Environmentally-friendly Electrical Appliances and Packaging Materials</u></b></p> <ul style="list-style-type: none"> <li>• Increased environmental awareness → ↑ demand for such goods. Assume constant supply and that PES is high (manufactured goods), there will be increase in <math>P_e</math> and more than proportionate increase in <math>Q_e</math>. TR will increase.</li> <li>• Improvement in green technology → ↑ supply of such goods due to reduced cost of production. Assume constant demand and that PED is low (due to increased awareness), there will be fall in price and less than proportionate increase in quantity sold. TR will fall.</li> <li>• Combined effects: Assuming that the increase in demand is higher than the increase in supply, <math>P_e</math> and <math>Q_e</math> are likely to rise and hence, TR is likely to rise as well.</li> </ul> <p><b>a) <u>Markets for Factors of Production</u></b></p> <p>With higher <math>Q_e</math>, demand for factors of production fop expected to rise as well. Hence, <math>P_e</math> and <math>Q_e</math> as well as the TR in the factor market should also rise, assuming</p>

constant supply in the factor market.

**Evaluation**

- Despite the improvement in energy efficiency of certain electrical appliances, there may still be a fall in demand for them due to the increase in awareness. These include energy hungry appliances such as air-conditioners, iron (green technology producing wrinkle-free materials for the garment industry). Similarly, improvement in green technology may also reduce use of packaging materials due to improved product design – IKEA's flat packaging for self-assembling by customers, slimmer home TV screens, etc.
- Such fall in demand may negate increase in demand for electrical appliances and packaging materials, thereby reducing the likely increase in TR.

**b) Substitutes – Less Environmentally-friendly Electrical Appliances and Packaging Materials (e.g. fridge)**

- Demand likely to fall due to change in taste and preference towards eco-friendly products. The fall is likely to be significant as both kinds of fridges satisfy very similar wants.
- As both eco-friendly and non-eco-friendly fridge usually use the same types of factors of production (trays, door panels, handles, etc), there is likely to be a fall in supply of the non-eco-friendly fridge. Supply curve shifts to the left. **[Competitive in Supply]**
- Given both a fall in demand and supply,  $Q_e$  will fall. Assuming a larger fall in supply due to producers being more keen to shift production to more eco-friendly fridges to meet consumer demand, the price of non-eco-friendly fridge will rise.

**c) Complements [to non-eco-friendly fridge such as electricity]**

- XED of electricity with respect to change in price of non-eco-friendly fridge tends to be high as those fridges definitely needed electricity to run! Hence, with a rise in price of non-eco-friendly fridge and a fall in number of such fridges being used (see preceding point), the demand for electricity will fall significantly as well.
- Whether there is a high or low PES value,  $P_e$  and  $Q_e$  are likely to fall and so will TR.

**2) Garbage Disposal Services - General**

- **↓** demand for general garbage disposal services due to increased practising of 3Rs – Reduce, Re-use, Recycle (increased environmental awareness)
- **↑** supply of such services due to reduced cost of garbage collection/disposal (improvement in green technology). This could be due to more efficient garbage compacting machines/lorries, etc.
- Combined effects: Fall in  $P_e$ , indeterminate  $Q_e$ . Hence, indeterminate TR for garbage collection firms. Assuming that improvement in technology to reduce cost of garbage disposal has limited effect on reducing cost, TR of garbage collection firms would fall.

**a) Garbage Disposal Services – Segregated**

- Increased environmental awareness → **↑** demand for **segregated** garbage disposal bins – plastic, paper, metal, glass, etc.
- This will also indirectly increase demand for more recycling bins/bags to contain separate types of garbage. Market for recycling bins/bags: **↑** in  $P_e$  and  $Q_e$ , hence TR (assuming constant supply).

<p><b><u>EVALUATION</u></b></p> <ul style="list-style-type: none"> <li>• Provide suitable arguments to justify which market will be most affected by the developments.             <ul style="list-style-type: none"> <li>○ E.g. tapping on the increased awareness and improvement in green technology, producers who can produce the most energy-efficient appliances and packaging materials will be able to swing most votes among the consumers, thereby enjoying the most significant increase in <math>P_e/Q_e</math> and therefore TR.</li> </ul> </li> </ul> <p>This could be especially true with generous government incentives to go green as well as aggressive use of advertisements. Such producers will be able to gain most significant increase in market share at the expense of those producers who could not keep up with the production of greener goods and services, nor possess the necessary technology to cut costs in the long run.</p>															
<p><b><u>Marking Scheme</u></b></p> <table border="1"> <thead> <tr> <th>Level (Marks)</th> <th>Knowledge, Application, Understanding and Analysis</th> </tr> </thead> <tbody> <tr> <td>L3 (15 - 21)</td> <td>A thorough and clear explanation based on sound economic framework of how the two triggers could affect at least 4 markets. Real-world applications should be included to secure high marks. Analysis of various natures of the same type of goods and services should be presented to avoid generalisation of arguments and uniformity in answers to these goods of different nature. (e.g. normal garbage versus recyclable garbage).</td> </tr> <tr> <td>L2 (10 - 14)</td> <td>Gaps in explanation of possible outcome in at most 3 markets. Lack real-world applications. Grasp of basic demand and supply analysis, together with elasticity concepts is observed. Tend to discuss goods and services in silo (single category, without differentiation).</td> </tr> <tr> <td>L1 (1 - 9)</td> <td>Lack of use of even basic demand and supply framework to explain cause and effect. Fatal errors abound which make the response incoherent or illogical. Listing rather than explaining the points with little economic analysis.</td> </tr> <tr> <td colspan="2" style="text-align: center;"><b>Allow up to 4 marks for Evaluation</b></td> </tr> <tr> <td>E2 (3 - 4)</td> <td>Evaluative comments on the overall impact on the various markets based on sound economic analysis. This could involve generic comments such as the validity/reliability of the elasticity values in determining the new <math>P_e</math> and <math>Q_e</math>.</td> </tr> <tr> <td>E1 (1 - 2)</td> <td>For a judgement that is nothing more than a mere statement. Summary statements are not evaluative.</td> </tr> </tbody> </table>		Level (Marks)	Knowledge, Application, Understanding and Analysis	L3 (15 - 21)	A thorough and clear explanation based on sound economic framework of how the two triggers could affect at least 4 markets. Real-world applications should be included to secure high marks. Analysis of various natures of the same type of goods and services should be presented to avoid generalisation of arguments and uniformity in answers to these goods of different nature. (e.g. normal garbage versus recyclable garbage).	L2 (10 - 14)	Gaps in explanation of possible outcome in at most 3 markets. Lack real-world applications. Grasp of basic demand and supply analysis, together with elasticity concepts is observed. Tend to discuss goods and services in silo (single category, without differentiation).	L1 (1 - 9)	Lack of use of even basic demand and supply framework to explain cause and effect. Fatal errors abound which make the response incoherent or illogical. Listing rather than explaining the points with little economic analysis.	<b>Allow up to 4 marks for Evaluation</b>		E2 (3 - 4)	Evaluative comments on the overall impact on the various markets based on sound economic analysis. This could involve generic comments such as the validity/reliability of the elasticity values in determining the new $P_e$ and $Q_e$ .	E1 (1 - 2)	For a judgement that is nothing more than a mere statement. Summary statements are not evaluative.
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2	<p>The first wave of mergers and acquisitions in Singapore took place in 1998, where Development Bank of Singapore (DBS) acquired Post Office Savings Bank (POSB). As <i>DPM Lee (2001)</i> stated, "...if we want strong banks, then they have to be big banks, and if they are to be big banks, then we must have fewer banks." Singapore has three local banks now – DBS, United Overseas Bank (UOB) and The Overseas-Chinese Banking Corporation Limited (OCBC) – which have the highest average credit ratings among banking systems globally.</p> <p style="text-align: right;">Adapted from The Straits Times, Jul 17, 2014</p>
(a)	<p>Explain the rationale for mergers and acquisitions among firms. [10]</p>
(b)	<p>In the light of the above, examine whether local banks in Singapore should aim to be big in order to stay competitive globally. [15]</p>
<p><b><u>Suggested Answer for part (a)</u></b></p> <p><b>Note :</b> For part (a), there is no need to use only the context of banking as the question is a general one not specific to the context given. As such students should look beyond just the horizontal mergers as given by the context but look at least one other type of merger.</p> <p><b><u>Introduction:</u></b></p> <p><b>Define mergers &amp; acquisitions</b></p> <p><b>Mergers:</b> is a combination of two companies to form a new company,</p> <p><b>Acquisitions:</b> takeover where a dominant firm buys up the shares of smaller firm completely, or a dominant firm buys more than 50% of the shares of another firm.</p> <p><b>Explain mergers and acquisitions</b></p> <p><b>Mergers:</b> could be horizontal, vertical or conglomerate</p> <p>(i) Horizontal merger: 2 or more firms in the same industry and same stage of production merge. E.g. DBS merged with POSB in 1998.</p> <p>(ii) Vertical merger: firms in the same industry but at different stages of production. E.g. Microsoft &amp; Nokia (upward vertical merger)</p> <p>(iii) Conglomerate: firms in different industries merge. E.g. General Electric – electrical, financial, telecommunication, etc.</p> <p><b><u>Development:</u></b></p> <p><b><u>Explain the rationale for mergers and acquisition</u></b></p> <p><b>1. Increase Market Share and Market Power</b></p> <ul style="list-style-type: none"> <li>• There is a limit on how much a firm can grow through internal expansion.</li> <li>• For firms as stated above with oligopolistic characteristics with almost similar products and services, strategy implemented such as reducing the minimum amount require to open a saving account would possibly result in other banks adopting similar strategy → this render the strategy as ineffective as it will not lead to increase in customers' willingness to choose one bank over another → therefore it is more advantageous for firms to expand through merger or acquisition to provide greater exposure and increasing convenience and providing better services.</li> </ul> <p>For example, UOB acquired Overseas Union Bank Limited (OUB) in 2001 to enlarge its market share.</p> <p>Facebook acquired mobile photo sharing app Instagram in 2012 for \$1billion in cash and stock and mobile messaging service WhatsApp in 2014 for \$19billion. The acquisition positions the company for even stronger growth where advertising now makes up the majority of its revenue. It also strengthens its toehold in China as Facebook is blocked in the world's largest Internet market; whereas WhatsApp and Instagram are permitted to operate there.</p>	

- Increase and acquire new capacity and hence capture additional consumer demand. This will allow the firm to enjoy higher total revenue.
  - Through mergers and acquisitions, competition would be reduced and the bigger firm can exert more market power by controlling a greater proportion of the total market supply. With less competition, demand for their products would be less price elastic and hence firms could influence the price of the good. If demand becomes inelastic, the firm could raise price to increase total revenue.
- 2. Expand its Market Size in Global Market**
- Firms may attempt to expand its market size by merging or acquire foreign firms in other countries. As foreign firms in their domestic country would have better knowledge and information about its market condition and their domestic consumers' tastes and preferences due to different cultures and needs. Merger and acquisition would provide an easier and quicker avenue for expansion and tap into foreign markets, allowing the merged firm to enjoy larger consumer base and therefore higher total revenue.
  - Example, Singapore has a small domestic market hence expansion to global market would allow local firms to increase its sales, access to new distribution channels and tap into niche markets. OCBC announced its acquisitions of Hong Kong-based Wing Hang Bank this year to tap into economic growth of China, widen its product capabilities and access larger funding base denominated in Chinese Yuan, HK dollars and US dollars and accelerating their growth through its network size, customers base and market coverage between the two banks. Another local example that can used for (a) is the acquisition of Asia-Pacific Breweries by Heineken.
- 3. Diversification**
- With recent economic outlook and global competition posed by competitors → diversification through mergers or acquisitions would allow firms to produce a larger range of products. Through mergers, number of competitors would be reduced. It could also reduce the need for greater promotion and advertisement or resort to decrease price to attract customers, hence reduce the costs of competition.
  - Firms may also face a saturated market for its products. Hence a need to diversify and venture in producing new products and / or services so as to increase its revenue. Merger and acquisition would provide a faster and quicker means to diversify as compared to internal expansion. Firms would also be able to leverage on the acquired firm's existing technology and expertise
- 4. Reap Economies of Scale (EOS)**
- Through mergers and acquisitions, firms would be able to exploit internal EOS due to its larger scale of production and hence reduce their average cost of production.
  - Example, horizontal mergers allowed firms to achieve greater specialisation as firms are at the same stage of production. Thus attain managerial, administrative and technical economies of scale.
  - Vertical mergers also allow firms to carry out their production in a continuous sequence and reduce uncertainty with better control of supply of raw materials and processes of manufacturing due to lesser vulnerability to changes in market conditions.

<b>Marking Scheme for part (a)</b>	
<b>Level</b>	<b>Knowledge, Understanding, Application, Analysis</b>
L3 7 - 10	<ul style="list-style-type: none"> <li>- Well-developed and clear explanation on at least 3 reasons of <u>mergers</u> and <u>acquisitions</u> among firms.</li> <li>- Must have at least 1 cost, 1 revenue advantages <b>AND</b> two types of mergers with real life examples application.</li> <li>- Clear analysis with application on only cost or revenue advantages. Max 7m.</li> <li>- Very well-developed but only 2 reasons given with real life application including 1 cost &amp; 1 revenue advantages due to mergers and acquisition. Max. 8m</li> </ul>
L2 5 - 6	<ul style="list-style-type: none"> <li>- Well-developed and clear explanation without real life application. Max 6m.</li> <li>- Under-developed explanation of both cost and revenue advantages. Max 5m.</li> </ul>
L1 1 - 4	<ul style="list-style-type: none"> <li>- Explanation only anchored on cost and revenue advantages of firms without application to mergers and acquisitions. Max. 4m</li> <li>- Answer that shows some basic knowledge of advantages due to merger and acquisition among firms.</li> <li>- Some conceptual errors are evident.</li> </ul>

<p><b><u>Suggested Answer for part (b)</u></b></p> <p><b><u>Introduction:</u></b> Singapore is an international centre for banking and finance and a leading financial services hub in the Asia-Pacific region. With sound economic fundamentals, strong regulatory framework, pro-business environment, Singapore is an appealing country for many big financial institutions in the world. Even during touch time such as financial crisis, 3 local banks have triumphed with solid capital positions and superior risk management. However, Singapore has a small domestic market, hence in order to compete globally, Singapore government encouraged local banks to expand through mergers and acquisitions to better compete globally, tapping on bigger market to accelerate growth, greater coverage of goods and services and larger funding base to strengthen its position.</p> <p><b><u>Development:</u></b> <b><u>Thesis: Local banks in Singapore should aim to be big to stay competitive GLOBALLY</u></b></p> <p><b><u>Revenue Advantages:</u></b></p> <ul style="list-style-type: none"> <li>• Local banks still considered too small to engage in foreign markets in the same way that global financial leaders do. Hence to compete effectively in the <b>new era of globalisation</b>, local banks need to double their current market capitalisation which would only be possible through consolidation.</li> <li>• Govt. initiatives on their first wave of mergers and acquisitions where DBS acquired POSB, increase their market power to increase barriers to entry → this is to reduce competition through high <b>barriers to entry</b> → strengthening their banking position <b>both locally and globally</b> → be a regional leader in wealth management, premier risk management centre for Asia-Pacific, creating an attractive business environment for financial institutions.</li> <li>• Local banks aim to be big so as to better cater to different customers' preferences both locally and globally. As even with significant market power, firms will still face a downward-sloping demand curve → when price increases it will lead to a fall in quantity demanded. Hence firms need to diversify their goods and services. Local banks provide wide range of products which include both homogeneous and differentiated products. Homogeneous: savings account, chequing accounts, deposits. Differentiated: personalisation, relationships management, convenience etc. Bigger banks establish <b>greater credibility</b> which is crucial for banking industries. Hence with</li> </ul>
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mergers and acquisitions, it would **allow local banks to expand to overseas markets**, thus increase its quality of loan portfolios and hence greater funding base and resources, allowing local banks to achieve greater efficiency and thus increase profitability.

- Local banks growing in size would allow them to have more resources to engage in product differentiation to gain even bigger market share → possibility of attaining higher revenue and therefore higher profits.

#### **Cost Advantages:**

- Local banks would be able to reap substantial revenue from overseas markets by expansion and growing in size. This would increase their ability to erect higher barriers to entry and enhance their ability to reap internal Economies of Scale (EOS) → achieving a greater competitive advantage against any foreign entry → this reduces the average cost of production

*Give an explanation on the different types of EOS local banks could reap. E.g. technical / financial EOS, and thus incur lower LRAC.*

- Technical economies: larger banks have greater ability to engage in R&D to perhaps developed better products or enhance their existing facilities to provide faster and better services to the customers. With advance technology and facilities, local banks would be more competent to compete globally and develop their competitive advantage.
- Risk bearing economies: Local banks increasing in size would also have greater resources to diversify their products and services range → hence increasing their ability to differentiate from other international financial institutions → allowing them to gain bigger market share as a result due to branding and product differentiation.
- Administrative and marketing economies: when firms are big, they can better utilise and increase their ability to enhance their existing expertise and managerial skills thus lowering cost further.
- Financial economies: local banks would be able to acquire larger capital outlay to compete more efficiently with funding and resources.
- With greater efficiency → reaping EOS → might also lower cost for consumer.

Overall, with a fall in average cost and a rise in revenue, local banks might increase their profit margins, hence allowing them to be in a better position to compete globally.

#### **Anti-Thesis: Local banks in Singapore should not aim to be big to stay competitive GLOBALLY**

- A larger bank may produce beyond the Marginal Efficiency Scale (MES) and incur internal diseconomies of scale (disEOS) → e.g. managerial disEOS as there could be communication breakdown and clash of corporate culture → E.g. in 2008, OCBC acquired 67% shareholding in PacificMas Berhad, an investment holding company in Malaysia, which provides hire-purchase, leasing, factoring, and other related financing services etc. → thus LRAC may rise. Large banks may not reap EOS significantly. Also, they would incur high cost (e.g. legal fees, accountancy fees) in the process of integration.
- Larger banks might result in greater risks due to the adverse market conditions. They are less able to change or implement strategies efficiently and quickly due to larger bureaucracy, higher managerial diseconomies, red-tape in decision making and greater resistance to change.
- Large banks would also face greater regulatory restriction. A series of strict new rules has raise compliance costs and faced massive fines. For example, product mis-selling, breaches of anti-money laundering controls, etc.

- To stay competitive globally, local banks should not aim to be big as focusing on their market is key so as to reduce the risk of diluting their offering and services. Hence able to establish and build better customer services → this would allow local banks to present a more consistent services to foster greater trust which is crucial for banking industry.
- If total revenue does not rise faster than total cost, local banks' profits may fall → thus reduce their ability to compete globally instead.

**Evaluation:**

Due to our limited resources and domestic market, local banks in Singapore might need to be big in order to leverage on global market and resources to stay competitive globally and fuel our economic growth. Bigger firms thus have better opportunity to compete with other global players in the industry with better control on cost, hence reaping cost advantages and increase their revenue to conduct R&D.

However, there are other factors that would also allow local banks in Singapore to strive globally. Local banks possessed systematic stability and good customer and personalised services catered to huge fund flowing in and out of Singapore with strict regulations and supervision of individual banks and great environmental and economic stability and public support for the system as a whole. Hence, local banks can still compete globally as customers would have greater confident in our system, financial stability and expertise. Hence local banks could also strengthen their existing services and reputation and capitalise on their resources to avoid the possibility of disEOS as well.

**Marking Scheme for part (b)**

Level (Marks)	Knowledge, Understanding, Application, Analysis
L3 (9 - 11)	Well-developed answers considering both thesis and anti-thesis of whether firms should aim to be big to <b><i>compete globally</i></b> . Good application with illustrative examples relevant to the context.
L2 (6 - 8)	Good explanation with both sides considered but lack of clear application to local banks to compete globally but answers anchored mainly on why local banks aim to be big. Max. 7m Well-developed one-sided answers application to the context given. Max 6m Well-developed answers with limited economic framework analysis. Max 6m. Answers demonstrated the ability to balance both arguments but little or no application to the context given. Max 6m
L1 (1 - 5)	Answer shows some knowledge of analysis, e.g. cost and revenue advantages but no clear focus to the question. Max. 4m Answer contains only a few valid points made incidentally in an irrelevant context. Conceptual errors.
<b>Allow up to 4 marks for evaluation</b>	
E2 (3 - 4)	For an evaluative judgment based on economic analysis and supported with a strong conclusion. Candidates can consider other factors that would allow local banks to compete globally not just in term of size.
E1 (1 - 2)	For an unexplained judgment that is not supported by economic analysis or justification.

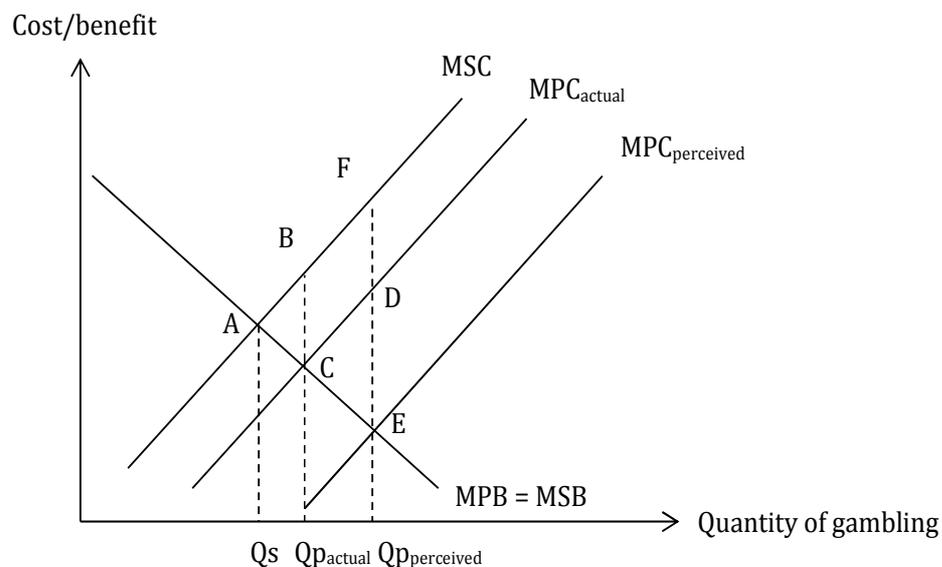
3	A recent survey by the National Council on Problem Gambling (NCPG) showed a decrease in respondents who felt that gambling would lead to an unhappy family life and an increase in respondents who felt that it was possible to win lots of money by having the right gambling skills.
(a)	Explain how the concept of marginal analysis can be used to understand why the Singapore government may intervene in the market for gambling. [10]
(b)	Discuss whether existing policies to deal with gambling are still relevant in view of the changes in perceptions towards gambling amongst Singaporeans in recent years. [15]
<p><b>Suggested Answer for part (a)</b></p> <p><b>Introduction:</b></p> <ul style="list-style-type: none"> <li>• Microeconomic aims → efficiency in resource allocation and equitable distribution of income and wealth</li> <li>• Define market failure</li> <li>• Market for gambling → poses a case for market failure → allocative inefficiency</li> <li>• Hence, the Singapore government may choose to intervene in such situations in order to achieve their microeconomic aim of allocative efficiency</li> <li>• Government should intervene because gambling is a demerit good that is deemed to be socially undesirable by government.</li> <li>• Sources of market failure in the market for gambling, a demerit good:             <ol style="list-style-type: none"> <li>(i) Negative externality in consumption As the preamble suggests, gambling could lead to an unhappy family life. E.g. the most common problem is the loss of money - savings, property or belongings of not just gamblers, but their families as well. Stress, anxiety and depression are common the families of gamblers, and the stress of gambling problems sometimes cause health problems for family members. Gambling problems may also lead to physical or emotional abuse of a partner, elder parent or child. → spillover costs of others who not the consumers of the good.</li> <li>(ii) Information failure The government believes that individuals may not act in their own best interests due to imperfect information about the benefits/costs derived from the consumption of gambling, and may individuals may therefore have a lower perceived cost of gambling than its actual cost on the individual.</li> </ol> <p>Hence, the Singapore government may intervene in the market to correct market failure and bring about efficiency if resource allocation.</p> </li> </ul> <p><b>Body:</b></p> <p>How the concept of marginal analysis can be used to understand why the Singapore government may intervene in the market for gambling:</p> <p>In their pursuit of self-interest, gamblers consider only their private costs and benefits. They do not take into account the actual costs or benefits to themselves or third party or external costs or benefits in making their decisions. Hence, the market equilibrium level of consumption occurs at the point where consumers, motivated by self-interest, equate their MPB to MPC.</p> <ul style="list-style-type: none"> <li>• Marginal Private Benefit (MPB): the benefit enjoyed by individual from the consumption of an additional unit of gambling e.g. the satisfaction of winning</li> </ul>	

- Marginal Private Cost (MPC): the cost faced by the individual in the consumption of an additional unit of gambling e.g. the bets placed
- If  $MPB > MPC \rightarrow$  individual will increase consumption of gambling as the additional unit of gambling consumed provides greater additional private benefit than cost
- If  $MPB < MPC \rightarrow$  individual will decrease consumption of gambling as the additional unit of gambling consumed provides less additional private benefit than cost

However socially optimal level of output is determined where  $MSB = MSC$

- Marginal Social Benefit (MSB): the benefit enjoyed by the society in the consumption of an additional unit of gambling
- Marginal Social Cost (MSC): the cost incurred by the society in the consumption of an additional unit of gambling
- If  $MSB > MSC \rightarrow$  society will increase consumption of gambling as the additional unit of gambling consumed provides greater additional social benefit than cost
- If  $MSB < MSC \rightarrow$  society will decrease consumption of gambling as the additional unit of gambling consumed provides less additional social benefit than cost

Due to imperfect information, there is a divergence between a gambler's perceived MPC and his actual MPC (DE), where a gambler's perceived MPC is lower than his actual MPC. Additionally, due to the negative externality in the consumption of gambling, there is an additional divergence between MPC actual and MSC (BC), where MSC is greater than MPC.



**Diagram 1: Market for gambling**

The market equilibrium level of consumption occurs at  $Q_{p\_perceived}$ , where consumers, motivated by self-interest, equate their  $MPB$  to  $MPC_{perceived}$ . However, the socially optimum equilibrium occurs at  $Q_s$ , where  $MSB = MSC$ . As the market equilibrium level of consumption ( $Q_{p\_perceived}$ ) is greater than the socially optimum equilibrium level of consumption ( $Q_s$ ), there is an over-consumption of gambling. Furthermore, at  $Q_{p\_perceived}$ ,  $MSC > MSB$ , as mentioned earlier, society feels that consumption of gambling should be reduced as the additional unit of gambling consumed provides less additional social benefit than cost.

	<p>The additional consumption of <math>Q_s Q_p</math> perceived units of gambling generates:</p> <ul style="list-style-type: none"> <li>• <math>Q_s A F Q_p</math> perceived additional cost to society</li> <li>• <math>Q_s A E Q_p</math> perceived additional benefit to society</li> </ul> <p>∴ there is a net welfare loss to society (deadweight loss) of area AFE.</p> <p><b>Conclusion:</b> Left to the free market, there will be over-consumption of gambling due to imperfect information and the presence of negative externalities. Hence, the Singapore government may intervene in the market for gambling to reduce the deadweight loss to increase society's welfare and improve allocative efficiency in the economy in order to better achieve their microeconomic aims.</p>								
	<p><b>Marking Scheme for part (a)</b></p> <table border="1"> <thead> <tr> <th>Level (Marks)</th> <th>Knowledge, Application, Understanding and Analysis</th> </tr> </thead> <tbody> <tr> <td>L3 (7-10)</td> <td>A well-explained response that demonstrates clearly the idea of marginal analysis and both sources of market failure. Answer also shows good application and knowledge of the context set, and goes a step further to address the basis for government intervention.</td> </tr> <tr> <td>L2 (5-6)</td> <td>For an answer that is under-developed that shows some understanding of marginal analysis at least one source of market failure, with attempts to apply knowledge to the context of the question. Answers may tend to focus more on market failure than the premise for government intervention.</td> </tr> <tr> <td>L1 (1-4)</td> <td>A descriptive answer that demonstrates limited knowledge of the sources of market failure. This may include mere listing without explanation, limited application to the context of the question and misconceptions.</td> </tr> </tbody> </table>	Level (Marks)	Knowledge, Application, Understanding and Analysis	L3 (7-10)	A well-explained response that demonstrates clearly the idea of marginal analysis and both sources of market failure. Answer also shows good application and knowledge of the context set, and goes a step further to address the basis for government intervention.	L2 (5-6)	For an answer that is under-developed that shows some understanding of marginal analysis at least one source of market failure, with attempts to apply knowledge to the context of the question. Answers may tend to focus more on market failure than the premise for government intervention.	L1 (1-4)	A descriptive answer that demonstrates limited knowledge of the sources of market failure. This may include mere listing without explanation, limited application to the context of the question and misconceptions.
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	<p><b>Suggested Answer for part (b)</b></p> <p><b>Introduction:</b></p> <ul style="list-style-type: none"> <li>• Market failure → government intervention to reduce DWL → improve resource allocation</li> <li>• Existing policies:</li> </ul> <table border="1"> <thead> <tr> <th>Policies to deal with the negative externality in consumption</th> <th>Policies to deal with imperfect information</th> </tr> </thead> <tbody> <tr> <td>Help for problem gamblers and their families (medical treatment as well as counselling services, National Problem Gambling Helpline)</td> <td>Public education (NCPG's campaigns to awareness of problem gambling and encourage both gamblers and family members affected by problem gambling to seek help)</td> </tr> <tr> <td>Casino/non-casino exclusions and visit limits under NCPG (self-exclusion and voluntary visit limit, family exclusion and visit limit, third party exclusion and visit limit)</td> <td></td> </tr> <tr> <td>Casino entry levies</td> <td></td> </tr> </tbody> </table> <ul style="list-style-type: none"> <li>• Change in perceptions towards gambling amongst Singaporeans in recent years → some policies continue to be relevant while others may be less relevant or require changes</li> </ul> <p><b>Body:</b> <b>Thesis: Existing policies to deal with gambling may be still relevant</b> The change in perceptions towards gambling in recent years may indicate that the existence of larger information failure and therefore, existing policies such as public</p>	Policies to deal with the negative externality in consumption	Policies to deal with imperfect information	Help for problem gamblers and their families (medical treatment as well as counselling services, National Problem Gambling Helpline)	Public education (NCPG's campaigns to awareness of problem gambling and encourage both gamblers and family members affected by problem gambling to seek help)	Casino/non-casino exclusions and visit limits under NCPG (self-exclusion and voluntary visit limit, family exclusion and visit limit, third party exclusion and visit limit)		Casino entry levies	
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education still continue to be relevant in correcting the market failure.

Public education through NCPG's campaigns to raise awareness of problem gambling with gambling-related advertisement on how gambling negatively impacts the family are designed to reduce imperfect information. If successful, these campaigns may effectively reduce the divergence between  $MPC_{\text{perceived}}$  and  $MPC_{\text{actual}}$ , shifting  $MPC_{\text{perceived}}$  to the left and causing the market equilibrium level of consumption of gambling ( $Q_p$ ) to move closer to the socially optimum level of consumption ( $Q_s$ ). With a smaller level of over-consumption, this would result in a reduction of the area of deadweight loss and therefore, reduce the market failure attached to gambling.

Furthermore, the decrease in respondents who felt that gambling would lead to an unhappy family life and an increase in respondents who felt that it was possible to win lots of money by having the right gambling skills may indicate less restraint on gambling and a greater likelihood of the consumption of gambling generating negative externalities. Hence, existing policies such as the casino entry levy, casino exclusions and visit limits and helplines for problem gamblers are still relevant in dealing with the problem of gambling.

The casino entry levy of \$100, for example, can be used to reduce the consumption of gambling as the monetary cost of entering the casino increases the MPC of gambling, forcing to consumer to internalise the external cost that he generates. This would result in a leftward shift of the MPC curve, reducing the divergence between MPC and MSC. Hence, this may reduce the over-consumption of gambling, bringing the market equilibrium level of consumption of gambling ( $Q_p$ ) to move closer to the socially optimum level ( $Q_s$ ) and reducing deadweight loss.

**Anti-thesis #1: Existing policies to deal with gambling may not be as relevant**

However, the change in perceptions towards gambling in recent years might signpost the degree of effectiveness of the existing policies put in place to correct imperfect information. In spite of NCPG's anti-gambling campaigns in trying to educate consumers such that they are better able to make informed decisions and are fully aware of the consequences of gambling, there has been a deterioration of the public perception towards gambling and may therefore show the limited effectiveness of current policies.

A decrease in respondents who felt that gambling would lead to an unhappy family life and an increase in respondents who felt that it was possible to win lots of money by having the right gambling skills may demonstrate that there could be larger information failure. As shown in the diagram below, with the worsening problem of imperfect information, there is larger divergence between  $MPC_{\text{perceived}}$  and  $MPC_{\text{actual}}$ , resulting in causing the market equilibrium level of consumption of gambling ( $Q_{p_{\text{perceived}}}$ ) to exceed the socially optimum level of consumption ( $Q_s$ ) by a greater degree, increasing the level of over-consumption and deadweight loss.

Furthermore, given that gambling is addictive in nature, demand for gambling would tend to be price inelastic. As such, while the casino entry fee may increase the cost of gambling, it is likely to result only in a less than proportionate fall in quantity demanded for gambling. Hence, the reduction in market failure may be small, if any at all.

**Anti-thesis #2: Improved/other policies to deal with gambling may be more relevant**

The government may also consider methods to improve current policies or looking at alternative policies to increase its effectiveness in addressing the market failure. It is also worthy to note that in view of the time required to educate and change the mind-set of consumers, public education is likely to be met with limited success in the short run in dealing with the problem of gambling. As such, the government may want to consider a

wider range of short term policies in order to better deal with the problem of gambling.

Examples of improvements to current policies include increasing the intensity of short term polices such as the casino entry levy to better address the market failure. In raising the casino entry levy, this would further increase the MPC of a consumer for gambling, further reducing the divergence between MPC and MSC and therefore reduces over-consumption of gambling and the deadweight loss that is attached to the over-consumption.

While there social safeguards in place today, there is a need to continue to strengthen them in order to minimise problem gambling in Singapore. For example, non-casino exclusion is currently only available for self-exclusion and not to family members. With the change in perceptions towards gambling, the problem gambler may not be dependable in coming forward to exclude himself from these non-casino gambling activities. As such, a wider range of short term policies when implemented together may be able to address the problem of gambling with greater effectiveness.

Moreover, raising awareness of problem gambling alone may be insufficient in problem gambling. Preventive and protective efforts are only part of the solution as they are top-down approaches. At the end of the day, individuals are responsible for their own actions. As such, the government may also want to extend its anti-gambling campaign to schools so that at a young age, students would have the appropriate knowledge to know where to draw the line, and simultaneously comprehend the concept of risk-taking. Creating a common understanding rather than merely raising awareness, when built up over a substantial period of time, would tend to be more effective in addressing problem gambling in the long term.

**Evaluation/conclusion:**

- Current policies in dealing with gambling still continue to be relevant to a large extent
- The change in perceptions towards gambling may indicate that the need Singapore government to increase the intensity and scope of current policies in order to better deal with the problem of gambling
- Therefore, this demonstrates the importance of timely review of existing policies to ensure that they continue to be relevant in improving the market failure
- In order to better deal with the problem of gambling in the long term, the Singapore government needs to remain open to new approaches of dealing with the market failure, especially in view of the ever-changing economic landscape in Singapore

**Marking Scheme for part (b)**

Level (Marks)	Knowledge, Application, Understanding and Analysis
L3 (9-11)	A well-developed answer that considers both sides of the argument and demonstrates application of knowledge to the real-world context with choice of policies and its limitations discussed. Responses effectively tackle the degree of relevance of existing policies in dealing with the market failure.
L2 (6-8)	For an answer that lacks either depth or scope in analysis. A two-sided answer with some attempt to explain the degree of relevance of current policies in dealing with the problem of gambling but lacking in rigour. Responses demonstrate the use of some real-life examples but used in a descriptive rather than economic manner.
L1 (1-5)	Largely one-sided and/or theoretical answer with little reference to the context set, or a largely descriptive answer with little economic analysis.

		Choice of policies is generic market failure policies with limited real-world application. Responses do not address the degree of relevance of existing policies in dealing with the problem of gambling.
		<b>Allow up to 4 marks for evaluation</b>
	E2 (3-4)	Judgement with sound economic analysis to support stand.
	E1 (1-2)	Largely unexplained judgement with little supporting analysis.

4	Since 1982, monetary policy in Singapore has been centred on the management of the exchange rate. The primary objective has been to promote price stability through modest gradual appreciation as a sound basis for sustained economic growth. On the other hand, countries such as Japan, Switzerland, Columbia and Israel have lowered the value of their currencies.
(a)	Explain the Monetary Authority of Singapore's (MAS) choice of using exchange rate rather than interest rates as an instrument for its monetary policy. [10]
(b)	Assess the extent to which depreciation of the currencies of other countries would affect Singapore's ability to achieve sustained economic growth. [15]
<p><b><u>Suggested Answer for part (a)</u></b></p> <p><b><u>Define monetary policy</u></b></p> <ul style="list-style-type: none"> <li>• A deliberate attempt by the government to regulate the economy by controlling money supply or the interest rates, thereby influencing aggregate demand and thus stabilizing the level of output or income, prices, and employment at the full employment level.</li> </ul> <p><b><u>Reasons for Monetary Authority of Singapore's (MAS) choice</u></b></p> <ol style="list-style-type: none"> <li>1. The use of the exchange rate policy has certain benefits that help Singapore to cater to our unique characteristics of being small and openness to trade, capital movement and foreign direct investments.</li> <li>2. Singapore has no capital control and is unable to set our interest rate to deviate too far away from world interest rates since any attempt to change interest rate will be negated by hot money inflows or outflows due to Singapore's position as an international financial centre. This can result in an inflow of ST capital that would negate any increase in interest rates and push interest rates down. Hence, interest rates would not be a useful instrument for its monetary policy in Singapore due to its openness to capital flows.</li> </ol> <p><b><u>Singapore focuses on the Exchange Rate Policy because of its unique economic characteristics of being small and open as well as our position as an international financial centre</u></b></p> <p><b><u>Explain how Exchange Rate Policy works in Singapore</u></b></p> <ul style="list-style-type: none"> <li>• Monetary policy in Singapore has been centred on the exchange rate. MAS chooses to anchor their monetary policy to the exchange rate, by managing it more flexibly against a basket of currencies of our major trading partners. MAS operates a managed float regime for the Singapore dollar with the trade-weighted exchange rate allowed to fluctuate within a policy band.</li> <li>• Changes in the exchange rate aim to change the price of exports and imports to influence external demand to achieve the macroeconomic objectives.</li> </ul> <p><b><u>Explain how exchange rate can benefit Singapore</u></b></p> <ul style="list-style-type: none"> <li>• Our small size and the lack of natural resources, such as crude oil, iron and steel, means that Singapore have to import even the most basic of our daily requirements and at the same time export to pay these requirements. This has resulted in a very open trade policy, with very few import restrictions. Both imports and exports amount to over 150% of Singapore's GDP over the years.</li> <li>• Changes in the exchange rate to offset the changes in foreign price levels would thus have a significant effect on <b>imported inflation</b>. This means that by appreciating her exchange rate, Singapore is able to keep the price of her imports low so that she can</li> </ul>	

reduce her rate of inflation due to high price of imports, lowering cost of production. By keeping the prices of these imported raw materials low, this will **lower cost push inflation** in Singapore.

- Being small also implies that she has a small domestic market and hence has to rely heavily on foreign market to export her goods. Hence, the value of her exports makes up over 150% of her GDP, indicating her high degree of openness to foreign trade. Her manufacturing exports have very high import content and thus by appreciating the exchange rate of the Singapore dollar, this will help to keep the cost of producing these manufacturing exports low and thus **maintaining her export competitiveness**, by keeping price increases in Singapore goods less than those of competitors to achieve a healthy current account balance and positive actual economic growth.

**Explain how Monetary Policy centred on interest rate works**

- On the other hand, changes in interest rates aim to change domestic demand of consumption and investment expenditure to achieve the macroeconomic aim.
- A rise in interest rate will **increase the cost of borrowing** so as to reduce the profitability of investment, thus lowering the level of investment. At the same time, households will increase their savings and cut back on their consumption on credit. Hence, as the level of aggregate demand falls due to a fall in consumption and investment demand, general price level falls leading to a fall in demand-pull inflation.

**Explain how interest rate is not useful for Singapore**

- Singapore's role as an international financial centre which adopts a **free banking policy**. With the large presence of foreign banks and foreign direct investments, MAS **cannot effectively change the money supply** because if MAS were to raise the amount of cash reserves that banks have to keep aside so that they have less reserves to lend, foreign banks can resort to external funds.
- As a small and open financial hub, she needs to follow the international trends in the interest rate to avoid large capital flows. Too great a variation would cause instability of the exchange rate due to large capital flows. Thus, Singapore is a price taker in terms of interest rate. The market is determined by the three local banks according to market forces.
- Likewise, Singapore's interest rates are largely **determined by foreign interest rates** and market expectations of movements in the Singapore dollar. Thus, any attempt by MAS to raise or lower the domestic interest rate over a long period of time would be thwarted by a shift of **funds into or out** of Singapore. Interest rates influences domestic demand which makes up a smaller percentage of GDP than external demand. Thus, change in interest rates has a smaller impact on the GDP than exchange rate which influences external demand. Therefore, Singapore, which is dependent more on external demand for growth choose to focus on exchange rate instead of interest rates.
- Managing the exchange rate is thus the most effective way of maintaining price stability in a small, open economy like Singapore. It is relatively controllable by the MAS and bears a stable and predictable relationship with the objective of monetary policy which is price stability.

**Marking Scheme for part (a)**

Level (Marks)	Knowledge, Application, Understanding and Analysis
L3 (7-10)	<ul style="list-style-type: none"> <li>• <b>Developed</b> explanation of the <b>two</b> reasons why MAS's monetary policy is centred on the exchange rate rather than interest rates, with <b>good</b> application to the Singapore context</li> </ul>

	<p>L2 (5-6)</p>	<ul style="list-style-type: none"> <li>• <b>Undeveloped</b> explanation of <b>two</b> reasons why MAS's monetary policy is centred on the exchange rate rather than interest rates, with <b>some</b> application to the Singapore context</li> </ul> <p>OR</p> <ul style="list-style-type: none"> <li>• <b>Developed</b> explanation of <b>one</b> reason why MAS's monetary policy is centred on the exchange rate rather than interest rates, with <b>some</b> application to the Singapore context.</li> <li>• 'Undeveloped' – Elaboration is superficial and descriptive, without good examples in the Singapore's context to substantiate.</li> </ul>
	<p>L1 (1-4)</p>	<ul style="list-style-type: none"> <li>• Weak analysis on how exchange rate is a tool for Singapore's monetary policy</li> </ul>
<p><b><u>Suggested Answer for part (b)</u></b></p> <p>Currency depreciation is the loss of value of a country's currency with respect to one or more foreign currencies. The depreciation of the country's currency would mean a decrease in value of that country's currency.</p> <p>The stance taken by the countries, Japan, Switzerland, Columbia and Israel to depreciate the currencies would impact Singapore's ability to achieve sustained economic growth as it brings about both positive and negative impacts on Singapore and her ability to achieve sustained economic growth.</p> <p><b><u>Side 1: Depreciation of currencies of other countries would affect Singapore's ability to achieve sustained economic growth</u></b></p> <p><b><u>Negative Impact of depreciation on Singapore's ability to achieve sustained economic growth</u></b></p> <p>The depreciation undertaken by the countries would have an impact on the effectiveness of the Exchange Rate Policy in achieving sustained economic growth.</p> <p>The depreciation taken by the countries, Japan, Switzerland, Columbia and Israel would increase the value of the SGD relative to the value of the countries' currencies.</p> <p>Relative to these countries that depreciated the currencies, the move would impact the price competitiveness of Singapore's exports, as Singapore's exports would be more expensive in the currencies of these foreign countries and imports into Singapore cheaper in terms of domestic currency. Assuming Marshall-Lerner condition (<math>PED_x + PED_m &gt; 1</math>), this would cause a fall in the export revenue and increase in import expenditure of Singapore. Assuming ceteris paribus, this would cause a fall in the net exports of Singapore and also a fall in AD which would lead to a fall in national income by the multiplier effect. The fall in real GDP would cause negative actual growth for Singapore.</p> <p>Also, net exports, (X-M), makes up about 20% of nominal GDP expenditure. Net exports (X-M) may fall but the other components, namely, consumption, (C), which makes up about 40% of nominal GDP expenditure, investment, (I), which makes up about 25% of nominal GDP expenditure, government expenditure, (G), which makes up about 15% of nominal GDP expenditure could have risen relative to net exports and reversing the fall in AD.</p> <p><b><u>Positive Impact of depreciation on Singapore's ability to achieve sustained economic growth</u></b></p> <p>As mentioned earlier, the depreciation undertaken by the other countries, would make the price of imports cheaper in terms of SGD. This would have a positive impact on Singapore's ability to achieve sustained economic growth as the cheaper imports in terms of SGD</p>		

would represent a lower cost of production for goods which utilizes imported inputs for production.

This would mean that SRAS would increase. The increase in SRAS would bring about an increase in real national income- positive actual growth, and thus the depreciation would help Singapore to achieve sustained economic growth.

If the fall in general price level and positive actual growth increase investor confidence resulting in inflow of foreign direct investments, this would result in an increase in AD and an increase in productive capacity that would increase LRAS, resulting in sustained economic growth.

**Side 2: Depreciation of currencies of other countries may affect Singapore's ability to achieve sustained economic growth to a limited extent**

- **Limited trading relations with countries that have depreciated their currency**  
The depreciation of currencies of other countries may only impact Singapore's ability to a limited extent. This is because Singapore has limited trading relations with the countries that depreciated their currencies, namely, Israel and Columbia. Thus, a fall in net exports or a fall in cost of production, it may only have a minimal impact on Singapore's ability to achieve sustained economic growth.
- **Existing Policies which mitigate the effects of depreciation of currencies by other countries**  
Given the depreciation of currencies of other countries, Singapore could have used alternative policies on top of Exchange Rate policy.

**Fiscal policy**

Fiscal policy in Singapore is directed mainly at promoting long term economic growth by investing in infrastructure, education, research and development.

The Singapore government adopts the following principle in promoting economic growth:

1. To provide a stable and conducive business environment in order to attract foreign direct investment into the country. At the same time, the stability and the business-friendly economic climate can be an inducement for local investments too.
2. Changes in policies pertaining to tax and government expenditure must be justified on microeconomic grounds such as equity and a focus on supply-side issues.

**Explain how Expansionary Fiscal Policy achieves Sustained EG:**

- The government can increase its expenditure of public projects such as building new expressways. An alternate approach would be to stimulate consumption and investment by reducing taxes. Reduction in income tax would stimulate consumer spending through an increase in personal disposable income and higher purchasing power, whereas reductions in indirect taxation would enable a given disposable income to buy more goods and services, hence increasing consumption. Cuts in corporate tax will increase after-tax profits and thus encourage private investment.
- When the government increases spending or reduces taxes, it results in an increase in

AD represented by a rightward shift of the AD curve. Through the multiplier process, national income will increase through the multiplier effect.

- **Given the fall in net exports, (X-M), the increase in consumption, investment and government spending brought about by the expansionary fiscal policy may help to reverse the fall in AD.**
- **The increase in AD and production will allow actual economic growth to take place and ease the recession. It will also reduce cyclical unemployment, moving the economy its full employment level.**

#### **Impact of depreciation on Fiscal Policy**

The depreciation undertaken by the countries would have minimal impact the effectiveness of Fiscal Policy in its use to achieve sustained economic growth as Fiscal Policy involves government expenditure and/or taxes.

#### **Supply-Side Policy**

##### **Short-run**

Singapore Government introduced short run supply side policies to help firms cope with costs of production. These initiatives would help reduce cost of production, increasing SRAS, resulting in positive actual growth for Singapore.

**Examples:** Jobs credit scheme/ Property tax rebates

##### **Long run**

Provide higher course fee support for companies and individuals and absentee payrolls for companies that send their workers for training so as to help Singaporeans to upgrade their skills so that they can stay employed or seek re-employment.

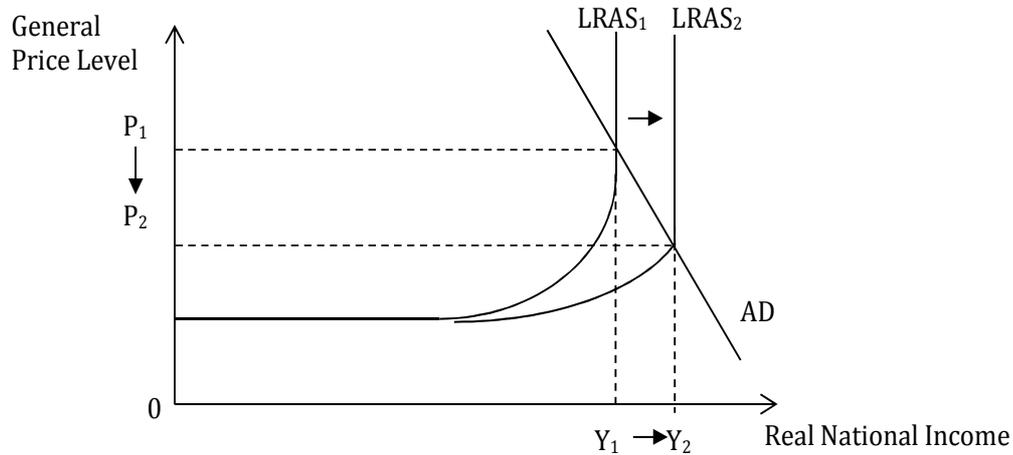
Training grants were also provided for general education and skills for workers to acquire post-graduate diploma and even university degrees so as to have a stronger impact on re-employment and retaining productive workers in the labour market.

**Example:** Skills Programme for Upgrading and Resilience (SPUR), CET (Continuing Education and Training), PIC (Productivity and Innovation Credits)

Training schemes should be put in place to not only retrain the already structurally unemployed but also those who may be unemployed in future as the Singapore economy is rapidly transforming itself into a **knowledge-based economy**.

At the same time, the productive capacity of the economy can be increased by the **increase in LRAS via the increase in quantity of resources**, the improvement in the quality of resources or the advancement of technology.

Supply side policies would shift the LRAS rightwards from LRAS1 to LRAS. This will reduce the GPL from OP1 to OP2, as well as raise the level of real output from Y1 to Y2, increasing potential growth and reducing inflation at the same time. **Cyclical unemployment and inflation will also be reduced when production is increased.**



**Impact of depreciation on Supply-Side Policy**

The depreciation undertaken by the countries would have minimal impact the effectiveness of Supply-Side Policy in its use to achieve sustained economic growth.

**Conclusion & Evaluation**

The extent of the impact of the depreciation on Singapore’s ability to achieve sustained economic growth depends on the following factors,

**Extent of the Depreciation of the foreign currencies in relation to SGD**

The impact of the depreciation would depend on the trading relations of these countries relative to Singapore. Amongst the four countries, Singapore has relatively closer trading relations with Japan and Switzerland, thus the impact on trade would be stronger for these two countries in comparison to Columbia and Israel.

**Singapore’s Monetary Policy**

Singapore’s Monetary policy of a gradual and modest appreciation of the currency may also amplify the effect of the depreciation of other currencies, amplify the positive/negative impacts on the effectiveness of the Exchange Rate Policy as a tool for Singapore to achieve its goal of sustained economic growth.

**Time frame of depreciation**

The impact of the depreciation would depend on the time frame of the depreciation. If the depreciation stance was a temporary measure undertaken by the various countries to improve their export competitiveness in order to improve their BOP position, the impact would be for the short-run. Moreover, as the Marshall-Lerner condition does not hold in the short run, a short run depreciation of their currency by other countries may in fact benefit Singapore’s net exports. However, if it was a long-term measure, then MAS would have to consider taking actions as it would have impacts on Singapore’s export competitiveness.

In view of this, Singapore should carry on with its multi-prong approach to achieving sustained economic growth through its combination of DD and SS –side policies as each policies would have its strengths and limitations.

<b>Marking Scheme for part (b)</b>	
<b>Level (Marks)</b>	<b>Knowledge, Application, Understanding and Analysis</b>
L3 (9-11)	<b>Detailed analysis</b> of how the depreciation stance undertaken by foreign countries would affect Singapore's ability to achieve sustained economic growth. <b>Discussion</b> of how Singapore may have also undertaken <b>other policies which would mitigate the impacts brought about by the depreciation.</b> Answer should include <b>real life examples from the Singapore context.</b>
L2 (6-8)	<b>Undeveloped</b> explanation of how the depreciation stance undertaken by foreign countries would affect Singapore's ability to achieve sustained economic growth Answer may have little (or no) <b>real life examples from the Singapore context.</b>
L1 (1-5)	For an answer that shows some superficial knowledge of how it could affect Singapore's ability to achieve sustained economic growth. Conceptual error/s evident.
<b>Allow up to 4 marks for evaluation</b>	
E2 (3-4)	For a judgment based on economic analysis / adequately substantiated
E1 (1-2)	For an unexplained judgment, or one that is not supported by economic analysis.

5	<p>Singapore's government has been working to reduce the economy's reliance on foreign labour, such as by raising the levy on foreign workers and promoting automation, as part of a push to increase the economy's productivity, but the move has led to a tight labour market, putting upward pressure on wages.</p> <p style="text-align: right;">Source: South China Morning Post, 2014</p>
(a)	<p>Explain why improving labour productivity is important to a country. [10]</p>
(b)	<p>Discuss whether the move above to address declining productivity is desirable for Singapore. [15]</p>

**Suggested Answer for part (a)**

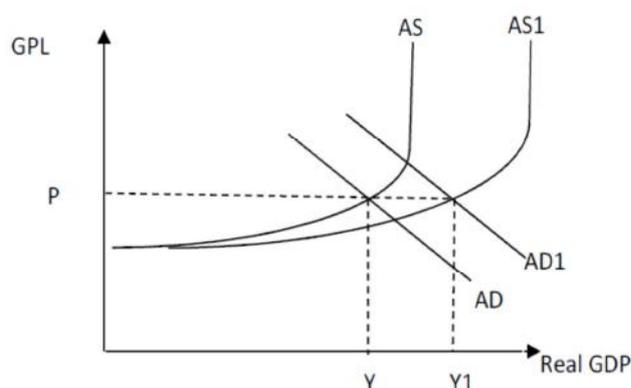
**INTRODUCTION**

- Explain what labour productivity means:*  
 Labour productivity is the ability to create goods and services from a given amount of output and is typically measured as output per unit of labour input. The main drivers of labour productivity are skills, innovation and investment.
- Provide an overview of essay, state macro goals.*  
 The main macroeconomic objectives that a government have are sustained economic growth, price stability, low unemployment & healthy BOP. By improving labour productivity, there would be positive impacts on the macroeconomic outcomes for an economy. It may also have positive impact on micro goals of a government.  
*Context: Any country, may apply to Singapore [may be used as examples in "body" of essay]*  
 Singapore government aims to raise labour productivity through promoting automation/innovation, investing in people and increasing foreign workers levy.

**BODY**

- Improving labour productivity helps to achieve sustained economic growth and low unemployment

  - Use AD-AS analysis to explain how actual and potential growth are achieved
  - Raising labour productivity, the level of aggregate supply (AS) and aggregate demand (AD) will rise in the long run.
  - Raising labour productivity enables more output to be produced with the same amount of labour resources hence increasing the country's productive capacity. This causes Singapore's aggregate supply curve to shift rightwards. At the same time, higher labour productivity in the long run helps to attract more foreign investment to Singapore as firms are able to enjoy a higher expected rate of returns for their investment. This enables the aggregate demand (AD) curve to shift rightwards as well. With a simultaneous shift of both AD and AS curve, higher potential output and employment is achieved. This is shown by the diagram below:



As Real national income/output is increased, firms step up on production and more jobs are created. This **reduces cyclical unemployment** in an economy. If appropriate measures are taken to retrain workers, as in those done by the Singapore government such as the Productivity and Innovation Credit (PIC) grants and the Workfare Training Scheme (WTS), structural unemployment will also be reduced. Hence improving labour productivity is important in helping an economy to achieve sustained growth and low unemployment

- 2) Improving labour productivity helps to dampen demand-pull inflation  
 In the long run, improving labour productivity will help to dampen demand-pull inflation caused by the potential surge in investment levels due to positive economic outlook that firms may have, given more productive workforce. Hence, the rightward shift of LRAS will help to dampen the DD-pull inflation in the long run.

Other points to consider:

- 3) Improving labour productivity helps to improve equity (micro goal)  
 4) Improving labour productivity helps to improve occupational mobility and hence improve allocative efficiency (similar to structural unemployment point above)  
 5) Improving labour productivity helps to improve non-material SOL → better work satisfaction, boosts workers morale.

**CONCLUSION**

In conclusion, for economies like Singapore which only has a small pool of labour as the main resource, labour productivity is an area that needs to be monitored closely at all times. This is because a fall in labour productivity can have significant adverse impact on the macroeconomic objectives of Singapore.

**Marking Scheme for part (a)**

Level (Marks)	Knowledge, Application, Understanding and Analysis
L3 (7-10)	Answer shows excellent knowledge of at least 3 reasons why improving labour productivity is important for a country. Answer focuses on the benefits of improving labour productivity, which is the attainment of micro/macro aims of a country. Good use of economic framework and application to a context. Appropriate use of diagram(s) to illustrate the impact on macroeconomic goals.
L2 (5-6)	Answer shows good knowledge of at least 2 reasons why improving labour productivity is important for a country. Answer focuses on the benefits of improving labour productivity <b>and/or</b> the disadvantages of not improving labour productivity.
L1 (1-4)	Answer briefly explains how a rise in labour productivity leads to a desirable outcome for a country. Little or no reference to the Singapore economy.

**Suggested Answer for part (b)**

*Note to students: question is on “desirability” for Singapore, hence a wide range of concerns that a “country” may have could be applicable to the question. However, the challenge is to scope the essay well, so that an in-depth analysis on specific aims of a country can be examined. A recommended scope would be at least 3 desirable/undesirable effects on Singapore, appropriate economic theories/framework should be applied as much as possible.*

**INTRODUCTION**

*Explain the “move above”, give an overview of essay*

The move above by the Singapore government to reduce reliance on foreign labour would mean that more emphasis would be on improving existing capital resources instead of allowing freer inflow of both higher-skilled and lower-skilled labour from abroad. Also, by focusing on automation, the government hopes to improve domestic labour productivity, so that output per unit of labour can be increased with the help of machineries and technology and reduce reliance on foreign high-skilled labour. This move is likely to bring about both positive and negative impacts on Singapore, in terms of her micro and macro objectives.

**BODY**

**Thesis 1: The move above to raise levy on foreign workers is desirable for Singapore as it tackles the current problem of over-reliance on foreign labour to promote equity.**

Instead of increasing quantity of FOPs to increase productive capacity, the Singapore government has invested in human capital to equip them with relevant skills. Foreign worker levy has been raised so as to force the firms to reduce its reliance on cheap foreign workers and to innovate and employ domestic labour. These measures help to raise labour productivity as they promote greater awareness of the importance of labour productivity for existing domestic resources (human and fixed capital) → promotes domestic employment stability

Examples of current initiatives would include the Productivity Innovation Credit (PIC) grant and the Workfare Training Scheme (WTS) → long term impact as factor owners see the importance of productivity → promotes **sustained economic growth**. Income inequality is lowered as such re-training for domestic workers help to improve the quality of labour and they, especially lower-skilled workers, can then demand for higher wages → **improves equity**.

Furthermore, the levy collected from firms that employ foreign workers can be used to fund such initiatives to raise labour productivity and there would be less disruption to government spendings in other aspects such as education and healthcare. → Better fiscal position, more resources allocated to merit goods.

Overall, it can be considered a sustainable approach, and hence it is desirable for Singapore

**Anti-thesis 1: However, the extent of rise in COP for certain industries, especially those that currently rely heavily on foreign labour (services), will be more pronounced than other sector → may not improve equity**

Also, fiscal position may worsen in the short term as such labour productivity policies and grants are usually expensive in our high-skilled labour force. Effects can only be seen in the long term and may be difficult to measure the success of the policies.

**Thesis 2: The move above to promote automation is also desirable as it promotes greater use of technology to tap on existing domestic resources and potential growth**

- Use of automation will boost productivity levels → increase in quality of FOP → labour force will then be better able to demand for high wages and firms will be more willing to pay for labour that are able to produce more output/labour hour. → SOL improve
- This is especially desirable for lower income groups → go through training → earn higher wages due to improved employability → more equitable distribution of income
- Improved labour productivity will also help lower COP for firms in the long run → produce closer to LRAC → productive efficiency improve

- If cost savings are passed on to consumers in the form of lower prices, P becomes closer to MC → improves allocative efficiency

**Anti-thesis 2: However, over emphasis on the use of automation may lead to negative externalities in production.**

- Explain how negative externalities leads to market failure
- Also, occupational immobility of labour may worsen in the short term, causing more people to be dismissed from work if they don't have the necessary skills. → worsens allocative efficiency
- Therefore, it is undesirable for Singapore

**Anti-thesis 3: The move above to raise levy and promote automation is undesirable as it may lead to cost-push inflation and may cause structural unemployment in the short term**

- Tighter labour market → limited supply of labour → upward pressure on wages as out of economy continues to increase given Singapore's healthy GDP growth rate in recent years.
- Increase in wages → wage-push inflation → AD-AS diagram to illustrate
- Firms faced with rising COP due to rising wages will then raise prices of goods and services sold in order to sustain businesses
- If households (labour force) starts to demand for high wages due to rising GPL, situation may worsen to become a wage-price-spiral.
- Promoting the use of automation may cause some lower-skill labour to be dismissed from work if they don't have the necessary skills, and are unable to upgrade themselves promptly. → worsens short term structural unemployment.

**SYNTHESIS**

Whether the move by the Singapore government is desirable depends on:

- Extent of rise in COP for certain industries (especially services) will be more pronounced than other sector → may not improve equity
- The priorities in government's respective micro and macro goals
- The sustainability of such a move
- The receptivity of firms and the general public (labour force)

**Marking Scheme for part (b)**

Level (Marks)	Knowledge, Application, Understanding and Analysis
L3 (9-11)	<p>Answer shows excellent knowledge of how <u>both the moves of increasing levy on foreign labour and focusing on automation</u> is desirable for Singapore with at least one positive impact and one negative impact on each of the initiatives.</p> <p>Candidates are able to relate desirability of raising <u>domestic labour productivity</u> to the context of Singapore and relates to micro/macro objectives of the government, with good reference to a measurable outcome of what is a desirable situation.</p> <p>Good use of economic framework and real-life examples.</p>
L2 (6-8)	<p>Answer shows some knowledge of how either of <u>the moves of increasing levy on foreign labour and focusing on automation</u> is desirable for</p>

		<p>Singapore with at least one positive impact and one negative impact on at least one of the initiatives.</p> <p>Candidates are able to make some relations to desirability of raising labour productivity to the context of Singapore and relates to micro/macro objectives of the government</p> <p>Good use of real-life examples.</p>
	L1 (1-5)	<p>Answer briefly explains how the move in the preamble impacts the economy without a clear link to a specific outcome (e.g. macroeconomic or microeconomic goal) for a country.</p> <p>Answer is repetitive from part (a), focusing on the impact on improving productivity rather than the policies to do so.</p> <p>Little or no reference to the Singapore economy.</p>
<b>Allow up to 4 marks for evaluation</b>		
	E2 (3-4)	<p>A sound judgment of extent of effectiveness based on economic analysis</p> <p>Attempt at synthesis using clear criteria</p>
	E1 (1-2)	<p>Mainly unexplained judgment / No judgement of extent</p> <p>No attempt at synthesis</p>

6	<p>This current wave of globalisation has been driven by policies that have opened economies domestically and internationally. At the same time, taking advantage of new opportunities in foreign markets and technology, corporations have built foreign factories and established production and marketing arrangements with foreign partners.</p> <p style="text-align: right;">Source: globalization101.org</p>
	<p>Some economists believe that policy forces are the main driver of globalisation, rather than market forces. Discuss how far you agree with this belief. [25]</p>
	<p><b><u>Suggested Answer</u></b></p> <p><u>Introduction</u></p> <ul style="list-style-type: none"> <li>• Globalisation can be defined as the growing interdependence of countries worldwide through increasing volume and variety of cross-border transactions, largely in goods, services and free flows of international capital, spread of technology as well as labour movement between countries.</li> <li>• The rise of globalisation can be explained by two major forces: policy forces and market forces:             <ul style="list-style-type: none"> <li>○ Market forces refer to the interactions between households and firms in the market determining the equilibrium. These economic agents act out of their own interests to maximise their welfare.</li> <li>○ Policy forces refer to the actions of the government to influence the decisions of economic agents.</li> </ul> </li> </ul> <p><u>Body</u></p> <p><b>Side 1: Policy forces are the main driver of globalisation</b></p> <p>1. <u>In terms of trade flows</u></p> <p>Governments have negotiated reductions in / elimination of trade barriers and have established international agreements to promote trade in goods, services, and investment, based on comparative advantage. With the removal of tariffs, prices of imports would be lowered. This would increase the quantity demanded for imports, ceteris paribus, leading to greater trade flows.</p> <p>At the same time, the elimination of trade barriers allows firms to take advantage of new opportunities in foreign markets and this increases the exports of the economy. A defining feature of globalisation, therefore, is an international industrial and financial business structure. Examples include the signing of free trade agreements (NAFTA, ASEAN) or the formation of the EU.</p> <p>2. <u>In terms of capital flows</u></p> <p>Governments are aware of the benefits of being connected to the region and the world. This is especially so for small and open economies who can reap potential benefits of economic growth through a rise in the inflow of Foreign Direct Investment (FDI) and trade in goods and services.</p> <p>It is for this reason that many governments have adopted free-market economic systems, vastly increasing their own productive potential and creating new opportunities for international trade and investment. For instance, with a low corporate tax rate of 17% and industry-specific tax incentives, Singapore has sought to maintain its attractiveness as a destination for FDI. In fact, many economies are doing the same in a bid to attract FDI, contributing to greater flows of FDI.</p> <p>3. <u>In terms of labour flows</u></p>

There has been an increasing trend of cross-border labour movement due to the breaking down of international borders. Productive factors flow in response to differences in returns (such as wages and yields on capital) as long as these are large enough to outweigh the cost of relocating from one country to another. A nation in which labour is scarce can either import labour-intensive products or import labour itself. The same applies to capital. Thus, international trade in goods and services and flows of productive factors are substitutes for each other.

Governments around the world accelerate such movements by providing attractive remuneration packages in the hope that these highly-skilled “talents” can help in carving out new areas of comparative advantage for their economy and boost their economic growth. This is especially true for small countries like Singapore where the population base and thus the pool of “talent” is too small for it to grow the chosen niche sectors in the economy.

### **Side 2: Market forces are the main driver of globalisation**

#### **1. In terms of trade flow**

The rise of inter-industry trade can be explained through the theory of comparative advantage, which is based on the differing opportunity cost of producing goods in different countries. Trade can be mutually beneficial even if one country is more efficient in the production of all goods. At the same time, changing tastes and preferences towards the consumption of a wider variety of goods and services have increased the demand for goods and services in many industries (e.g. automobiles) and can explain the rise of intra-industry trade.

Improvements in transportation leading to the lower cost of refrigerated and container transport have allowed the mass movement of goods throughout the world. As producers take advantage of lower costs of production to increase profits, they have sought to source for raw materials externally. This has led to a greater flow of goods across borders, leading to globalisation.

#### **2. In terms of capital flow**

Advancements in Information and Communication Technology helps to break physical and geographical barriers and allows firms to engage their consumers with their online presence. Harnessing such technology represents a lucrative way of expanding a country's market given a global population of 7 billion people – a potential consumer base for any firm in the global market. As such, firms would seek to open up to the global market in order to increase their revenue and thus profits.

#### **3. In terms of labour flow**

With improvements in transportation technology, labour is able to travel further in search for higher wages. At the same time, firms are able to bring in labour from all over the world in a bid to lower their production costs and raise profits.

With factor price equalisation, however, the degree to which labour moves in search of higher wages will be reduced. At the same time, with some governments recognising the social and economic impact of foreign labour in their countries and tightening the quotas of foreign workers, the extent to which market forces can drive the flow of labour will be restricted.

#### **Conclusion**

It is difficult to separate the cause of globalisation into market-driven or policy-driven due to the interdependence of the actions of consumers, producers and governments. It is

	noted that it is largely due to policy forces that some economies are less globalised. On the other hand, economies that are more globalised have done so due to the workings of the market forces, with policy forces providing the supporting structure for globalisation to take place. As such, the interplay of the two forces have resulted in the wave of globalisation in recent years.
<b>Marking Scheme</b>	
<b>Level (Marks)</b>	<b>Knowledge, Application, Understanding and Analysis</b>
L3 (15-21)	For a well-developed explanation and analysis on both drivers of globalisation. The answer should have a discussion with respect to all 3 aspects of economic globalisation. Explanations for market forces should consider both demand and supply factors for at least one aspect of globalisation. Answer should include a thorough explanation, well-supported with the use of examples. For a well-developed explanation covering both drivers of globalisation across all 3 aspects of globalisation, with the use of examples – max. 15 marks. For a purely theoretical answer that discusses the impact of the two drivers on all 3 aspects of globalisation – max. 15 marks a thorough explanation of a well-supported with the use of examples.
L2 (10-14)	A well-developed but <u>one-sided explanation</u> on the drivers of globalisation, covering all 3 aspects of economic globalisation with supporting examples. Answer considers a maximum of two aspects of globalisation with supporting examples without examples – max. 12 marks
L1 (1-9)	For an answer that merely explains what globalisation is with a smattering of points showing lack of understanding of the terms “market forces” and “policy forces”.
<b>Allow up to 4 marks for evaluation</b>	
E2 (3-4)	Well-presented and evaluative conclusion which weighs the relative importance of the factors leading to globalisation.
E1 (1-2)	For an unexplained judgment that is not supported by economic analysis or justification.



**SERANGOON JUNIOR COLLEGE**  
**JC2 Preliminary Examination**

**ECONOMICS**  
**Higher 1**

**8819/01**

PAPER 1

19 August 2014

**3 hours**

Additional Materials:      Answer Paper

**READ THESE INSTRUCTIONS FIRST**

Write your name and civics group on all the work you hand in.  
Write in dark blue or black pen on both sides of the paper.  
You may use a soft pencil for any diagrams, graphs or rough working.  
Do not use staples, paper clips, highlighters, glue or correction fluid.

**Sections A**

Answer **all** questions.

**Section B**

Answer **one** question.

Start your answers to each case study question and essay question on a new sheet of writing paper. Fasten your answers to all three questions separately.

The number of marks is given in brackets [ ] at the end of each question or part question.

You are reminded of the need for good English and clear presentation in your answers.

This document consists of **9** printed pages and **3** blank pages.

**Section A**

Answer **all** questions in this section.

**Question 1 Middle Class and Education in Asia****Extract 1: The rise of Asia's middle class**

Companies rub their hands with glee when they think of Asian consumers. The key is the rising middle class. In a DBS Bank's report, *Imagining Asia 2020*, Asia today has a middle class of 525 million people. They make up 28% of the world's middle class. This is projected to expand significantly to an incredible 1.74 billion people over the next 10 years. It's not just a China and India story but one of South-east Asia too. "Over the next nine years, Malaysia and Thailand will see a significant increase in the number of people who will spend more than US\$10 a day," DBS said.

As Asia's middle class grows, so will its demand for goods and services. "The rising middle class will be a significant factor in reshaping national economies. They will be an influential and profitable market segment thanks to their size and emerging buying power," noted DBS.

**Durable goods**

For a start, there will be much more demand for durable goods such as refrigerators, cars, television sets and mobile phones.

While the middle class is growing, the more impressive expansion will come from the income groups of those earning between US\$4 and US\$10 a day, especially in Indonesia, Vietnam, India and China, said DBS. They will also demand goods and services but at a cheaper price, which will in turn drive the search for innovative solutions to achieve this. Godrej, an Indian manufacturer, is one such company, selling refrigerators for just US\$70.

**Education and health care**

It is not just demand for goods that will rise. The middle class will also be willing to spend more on important services such as education and health care. This will in turn drive demand for infrastructure – more schools and hospitals.

Source: *The Straits Times*, 23 October 2011

**Table 1: Household final consumption expenditure per capita (annual % change)**

	2009	2010	2011	2012
China	8.9	7.7	10.6	7.3
India	6.0	7.3	7.9	3.7
Japan	-0.6	2.9	0.2	2.5
Malaysia	-1.2	5.0	5.0	5.9
Singapore	-3.4	4.3	2.4	-0.3

Source: data.worldbank.org, 2014

**Extract 2: Emerging economies – rich and confident**

In his 1926 short story, *The Rich Boy*, American novelist F. Scott Fitzgerald wrote: “Let me tell you about the very rich. They are different from you and me.” And so they are. Although, today's very rich are not necessarily Americans or Europeans.

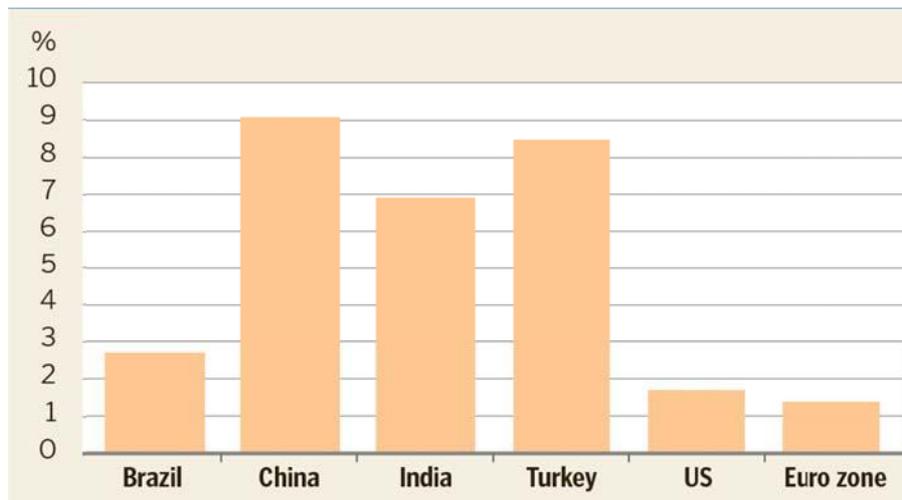
They are quite often the citizens of emerging markets. There are today in Brazil, China, India, Mexico, Russia and Turkey some 320 billionaires, according to the 2012 Forbes magazine list of the world's richest people – many more than the 203 billionaires who carry European passports, and just trailing behind the 425 billionaires who reside in the United States.

As a recent Pew Research Centre survey shows, the citizens of emerging markets are more optimistic than those from most developed countries in views about their future and that of their children. And this difference is likely to shape the world economy in the years ahead.

If F. Scott Fitzgerald were writing today, he would amend his comment. It is the emerging rich who are different. Their mood reflects their recent economic good fortune. But it also presages better days to come. Optimistic, upbeat people invest in the future in a self-reinforcing dynamic that bodes well for their economies. The gloom and despair so pervasive in much of Europe threatens the opposite effect. And the world may never be the same again.

Source: Yaleglobal online, 12 July 2012

**Chart 1: Annual GDP growth rate (2011)**



Source: Yaleglobal online, 12 July 2012

**Extract 3: A college building boom in India**

On the outskirts of this sprawling city in one of India's poorest states, the whitewashed columns and domes of Chanakya National Law University rise next to a deep and murky swamp. The four-year-old university is part of an ambitious plan to expand higher education to India's most destitute corners, where the country's vast population of young people is concentrated.

Realising that the youth bulge could be an asset in India's drive to become a world power, the government has responded with an ambitious university building spree. The increase in number of institutes can provide access to millions of poor students in a country where many

children drop out of school as early as age 10 and where university education remains largely out of reach. India estimates that there were 13.6 million post-secondary students in 2009, about six million fewer than in the United States. If the government reaches its goals, India could have nearly twice as many college students as does the US by the end of the decade.

But Indian officials acknowledge that the rapid expansion of public colleges and universities will not come close to meeting the demand. Privately run schools fill the gap through distance education, but often their offerings are of low quality, Mr Devesh Kapur, a political scientist at the University of Pennsylvania, told *The Washington Post*.

Mr Pawan Agarwal, an adviser to the federal government's planning commission on higher education, said the Indian government will start to shift its attention "from rapid expansion to quality expansion" this year. The new institutions are fulfilling one mission already, however: They are raising the expectations of a new generation of Indians.

Source: Sarah Garland, *Washington Post*, 1 January 2012

#### **Extract 4: Education woes in Malaysia**

Malaysia needs scientists and a professional workforce in science-related fields to move the economy up the value chain. Currently, it is heavily dependent on resources and labour-intensive manufacturing industries.

"It is already a systemic problem – Malaysia is unable to meet demand for engineers and professionals in science-related fields because there are not enough students in this stream," said political analyst Khoo Kay Peng. "It will be challenging for Malaysia to reinvent its economy as the technology curve moves upwards."

Source: Yong Yen Nie, *The Straits Times*, 26 November 2012

#### **Extract 5: India's coffers get boost from remittances**

India sells everything from software to textiles abroad, making it the world's ninth-largest exporter country. But at times of economic hardship, a very different kind of commodity helps replenish its foreign exchange reserves – people. Last year, for example, official figures show that Indians sent home about US\$66 billion (S\$80 billion), up from US\$55 billion a year before. These international remittances help moderate India's precarious current account deficit, which widened to about US\$78 billion in 2011/12 due to slowing global demand.

Source: Kritivas Mukherjee, *The Straits Times*, 12 December 2012

**Questions**

- (a) (i) Compare the change in household expenditure per capita between India and Singapore from 2009 to 2012. [2]
- (ii) How could this change in household expenditure per capita in India explain the 'precarious current account deficit' evident in Extract 5? [2]
- (b) Extract 1 mentions the rise of the middle class in Asia. With the aid of demand and supply diagrams, explain:
- (i) how the above phenomenon can impact the market for education. [3]
- (ii) the possible impact on the market for durable goods given that 'they will also demand goods and services but at a cheaper price, which will in turn drive the search for innovative solutions to achieve this'. [4]
- (c) 'The youth bulge could be an asset in India's drive to become a world power' (Extract 3). Discuss whether the 'ambitious university building spree' is the only way to address the microeconomic concern of the Indian government. [8]
- (d) Extract 4 states that 'Malaysia needs scientists and a professional workforce in science-related fields to move the economy up the value chain'. Explain how the concept of opportunity cost can be applied to this statement. [3]
- (e) In the light of the data provided and your own relevant knowledge, do you think that the economic growth of emerging economies such as China, India and Turkey evident in Chart 1 can be sustained? [8]

**[Total: 30]**

## Question 2 Taking the Pulse of Eurozone

### Extract 6: What Germany offers the world

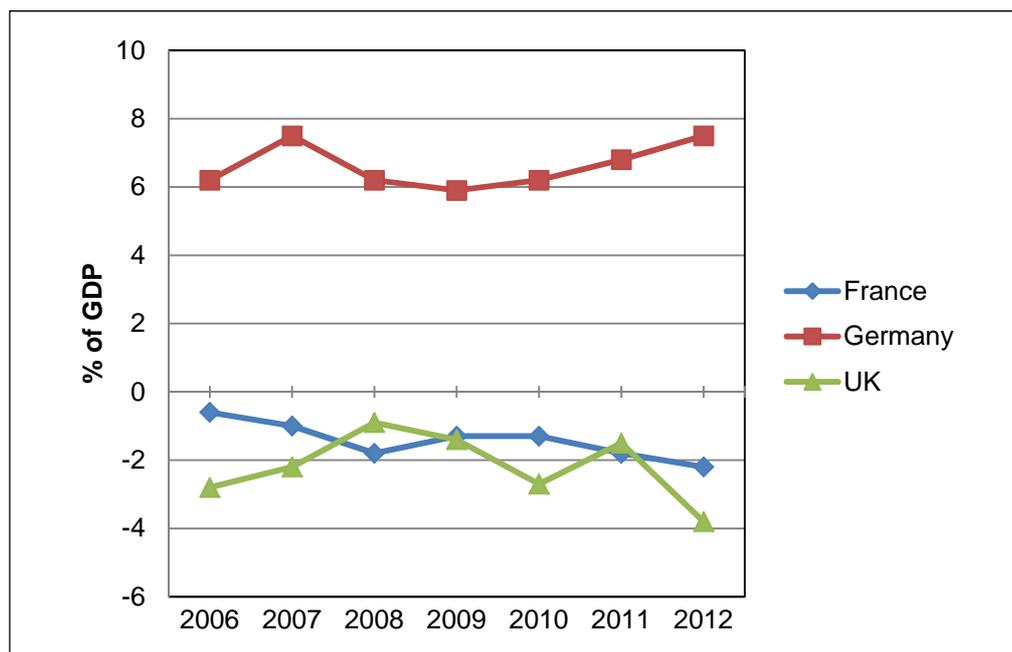
Beckhoff Automation, one of Germany's family owned businesses, is among thousands of 'hidden champions' that account for much of Germany's prowess as a manufacturer and exporter. Its sales leapt 34% to €465m last year. It is aiming for €2 billion by 2020. Largely thanks to its Beckhoffs, Germany looks like a bright exception to the dispiriting rule among developed economies. True, its economy contracted more than those of most rich countries during the 2008-09 world recession, but the jobless rate rose by less than in all the others, peaking at 7.9%. And nobody talks about downgrading Germany's AAA credit rating; it can borrow money for practically nothing.

Not all the news is good. The economy shrank in the final quarter of 2011; and even if first quarter figures do not reveal Germany itself to be in recession, its economy will continue to suffer the drag of recession elsewhere in the euro area and a slowdown in developing countries. But just 1% growth is enough to create jobs, according to Bert Rürup, a former chairman of the government's council of economic "wise men". In a book written with a journalist, Dirk Heilmann, "Fat Years: Why Germany has a Brilliant Future", he giddily predicts that by 2030 Germany will become the world's richest large country in terms of income per head.

Such success brings a great deal of admiration. Spain's education minister is looking into Germany's "dual system" of vocational training, which combines classroom instruction with work experience. John Cridland, director of the Confederation of British Industry, wants Britain to have its own version of firms like Beckhoff. Nicolas Sarkozy began his campaign for re-election as France's president sounding as if he would gladly swallow the model whole. Germany prioritised "jobs, jobs, jobs," he said. "If it worked for them, why wouldn't it work for us?"

Source: *The Economist*, 14 April 2012

Figure 1: Current account



Source: OECD

**Table 2: Selected economic indicators of Germany**

	2009	2010	2011	2012
Annual % growth rate (at constant prices)	-5.1	4	3.3	0.7
Consumer prices inflation (annual %)	0.3	1.1	2.1	2.0
Unemployment (% labour force)	7.7	7.1	5.9	5.4
Government debt (% GDP)	47.6	55.5	55.1	56.9
Gross capital formation (% GDP)	16	17	18	17

Source: World Bank

**Extract 7: The eurozone crisis: growth problem**

Europe's politicians are often berated for an excessive focus on austerity. And it seems likely that there is a huge problem with several countries pursuing austerity simultaneously. One cannot switch the economy from domestic consumption to exports, if all your neighbours are trying to do the same. Canada's success in the 1990s occurred during the great boom of its biggest trading partner, the US.

This is what makes the debt crisis so difficult. The best way to eliminate a debt problem is to grow the economy rapidly but Europe seems to have lost the knack. And the demography is not encouraging because the workforce is likely to stagnate or shrink. Indeed, there was something perverse about taking on so much debt in the first place; debt requires confidence, on the part of the lender or the borrower and ideally both, that the borrower's income is going to grow. But Europeans piled up the debt even as the growth rate slowed, rather like a 64-year old going on a spending spree before retirement.

It may well be that European economies would perform better collectively if austerity programmes were relaxed. But it is a stretch to believe that Europe can return to the growth rates seen in the 1960s or even the 1970s. And those rates might be needed to make the debt problem go painlessly away.

Source: *The Economist*, 17 December 2012**Extract 8: Eurozone needs a growth strategy, not more austerity**

The recession on the eurozone's periphery is deepening and moving to the core, namely France and Germany. Indeed, the recession will worsen throughout this year, for many reasons. First, fiscal austerity is accelerating the contraction, as higher taxes and lower government spending and transfer payments reduce disposable income and aggregate demand. Moreover, as the recession deepens, resulting in even wider fiscal deficits, another round of austerity will be needed. And now, thanks to the fiscal compact, even the eurozone's core will be forced into recessionary austerity.

Moreover, while über-competitive Germany can withstand a strong euro, for the rest of the eurozone's periphery, where unit labour costs rose 30-40% during the last decade, the value of the exchange rate would have to fall to parity with the US dollar to restore competitiveness and external balance. After all, spending less and saving more to reduce debts depress domestic private and public demand and the only hope of restoring growth is an improvement in the trade balance, which requires a much weaker euro. Meanwhile, the

credit crunch in the eurozone periphery is intensifying: thanks to the European Central Bank (ECB) long-term cheap loans, banks there don't have a liquidity problem now, but they do have a massive capital shortage.

There are also signs of austerity and reform fatigue both in Spain and Italy, where demonstrations, strikes, and popular resentment against painful austerity are mounting with the rise in unemployment rates and a severe lack of jobs. The trouble is that the eurozone has an austerity strategy but no growth strategy. And, without that, all it has is a recession strategy that makes austerity and reform self-defeating, because, if output continues to contract, deficit and debt ratios will continue to rise to unsustainable levels. Moreover, the social and political backlash eventually will become overwhelming.

Structural reforms in areas such as education, innovation, competition and green growth is also essential but that which will eventually increase productivity growth can be recessionary in the short run. Increasing labour market flexibility by reducing the costs of shedding workers will lead to more layoffs in the public and private sector in the short run, exacerbating the fall in incomes and demand.

Without a much easier monetary policy and a less front-loaded mode of fiscal austerity, the euro will not weaken, external competitiveness will not be restored, and the recession will deepen. And, without resumption of growth – not years down the line, but in 2012 – the stock and flow imbalances will become even more unsustainable. More eurozone countries will be forced to restructure their debts, and eventually some will decide to exit the monetary union.

Source: *The Guardian*, 13 April 2012

### Questions

- (a) (i) Compare Germany's balance on current account with that of France's and Britain's over the period 2006 to 2012. [2]
- (ii) From Extract 6, explain one reason for the difference you observed. [2]
- (b) How far can Figure 1 be used to infer about Germany's current account contribution to its economic growth between 2009 and 2012? [4]
- (c) Explain why one way 'to eliminate a debt problem is to grow the economy rapidly.' [3]
- (d) In view of rising labour cost, explain whether allowing the exchange rate 'to fall to parity with the US dollar will restore competitiveness and external balance'. [5]
- (e) The data elaborates on the effects of fiscal austerity (Extract 8) on the eurozone. Discuss how such a measure will affect its standard of living. [6]
- (f) Nicholas Sarkozy claimed that Germany prioritised 'jobs, jobs, jobs'. To what extent do you agree that 'jobs, jobs, jobs' should continue to be Germany's top priority in 2012? [8]

**[Total: 30]**

**Section B**

Answer **one** question from this section.

- 3**     **(a)**     Using a production possibility curve diagram, explain the central problem that all economies face. [10]
- (b)**     Evaluate the view that a government should use indirect taxation to respond to the existence of a negative externality in its country. [15]
- 
- 4**     As a result of free trade agreements, the United States has and still is experiencing record breaking unemployment and a crippled manufacturing industry.
- (a)**     Explain the costs of free trade. [10]
- (b)**     Discuss whether the imposition of trade barriers by an economy is the most effective measure in helping domestic industries overcome external competition. [15]

**End of Paper**

2014 SRJC Preliminary Examinations – H1 Economics (8819/01)  
Suggested Answers

**Question 1 Middle Class and Education in Asia**

**Extract 1: The rise of Asia's middle class**

Companies rub their hands with glee when they think of Asian consumers. The key is the rising middle class. In a DBS Bank's report, *Imagining Asia 2020*, Asia today has a middle class of 525 million people. They make up 28% of the world's middle class. This is projected to expand significantly to an incredible 1.74 billion people over the next 10 years. It's not just a China and India story but one of South-east Asia too. "Over the next nine years, Malaysia and Thailand will see a significant increase in the number of people who will spend more than US\$10 a day," DBS said.

As Asia's middle class grows, so will its demand for goods and services. "The rising middle class will be a significant factor in reshaping national economies. They will be an influential and profitable market segment thanks to their size and emerging buying power," noted DBS.

**Durable goods**

For a start, there will be much more demand for durable goods such as refrigerators, cars, television sets and mobile phones.

While the middle class is growing, the more impressive expansion will come from the income groups of those earning between US\$4 and US\$10 a day, especially in Indonesia, Vietnam, India and China, said DBS. They will also demand goods and services but at a cheaper price, which will in turn drive the search for innovative solutions to achieve this. Godrej, an Indian manufacturer, is one such company, selling refrigerators for just US\$70.

**Education and health care**

It is not just demand for goods that will rise. The middle class will also be willing to spend more on important services such as education and health care. This will in turn drive demand for infrastructure – more schools and hospitals.

Source: *The Straits Times*, 23 October 2011

**Table 1: Household final consumption expenditure per capita (annual % change)**

	2009	2010	2011	2012
China	8.9	7.7	10.6	7.3
India	6.0	7.3	7.9	3.7
Japan	-0.6	2.9	0.2	2.5
Malaysia	-1.2	5.0	5.0	5.9
Singapore	-3.4	4.3	2.4	-0.3

Source: data.worldbank.org, 2014

### Extract 2: Emerging economies – rich and confident

In his 1926 short story, *The Rich Boy*, American novelist F. Scott Fitzgerald wrote: “Let me tell you about the very rich. They are different from you and me.” And so they are. Although, today's very rich are not necessarily Americans or Europeans.

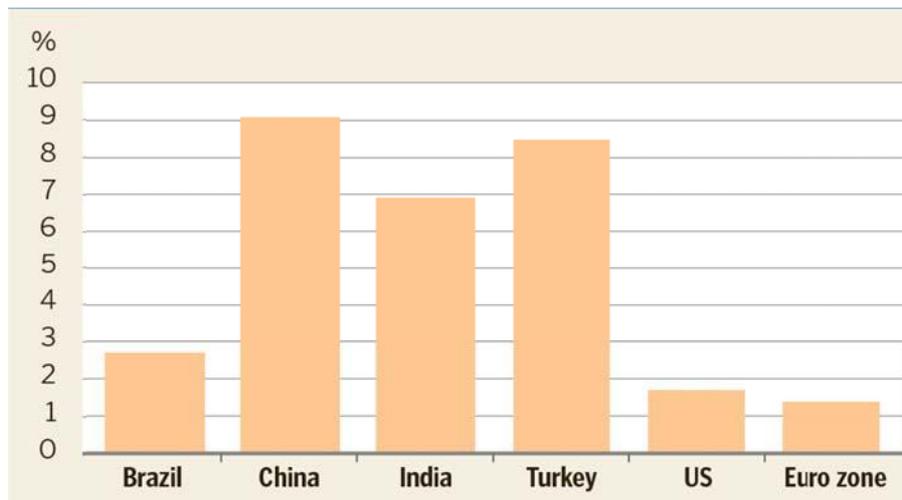
They are quite often the citizens of emerging markets. There are today in Brazil, China, India, Mexico, Russia and Turkey some 320 billionaires, according to the 2012 Forbes magazine list of the world's richest people – many more than the 203 billionaires who carry European passports, and just trailing behind the 425 billionaires who reside in the United States.

As a recent Pew Research Centre survey shows, the citizens of emerging markets are more optimistic than those from most developed countries in views about their future and that of their children. And this difference is likely to shape the world economy in the years ahead.

If F. Scott Fitzgerald were writing today, he would amend his comment. It is the emerging rich who are different. Their mood reflects their recent economic good fortune. But it also presages better days to come. Optimistic, upbeat people invest in the future in a self-reinforcing dynamic that bodes well for their economies. The gloom and despair so pervasive in much of Europe threatens the opposite effect. And the world may never be the same again.

Source: Yaleglobal online, 12 July 2012

**Chart 1: Annual GDP growth rate (2011)**



Source: Yaleglobal online, 12 July 2012

### Extract 3: A college building boom in India

On the outskirts of this sprawling city in one of India's poorest states, the whitewashed columns and domes of Chanakya National Law University rise next to a deep and murky swamp. The four-year-old university is part of an ambitious plan to expand higher education to India's most destitute corners, where the country's vast population of young people is concentrated.

Realising that the youth bulge could be an asset in India's drive to become a world power, the government has responded with an ambitious university building spree. The increase in number of institutes can provide access to millions of poor students in a country where many

children drop out of school as early as age 10 and where university education remains largely out of reach. India estimates that there were 13.6 million post-secondary students in 2009, about six million fewer than in the United States. If the government reaches its goals, India could have nearly twice as many college students as does the US by the end of the decade.

But Indian officials acknowledge that the rapid expansion of public colleges and universities will not come close to meeting the demand. Privately run schools fill the gap through distance education, but often their offerings are of low quality, Mr Devesh Kapur, a political scientist at the University of Pennsylvania, told *The Washington Post*.

Mr Pawan Agarwal, an adviser to the federal government's planning commission on higher education, said the Indian government will start to shift its attention "from rapid expansion to quality expansion" this year. The new institutions are fulfilling one mission already, however: They are raising the expectations of a new generation of Indians.

Source: Sarah Garland, *Washington Post*, 1 January 2012

#### **Extract 4: Education woes in Malaysia**

Malaysia needs scientists and a professional workforce in science-related fields to move the economy up the value chain. Currently, it is heavily dependent on resources and labour-intensive manufacturing industries.

"It is already a systemic problem – Malaysia is unable to meet demand for engineers and professionals in science-related fields because there are not enough students in this stream," said political analyst Khoo Kay Peng. "It will be challenging for Malaysia to reinvent its economy as the technology curve moves upwards."

Source: Yong Yen Nie, *The Straits Times*, 26 November 2012

#### **Extract 5: India's coffers get boost from remittances**

India sells everything from software to textiles abroad, making it the world's ninth-largest exporter country. But at times of economic hardship, a very different kind of commodity helps replenish its foreign exchange reserves – people. Last year, for example, official figures show that Indians sent home about US\$66 billion (S\$80 billion), up from US\$55 billion a year before. These international remittances help moderate India's precarious current account deficit, which widened to about US\$78 billion in 2011/12 due to slowing global demand.

Source: Kritivas Mukherjee, *The Straits Times*, 12 December 2012

**Suggested answers**

(a) (i) Compare the change in household expenditure per capita between India and Singapore from 2009 to 2012. [2]

- Household expenditure per capita always rose in India but fell in 2009 and 2012 in Singapore.
- Household expenditure per capita rose in India and Singapore in 2010 and 2011.

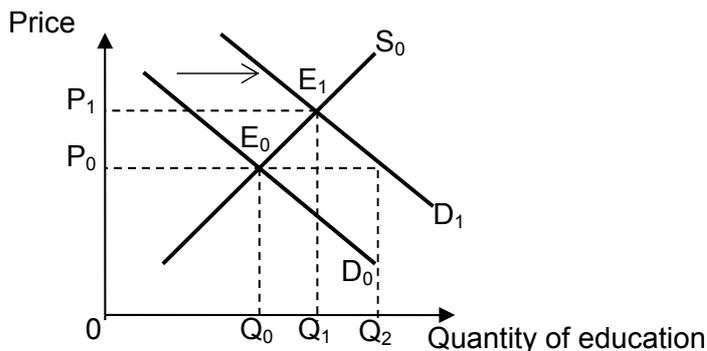
(ii) How could this change in household expenditure per capita in India explain the 'precarious current account deficit' evident in Extract 5? [2]

- Rising household expenditure could indicate rising spending on both locally produced goods and imports.
- Rising import expenditure can lead to a worsening current account, especially since "slow global demand" (Extract 5) can suggest slow rise or even fall in export revenue for India.
- If import expenditure is much greater than export revenue, India would experience a large and hence precarious current account deficit.

(b) Extract 1 mentions the rise of the middle class in Asia. With the aid of demand and supply diagrams, explain:

(i) how the above phenomenon can impact the market for education. [3]

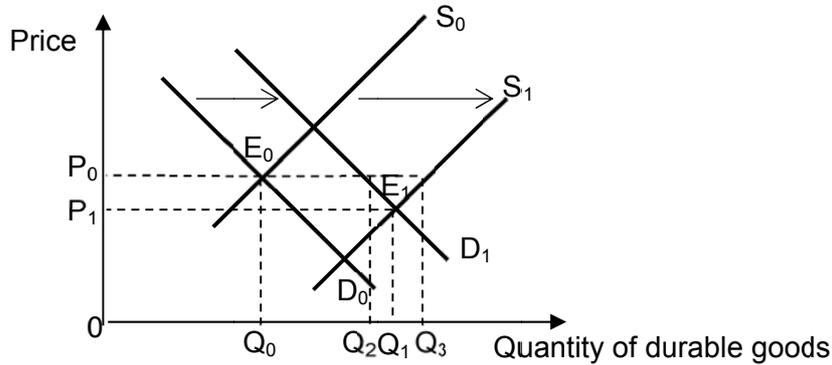
- Rise in income of the middle class will lead to a rise in their purchasing power.
- Hence, there will be a rise in the demand for education since it is a normal service.



The increase in demand will shift the demand curve to the right from  $D_0$  to  $D_1$ , causing an initial shortage of  $Q_0Q_2$  at the original price of  $0P_0$ . Hence the equilibrium price will increase from  $0P_0$  to  $0P_1$  and equilibrium quantity will increase from  $0Q_0$  to  $0Q_1$ .

(ii) the possible impact on the market for durable goods given that 'they will also demand goods and services but at a cheaper price, which will in turn drive the search for innovative solutions to achieve this'. [4]

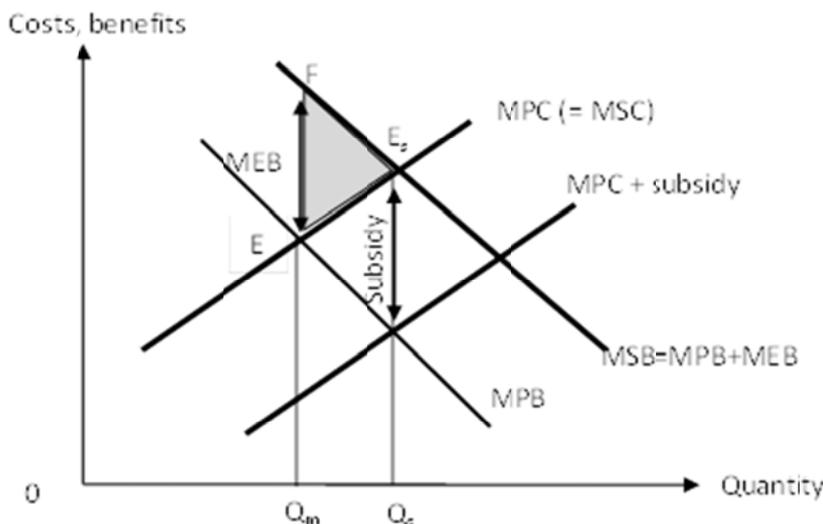
- There is a rise in demand due to a rise in income.
- There could also be a rise in the supply of consumer goods.
- This is due to 'search for innovative solutions', which can translate into more cost efficient methods of production. Hence, assuming no change in revenue, profits of producers will rise. As a result, the supply of durable goods will rise.
- Assume that the rise in supply exceeds the rise in demand.



- At the original price of  $0P_0$ , there is a surplus of  $Q_2Q_3$ . This exerts a downward pressure on the price. Consequently, the equilibrium price falls from  $0P_0$  to  $0P_1$ . In this case, there is a rise in the equilibrium quantity from  $0Q_0$  to  $0Q_1$ .

(c) 'The youth bulge could be an asset in India's drive to become a world power' (Extract 3). Discuss whether the 'ambitious university building spree' is the only way to address the microeconomic concern of the Indian government. [8]

- The consumption of higher education generates positive externalities, i.e. a highly educated pool of young people can help India become a world power. With a larger pool of educated young people, there will be a rise in productivity in the labour force in India when these young people become part of the labour pool. Hence, there will be a rise in productive capacity, leading to a rise in India's AS in the long run, and generating potential economic growth for the country.
- Currently, there is underconsumption of higher education. The private equilibrium level of consumption of higher education occurs at  $Q_m$  where  $MPB=MPC$  while the socially optimal level occurs at  $Q_s$  where  $MSB=MSC$ . Hence, there is an underconsumption of higher education and it gives rise to the deadweight loss of area  $EFE_s$ .



- By building more universities, the Indian government hopes to increase the number of university places to the socially optimal level, thereby correcting the problem of underconsumption and thus, India is a step closer to becoming a world power.
- Evaluation:
  - But, the government may suffer from imperfect information on the socially optimal number of university places to provide. If the number of university places is still

less than the socially optimal level, underconsumption of higher education will still exist.

5. Thus building spree is not the only way to increase the consumption of higher education in India.
6. If the government gives the producer of higher education a subsidy equal in value to the MEB generated, the supply curve (MPC curve) will shift to the right or vertically downwards by the full amount of the subsidy to MPC+subsidy. Since firms have increased the supply of the good, the market price of higher education will fall, ceteris paribus. The lower price of higher education will induce consumers to increase the quantity demanded.
7. Evaluation:
  - a. The success of the subsidy depends on the price elasticity of demand for higher education in India. The more price elastic is the demand, possibly because the proportion of income spent on higher education is huge for many families in India (Extract 3: millions of poor students in a country where many children drop out of school as early as age 10), the larger is the rise in the quantity demanded for higher education, ceteris paribus, when price falls.
8. The ambitious university building spree is not the only way for the Indian government to tap on the youth bulge to maximise the potential of the economy. A combination of policies is a more effective way to raise consumption of university education to the socially optimal level as compared to just using one policy.

Marking scheme:

L3	<ol style="list-style-type: none"> <li>1. Good application of merit goods is evident</li> <li>2. Explain and evaluate direct provision by government</li> <li>3. One other way is well-discussed</li> <li>4. Informed conclusion that addresses the question requirement is evident</li> </ol>
L2	<ol style="list-style-type: none"> <li>1. Application of merit goods is evident</li> <li>2. Either failure of information or positive externalities is applied</li> <li>3. Explain and evaluate direct provision by government</li> <li>4. "only way" is either not addressed or cursorily addressed</li> </ol>
L1	Largely descriptive answer with little economic analysis

- (d) Extract 4 states that 'Malaysia needs scientists and a professional workforce in science-related fields to move the economy up the value chain'. Explain how the concept of opportunity cost can be applied to this statement. [3]

1. Apply central problem of economics

- a. Scarcity: limited resources which in this case can refer to labour force; unlimited wants can refer to the different areas that the Malaysian economy wants to specialise in
- b. Choice: The Malaysian economy wants to move from labour-intensive manufacturing to higher value-added production. In order to make the change in comparative advantage (CA), the government needs to encourage more students to take up science courses.
- c. Opportunity cost: With more students taking up science courses, Malaysia will have a bigger pool of scientists, i.e. more favourable factor endowments that can promote the growth of the higher value-added industries. Hence, it will be able to produce these goods at a lower opportunity cost than trading partners, i.e. less of the alternative good such as a labour-intensive manufactured good is forgone, and be able to export these goods. By developing CA in these industries, the economy would forgo production in the labour-intensive manufacturing industry.

- (e) In the light of the data provided and your own relevant knowledge, do you think that the economic growth of emerging economies such as China, India and Turkey evident in Chart 1 can be sustained? [8]

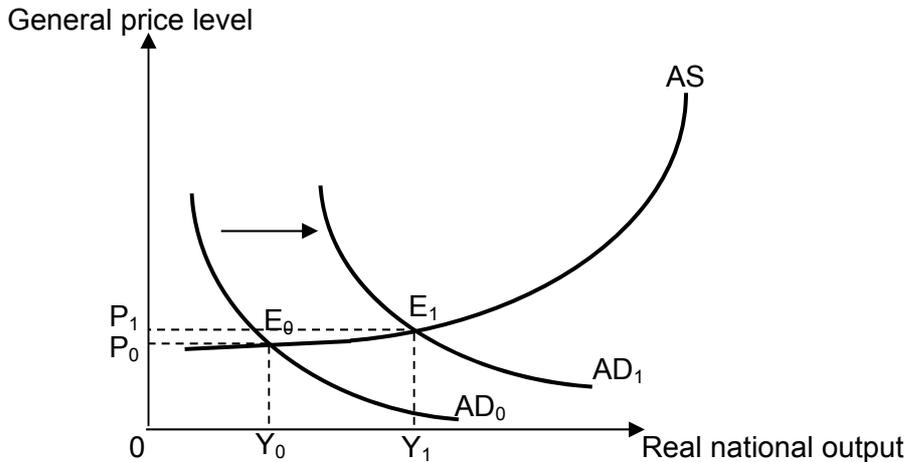
Introduction:

1. A sustained rate of economic growth implies positive and stable economic growth. This happens when there is actual and potential economic growth with low inflation.
2. Whether the economic growth of emerging economies such as China, India and Turkey can be sustained depends on the following factors: prevailing economic conditions in the emerging economies and the state of the global economy.

Body:

Thesis: The economic growth emerging economies such as China, India and Turkey can be sustained.

3. Extract 1: growing middle class in Asian countries such as China and India
  - a. The number of people who spend more than US\$10 a day (Extract 1) increases. This means that there will be a rise in consumption expenditure (C) in the emerging economies. Investment expenditure (I) will also rise in the emerging economies as firms expect to earn a high rate of return when they invest in the emerging economies due to a rise in demand for normal goods and services.
4. There is also evidence of a rise in government expenditure in India due to the increased spending on education (Extract 3).
5. With a rise in C, I and G, there will be a rise in AD in the emerging economies.



Currently at  $Y_0$ , the emerging economy is operating at less than full-employment. When there is a rise in  $I$  and  $G$ , the multiplier process is activated (explain). The multiplier process continues until the economy reaches a new equilibrium national income at a higher level, i.e.  $Y_1$ , which is nearer to the full-employment level of national income in this case. As a result, the emerging economies can experience actual economic growth with low inflation.

6. Evaluation:

- a. If the emerging economy is operating near full employment, the multiplier effect on national output will be dampened by the rise in the general price level. As a result, slow actual economic growth with high inflation will occur. In this case, the economic growth of the emerging economies may not be sustained.

Anti-thesis: On the other hand, the economic growth of the emerging economies may not be sustained.

7. There is slow economic growth in major economies such as the US and the Euro zone (Chart 1).

- a. If the slow economic growth in these economies persists or even becomes negative, it can have an adverse impact on the export revenue for the emerging economies. For example, the slow economic growth in the US would instil pessimism in the households, which would lead to a fall in consumption as households save more. This reduction in spending also includes expenditure on imports, which are the emerging economies' exports. With a fall in export revenue,  $(X-M)$  of the emerging economies will fall, *ceteris paribus*.
- b. As a result, there may be a smaller rise in  $AD$  as the fall in  $(X-M)$  reduces the rise in  $AD$  caused by the aforementioned rise in  $C$ ,  $I$  or  $G$ . Hence, real national output will rise by a smaller extent in the emerging economies.

Conclusion:

1. In my opinion, the ability of the emerging economies such as China, India and Turkey to sustain their economic growth depends how successful they are in shifting their economic growth model from an export-led one to one that depends more on domestic consumption and investment.

Marking scheme:

L3	1. Thorough discussion of whether the economic growth in the emerging economies is evident that is well-grounded in AD-AS analysis
	2. Good use of case information and background knowledge is evident

	3. Informed conclusion that addresses the question requirement is evident
L2	1. Some attempts are made to discuss whether the economic growth in the emerging economies can be sustained are evident 2. Use of AD-AS analysis is evident 3. For a good one-sided discussion
L1	Largely descriptive answer with little economic analysis

**Question 2 Taking the Pulse of Eurozone****Extract 6: What Germany offers the world**

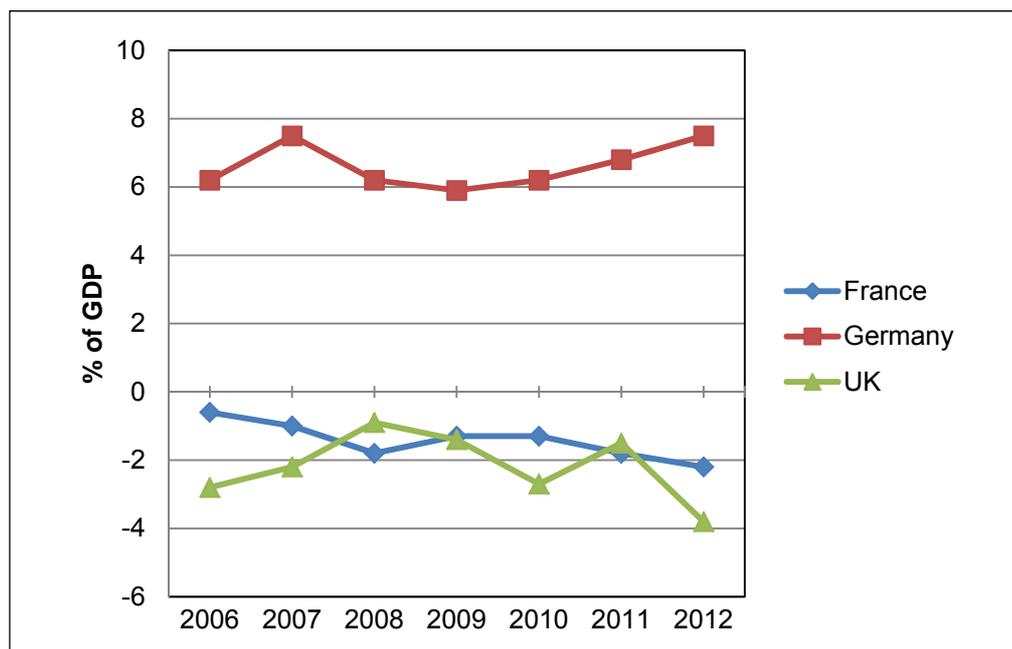
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Not all the news is good. The economy shrank in the final quarter of 2011; and even if first quarter figures do not reveal Germany itself to be in recession, its economy will continue to suffer the drag of recession elsewhere in the euro area and a slowdown in developing countries. But just 1% growth is enough to create jobs, according to Bert Rürup, a former chairman of the government's council of economic "wise men". In a book written with a journalist, Dirk Heilmann, "Fat Years: Why Germany has a Brilliant Future", he giddily predicts that by 2030 Germany will become the world's richest large country in terms of income per head.

Such success brings a great deal of admiration. Spain's education minister is looking into Germany's "dual system" of vocational training, which combines classroom instruction with work experience. John Cridland, director of the Confederation of British Industry, wants Britain to have its own version of firms like Beckhoff. Nicolas Sarkozy began his campaign for re-election as France's president sounding as if he would gladly swallow the model whole. Germany prioritised "jobs, jobs, jobs," he said. "If it worked for them, why wouldn't it work for us?"

Source: *The Economist*. 14 April 2012

**Figure 1: Current account**



Source: OECD

**Table 2: Selected economic indicators of Germany**

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Source: World Bank

**Extract 7: The eurozone crisis: growth problem**

Europe's politicians are often berated for an excessive focus on austerity. And it seems likely that there is a huge problem with several countries pursuing austerity simultaneously. One cannot switch the economy from domestic consumption to exports, if all your neighbours are trying to do the same. Canada's success in the 1990s occurred during the great boom of its biggest trading partner, the US.

This is what makes the debt crisis so difficult. The best way to eliminate a debt problem is to grow the economy rapidly but Europe seems to have lost the knack. And the demography is not encouraging because the workforce is likely to stagnate or shrink. Indeed, there was something perverse about taking on so much debt in the first place; debt requires confidence, on the part of the lender or the borrower and ideally both, that the borrower's income is going to grow. But Europeans piled up the debt even as the growth rate slowed, rather like a 64-year old going on a spending spree before retirement.

It may well be that European economies would perform better collectively if austerity programmes were relaxed. But it is a stretch to believe that Europe can return to the growth rates seen in the 1960s or even the 1970s. And those rates might be needed to make the debt problem go painlessly away.

Source: *The Economist*, 17 December 2012**Extract 8: Eurozone needs a growth strategy, not more austerity**

The recession on the eurozone's periphery is deepening and moving to the core, namely France and Germany. Indeed, the recession will worsen throughout this year, for many reasons. First, fiscal austerity is accelerating the contraction, as higher taxes and lower government spending and transfer payments reduce disposable income and aggregate demand. Moreover, as the recession deepens, resulting in even wider fiscal deficits, another round of austerity will be needed. And now, thanks to the fiscal compact, even the eurozone's core will be forced into recessionary austerity.

Moreover, while über-competitive Germany can withstand a strong euro, for the rest of the eurozone's periphery, where unit labour costs rose 30-40% during the last decade, the value of the exchange rate would have to fall to parity with the US dollar to restore competitiveness and external balance. After all, spending less and saving more to reduce debts depress domestic private and public demand and the only hope of restoring growth is an improvement in the trade balance, which requires a much weaker euro. Meanwhile, the

credit crunch in the eurozone periphery is intensifying: thanks to the European Central Bank (ECB) long-term cheap loans, banks there don't have a liquidity problem now, but they do have a massive capital shortage.

There are also signs of austerity and reform fatigue both in Spain and Italy, where demonstrations, strikes, and popular resentment against painful austerity are mounting with the rise in unemployment rates and a severe lack of jobs. The trouble is that the eurozone has an austerity strategy but no growth strategy. And, without that, all it has is a recession strategy that makes austerity and reform self-defeating, because, if output continues to contract, deficit and debt ratios will continue to rise to unsustainable levels. Moreover, the social and political backlash eventually will become overwhelming.

Structural reforms in areas such as education, innovation, competition and green growth is also essential but that which will eventually increase productivity growth can be recessionary in the short run. Increasing labour market flexibility by reducing the costs of shedding workers will lead to more layoffs in the public and private sector in the short run, exacerbating the fall in incomes and demand.

Without a much easier monetary policy and a less front-loaded mode of fiscal austerity, the euro will not weaken, external competitiveness will not be restored, and the recession will deepen. And, without resumption of growth – not years down the line, but in 2012 – the stock and flow imbalances will become even more unsustainable. More eurozone countries will be forced to restructure their debts, and eventually some will decide to exit the monetary union.

Source: *The Guardian*, 13 April 2012

### Suggested Answers

- (a) (i) Compare Germany's balance on current account with that of France's and Britain's over the period 2006 to 2012. [2]
- While Germany enjoyed a current account surplus over the period, France and Britain's current account was in deficit.
  - Germany's current account surplus (as a % of GDP) was rising while France and Britain's current account deficit (as a % of GDP) was also increasing.
- (ii) From Extract 6, explain one reason for the difference observed. [2]
- Structural factor – Extract 6, para 3 states that Germany's has a "dual system" of vocational training, which combines classroom instruction with work experience (Extract 6, Para 3).
  - This suggests that Germany will has a comparative advantage in the production of high-tech value added goods due to their unique education system in Europe which leads to higher productivity, lower unit cost of production and causes exports to be more competitive. Net exports increases, which accounts for Germany's rising current account surplus.
  - On the other hand, without such an infrastructure in France and Britain as stated in Extract 6, Para 3 "... wants Britain to have its own version of firms like Beckoff", their exports might have loss competitiveness, which accounts for the rise in current account deficit.

(b) How far can Figure 1 be used to infer about Germany's current account contribution to its economic growth between 2009 and 2012? [4]

- Germany's economic growth rose rapidly from 2009 to 2010 before slowing down till 2012 → real GDP was rising but at a slower rate.
- As Germany's current account surplus (as a % of GDP) continued to increase over the period. It contributed to the rise in real GDP as (X-M) rise → AD rise → national output rises, leading to the rise in real GDP. Hence current account contributed largely to the economic growth.
- However, there are other factors contributing to economic growth besides (X-M) such as C, I and G which are not shown in Fig 1. Hence while (X-M) continued to rise at a constant rate, if C, I and G fell, it might result in a smaller increase in GDP → as explained by the fall in rate of economic growth shown in Table 2.

(c) Explain why one way 'to eliminate a debt problem is to grow the economy rapidly.' [3]

- Debt occurs when the total government expenditure is more than total government revenue collected and the government has to finance its spending through borrowing from private banks and a debt is incurred.
- When there is strong economic growth, residents earn higher income and businesses earn greater profits. Hence more tax revenue, both personal and corporate, can be collected.
- More jobs can also be created when there is economic growth and less transfer payments need to be provided for the unemployed causing a fall in government expenditure.
- The rise in tax revenue and the fall in government expenditure can be used to repay the principal sum and interest of the loans, eliminating the debt problem.

(d) In view of rising labour cost, explain whether allowing the exchange rate 'to fall to parity with the US dollar will restore competitiveness and external balance'. [5]

- Allowing the Euro 'to fall to parity with the US dollar' suggest a depreciation of the exchange rate.
- This is necessary because Extract 8, para 2 suggests that "unit labour costs rose 30-40%". This raises cost of production due to wage cost push inflation → AS ↓ in the short run → firms will pass on the rising cost to consumers in the form of higher domestic and export prices → ↑ Px.
- As export prices increases, Euro's exports might lose competitiveness → Assume  $PED_x > 1$  → more than proportionate fall in quantity demanded for exports → ↓ TRx. Assume imports are relatively cheaper → DD for imports rises →  $TE_m$  ↑ → (X-M) ↓ → Worsening current account upsets the external current account balance the Eurozone.
- However, allowing the Euro "to fall to parity with the US dollar will restore competitiveness and external balance" if the fall in value of the Euro is greater than the rise in COP → help to offset the rise in COP leading to an overall ↓ Px in foreign currency. On the other hand,  $P_m$  ↑ in domestic currency. Assume ML condition holds, where sum of  $PED_x$  and  $PED_m$  is more than 1, (X-M) ↑ and this restores the external balance in the Eurozone.

Evaluation

- However, if there was only a weak depreciation which is insufficient to offset the rise in the COP given that “unit labour cost rose 30-40%” → overall the price of exports will still rise and there will not be an improvement on the current account.

- (e) The data elaborates on the effects of fiscal austerity (Extract 8) on the eurozone. Discuss how such a measure will affect its standard of living. [6]

#### Introduction

- Material SOL is measured by the quantity of goods and services consumed by an individual while non-material SOL is measured by factors such as happiness, crime rates, socio-economic factors ie. life expectancy, infant mortality rates, quantity of leisure, etc
- Fiscal austerity refers to a fall in government expenditure and a rise in tax revenue in order to reverse the budget deficit situation in the country.
- While fiscal austerity can reduce material and non-material SOL in the short run, when the budget deficit is corrected, it can lead to an improvement in the SOL in the long run.

Fiscal austerity measures have negative effects on the country’s material SOL in the SR.

- Extract 8, Para 1 states that ‘fiscal austerity is accelerating the contraction, as higher taxes and lower government spending and transfer payments reduce disposable income and aggregate demand.’
- When a country adopts fiscal austerity measures, there will be a fall in G and higher personal and corporate income tax. The rise in personal income tax will cause a fall in disposable income and consumption (C). In addition, a rise in corporate tax will also decrease post-tax profits, so the level of investments will fall. When C and I fall, AD and NY fall. This triggers the reverse multiplier effect which causes a multiple fall in national income and employment. As the amount of goods and services produced in the economy falls, there is also less for consumption, hence material SOL falls in the short run.

Fiscal austerity measures can improve the country’s material SOL in the LR.

- The objective of the fiscal austerity measure is to reduce the government spending and increase the government tax revenue with the intention of reversing the government budget deficit and debt in the EU.
- In the LR, this reduction of debt will boost investors’ confidence in the EU and investors will start to increase their FDI into the region again. With an increase in FDI, AD and AS can rise again in the Eurozone, leading to an improvement in future SOL.

However, fiscal austerity can also cause non-material SOL to suffer in the short run.

- The austerity measures especially the rise in income taxes and the reduction in transfer payments (ie. Unemployment benefits) would have caused a high level of unhappiness in the economy especially. In addition, a fall in government expenditure on public projects could also cause a rise in unemployment rates, stress levels, unhappiness and crime rates can increase leading to a fall in non-material SOL.

#### Conclusion

The fiscal austerity measures will likely cause material and non-material SOL to fall in the short run. However, if the measures work to achieve its objective which is to reduce debt in the LR, material and non-material SOL can then increase.

Levels	Levels Descriptor
L3	<ul style="list-style-type: none"> <li>• Thorough explanation of the effects of the austerity measures in both the SR and LR.</li> <li>• Good reference to how austerity affects both material and non-material SOL.</li> <li>• Effective application of case material.</li> <li>• Insightful conclusion that rounds up the discussion.</li> </ul>
L2	<ul style="list-style-type: none"> <li>• Good explanation of austerity measures but lacking in reference to both the SR and LR.</li> <li>• Some discussion on material AND non-material SOL but with some gaps in analysis.</li> <li>• Inconsistent application of case material.</li> </ul>
L1	<ul style="list-style-type: none"> <li>• Weak understanding of austerity measures with limited explanation and many gaps in analysis and/or evaluation</li> <li>• Answers may contain conceptual errors.</li> <li>• Weak application of case material.</li> </ul>

- (f) Nicholas Sarkozy claimed that Germany prioritised 'jobs, jobs, jobs'. To what extent do you agree that 'jobs, jobs, jobs' should continue to be Germany's top priority in 2012? [8]

#### Introduction

- Prioritising 'jobs, jobs, jobs' refers to placing low unemployment as the top economic goal and where the government implements policies in order to achieve the goal.

#### Body

Thesis: Unemployment should continue to be Germany's top priority goal in 2012

Even though unemployment has been falling, Germany should continue to place emphasis on low unemployment as a high degree of unemployment brings about serious consequences

- In 2012, unemployment stands at 5.4% of the labour force. As the unemployment rate has been falling since 2009, which is a positive sign, it also suggests that Germany should continue to press on in terms of lowering unemployment to avoid the consequences of high unemployment.
- The problem of high unemployment → wastage of scarce resources and a loss of potential output → represented by a point inside the PPC → unemployed could have produced something of value for society but they cannot → Society is thus deprived of a higher output and standard of living.

Anti-Thesis: Germany should prioritize other economic goals besides unemployment in 2012

Considering the severity of the other economic problems and the economic conditions within the Germany economy, Germany should consider prioritizing reducing government debt and boosting economic growth as its top priority

- In 2012, the most severe economic problem in Germany is its government debt which stands at 56.9% of the GDP as per Table 2. In order to finance the deficit,

Germany will have to dig into their reserves or borrow from international authorities such as IMF which will cause them to incur interest.

- In addition, with such a high government debt, there will be opportunity cost in terms of being unable to utilise government funds to develop the economy further. The existence of a significant debt may also generate fears about the future stability of economy, which discourages potential investments.

In addition, the root cause of unemployment in Germany seems to be cyclical in nature rather than structural, hence Germany will have to wait until the recession is over for the unemployment to recover fully.

- Extract 7 states that ‘... it seems likely that there is a huge problem with several countries pursuing austerity simultaneously. One cannot switch the economy from domestic consumption to exports, if all your neighbours are trying to do the same.’ As Germany’s trading partners suffer a fall in economic growth due to the Eurozone crisis, this causes a fall in purchasing power and demand for Germany’s exports to fall → When (X-M) falls → AD falls → NY falls → since labour is a derived demand, employment also falls.
- Since the root cause of unemployment is largely due to cyclical fall in the demand for its exports, besides depreciating the Euro to increase the export competitiveness, it might have to wait for the crisis to be over before it can make a full recovery from the recession.
- Therefore, besides waiting for the economy to recover from the recession to witness a further fall in AD or to boost economic growth, there is little the German can do to reduce unemployment further, so it should not be a priority.

**Conclusion**

- High unemployment brings about consequences for a developed economy such as Germany and thus should be a cause for concern. However with more pressing issues, there might be a need to place other economic problems such as the high debt and slow growth as the top priority.

Levels	Levels Descriptor
<b>L3</b>	<ul style="list-style-type: none"> <li>• Explanation of both thesis and anti-thesis on why unemployment should and should not be the main priority goal in Germany.</li> <li>• Effective application of case material which shows understanding of economic issues such as high unemployment, debt and slow growth.</li> <li>• Insightful conclusion that rounds up the discussion.</li> </ul>
<b>L2</b>	<ul style="list-style-type: none"> <li>• Some discussion on the thesis and anti-thesis but with gaps in analysis.</li> <li>• Answers show weak understanding of economic issues such as high unemployment, debt and slow growth.</li> <li>• Weak application of case material.</li> </ul>
<b>L1</b>	<ul style="list-style-type: none"> <li>• One sided discussion on thesis OR anti-thesis.</li> <li>• Answers contain many gaps in analysis and/or conceptual errors.</li> <li>• Limited explanation which reflects weak understanding of economic issues.</li> <li>• Weak/no application of case material.</li> </ul>

- 3 (a) Using a production possibility curve diagram, explain the central problem that all economies face. [10]
- (b) Evaluate the view that a government should use indirect taxation to respond to the existence of a negative externality in its country. [15]

**PART A****INTRODN**

The central problem faced by all economies is the problem of scarcity. From this one central problem stems all the other economic problems.

**BODY**

The central problem faced by all economies is the same regardless of their level of development. It refers to the problem of scarcity which will always exist because there are more wants relative to the amount of resources available.

Scarcity arises because human wants are unlimited, but resources are limited and inadequate to meet all of society's wants.

Due to the problem of scarcity, factors of production must be utilised efficiently to produce the goods and services most desired by the society. Some wants might have to be given up to fulfil more urgent needs. Hence, because of scarcity, choices have to be made.

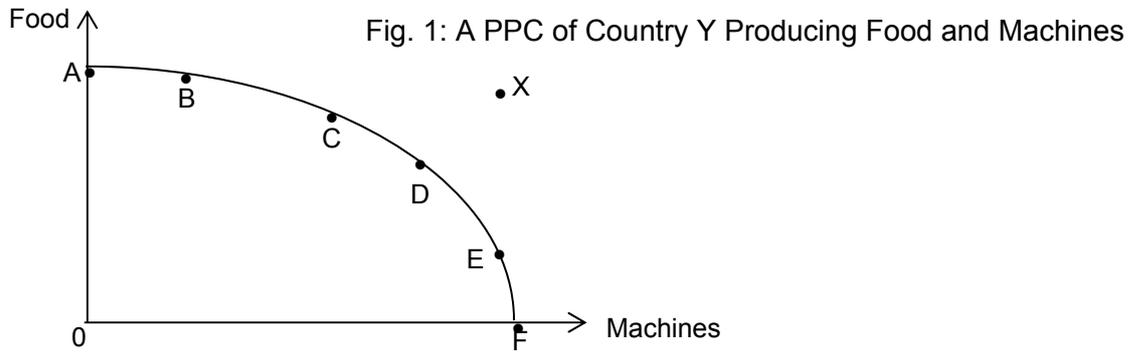
Choice is the act of selecting among alternatives and it involves sacrifices. For example, the more food a nation produces, the less resources there will be for producing other goods. People must be rational and weigh the benefits and costs carefully when making a choice. The three fundamental questions that an economy must resolve when making choices are:

- i. What and how much to produce: Since it is not possible to produce everything, there is a need to decide what and how much to produce.
- ii. How to produce: There is a need to get the maximum use out of the limited resources available. Therefore the need to consider what kind of machines to use, how much labour to deploy and how the factors of production should be combined to generate the maximum output.
- iii. For whom to produce: Differences in purchasing power will determine for whom the goods are produced.

In resolving the above questions, a choice is made which involves sacrifice. This sacrifice of alternatives in the production/ consumption of a good is known as its opportunity cost i.e. the next best alternative foregone which represents the real cost of the activity.

The concepts of scarcity, choice and opportunity cost can be illustrated graphically by using a production possibility curve (PPC). It shows all the possible combinations of two goods that a country can produce within a specified period of time with all its resources fully and efficiently employed and at a given state of technology.

Assume that Country Y can produce only 2 goods: machines and food, with its existing resources and employment and keeping the state of technology unchanged.



The central economic problem of scarcity is represented on the PPC by the unattainable combinations which lie outside of the PPC (Point X). X cannot be attained as there are not enough resources to produce the combination of goods. There is scarcity of resources.

The concept of choice is represented by movement along PPC. As many combinations of machines and food in the country can be produced, it is necessary to choose one of these combinations. For e.g. it can choose combination A which consists of all machines and no food or combination B which has both machines and food or other combinations on PPC.

The concept of opportunity cost is shown by the negative slope of PPC which is concave to the origin. If the country wishes to produce more machines, it must produce less food.

**CONCLUSION**

Thus, scarcity is the central problem faced by all economies and it leads to choice-making in resource allocation. For any choice made, an opportunity cost is incurred.

Level	Descriptors
L3	<ul style="list-style-type: none"> <li>• Good explanation of the central problem of scarcity using the PPC framework linking to resource allocation</li> <li>• Clear ranking of options in the explanation of opportunity cost</li> </ul>
L2	<ul style="list-style-type: none"> <li>• No PPC analysis, but good explanation of the 3 concepts and how they affect resource allocation</li> <li>• No PPC analysis but able to apply economic concepts to explain scarcity, choice &amp; opportunity cost but unable to link these 3 concepts to resource allocation</li> </ul>
L1	<ul style="list-style-type: none"> <li>• Shows some knowledge of what scarcity is but lacking economic application</li> <li>• Smattering of ideas, examples about scarcity, choice &amp; opportunity cost</li> </ul>

**PART B**

**INTRODN**

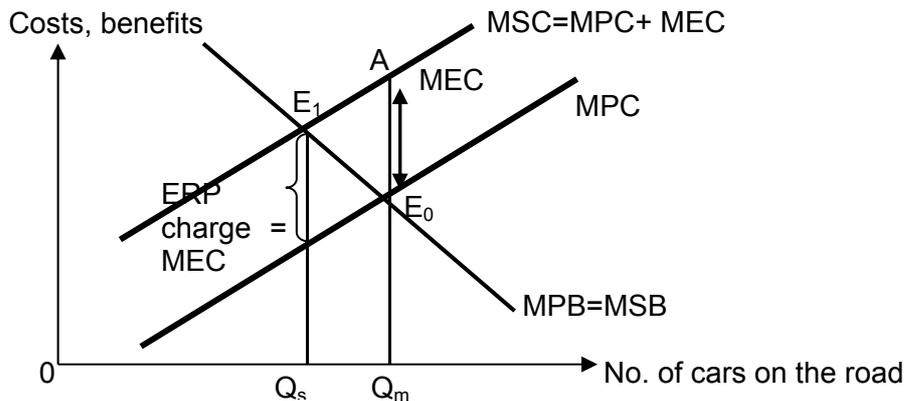
Define negative externality: Refers to the external cost imposed on third parties who are not directly involved in the production/ consumption of a good, and these third parties are not compensated for the harm inflicted on them.

Assume the negative externality arises from traffic congestion which results in market failure. The latter is undesirable because resource allocation concerning what, how much, how and for whom to produce using the price mechanism fails to achieve the socially optimal level of resource allocation. Hence society's welfare is not maximised, thus there is a need for the Singapore government to intervene.

**BODY**

Traffic congestion is a form of market failure as it signals that road usage has exceeded its socially optimal level.

- Traffic congestion generates noise and air pollution that reduces quality of living for residents (3<sup>rd</sup> parties) living near congested roads. They may face long term health problems which cause them to incur medical costs, which is an example of external cost.
- Due to presence of negative externalities, there is a divergence between MPC and MSC by the extent of MEC, hence true/ social cost is higher than private cost. In figure 1, MSC curve is derived by adding MEC to MPC.



- Assuming there is no external benefit, MPB therefore equals MSB. When left to the free market, motorists will use their cars to where MPB=MPC at point E<sub>0</sub> making 0Q<sub>m</sub> the market equilibrium quantity of car usage. But it is at 0Q<sub>s</sub>, the social optimum where MSC=MSB at point E<sub>1</sub>.
- Thus the free market through price mechanism will bring about a level of car usage 0Q<sub>m</sub> that is higher than 0Q<sub>s</sub>. There is overusage of cars/roads by Q<sub>s</sub>Q<sub>m</sub> leading to inefficient resource allocation. For each additional trip beyond Q<sub>s</sub> till Q<sub>m</sub>, the cost to society is more than the benefit as MSC is greater than MSB. By summing up the excess of MSC over MSB for additional road trips Q<sub>s</sub>Q<sub>m</sub>, a welfare loss to society of \$E<sub>1</sub>AE<sub>0</sub> results.

To address the problem of traffic congestion, a government can implement an indirect tax such as the Electronic Road Pricing Scheme to control car usage during peak hours. It is effective as it tackles the root cause of traffic congestion where there are too many cars on the roads given limited road space.

All vehicles are fitted with an electronic device which is triggered if it enters a congested area. Different rates will be charged at different times of the day based on the severity of the traffic congestion. Thus ERP rates reflect the external costs to society as a result of traffic congestion and are aimed at closing the gap between MPC and MSC.

**Evaluation of ERP**

- It is a fair market-based solution as the charges are based on usage so that whoever contributes more to congestion pay more according to the “polluter pays” principle.
- It is hard to estimate the level of external cost and hence, the ERP charges. Over/undercharging result in under/overutilisation of roads below/beyond socially optimal level.

The usefulness of an indirect tax like the ERP in tackling traffic congestion suggests that while it should be used, there is a need to complement it with other policies as there are limitations to its usage.

In Singapore for example, the government attempts to reduce congestion by limiting the number of cars that can be bought. New car owners need a COE to register his car. The number of COEs determines the number of cars on the roads. And this number depends on the annual rate of car growth and the number of vehicles deregistered in the previous period. The prices of COE will vary with demand and supply with the number of COE decided by Land Transport Authority (LTA). Rising demand will lead to a rise in the COE premium, *ceteris paribus*.

#### Evaluation of COE

- Without the COE scheme, the car population in Singapore would rise substantially. This scheme caps the number of vehicles to produce a socially optimal level of road usage and hence reduces congestion. But this would mean that the public transport system must be able to support the rise in commuters. If not, this would add burden to the public transport, resulting in another different set of problems such as congested buses and trains that might worsen society welfare.

In the long term, a government needs to ensure that its public transport system is efficient and serves as a viable alternative to driving cars. For example, in Singapore, improvements are made to the existing infrastructure by building a more efficient public transport system. Examples include The Circle Line.

#### Evaluation

- It is difficult to balance between providing quality public transport and keeping costs low and affordable for users. The cost burden of providing public transport (if government has to subsidise) will eventually fall on taxpayers. There could also be a strain on government's budget during lean years, eg. global recession in 2009. However, this could be less of a problem for a government like Singapore as it has been accumulating budget surpluses from previous years.

#### Conclusion

In dealing with traffic congestion, the Singapore government has implemented a package of policies, which includes indirect tax, to allow people to fulfil their aspirations to own a car and at the same time, increases the usage of public transport.

Level	Descriptors
L4	<ul style="list-style-type: none"> <li><u>Thorough explanation</u> of at least 3 policies, demonstrating excellent application with relevant <u>economic analysis</u> and evaluation of measures</li> <li>Make a judgement of the <u>relative</u> appropriateness of measures in terms of the more appropriate policies implemented</li> <li>Insightful conclusion</li> </ul>
L3	<ul style="list-style-type: none"> <li>Thorough explanation, application &amp; evaluation of at least 2 policies</li> <li>Make a judgement of the relative appropriateness of measures</li> </ul>
L2	<ul style="list-style-type: none"> <li>Some explanation of policies with evaluation</li> </ul>
L1	<ul style="list-style-type: none"> <li>Smattering of ideas. Describes policies, with limited evaluative comments</li> </ul>

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- 4 As a result of free trade agreements, the United States has and still is experiencing record breaking unemployment and a crippled manufacturing industry.
- (a) Explain the costs of free trade. [10]
- (b) Discuss whether the imposition of trade barriers by an economy is the most effective measure in helping domestic industries overcome external competition. [15]

Part A

Intro

Free trade occurs when governments do not discriminate against imports or interfere with exports by applying tariffs or quotas to imports or subsidies to exports.

There are several costs when countries engage in free trade. These include a fall in economic growth and worsening of the Balance of Payments (BOP) due to increased vulnerability to external shocks, structural unemployment due to loss of comparative advantage and imported inflation.

Body

With free trade, problems in one part of the world can spread like a contagion to other parts. For example, a recession in the US will result in a fall in income of consumers in the US. US consumers will not only consume fewer domestically produced goods, but also reduce their consumption of imported products. This results in a fall in net exports of the affected countries.

The fall in net exports will result in a fall in aggregate demand (AD). As seen in figure 1, the AD shifts to the left from  $AD_0$  to  $AD_1$  resulting in a surplus. Eventually, there will be a multiple fall in national output from  $Y_0$  to  $Y_1$ .

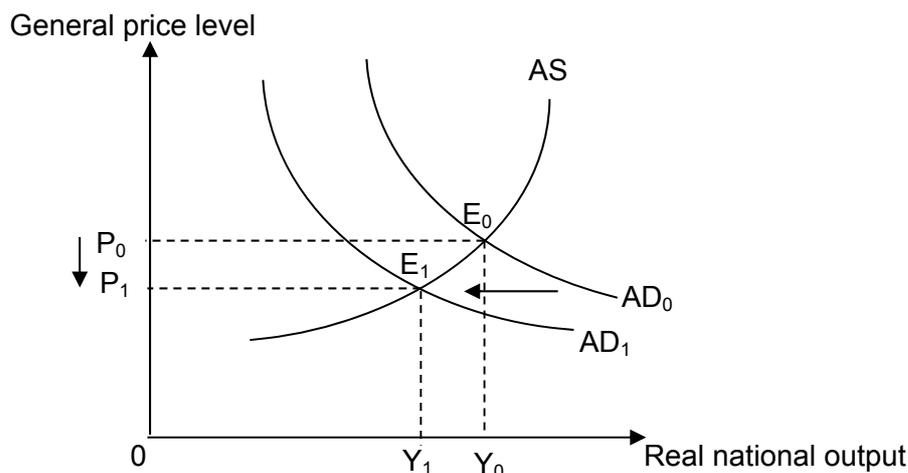


Figure 1

This increased exposure to external shocks due to free trade will therefore result in a fall in economic growth and worsening of the BOP.

Free trade results in countries specialising and producing goods and services which they have a comparative advantage (CA) in. Due to trade, developed countries such as Singapore might lose their CA in labour-intensive manufacturing to emerging economies such as China due to its abundance of labour resulting in a lower labour cost. Due to the presence of better technology and sound infrastructure, Singapore move up to higher value-added manufacturing (e.g. biomedical) which they have a CA in. Workers who lack the

necessary skills to work in such industries will be unemployed due to the mismatch of skills. This loss of CA can therefore result in structural unemployment.

Countries depend on one another for final goods and services as well as raw materials for production. The rise in general price level in a country could directly result in imported inflation in its trading partners as prices of imported final goods and services rise. With free trade, import-price-push inflation might occur due to supply shocks. The Middle Eastern crisis during the 1990s resulted in a fall in supply of crude oil which resulted in prices of imported crude oil to soar in oil importing countries such as Singapore. Being an essential input of production, the soaring oil prices will result in higher cost of production which in turn caused the prices of manufactured goods to rise. Hence, another cost of free trade is that it could bring about a rise in imported inflation.

#### Conclusion

In conclusion, free trade could have a negative impact on the internal (i.e. economic growth and inflation) and external (i.e. BOP) stability of an economy.

Level	Descriptors
L3	<ul style="list-style-type: none"> <li>• A detailed explanation of costs of free trade.</li> <li>• Appropriate use of real life examples to explain the problems faced by countries due to free trade.</li> </ul>
L2	<ul style="list-style-type: none"> <li>• Candidate is able to identify and explain the costs of free trade and how the greater vulnerability to external factors resulted in the costs of free trade.</li> <li>• However, some parts of the answer are underdeveloped.</li> </ul>
L1	<ul style="list-style-type: none"> <li>• Brief description of costs of free trade.</li> </ul>

- (b) Discuss whether the imposition of trade barriers by an economy is the most effective measure in helping domestic industries overcome external competition. [15]

#### Intro

The imposition of trade barriers such as tariffs and quotas on foreign goods and services serves to protect domestic industries from external competition brought about by free trade.

However, trade barriers might not be the most effective measure as they do not address the cause of the loss of a country's competitiveness. Hence, a government might want to explore other measures to efficiently and effectively help these domestic firms face such external competition.

#### Body

##### Thesis

With trade, domestic industries face competition from foreign industries. This is especially so when firms from the foreign industry are able produce the same goods at a much lower cost due to the comparative advantage (CA) that they enjoy.

The imposition of trade barriers is useful in protecting firms that are newly-established but have potential CA in the short run. Because they are still in infancy stage, these firms are usually small and hence they tend to produce at a higher average cost, due to inability to reap fully economies of large scale production. As a result, these firms are unable to compete with the larger and more established firms abroad and hence are forced to shut down. If such an industry is protected, it can eventually become big and efficient enough to

compete in the world market. In the long run, the protection will be removed when the domestic firms are able to compete internationally.

Import quotas limit the volume or supply of imports by specifying the maximum amount of a foreign-produced good that is permitted into the country over a specified period of time. This reduces the supply of the imported good into the country. As a result, the price of the imported good rises.

The rise in prices of the imported goods will make domestically produced goods, which are substitutes for the imported good, relatively cheaper. The demand for domestically produced goods will increase, leading to a rise in output, incomes and employment as well.

1. Although there are some merits to the infant industry argument explained above, it is actually difficult to identify new industries that have the potential to grow big, be competitive globally and contribute to the economy in the long run. Identifying the 'wrong' industries for protection may prove to be costly for the country as it leads to a long-term loss of consumer welfare and misallocation of resources.

Anti-Thesis (other better measures)

In order to protect domestic firms, the government might choose to depreciate its currency by selling its currency in the foreign exchange market. Depreciation will result in a rise in price of imports in domestic currency, making imports less price competitive than domestically produced goods.

1. Foreign countries may retaliate by depreciating their currencies to discourage the exports of the country that depreciated its currency. If so, the result is competitive depreciation that does not help the country overcome the external competition.

The government may implement supply-side policies by offering domestic firms subsidies so as to encourage them to send their workers for skills-upgrading or improve in their methods of production through research and development.

With high-skilled workers and better technology, there will be an improvement in productivity level resulting in a fall in cost of production which will increase the price competitiveness of the goods produced by the domestic industries. The quality of these domestically produced good might also improve, which would reduce external competition as imports are seen as weaker substitutes for the domestically produced goods.

1. The effectiveness of supply-side policies to reduce external competition is limited in the short run due to the problem of time lag. It takes time to persuade employers and workers of the need for skills upgrading and it takes time for workers to learn new skills. In view of this, the policy of skills training should be on-going to ensure that workers are constantly upgrading their skills to better fit into a rapidly changing economy.

Conclusion

Trade barriers serve as a form of protection for domestic industries when faced with external competition. However, due to its limitations and the possibility of retaliation from trading partners, such measures should be used only in the short run. Thus in order for the domestic industries to overcome external competition, there is a need for firms to constantly upgrade the skills of their workers and technology through supply-side policies.

Level	Descriptors
L4	<ul style="list-style-type: none"> <li>• Competent discussion of three measure is evident</li> </ul>

	<ul style="list-style-type: none"><li>• Good use of examples is evident</li><li>• Overall assessment of the three measures is evident in the conclusion or informed ranking of measures is evident in the essay</li></ul>
<b>L3</b>	<ul style="list-style-type: none"><li>• Good discussion of at least measures is evident</li><li>• Analysis is not consistently rigorous – At least one measure must be explained and evaluated in detail to be in this band</li><li>• Detailed explanation and evaluation for two measures but sketchy for the third</li></ul>
<b>L2</b>	<ul style="list-style-type: none"><li>• Some explanation of measures to help overcome external competition is evident</li><li>• Some conceptual errors are evident</li></ul>
<b>L1</b>	<ul style="list-style-type: none"><li>• Smattering of ideas, e.g. points on how measures work are mainly listed, rather than explained</li><li>• Descriptive answers</li></ul>



**SERANGOON JUNIOR COLLEGE**  
**JC2 Preliminary Examination**

**ECONOMICS**  
**Higher 2**

**9732/01**

PAPER 1

19 August 2014

**2 hours 15 minutes**

Additional Materials: Answer Paper

**READ THESE INSTRUCTIONS FIRST**

Write your name and civics group on all the work you hand in.  
Write in dark blue or black pen on both sides of the paper.  
You may use a soft pencil for any diagrams, graphs or rough working.  
Do not use staples, paper clips, highlighters, glue or correction fluid.

Answer **all** questions.

Start your answers to each case study question on a new sheet of writing paper. Fasten your answers to questions 1 and 2 separately.

The number of marks is given in brackets [ ] at the end of each question or part question.

You are reminded of the need for good English and clear presentation in your answers.

This document consists of **7** printed pages and **1** blank page.

Answer **all** questions.

**Question 1 Soaring Commodity Prices: A Cause for Nutritional ‘Inequity’?**

**Extract 1: Sugar prices defy rising supply surplus**

Sugar prices are defying mounting surpluses on the back of large crops in Brazil, Thailand and China, keeping the commodity stuck at a historically elevated range of 19–22 cents a pound.

The mood in the industry has remained cautious as it gathered in London for its biennial Sugar Week, due to the uncertainty over the effects of the Brazilian weather as well as the country’s biofuel policy, which in effect puts a floor under the market.

Apart from the weather, the so-called “ethanol parity” – the price level at which it becomes more profitable for Brazilian processors to turn their sugarcane into ethanol – is providing support.

The short term uncertainty comes amid a bullish long term backdrop, with demand for sugar in developing countries forecast to rise as their economies grow. McGraw-Hill’s price reporting agency Platts forecast world sugar consumption to grow by 32m tonnes by 2020, an increase of 2.2% a year.

Source: The Financial Times, <http://www.ft.com>, accessed 18 October 2012

**Table 1: Sugar production, kilo tonnes (for biofuels)**

	2008	2009	2010	2011	2012
Brazil	34318	40878	38127	35195	40300
China	13585	11650	11365	12520	14600
Thailand	7478	7131	10061	10670	9500

Source: OECD-FAO Agricultural Outlook 2013-2022

**Extract 2: Is this the end of the soft-drink era?**

Coca-Cola Co., PepsiCo Inc. and Dr Pepper Snapple Group Inc., the three biggest soda companies in the US, have struggled to reverse the decline in soda consumption in the US, where shoppers increasingly reach for water, coffee, and other drinks.

Now they have a bigger worry: soda revenue.

As US consumption steadily slipped over the past eight years, the beverage giants typically were able to raise prices enough to keep soda revenues from America’s favourite drink growing. But soda sales at US stores declined in the second half of last year – including during the holidays, when partygoers normally pay up to gulp more.

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“The question from here is if that is the new norm,” Steve Powers, a beverage analyst at Sanford C. Bernstein, said of the latest store sales numbers.

Soda companies raised prices aggressively in 2011 after commodity costs surged. Prices were increased a bit in late 2012, but volumes fell even more sharply.

Sugary bubbles have become a lightning rod in the US for consumer health concerns, such as diabetes and obesity.

Meanwhile, baby boomers are aging, and soda's traditional target market – youth – is often turning to water, energy drinks and coffee instead.

Coke, Pepsi, and Dr Pepper Snapple have all aggressively expanded their portfolios to include faster growing products like sports drinks and fruit juices. PepsiCo is also investing hundreds of millions of dollars in marketing to turn around its US soda business after losing market share to Coke. In 2010, Diet Coke unseated Pepsi as the No. 2 domestic soda by volume, behind Coca-Cola.

The soda companies also are working to develop zero- or low-calorie natural sweeteners that better mimic the taste of full-calorie sodas. But the going has been slow, keeping diet soda's share of the overall soda market at around 30%. One candidate, based on the stevia plant, can leave a bitter aftertaste in some sodas, particularly cola.

But such efforts have yet to turn soda's fortunes. Pepsi Next and Dr Pepper 10 each have less than a 1% market share and Coke's last big diet cola launch, Coke Zero, was in 2005. Some industry observers think soda companies haven't done enough on other fronts to win back drinkers.

"They're so focused on a sweetener event that they've neglected more traditional innovation like flavours and functions," said Mark Swartzberg, a beverage analyst at Stifel Nicolaus.

Source: The Wall Street Journal, <http://online.wsj.com>, accessed 13 January 2013

### **Extract 3: UK's food poverty revealed – nutrition falls as fruit and vegetable prices rise**

The UK's poorest households are being disproportionately hit by the impact of soaring food prices, according to new government figures that also show the consumption of every major nutrient has fallen in the last four years.

In order to cut costs since 2007, UK households have spent less on fresh produce but more on bacon.

The government's annual Family Food survey, which provides the most detailed annual snapshot of food and drink spending and consumption, found that weekly spending per person on all household food in 2011 was £27.99, an increase of 1.5% on the previous year. But because of price rises, that bought less food – 4.2% less in 2011 than in 2007.

The survey also showed how households saved 6.8% by "trading down" to cheaper – and in many cases, less healthy – products, hitting consumption of fresh fruit and vegetables.

The poorest have been hit hardest by price rises. One pound in every six of household expenditure for the poorest 20% went on food, compared with one in nine for all UK households. Among the poorest members of society, consumption of every major nutrient has fallen between 2007 and 2011. By contrast, among the richest tenth of the population, the intake of nine of the 20 nutrients has risen or stayed roughly the same.

The report finds further evidence for a "nutritional recession", with rising food prices and shrinking incomes driving up consumption of fatty foods and reducing the amount of fruit and vegetables we buy.

A Defra spokesperson said: "We take rising food prices very seriously and understand the pressure it puts on families' budgets. The government is helping the most vulnerable in society afford and have access to nutritious food."

"We give school pupils free fruit and vegetables, and help pregnant women and new mums on the lowest incomes buy essential foods. We are working to keep the global food market stable, helping families get their food at the best price."

But consumer groups said the government should be doing much more to help the most hard-pressed social groups eat more healthily. Malcolm Clark, coordinator of the Children's Food Campaign, said: "With nutrition trends continuing to go the wrong way, especially amongst lower income households, how much longer will the government rely on half-measures and a failing leave-it-to-industry approach?"

"We have little confidence that the latest pledges on increasing fruit and vegetable consumption will have much impact, especially whilst retailers and manufacturers continue to heavily promote junk food and sugary drinks."

Source: The Guardian, <http://www.theguardian.com>, accessed 13 December 2012

### Questions

- (a) Compare the change in production levels of sugar for the three countries in Table 1. [2]
- (b) Explain why 'sugar prices defy rising supply surplus' (Extract 1). [3]
- (c) In view of the market structure that the US soda companies are operating in, explain why there is a need for them to raise price in 2011. [4]
- (d) Using Extract 2, comment on one strategy that the soda companies use to increase market share. [3]
- (e) Using relevant elasticity of demand concepts, discuss the impact of rising food prices and shrinking incomes on expenditure on food items such as fresh produce and bacon. [8]
- (f) 'The government should be doing much more to help the most hard-pressed social groups eat more healthily.' As a consultant economist, discuss the various ways the government can adopt to achieve the microeconomic goals. [10]

**[Total: 30]**

**Question 2 Taking the Pulse of Eurozone****Extract 4: What Germany offers the world**

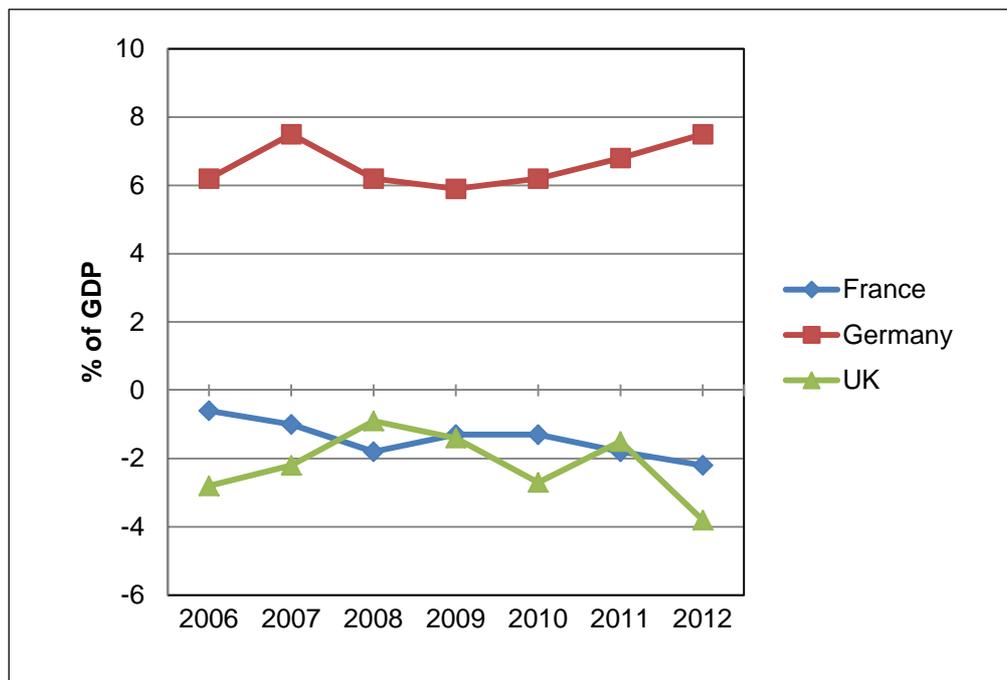
Beckhoff Automation, one of Germany's family owned businesses, is among thousands of "hidden champions" that account for much of Germany's prowess as a manufacturer and exporter. Its sales leapt 34% to €465m last year. It is aiming for €2 billion by 2020. Largely thanks to its Beckhoffs, Germany looks like a bright exception to the dispiriting rule among developed economies. True, its economy contracted more than those of most rich countries during the 2008-09 world recession, but the jobless rate rose by less than in all the others, peaking at 7.9%. And nobody talks about downgrading Germany's AAA credit rating; it can borrow money for practically nothing.

Not all the news is good. The economy shrank in the final quarter of 2011; and even if first quarter figures do not reveal Germany itself to be in recession, its economy will continue to suffer the drag of recession elsewhere in the euro area and a slowdown in developing countries. But just 1% growth is enough to create jobs, according to Bert Rürup, a former chairman of the government's council of economic "wise men". In a book written with a journalist, Dirk Heilmann, "Fat Years: Why Germany has a Brilliant Future", he giddily predicts that by 2030 Germany will become the world's richest large country in terms of income per head.

Such success brings a great deal of admiration. Spain's education minister is looking into Germany's "dual system" of vocational training, which combines classroom instruction with work experience. John Cridland, director of the Confederation of British Industry, wants Britain to have its own version of firms like Beckhoff. Nicolas Sarkozy began his campaign for re-election as France's president sounding as if he would gladly swallow the model whole. Germany prioritised "jobs, jobs, jobs," he said. "If it worked for them, why wouldn't it work for us?"

Source: *The Economist*, 14 April 2012

**Figure 1: Current account**



Source: OECD

**Table 2: Selected economic indicators of Germany**

	2009	2010	2011	2012
Annual % growth rate (at constant prices)	-5.1	4	3.3	0.7
Consumer prices inflation (annual %)	0.3	1.1	2.1	2.0
Unemployment (% labour force)	7.7	7.1	5.9	5.4
Government debt (% GDP)	47.6	55.5	55.1	56.9
Gross capital formation (% GDP)	16	17	18	17

Source: World Bank

**Extract 5: The eurozone crisis: growth problem**

Europe's politicians are often berated for an excessive focus on austerity. And it seems likely that there is a huge problem with several countries pursuing austerity simultaneously. One cannot switch the economy from domestic consumption to exports, if all your neighbours are trying to do the same. Canada's success in the 1990s occurred during the great boom of its biggest trading partner, the US.

This is what makes the debt crisis so difficult. The best way to eliminate a debt problem is to grow the economy rapidly but Europe seems to have lost the knack. And the demography is not encouraging because the workforce is likely to stagnate or shrink. Indeed, there was something perverse about taking on so much debt in the first place; debt requires confidence, on the part of the lender or the borrower and ideally both, that the borrower's income is going to grow. But Europeans piled up the debt even as the growth rate slowed, rather like a 64-year old going on a spending spree before retirement.

It may well be that European economies would perform better collectively if austerity programmes were relaxed. But it is a stretch to believe that Europe can return to the growth rates seen in the 1960s or even the 1970s. And those rates might be needed to make the debt problem go painlessly away.

Source: *The Economist*, 17 December 2012**Extract 6: Eurozone needs a growth strategy, not more austerity**

The recession on the eurozone's periphery is deepening and moving to the core, namely France and Germany. Indeed, the recession will worsen throughout this year, for many reasons. First, fiscal austerity is accelerating the contraction, as higher taxes and lower government spending and transfer payments reduce disposable income and aggregate demand. Moreover, as the recession deepens, resulting in even wider fiscal deficits, another round of austerity will be needed. And now, thanks to the fiscal compact, even the eurozone's core will be forced into recessionary austerity.

Moreover, while über-competitive Germany can withstand a strong euro, for the rest of the eurozone's periphery, where unit labour costs rose 30-40% during the last decade, the value of the exchange rate would have to fall to parity with the US dollar to restore competitiveness and external balance. After all, spending less and saving more to reduce debts depress domestic private and public demand and the only hope of restoring growth is an improvement in the trade balance, which requires a much weaker euro. Meanwhile, the credit crunch in the eurozone periphery is intensifying: thanks to the European Central Bank

(ECB) long-term cheap loans, banks there don't have a liquidity problem now, but they do have a massive capital shortage.

There are also signs of austerity and reform fatigue both in Spain and Italy, where demonstrations, strikes, and popular resentment against painful austerity are mounting with the rise in unemployment rates and a severe lack of jobs. The trouble is that the eurozone has an austerity strategy but no growth strategy. And, without that, all it has is a recession strategy that makes austerity and reform self-defeating, because, if output continues to contract, deficit and debt ratios will continue to rise to unsustainable levels. Moreover, the social and political backlash eventually will become overwhelming.

Structural reforms in areas such as education, innovation, competition and green growth is also essential but that which will eventually increase productivity growth can be recessionary in the short run. Increasing labour market flexibility by reducing the costs of shedding workers will lead to more layoffs in the public and private sector in the short run, exacerbating the fall in incomes and demand.

Without a much easier monetary policy and a less front-loaded mode of fiscal austerity, the euro will not weaken, external competitiveness will not be restored, and the recession will deepen. And, without resumption of growth – not years down the line, but in 2012 – the stock and flow imbalances will become even more unsustainable. More eurozone countries will be forced to restructure their debts, and eventually some will decide to exit the monetary union.

Source: *The Guardian*, 13 April 2012

### Questions

- (a) (i) Compare Germany's balance on current account with that of France's and Britain's over the period 2006 to 2012. [2]
- (ii) From Extract 4, explain one reason for the difference you observed. [2]
- (b) How far can Figure 1 be used to infer about Germany's current account contribution to its economic growth between 2009 and 2012? [4]
- (c) In view of rising labour cost, explain whether allowing the exchange rate 'to fall to parity with the US dollar will restore competitiveness and external balance'. [4]
- (d) The data elaborates on the effects of fiscal austerity (Extract 6) on the eurozone. Discuss how such a measure will affect its standard of living. [8]
- (e) Nicholas Sarkozy claimed that Germany prioritised 'jobs, jobs, jobs'. To what extent do you agree that 'jobs, jobs, jobs' should continue to be Germany's top priority in 2012? [10]

**[Total: 30]**

**End of Paper**

**Question 1 Soaring Commodity Prices: A Cause for Nutritional ‘Inequity’?****Extract 1: Sugar prices defy rising supply surplus**

Sugar prices are defying mounting surpluses on the back of large crops in Brazil, Thailand and China, keeping the commodity stuck at a historically elevated range of 19–22 cents a pound.

The mood in the industry has remained cautious as it gathered in London for its biennial Sugar Week, due to the uncertainty over the effects of the Brazilian weather as well as the country’s biofuel policy, which in effect puts a floor under the market.

Apart from the weather, the so-called “ethanol parity” – the price level at which it becomes more profitable for Brazilian processors to turn their sugarcane into ethanol – is providing support.

The short term uncertainty comes amid a bullish long term backdrop, with demand for sugar in developing countries forecast to rise as their economies grow. McGraw-Hill’s price reporting agency Platts forecast world sugar consumption to grow by 32m tonnes by 2020, an increase of 2.2% a year.

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Meanwhile, baby boomers are aging, and soda's traditional target market – youth – is often turning to water, energy drinks and coffee instead.

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But such efforts have yet to turn soda's fortunes. Pepsi Next and Dr Pepper 10 each have less than a 1% market share and Coke's last big diet cola launch, Coke Zero, was in 2005. Some industry observers think soda companies haven't done enough on other fronts to win back drinkers.

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Source: The Guardian, <http://www.theguardian.com>, accessed 13 December 2012

### Suggested Answers

(a) Compare the change in production levels of sugar for the three countries in Table 1. [2]

- Similarity: Production by all 3 countries rose.
- Difference: The rise in production by Thailand is the fastest (27%) followed by Brazil (17%) and lastly by China (7%).

(b) Explain why 'sugar prices defy rising supply surplus' (Extract 1). [3]

- Theoretically with rising supply surplus, prices in the free market should fall.
- However, according to the data, sugar prices remained "at a historically elevated range" as seen in Extract 1 despite this surplus. This supply surplus resulted from the "mounting surpluses on the back of large crops" whereby there is a rise in supply of sugar crops.
- This is likely due to the fact that there is a rise in demand which exceeds / offset the rise in supply.
- Any one DD determinant elaboration:
  - Case: 'more profitable for Brazilian processors to turn their sugarcane into ethanol' Ext 1 para 3.
    - Analysis: Higher profitability provided a greater incentive for producers to increase ethanol biofuel production → since sugar is a raw material in the production of ethanol → rise in derived demand for sugar → price of sugar rose

(c) In view of the market structure that the US soda companies are operating in, explain why there is a need for them to raise price in 2011. [4]

- Case: 'three biggest soda companies' suggests that this is an oligopoly market structure.
- Analysis:
  - Traditionally, price rigidity is observed in oligopoly due to mutual interdependence of few dominant firms.
  - Using the non-collusive theory of the kinked demand curve, the demand curve has a kink whereby the upper segment is price elastic, lower segment is price inelastic. Thus the MR curve has a vertical segment.
  - Due to mutual interdependence, no firms will follow if a firm raises prices so its quantity demanded will fall by more and total revenue falls therefore firms do not initiate price rises. Thus the rise in prices must be due to significant rise in MC.

(d) Using Extract 2, comment on one strategy that the soda companies use to increase market share. [3]

Increase market share means sales (can be value or volume) of a firm as proportion of the total industry sale rises. For simplicity, sale is taken to be revenue obtained by price multiply by quantity. Ceteris paribus, rise in TR means rise in market share.

'Expanded their portfolios' such as sports drinks and fruit juices
By entering into new drinks, the firm reaches out to a larger consumer base and cannibalise the juices producers' share. This $\uparrow$ Qty $\rightarrow$ TR of soda firms assuming price is the same. OR: Firms can enjoy economies of scope by spreading overhead costs of advertising and thus lower unit cost of production. They can then offer discount when DD is price elastic, Qd $\uparrow$ more than proportionately, thus TR $\uparrow$ .
Case: youths.....turning to energy drinks suggest that this strategy to <u>suite changing taste and preferences</u> will raise market share.
In addition, fruit juices are traditional sweet beverages with little innovation required and low financial risk of failure.

- (e) Using relevant elasticity of demand concepts, discuss the impact of rising food prices and shrinking incomes on expenditure on food items such as fresh produce and bacon. [8]

- The concepts of elasticity of demand can explain the impact of the above factors under ceteris paribus assumption.

PED	YED
Ext 3 para3 'weekly spending (£€\$) increase by 1.5%....because of price rises, that bought less food (Qty), thus DD is price inelastic because food is a necessity.	"Shrinking incomes driving up consumption of fatty foods & reducing the amount of fruit.." ⇒ fatty food is inferior while fruit is a normal good. Assume fruits and veg are normal luxury good.
A rise in price of food (trigger) will result in a less than proportionate fall in quantity demanded of food, ceteris paribus.	Fresh produce YED is positive and greater than 1 while bacon (fatty food) has a negative YED value. This is because the people do not see fresh produce as an essential while bacon is a necessity and it provides energy for survival.
Since the rise in spending from the rise in price is greater than the fall in spending from the reduced quantity demanded, TE rises.	When incomes fall (trigger), demand for fresh produce will fall more than proportionately, ceteris paribus and TE falls. On the other hand, demand for bacon will rise as incomes fall and thus TE rises.

- Evaluation/critique of Elasticity of Demand:
  - However in reality, more than one factor is changing hence the ceteris paribus assumption does not hold. The extract states that the combined effect is 'driving up consumption of fatty foods and reducing the amount of fruit and vegetables', thus the concepts have to be used together to explain the final impact.

L3	Thorough analysis of 2 elasticity concepts and well-developed discussion of any elasticity concept. Demonstrate clear understanding of use of ceteris paribus assumption.
L2	Thorough analysis of any 2 concepts. Sufficiently developed analysis of 2 concepts but with some evaluation of concepts. Thorough analysis and discussion of one elasticity concept for the lower band.
L1	Smattering of ideas due to merging the concepts without the use of ceteris paribus assumption.

(f) 'The government should be doing much more to help the most hard-pressed social groups eat more healthily.' As a consultant economist, discuss the various ways the government can adopt to achieve the microeconomic goals. [10]

- The government should manage both demand and supply of healthy food to address the root causes of underconsumption of healthy food (OR overconsumption of unhealthy food) amongst the poor namely rising food prices, falling incomes and aggressive promotions of junk food so as to achieve the goals of income equity and efficiency in allocation of scarce resources.
- Free food for the poor is equivalent to 100% subsidy. The government will give the subsidy to the food producers based on estimated quantity and type of free food required. This subsidy will provide an incentive to the producers as it lowers the cost of production and thus supply increases. In this instance, price for the target social groups will fall to zero and quantity demanded maximised. In the short term, such subsidies lower inequity as food costs is a rising proportion of a poor's income.

EV1: This method of subsidising only the poor is less taxing on government budget and effective if the root cause of underconsumption is due to unaffordable food prices. But nevertheless the rise in food prices means rising expenditure on subsidy and an opportunity cost will incur in terms of the next best alternative foregone which could be lower subsidy on education for the poor. Such form of subsidy is also a short term measure and does not address the long term problems of low income or continuous rise in food prices.

The government has to intervene in the promotion of junk food to address allocative inefficiency as consumers have imperfect information on the health costs of fatty food in causing diabetes and heart problems.

Regulation can be in the form of sin tax on fatty food and bans prohibiting advertising high-calorie food.

- The right amount of tax  $\rightarrow$   $\uparrow$  cost of production  $\rightarrow$  producers have less incentive and thus  $\downarrow$  supply  $\rightarrow$   $\uparrow$  price of junk food  $\rightarrow$   $\downarrow$  Qd of junk food  $\rightarrow$   $\uparrow$  DD of substitutes i.e. healthy food. Thus this addresses overconsumption of junk food and underconsumption of healthy food.

By carrying out campaigns targeted at lower-income families through community groups to educate the youth about the importance of healthy eating habits. If successful, the poor's taste and preference will switch from fatty food towards substitutes like fresh produce, thus an increase in demand for such healthier options.

- This helps to address the root cause of the imperfect knowledge of consumers as they may underestimate the true private benefit of healthy food which is intrinsically good for them and overvaluing junk food which is intrinsically harmful to health.
- However, to influence and shift consumers' tastes and preferences takes time as ingrained habits require quite some time to break. Hence this measure is only likely to be effective in the long run.

Conclusion

- Government has to use both demand and supply strategies to achieve income equity and allocative efficiency in terms of healthy eating.
- Even though government failure exists whereby bureaucracy results in slow decision making and higher costs, some form of intervention still yields a better outcome as resources allocation by the market does not take into consideration on equity.

L3	Thorough analysis and discussion of both DD and SS methods to increase health eating and meeting microeconomic goals of equity and efficiency. Sufficient use of case materials to support analysis and evaluation.
L2	Sufficient analysis of DD & SS methods with some evaluation. No analysis or discussion on equity. Thorough analysis of methods.
L1	Descriptive answer or smattering of ideas.

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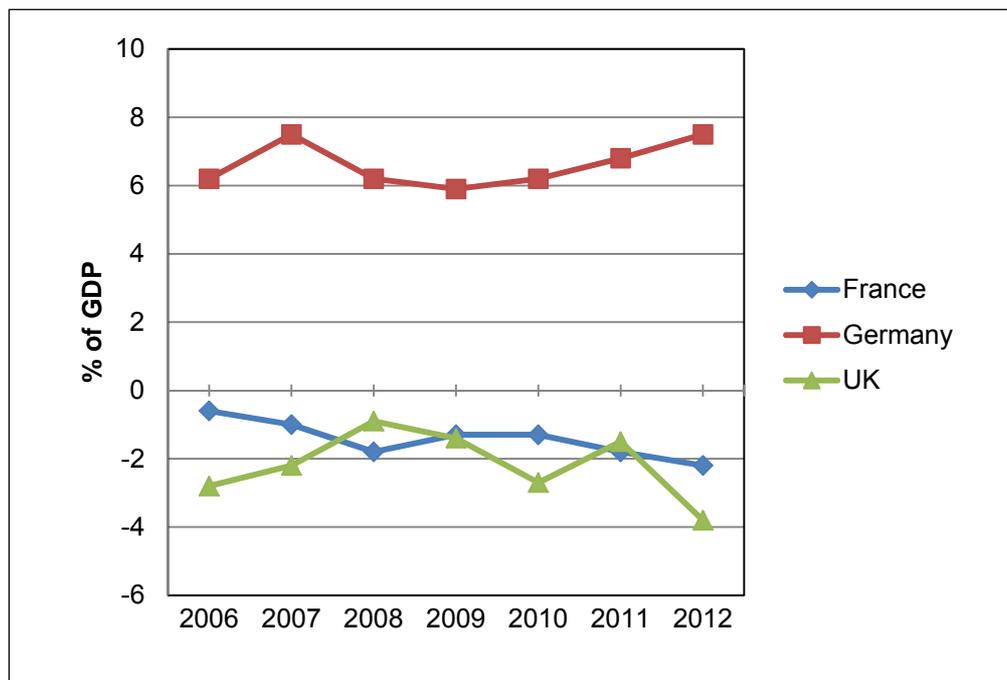
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Source: *The Economist*, 17 December 2012**Extract 6: Eurozone needs a growth strategy, not more austerity**

The recession on the eurozone's periphery is deepening and moving to the core, namely France and Germany. Indeed, the recession will worsen throughout this year, for many reasons. First, fiscal austerity is accelerating the contraction, as higher taxes and lower government spending and transfer payments reduce disposable income and aggregate demand. Moreover, as the recession deepens, resulting in even wider fiscal deficits, another round of austerity will be needed. And now, thanks to the fiscal compact, even the eurozone's core will be forced into recessionary austerity.

Moreover, while über-competitive Germany can withstand a strong euro, for the rest of the eurozone's periphery, where unit labour costs rose 30-40% during the last decade, the value of the exchange rate would have to fall to parity with the US dollar to restore competitiveness and external balance. After all, spending less and saving more to reduce debts depress domestic private and public demand and the only hope of restoring growth is an improvement in the trade balance, which requires a much weaker euro. Meanwhile, the credit crunch in the eurozone periphery is intensifying: thanks to the European Central Bank

(ECB) long-term cheap loans, banks there don't have a liquidity problem now, but they do have a massive capital shortage.

There are also signs of austerity and reform fatigue both in Spain and Italy, where demonstrations, strikes, and popular resentment against painful austerity are mounting with the rise in unemployment rates and a severe lack of jobs. The trouble is that the eurozone has an austerity strategy but no growth strategy. And, without that, all it has is a recession strategy that makes austerity and reform self-defeating, because, if output continues to contract, deficit and debt ratios will continue to rise to unsustainable levels. Moreover, the social and political backlash eventually will become overwhelming.

Structural reforms in areas such as education, innovation, competition and green growth is also essential but that which will eventually increase productivity growth can be recessionary in the short run. Increasing labour market flexibility by reducing the costs of shedding workers will lead to more layoffs in the public and private sector in the short run, exacerbating the fall in incomes and demand.

Without a much easier monetary policy and a less front-loaded mode of fiscal austerity, the euro will not weaken, external competitiveness will not be restored, and the recession will deepen. And, without resumption of growth – not years down the line, but in 2012 – the stock and flow imbalances will become even more unsustainable. More eurozone countries will be forced to restructure their debts, and eventually some will decide to exit the monetary union.

Source: *The Guardian*, 13 April 2012

### Suggested Answers

- (a) (i) Compare Germany's balance on current account with that of France's and Britain's over the period 2006 to 2012. [2]
- While Germany enjoyed a current account surplus over the period, France and Britain's current account was in deficit.
  - Germany's current account surplus (as a % of GDP) was rising while France and Britain's current account deficit (as a % of GDP) was also increasing.
- (ii) From Extract 4, explain one reason for the difference you observed. [2]
- Structural factor – Extract 4, para 3 states that Germany's has a "dual system" of vocational training, which combines classroom instruction with work experience (Extract 6, Para 3).
  - This suggests that Germany has a comparative advantage in the production of high-tech value added goods due to their unique education system in Europe which leads to higher productivity, lower unit cost of production and causes exports to be more competitive. Net exports increases, which accounts for Germany's rising current account surplus.
  - On the other hand, without such an infrastructure in France and Britain as stated in Extract 4, Para 3 "... wants Britain to have its own version of firms like Beckoff", their exports might have loss competitiveness, which accounts for the rise in current account deficit.

(b) How far can Figure 1 be used to infer about Germany's current account contribution to its economic growth between 2009 and 2012? [4]

- Germany's economic growth rose rapidly from 2009 to 2010 before slowing down till 2012 → real GDP was rising but at a slower rate.
- As Germany's current account surplus (as a % of GDP) continued to increase over the period. It contributed to the rise in real GDP as (X-M) rise → national output rises, leading to the rise in real GDP. Hence current account contributed largely to the economic growth.
- However, there are other factors contributing to economic growth besides (X-M) such as C, I and G which are not shown in Fig 1. Hence while (X-M) continued to rise at a constant rate, if C, I and G fell, it might result in a smaller increase in GDP → as explained by the fall in rate of economic growth shown in Table 2.

(c) In view of rising labour cost, explain whether allowing the exchange rate 'to fall to parity with the US dollar will restore competitiveness and external balance'. [4]

- Allowing the Euro 'to fall to parity with the US dollar' suggest a depreciation of the exchange rate.
- This is necessary because Extract 6, para 2 suggests that "unit labour costs rose 30-40%". This raises cost of production due to wage cost push inflation → AS ↓ in the short run → firms will pass on the rising cost to consumers in the form of higher domestic and export prices → ↑ Px.
- As export prices increases, Euro's exports might lose competitiveness → Assume  $PED_x > 1$  → more than proportionate fall in quantity demanded for exports → ↓ TRx. Assume imports are relatively cheaper → DD for imports rises → TEM ↑ → (X-M) ↓ → Worsening current account upsets the external current account balance the Eurozone.
- However, allowing the Euro "to fall to parity with the US dollar will restore competitiveness and external balance" if the fall in value of the Euro is greater than the rise in COP → help to offset the rise in COP leading to an overall ↓ Px in foreign currency. On the other hand, Pm ↑ in domestic currency. Assume ML condition holds, where sum of  $PED_x$  and  $PED_m$  is more than 1, (X-M) ↑ and this restores the external balance in the Eurozone.

#### Evaluation

- However, if there was only a weak depreciation which is insufficient to offset the rise in the COP given that "unit labour cost rose 30-40%" → overall the price of exports will still rise and there will not be an improvement on the current account.

(d) The data elaborates on the effects of fiscal austerity (Extract 6) on the eurozone. Discuss how such a measure will affect its standard of living. [8]

#### Introduction

- Material SOL is measured by the quantity of goods and services consumed by an individual while non-material SOL is measured by factors such as happiness, crime rates, socio-economic factors ie. life expectancy, infant mortality rates, quantity of leisure, etc
- Fiscal austerity refers to a fall in government expenditure and a rise in tax revenue in order to reverse the budget deficit situation in the country.
- While fiscal austerity can reduce material and non-material SOL in the short run, when the budget deficit is corrected, it can lead to an improvement in the SOL in the long run.

Fiscal austerity measures have negative effects on the country's material SOL in the SR

- Extract 6, Para 1 states that 'fiscal austerity is accelerating the contraction, as higher taxes and lower government spending and transfer payments reduce disposable income and aggregate demand.'
- When a country adopts fiscal austerity measures, there will be a fall in G and higher personal and corporate income tax. The rise in personal income tax will cause a fall in disposable income and consumption (C). In addition, a rise in corporate tax will also decrease post-tax profits, so the level of investments will fall. When C and I fall, AD and NY fall. This triggers the reverse multiplier effect which causes a multiple fall in national income and employment. As the amount of goods and services produced in the economy falls, there is also less for consumption, hence material SOL falls in the short run.

Fiscal austerity measures can improve the country's material SOL in the LR

- The objective of the fiscal austerity measure is to reduce the government spending and increase the government tax revenue with the intention of reversing the government budget deficit and debt in the EU.
- In the LR, this reduction of debt will boost investors' confidence in the EU and investors will start to increase their FDI into the region again. With an increase in FDI, AD and AS can rise again in the Eurozone, leading to an improvement in future SOL.

However, fiscal austerity can also cause non-material SOL to suffer in the SR.

- The austerity measures especially the rise in income taxes and the reduction in transfer payments (ie. Unemployment benefits) would have caused a high level of unhappiness in the economy especially. In addition, a fall in government expenditure on public projects could also cause a rise in unemployment rates, stress levels, unhappiness and crime rates can increase leading to a fall in non-material SOL.

Conclusion

The fiscal austerity measures will likely cause material and non-material SOL to fall in the short run. However, if the measures work to achieve its objective which is to reduce debt in the LR, material and non-material SOL can then increase.

Levels	Levels Descriptor
<b>L3</b>	<ul style="list-style-type: none"> <li>• Thorough explanation of the effects of the austerity measures in both the SR and LR.</li> <li>• Good reference to how austerity affects both material and non-material SOL.</li> <li>• Effective application of case material.</li> <li>• Insightful conclusion that rounds up the discussion.</li> </ul>
<b>L2</b>	<ul style="list-style-type: none"> <li>• Good explanation of austerity measures but lacking in reference to both the SR and LR.</li> <li>• Some discussion on material AND non-material SOL but with some gaps in analysis.</li> <li>• Inconsistent application of case material.</li> </ul>
<b>L1</b>	<ul style="list-style-type: none"> <li>• Weak understanding of austerity measures with limited explanation and many gaps in analysis and/or evaluation</li> <li>• Answers may contain conceptual errors.</li> <li>• Weak application of case material.</li> </ul>

- (e) Nicholas Sarkozy claimed that Germany prioritised 'jobs, jobs, jobs'. To what extent do you agree that 'jobs, jobs, jobs' should continue to be Germany's top priority in 2012? [10]

#### Introduction

- Prioritising 'jobs, jobs, jobs' refers to placing low unemployment as the top economic goal and where the government implements policies in order to achieve the goal.

#### Body

Thesis: Unemployment should continue to be Germany's top priority goal in 2012

Even though unemployment has been falling, Germany should continue to place emphasis on low unemployment as a high degree of unemployment brings about serious consequences

- In 2012, unemployment stands at 5.4% (Table 2) of the labour force. As the unemployment rate has been falling since 2009, which is a positive sign, it also suggests that Germany should continue to press on in terms of lowering unemployment to avoid the consequences of high unemployment.
- The problem of high unemployment → wastage of scarce resources and a loss of potential output → represented by a point inside the PPC → unemployed could have produced something of value for society but they cannot → Society is thus deprived of a higher output and standard of living.

Anti-Thesis: Germany should prioritize other economic goals besides unemployment in 2012

Considering the severity of the other economic problems and the economic conditions within the Germany economy, Germany should consider prioritizing reducing government debt and boosting economic growth as its top priority

- In 2012, the most severe economic problem in Germany is its government debt which stands at 56.9% of the GDP as per Table 2. In order to finance the deficit, Germany will have to dig into their reserves or borrow from international authorities such as IMF which will cause them to incur interest.
- In addition, with such a high government debt, there will be opportunity cost in terms of being unable to utilise government funds to develop the economy further. The existence of a significant debt may also generate fears about the future stability of economy, which discourages potential investments.

In addition, the root cause of unemployment in Germany seems to be cyclical in nature rather than structural, hence Germany will have to wait until the recession is over for the unemployment to recover fully

- Extract 5 states that '... it seems likely that there is a huge problem with several countries pursuing austerity simultaneously. One cannot switch the economy from domestic consumption to exports, if all your neighbours are trying to do the same.' As Germany's trading partners suffer a fall in economic growth due to the Eurozone crisis, this causes a fall in purchasing power and demand for Germany's exports to fall → When (X-M) falls → AD falls → NY falls → since labour is a derived demand, employment also falls.
- Since the root cause of unemployment is largely due to cyclical fall in the demand for its exports, besides depreciating the Euro to increase the export

competitiveness, it might have to wait for the crisis to be over before it can make a full recovery from the recession.

- In addition, Extract 4 suggest that reforms have been made in the labour force of Germany with the 'dual system of vocational training', so this will reduce the occurrence of structural unemployment which could reflect fundamental weaknesses in the economy.
- Therefore, besides waiting for the economy to recover from the recession to witness a further fall in AD or to boost economic growth, there is little the German can do to reduce unemployment further, so it should not be a priority.

**Conclusion**

- High unemployment brings about consequences for a developed economy such as Germany and thus should be a cause for concern. However with more pressing issues, there might be a need to place other economic problems such as the high debt and slow growth as the top priority.

<b>Levels</b>	<b>Levels Descriptor</b>
<b>L3</b>	<ul style="list-style-type: none"> <li>• Explanation of both thesis and anti-thesis on why unemployment should and should not be the main priority goal in Germany.</li> <li>• Effective application of case material which shows understanding of economic issues such as high unemployment, debt and slow growth.</li> <li>• Insightful conclusion that rounds up the discussion.</li> </ul>
<b>L2</b>	<ul style="list-style-type: none"> <li>• Some discussion on the thesis and anti-thesis but with gaps in analysis.</li> <li>• Answers show weak understanding of economic issues such as high unemployment, debt and slow growth.</li> <li>• Weak application of case material.</li> </ul>
<b>L1</b>	<ul style="list-style-type: none"> <li>• One sided discussion on thesis OR anti-thesis.</li> <li>• Answers contain many gaps in analysis and/or conceptual errors.</li> <li>• Limited explanation which reflects weak understanding of economic issues.</li> <li>• Weak/no application of case material.</li> </ul>



**SERANGOON JUNIOR COLLEGE**  
**JC2 Preliminary Examination**

**ECONOMICS**  
**Higher 2**

**9732/02**

PAPER 2

25 August 2014

**2 hours 15 minutes**

Additional Materials:      Answer Paper

**READ THESE INSTRUCTIONS FIRST**

Write your name and civics group on all the work you hand in.  
Write in dark blue or black pen on both sides of the paper.  
You may use a soft pencil for any diagrams, graphs or rough working.  
Do not use staples, paper clips, highlighters, glue or correction fluid.

Answer **three** questions in total, of which **one** must be from Section A, **one** from Section B and **one** from **either** Section A or Section B.

Start your answers to each essay question on a new sheet of writing paper. Fasten your answers to each section separately.

The number of marks is given in brackets [ ] at the end of each question or part question.

You are reminded of the need for good English and clear presentation in your answers.

This document consists of **3** printed pages and **1** blank page.

Answer **three** questions in total.

**Section A**

**One or two** of your three chosen questions must be from this section.

- 1** As the Singapore economy was just emerging from the recession, the Ministry of Manpower (MOM) announced that foreign worker levy rates will be gradually increased from 2012 to 2013.

Discuss how the rise in foreign worker levy rates and the emergence from recession will impact the various markets for goods and services in Singapore. [25]

- 2 (a)** Explain how the marginalist principle is applicable to the behaviour of a firm. [8]

**(b)** The key strategy for firms to protect their profits in the short run and long run in the real world is through lowering prices to keep potential rivals from entering the industry. Comment. [17]

- 3 (a)** Using a cost-benefit approach in the context of externalities, explain why the free market may not function efficiently. [10]

**(b)** Discuss whether the Singapore government should prioritise the above problem over other sources of market failure. [15]

**Section B**

**One or two** of your three chosen questions must be from this section.

- 4** Singapore's labour productivity growth averaged about 1% per annum, a rate on par with that of other developed countries. Productivity gains have declined in recent years due to heavier reliance on labour inputs, especially inputs of foreign manpower.

Source: ESC Subcommittee Report on Fostering Inclusive Growth

- (a) Explain how the Singapore government can increase labour productivity in the economy. [8]
- (b) Discuss whether improving labour productivity is the most appropriate measure to improve the economic performance in Singapore. [17]

- 5** China's growth slows to 7.6%, the slowest in three years.

Source: *The Straits Times*, 14 July 2012

To what extent does the slower economic growth in China affect the economies of Singapore and the USA? [25]

- 6** (a) Using the principle of comparative advantage and real-world examples, explain why you would support free trade. [10]
- (b) 'The main concern of globalisation is that it brings about cyclical fluctuations to an economy's circular flow of income.' Discuss. [15]

**End of Paper**

2014 SRJC Preliminary Examinations – H2 Economics (9732/02)  
Paper 2 Suggested Answers & Examiners' Comments

- 1 As the Singapore economy was just emerging from the recession, the Ministry of Manpower (MOM) announced that foreign worker levy rates will be gradually increased from 2012 to 2013.

Discuss how the rise in foreign worker levy rates and the emergence from recession will impact the various markets for goods and services in Singapore. [25]

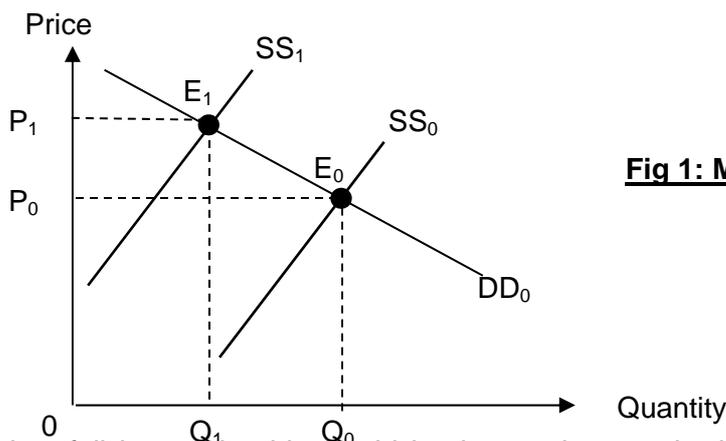
**Suggested Answer Outline**

**Introduction**

- Briefly state that impact on the free market requires the analysis of how different factors will affect equilibrium price and quantity which are determined by the interaction of demand and supply forces.  
This essay aims to explain how the 2 factors of a rise in foreign worker levy rates and emergence from recession will affect supply and demand of various markets respectively.

**Body**

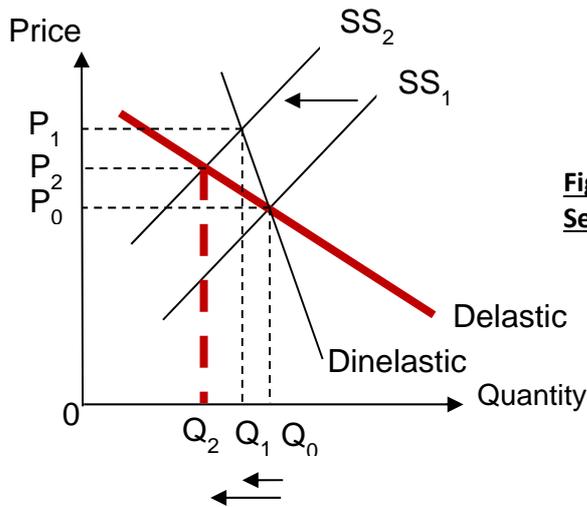
Labour is an important factor of production in the market for F&B service, which is labour intensive and relies heavily on foreign workers to act as service staff. With a rise in foreign worker levy, there will be a rise in cost of production, and a fall in profits. Profit-maximising producers are less willing and able to supply F&B services that will in turn result in a fall in supply. This is represented in Figure 1 by a fall in supply shown by the leftward shift of the supply curve from  $SS_0$  to  $SS_1$ .



**Fig 1: Market for F&B Services**

With a fall in supply, this would lead to a shortage in the free market, hence consumers would bid up prices and place upward pressure on prices on F&B services, such as higher restaurant food prices. As price rises, quantity demanded falls while quantity supplied rises. Price in the free market keeps on rising until shortage is eliminated and there will be a fall in equilibrium quantity from  $Q_0$  to  $Q_1$ .

The impact on markets for goods and services whereby demand is more price inelastic will see a more significant rise in equilibrium prices as compared to other markets as producers will be able to pass on a larger increase in the cost of production to the consumers since they have less substitutes to turn to.



**Figure 2: Market for Cleaning Services**

For e.g. Cleaning services, an industry that depends heavily on foreign workers will be greatly affected by the rise in foreign workers levy. Since such services is a necessity for businesses (ie. Office cleaning, HDB blocks cleaning) DD is more price inelastic (D inelastic) as compared to cleaning services for households which can be substituted by home cleaning (D elastic). Hence when there is a rise in cost of production due to the increase in foreign workers levy, producers can pass on a larger proportion of the cost increase to businesses as compared to household, causing a larger increase in price for cleaning services to businesses from  $P_0$  to  $P_1$  and smaller fall in quantity from  $Q_0$  to  $Q_1$ , as compared to households where there is a smaller rise in price of cleaning services  $P_0$  to  $P_2$  and larger fall in quantity from  $Q_0$  to  $Q_2$ .

The extent of a rise in prices depends on how much supply will fall with the rise in foreign workers levy. This in turn depends on the reliance of various markets on foreign labour. For goods and services, which are heavily reliant on unskilled foreign labour, especially labour intensive industries (ie. Service sector, cleaning services, construction sector), where a huge proportion of cost goes into the labour cost and in particular, foreign labour cost because few Singaporeans today are keen to go into the service sectors due to the long hours, will be largely affected by the rise in foreign workers levy. Compared to industries which are dependent on more skilled labour or capital intensive industries (ie. Banking services), the rise in foreign workers levy will affect these industries to a smaller extent.

With the recovery from recession, economic growth will start picking up and national income will rise for the Singapore economy. As such, consumers' purchasing power will increase demand for goods and services which varies directly with income i.e. normal goods and services will rise, ceteris paribus. Demand for normal-luxury goods like sports cars will rise. As a result, equilibrium price will rise and equilibrium quantity will also rise.

Car models with larger engines are likely to be normal-necessity like Honda Civic while luxury cars like Ferrari and Maserati will be deemed as normal-luxury goods. With a rise in income, demand for both categories of cars will rise but cars which are in the category of normal-luxury goods will see a more than proportionate increase in demand, ceteris paribus while for normal necessities, there will only be a less than proportionate increase in demand.

This is due to the fact with rising incomes, consumers are more inclined to go for better quality and more prestigious goods and services especially as a symbol of social status with rising affluence, hence affecting the equilibrium price and quantity accordingly.

For markets which are dependent on foreign workers and deemed as normal -luxury such as hotel services, the rise in demand might outweigh the fall in supply.

With the rising affluence, families in Singapore are more willing to spend on hotel stays and staycation, which are deemed as normal-luxury goods, so demand for staycations and hotel services rises more than proportionately.

On the other hand, hotels being a service-oriented industry, is also heavily dependent on foreign workers. So when foreign workers levy rises, there will be a rise in the cost of production, so supply will fall.

While labour cost contributes significantly to the cost of production in the hotel industries, there are other FOPs such as electricity bills, land rental cost, food cost. In addition, due to the strong taste and preference for hotel stays due to the rising popularity of staycations, there is likely to be a larger increase in DD and smaller fall in SS for hotel services. With these changes in the market, equilibrium price will definitely rise and equilibrium quantity will still rise.

On hindsight, for markets whereby the reliance on foreign labour is high and income elasticity is positive but less than one (normal necessity), the fall in supply is likely to be greater than the rise in demand, so equilibrium price will rise while quantity will fall.

### **Conclusion**

The changes in demand and supply that will affect various markets in Singapore depends on how nimble the producers are in the industry to predict likely changes in the market and hence make plans to invest in areas like training of workers or development of new products to offset unfavourable changes brought about by higher foreign levies or capitalise on opportunities like rising incomes when the Singapore grows.

### **Level Marking Scheme**

<b>Level</b>	<b>Descriptor</b>
4	<ul style="list-style-type: none"> <li>• Detailed explanation of demand and supply changes affecting at least 2-3 different markets</li> <li>• Well-explained diagrams which are supported by clear explanations</li> <li>• Clearly explained price adjustment process</li> <li>• Accurate applications of at least 2 elasticity concepts (e.g. YED and PED/PES concepts)</li> <li>• Evaluative comments which are clearly justified e.g. long run and short run considerations</li> <li>• Sound and insightful conclusion with personal opinion</li> </ul>
3	<ul style="list-style-type: none"> <li>• Sufficient explanation of demand and supply changes affecting at least 2 different markets</li> <li>• Well-explained diagrams which are supported by clear explanations</li> <li>• Clearly explained price adjustment process</li> <li>• Sufficient applications of at least 2 elasticity concepts (e.g. YED and PED/PES concepts)</li> <li>• Some evaluative comments though may not be sufficiently explained</li> </ul>

	<ul style="list-style-type: none"> <li>• Some conclusion</li> </ul>
2	<ul style="list-style-type: none"> <li>• Sufficient explanation of demand and supply changes affecting at least 2 different markets</li> <li>• Diagrams which may not be consistently explained</li> <li>• Some explanation of price adjustment process</li> <li>• Sufficient applications of at least 1 elasticity concept</li> <li>• Some reference to correct endpoint on equilibrium price and quantity but may not be always focused</li> <li>• Lacking evaluation and conclusion</li> </ul>
1	<ul style="list-style-type: none"> <li>• Some explanation of demand and supply changes</li> <li>• Diagrams but no clear explanation</li> <li>• Some explanation of price adjustment process</li> <li>• Did not focus on correct endpoint on equilibrium price and quantity</li> <li>• Inaccurate applications of elasticities concepts</li> <li>• No evaluation and conclusion</li> </ul>

- 2 (a) Explain how the marginalist principle is applicable to the behaviour of a firm. [8]
- (b) The key strategy for firms to protect their profits in the short run and long run in the real world is through lowering prices to keep potential rivals from entering the industry. Comment. [17]

**Suggested Answers:**

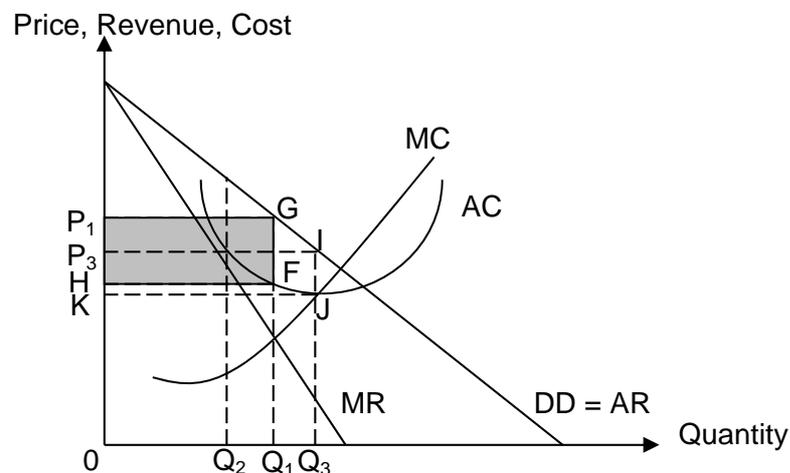
**Part (a)**

**INTRODUCTION**

The behaviour of a firm pertains to price and output determination and the manner of competition. Pricing and output decisions differ given different objectives of a firm and different levels of barriers to entry. Firms decide on price and output levels, given the cost and revenue curves facing the firms.

When a firm maximises its profits, this means that it aims to earn the highest possible level of total profits. To determine the profit-maximising output level, the firm will produce up to the level where the revenue earned from the last unit sold, i.e. marginal revenue (MR), is equal to the additional cost of producing it, i.e. marginal cost (MC). This is the marginalist principle.

**BODY**



**Profit maximisation**

- At  $0Q_2$ , since  $MR > MC$ , the addition to TR earned from the last unit of output sold  $>$  the additional cost incurred in producing it. Thus, the firm can in fact increase its total profits if it increases the production level. Hence, at the current level of output where  $MR > MC$ , profits is not maximised.
- This also means that  $0P_2$  is not the profit-maximising price.
- At  $0Q_3$ , since  $MR < MC$ , this means that the sale of the last unit of output adds less to TR than the additional cost incurred in producing it. Thus, the last unit of output produced results in a fall in total profits. Hence, the firm should reduce its output. This also means that  $P_3$  will not be charged by the firm if it wants to maximise profits.
- At price of  $0P_1$  and output level of  $0Q_1$ , the firm's profits are maximised as shown by area  $P_1GFH$ .

- In this case, the firm would not want to lower its price, e.g. to  $OP_3$ . This is because its profits would be the area  $P_3JK$ , which is smaller than  $P_1GFH$ .

**CONCLUSION**

Therefore, a firm maximises its profits when its MC is equal to its MR and where MC is rising. The output and pricing decisions made by the firm would have an impact on the attainment of this objective.

Level	Descriptors
3	<ul style="list-style-type: none"> <li>• Thorough analysis that is well-supported by a correct diagram                             <ul style="list-style-type: none"> <li>▪ Well labelled diagram referred to competently in explanation.</li> <li>▪ Well-developed answer with examples.</li> <li>▪ Commented also on the rising portion of MC as a necessary condition.</li> </ul> </li> </ul>
2	<ul style="list-style-type: none"> <li>• Some explanation of the profit-maximising objective is evident</li> <li>• Explanation is not complete, e.g. incomplete diagram and/or incomplete steps that do not suggest a comprehensive explanation of the profit-maximising objective</li> <li>• Define MR and MC and understand the <math>MR = MC</math> principle in profit maximizing.</li> <li>• Explain <math>MC &lt; MR</math> and <math>MC &gt; MR</math> implications on level of profits by adjusting output.</li> <li>• Diagram attempted and referred to</li> </ul>
1	<ul style="list-style-type: none"> <li>• Smattering answers with little economic analysis and/or glaring conceptual error</li> </ul>

- (b) The key strategy for firms to protect their profits in the short run and long run in the real world is through lowering prices to keep potential rivals from entering the industry. Comment. [17]

**INTRODUCTION**

Lowering prices can be a type of barriers to entry. Barriers to entry are obstacles that prevent new rival firms from entering the industry and eroding the incumbent firm's profits. They may be either natural or created. They form the basis of monopoly power. The barriers can be classified as economic and institutional barriers.

It can be argued that firms can deter the entry of new firms through strategies such as anti-competitive pricing, specifically limit pricing or predatory pricing. On the other hand, firms can protect their short run and long run profits using non-pricing strategies.

**BODY**

**THESIS**

Predatory or limit pricing involves lowering prices by the incumbent firm to below its short-run profit-maximising price, i.e.  $P < AC$ . This would lead to the sacrificing of some short-term profits for the incumbent firm. But, limit pricing will dissuade potential new firms from entering the market as they will operate at a loss. But, this is only in the short run when the firm's profit is not protected. As long as its TR is at least able to cover all its total variable cost (TVC), the firm will continue production in the short run.

However, when potential new firms are kept out of the market, the incumbent firm will raise the price. Assuming there is no price war between the incumbent and the new firms, the incumbent firm will be able to protect its profits in the long run.

**ANTI-THESIS**

Non-pricing strategies can include advertising. The major aim of advertising is to sell the product. This can be achieved not only by informing the consumer of the product’s existence and availability, but also by deliberately trying to persuade consumers to purchase the good. Successful advertising will not only increase demand, but also make the demand for the good or service less price elastic since it stresses the specific quantities of this product over its rivals’.

Product development can also be done. The major aims of product development are to produce a product that will sell well (i.e. one in high or potentially high demand) and that is different from rivals’ products, which means that it has a relatively price inelastic demand due to lack of close substitutes. For firms providing a service, product development takes the form of attempting to provide a service which is better than, at least different from, that of rivals, e.g. personal service, late closing time, certain lines stocked.

Though the non-pricing strategies could cause a fall in profits in the short run due to the higher TC, we can expect the firm to earn more profits, and hence protect its profits, in the long run if the strategies are successful.

Governments could support the creation of monopolies by giving patents and licences to certain firms only. Patents granted by the government give the inventor the exclusive right to produce a commodity or to use a specific process to produce a commodity for a period of time. This protection is aimed at promoting invention and development of new ideas. In Singapore, patents can be filed with the Intellectual Property Office of Singapore (IPOS) which is a statutory board under the Ministry of Law. Such actions of the government can then allow for the existence of monopolies since such firms are given substantial market power. A government may give a licence to operate a certain service, for example, in radio and T.V. broadcasting, public transport. In so doing, the government prevents entry of new firms.

**CONCLUSION**

In summary, the strategy of lowering prices to deter entry of new firms may be used by a firm in an imperfect market structure to protect its profits. As there is a possibility that a price war can be ignited that will erode all firms’ profits, the strategy of lowering prices could at best be a short-run measure.

Level	Descriptors
4	<ul style="list-style-type: none"> <li>• Thorough discussion of thesis and anti-thesis (two other strategies must be discussed) is evident</li> <li>• Relevant diagrams are correctly drawn and well-explained</li> </ul>
3	<ul style="list-style-type: none"> <li>• Thesis, e.g. predatory/limit pricing, and anti-thesis, i.e. non-pricing strategies such as product differentiation are sufficiently discussed</li> <li>• Analysis is not consistently rigorous</li> <li>• Diagram(s) is drawn and explained to add technical details to the analysis</li> </ul>
2	<ul style="list-style-type: none"> <li>• Some understanding of pricing and non-pricing strategies is evident</li> <li>• Diagrams are not drawn to illustrate the impact of these strategies on a firm’s</li> </ul>

	profits
1	Smattering answers that are descriptive and/or show weak understanding of the various strategies a firm can adopt to protect profits

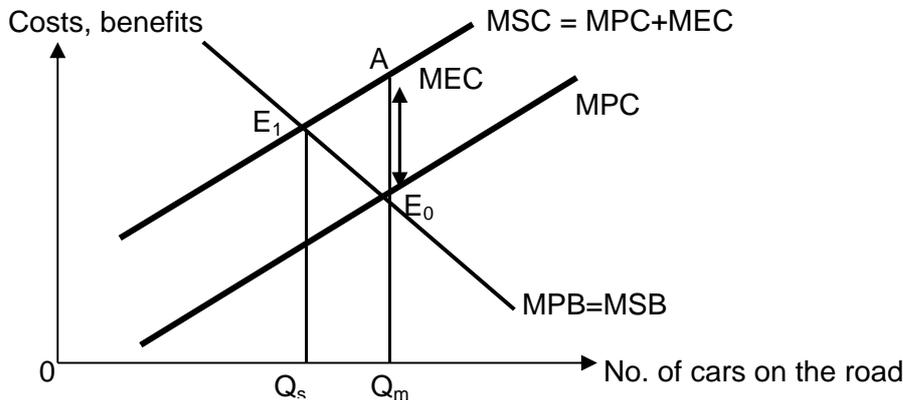
- 3 (a) Using a cost-benefit approach in the context of externalities, explain why the free market may not function efficiently. [10]
- (b) Discuss whether the Singapore government should prioritise the above problem over other sources of market failure. [15]

**INTRODN**

Given society's limited resources and unlimited wants, the free market through the demand and supply forces decide what, how much, how and for whom to produce. The free market functions efficiently when scarce resources are allocated such that production, consumption occur at the socially optimal level where there is no under or overproduction/consumption of goods and services. Hence no one can be made better off without someone being worse off.

**BODY**

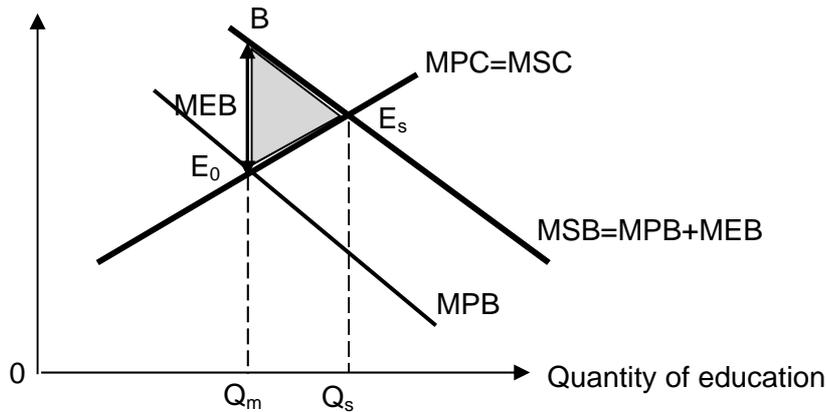
The demand or marginal private benefit (MPB) curve shows the price consumers are willing to pay for an additional unit of a good consumed. Using the example of car usage, the price is equal to MPB for example, the convenience one gets from an additional trip made. The supply or marginal private cost (MPC) curve shows the cost borne by the motorists for example, the petrol cost of making an additional trip.



- Car usage can give rise to negative externality, an external cost to third parties who are not directly involved in using the car, and they are not compensated for the harm inflicted on them. For example, traffic congestion generates noise and air pollution that adversely affect the quality of living for residents living near the congested roads. It may lead to long term health problems which incur medical costs.
- Due to presence of negative externalities, there is a divergence between MPC and MSC by the extent of MEC, hence true/ social cost is higher than private cost. In figure 1, MSC curve is derived by adding MEC to MPC.
- Assuming there is no external benefit, MPB therefore equals MSB. When left to the free market, the satisfaction-maximizing motorists only consider their own private benefit and cost, ignoring the external costs incurred in using their car. Hence they will use their cars/ road to where MPB=MPC at point E0. Thus 0Qm is the market equilibrium quantity of car usage whereas 0Qs is the social optimum when MSC=MSB at point E1 where the true benefits equal the true cost of car usage.
- Thus the free market through the price mechanism will bring about a level of car usage 0Qm that is higher than 0Qs, level which is deemed to be socially desirable. There is overusage of cars/ roads by QsQm leading to an inefficient allocation of resources thus resulting in market failure.
- Positive externalities are third party benefits on someone not directly involved in the consumption and production of for example, educational services, and did not pay to enjoy the benefits, can occur thus resulting in partial market failure.

- Positive externalities are third party benefits on someone not directly involved in the consumption and production of for example, educational services, and did not pay to enjoy the benefits, can occur thus resulting in partial market failure.

Costs, benefits



- Market equilibrium amount of education services is  $0Q_m$ , given by the intersection at point  $E_0$  where producer's MPC of production and patient's MPB in consumption meet.
- MPC comprises for example, the course fees, cost of textbooks while MPB would include better career prospects and earnings for the person who has consumed it. Its consumption/ production has the external benefit of increasing productivity of the Singapore workforce and boosting long term economic growth.
- However, as education is deemed a merit good that confers benefits to society, the market equilibrium level  $0Q_m$  represents an underproduction/ consumption as the social optimum is at  $0Q_s$ . The underconsumption of  $Q_s-Q_m$  brings about a total welfare loss of  $E_0BE_s$ .

Conclusion: Therefore, the free market through the price mechanism works efficiently only when there are no externalities and market imperfections.

Level	Descriptor
L3	<ul style="list-style-type: none"> <li>• Good, succinct explanation of how price mechanism works efficiently as an allocative device.</li> <li>• Also, clear explanation of its inefficiency by linking to externalities</li> <li>• Explained positive &amp; negative externalities with good use of examples and diagrams</li> </ul>
L2	<ul style="list-style-type: none"> <li>• Some explanation of efficient vs inefficient functioning of price mechanism</li> <li>• Used externalities to explain inefficiency of price mechanism</li> <li>• Evidence of some conceptual errors in analysis</li> </ul>
L1	<ul style="list-style-type: none"> <li>• Cursory answer with limited understanding of efficient versus inefficient functioning of price mechanism</li> <li>• Smattering of ideas about role of price mechanism</li> </ul>

Part (b)

**INTRODN**

Define market failure: situation where resource allocation concerning what, how, how much and for whom to produce using the market mechanism fails to achieve efficiency in allocation of resources and equity among various income groups.

In Singapore, market failure can occur due to presence of externalities, public goods, income inequity, immobility of labour and market dominance.

**BODY**

As human capital is Singapore's only resource, the government believes that investment in human capital is an important source of economic growth. Huge emphasis is placed on education as a key part in its human resource development as evident in the government's annual budget where education takes second place after defence.

Secondly, the government is also aware of the benefits that education confers to society. An educated workforce would lead to higher levels of productivity to maintain Singapore's attractiveness to foreign investors. It promotes long term economic growth, employment as well as a higher standard of living.

At the workplace, firms and workers tend to underestimate the true benefits of training in raising their profits and productivity respectively. Thus Singapore government has substantially increased its subsidies for lifelong education and training to ensure the workers are equipped with the necessary skills for the knowledge-based economy due to fast changing technology and new production methods.

Singapore's Gini coefficient was 0.412 in 2013. Closer the Gini coefficient is to the value 1, greater the income inequality.

1. Globalization. (a) As Singapore becomes highly globalised, the emergence of new products and technology tends to favour the skilled labour. There is a rise in demand for their expertise leading to higher wages as they are more able to take advantage of the opportunities that globalization brings. (b) The rise of globalization caused Singapore to face more competition from low wage countries who have flooded the world market with their cheap, labour intensive exports which directly threaten the exports of developed countries like Singapore. As a result, low value added jobs are increasingly being outsourced to low wage countries while Singapore focuses on producing high value goods.

All the above developments have driven down the wages of displaced workers in the industries which have lost their comparative advantage as demand for their services falls. The result is a widening income gap between the less and more skilled.

- Income inequity results in inefficiency in the product market. This is because the price mechanism will allocate resources to produce goods and services for those with the ability to pay instead of responding to the needs of those with insufficient dollar votes. This difference in purchasing power will in therefore determine what is actually produced and for whom the goods are produced.
- If this social divide is left unattended, it may lead to social unrest which will impede production, employment and eventually economic growth of Singapore. Therefore, government has and continues to implement policies such as transfers through handouts, subsidies, making income taxes more progressive, increase social spending etc. The Workfare Income Supplement Scheme actually tops up the wages of the low income workers to help them meet the challenges of an increasingly competitive environment. Training programmes are also heavily subsidised to ensure its workforce have skills that match business needs.

As with all countries, Singapore government is also concerned with intervening in the provision of public goods.

- Public goods such as national defence possess the characteristics of non-rivalry and non-excludability which the market would completely fail to produce.
- In the free market, the non-rivalry and non-excludability nature causes the price mechanism to dictate there should be zero production of public goods. Thus there is

complete market failure. Under such situation, government will have to step in to provide public goods completely, financing the provision by taxes. For example, the Singapore government builds roads, put up traffic lights and sets up the Singapore Arm Forces (SAF).

Though these public goods are already well in place in Singapore, government has to constantly upgrade them to ensure the efficient working of the economy. It is also to ensure Singapore's survival in the world especially when it comes to national defence. By providing the essential public goods, government increases firms' confidence in the viability of future profits if they invest in Singapore.

**Conclusion:** Due to its detrimental effects, market failure is of great concern to the Singapore government. To ensure the efficient working of the economy, the government has to weigh the relative significance of the different types of market failure so as to decide which source(s) deserve greater priority amid rapid changes in a highly globalized world.

L3	<p>For an answer that</p> <ul style="list-style-type: none"> <li>demonstrates ability to explain underlying reasons for 2 more cases of mkt failure</li> <li>assess the differing significance/ prioritisation of 3 forms of market failure</li> <li>justify clearly which form of market failure is a more serious issue today in S'pore</li> <li>consistently link to S'pore context</li> </ul> <p>[Can accept an excellent explanation of both positive &amp; negative externalities + 2<sup>nd</sup> type of market failure]</p>
High L2	<p>For an answer that displays</p> <ul style="list-style-type: none"> <li>good thorough knowledge of only 2 forms [include positive or negative externality] of market failure</li> <li>able to justify the significance/ prioritisation</li> <li>consistent link to Spore context</li> </ul>
Low L2	<p>For an answer that</p> <ul style="list-style-type: none"> <li>explains well at least 1 form of market failure</li> <li>regurgitation of content with little/ weak attempt at relative importance prioritisation</li> <li>lacks sufficient breadth</li> <li>some gaps/ conceptual errors in analysis</li> </ul>
L1	<ul style="list-style-type: none"> <li>Smattering of points with glaring conceptual errors</li> <li>No reference to their relative importance/ prioritisation</li> <li>Thrust of question has not been grasped</li> </ul>

- 4 Singapore's labour productivity growth averaged about 1% per annum, a rate on par with that of other developed countries. Productivity gains have declined in recent years due to heavier reliance on labour inputs, especially inputs of foreign manpower.  
Source: ESC Subcommittee Report on Fostering Inclusive Growth
- (a) Explain how the Singapore government can increase labour productivity in the economy. [8]
- (b) Discuss whether improving labour productivity is the most appropriate measure to improve the economic performance in Singapore. [17]

**Part a**

**Introduction:**

Labour productivity measures output per unit of labour input. Given the small and open nature of Singapore economy, labour productivity plays an important role in promoting sustained economic growth, low unemployment, low inflation and healthy balance of payment.

**Body:**

Singapore's labour force is aging as a result of its aging population. To mitigate the negative impact of an aging labour force on labour productivity growth, it is important for the government to continue to focus on life-long learning and re-training of older and less educated workers, as this will help the workers to remain relevant and productive especially when the economy is experiencing rapid structural changes. For example, The Ministry of Manpower (MOM) has embarked on a comprehensive 10-year Continuing Education and Training (CET) Masterplan to help workers acquire new skills.

Over the past decade, the Singapore economy grew by an average of 5% per annum. Singapore's productivity growth over the same period averaged about 1% per annum, a rate on par with that of other developed countries. Nonetheless, productivity gains have declined in recent years due to heavier reliance on labour inputs, *especially* inputs of foreign manpower. Hence, foreign worker levy has been raised so as to force the firms to reduce its reliance on cheap foreign workers and speed up its efforts to mechanise and innovate.

The Singapore government has implemented a new broad-based tax incentive called the Productivity and Innovation Credit (PIC). The PIC provides significant tax deductions for investments in a range of activities along the innovation value chain. One of activities is the investment in fixed capital goods such as spending on equipment and software aimed at automating process. Tax cuts will incentivise firms to increase investment in physical capital goods. This will help to improve labour productivity.

**Conclusion:**

With increasing globalisation, the Singapore government faces many challenges such as competition from other countries. The government needs to implement a combination of different measures to raise labour productivity in Singapore so as to improve economic performance.

**Marking Scheme:**

Level	Descriptors
L3	<ul style="list-style-type: none"> <li>Answer shows good knowledge how government increase labour productivity in Singapore.</li> <li>Good examples are highlighted.</li> </ul>

	<ul style="list-style-type: none"> <li>• 2 well-elaborated examples would be sufficient to be awarded L3.</li> </ul>
L2	<ul style="list-style-type: none"> <li>• Answer shows some knowledge how government increase labour productivity in Singapore.</li> <li>• Examples are highlighted but not explained.</li> <li>• Underdeveloped explanation in some areas.</li> </ul>
L1	<ul style="list-style-type: none"> <li>• Smattering of a few valid points and briefly mentioned how government increase labour productivity in Singapore.</li> <li>• Little or no reference to the Singapore economy.</li> </ul>

- (b) Discuss whether improving labour productivity is the most appropriate measure to improve the economic performance in Singapore. [17]

**Introduction:**

Improving labour productivity is considered a long-term strategy to improve economic performance. A strong economic performance is characterised by sustained economic growth, low inflation, low unemployment and a healthy balance of payments (BOP).

**Body:**

**Thesis:**

By raising labour productivity, AS and AD will rise in the long run. Raising labour productivity enables more output to be produced with the same amount of labour resources, hence increasing the country's productive capacity. This causes Singapore's AS curve to shift rightwards. At the same time, higher labour productivity in the long run helps to attract more foreign direct investment (FDI) to Singapore as firms are able to enjoy a higher expected rate of return for their investment. This enables the AD curve to shift rightwards as well. With a simultaneous shift of both AD and AS curve, higher potential output and employment is achieved.

Increase in labour productivity → lower cost of production → fall in general price level. This will reduce the prices of goods including price of exports. Since Singapore's exports is price elastic due to the availability of close substitutes produced by other countries, with a fall in price of exports, it will result in a more than proportionate increase in quantity demand for exports, ceteris paribus. There will be an increase in total revenue of exports. On the other hand, imports are now relatively more expensive as compared to the domestically produced substitutes due to the fall in cost-push inflation in Singapore. This will reduce the demand for imports, leading to a fall in total expenditure on imports. With an increase in net exports, ceteris paribus, it will lead to an improvement of Singapore's current account.

**Anti-Thesis:**

Firstly, the measure to raise labour productivity through promoting innovation is long-term, costly and has uncertain effects. The success of measures to invest in people depends on the willingness of the workers to undergo retraining and pick up new skills.

It is also more difficult to raise labour productivity in some sectors such as the retail and construction sectors where it is harder to replace labour with machinery. As such, firms in these sectors have been very dependent on labour-intensive method of production encouraged by the cheap foreign labour due to the liberal foreign labour policy in the past. However, with the introduction of foreign workers levy, firms are forced to cut down on the use of labour and use more capital-intensive method of production to cut down the cost of production. However, in the short run, it may not be possible to substitute machines for

labour and hence the use of more costly foreign workers will lead to higher cost of production resulting in higher cost-push inflation in Singapore. Higher inflation may not bode well for Singapore's export competitiveness and may affect Singapore's growth and employment.

Additionally, falling world national income due to the eurozone debt crisis would cause a decline in trade and demand for Singapore's exports. As export revenue falls, there would be a drop in net exports. Since  $(X-M)$  constitutes 32% of Singapore's GDP, there would be a significant fall in AE and hence national income in Singapore. This would stifle economic growth and employment in the short run. In this case, boosting labour productivity alone would not be enough to boost exports and attract FDI with weak business expectations.

The Singapore's central bank could depreciate the Sing dollar (SGD). This means that it lowers the external value of SGD. When domestic currency depreciates, the foreign currency price of Singapore exports will fall. Assuming the demand for its exports is price elastic, this will lead to a more than proportionate increase in quantity demanded for exports, *ceteris paribus*, and hence a rise in its export earnings. Currency depreciation will also increase the domestic currency price of imports. If the demand for imports is price elastic, a rise in price will result in a more than proportionate fall in quantity demanded for imports, *ceteris paribus*, leading to a fall in import expenditure. Since Singapore's export earnings rise while its import expenditure falls, there will be a rise in its net exports  $(X-M)$ . This would improve current account. Assuming that capital account remains constant, overall, there would be an improvement in balance of payment.

Since net exports increase, AE also increases, *ceteris paribus*. The multiplier process continues until the economy reaches a new equilibrium national income at a higher level. Hence, there would be a multiple rise in national income and employment.

In addition, expansionary fiscal policy in the form of higher government spending (e.g. improving infrastructure) and Job Credit Scheme are also used to improve economic performance.

By raising government spending, AE would rise and there would be multiple rise in national income and employment as long as the economy is not operating near full employment. The Job Credit Scheme was implemented when Singapore was hit by the US subprime crisis. It aimed to encourage firms to retain its workers and prevent rising unemployment by providing them with a wage subsidy. This scheme was necessary as given the global economic slowdown, firms experienced a fall in the demand for their goods and were likely to retrench workers to cut cost and stay afloat.

### **Conclusion**

In conclusion, raising labour productivity plays an important role in improving economic performance in Singapore in the long run given the characteristics of the Singapore economy where labour resource is scarce and exports take up a large proportion of our national income. However, it is only useful to the extent that the Singapore government also complements it with short-term policies such as exchange rate and fiscal policies to manage short-term macroeconomic economic fluctuations.

**Marking Scheme:**

Level	Descriptors
L4	<ul style="list-style-type: none"> <li>• Answer shows excellent knowledge of how sustained economic growth, low unemployment, low inflation and healthy balance of payment can be achieved by increasing labour productivity in Singapore.</li> <li>• Candidates are able to justify that raising labour productivity may not be effective in helping Singapore to achieve these aims due to certain limitations.</li> <li>• Candidates are able to justify the importance of short term macroeconomic policies to complement policies to raise labour productivity in the context of Singapore.</li> <li>• Good use of examples.</li> </ul>
L3	<ul style="list-style-type: none"> <li>• Answer shows good knowledge of how sustained economic growth, low unemployment, low inflation and healthy balance of payment can be achieved by increasing labour productivity in Singapore.</li> <li>• Candidates attempt to justify that raising labour productivity may not be effective in helping Singapore to achieve these aims due to certain limitations.</li> <li>• Candidates attempt to justify the importance of short term macroeconomic policies to complement policies to raise labour productivity in the context of Singapore.</li> <li>• Some examples are highlighted.</li> </ul>
L2	<ul style="list-style-type: none"> <li>• Answer shows some knowledge of how sustained economic growth and full employment can be achieved by increasing labour productivity in Singapore.</li> <li>• Underdeveloped explanation in some areas.</li> <li>• Explanation has some reference to the AD-AS model and the Singapore economy.</li> </ul>
L1	<ul style="list-style-type: none"> <li>• Smattering of a few valid points and briefly mentioned how a rise in labour productivity affects an economy.</li> <li>• Briefly explain how a rise in labour productivity affects macro-goals.</li> <li>• Several errors and inconsistencies occur in the explanation.</li> <li>• Little or no reference to the Singapore economy.</li> </ul>

- 5 China's growth slows to 7.6%, the slowest in three years.

Source: *The Straits Times*, 14 July 2012

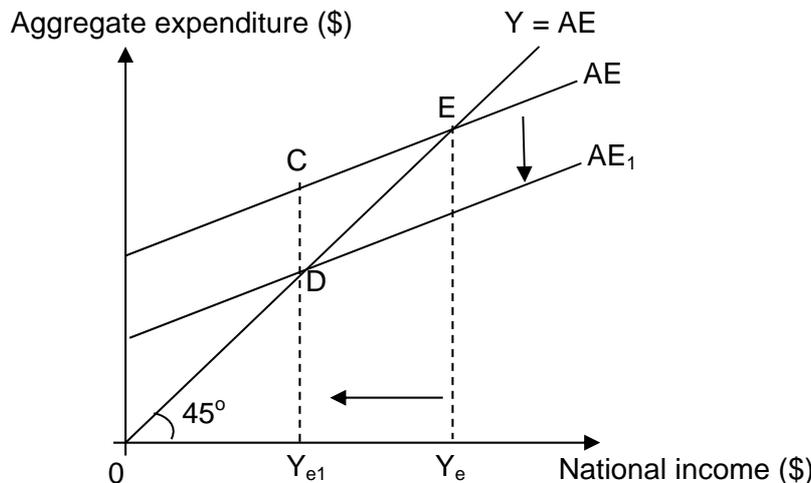
To what extent does the slower economic growth in China affect the economies of Singapore and the USA? [25]

Introduction

China has been experiencing phenomenal double digit growth for the past two decades, increasing its influence over global trade and providing the engine for growth for many economies when the industrialised economies stagnate.

Body

As China's growth slows and the economy's output increases at a slower rate, so does the income of the Chinese. Thus the demand for imports slows and that means that the other countries such as the USA and Singapore would see a smaller increase in demand for their goods and services by the Chinese. In the event that the slow down continues and causes pessimism in the economy, the Chinese consumers might increase their precautionary savings and thus reduce their spending. If that is the case, the export earnings of Singapore's and the USA's firms would fall, resulting in a fall in (X-M), ceteris paribus. This worsens Singapore and the USA's current account, ceteris paribus. At the same time, their aggregate expenditure (AE) would also fall.



- When AE falls, the AE curve shifts downwards from AE to AE<sub>1</sub>. At Y<sub>e</sub>, there is a surplus of goods and services. [Condensed k process] Hence, the economy reaches a new equilibrium national income at a lower level, i.e. Y<sub>e1</sub>.

Evaluation:

I. Size of k

Extent of impact depends on size of k. Singapore's K is small at 1.3 due to high MPW arising from high MPS and MPM.

- The high MPS arises from compulsory savings through CPF contribution where 20% of gross income is saved. In addition, households save another proportion for precautionary and other purposes.
- The high MPM is due to Singapore's limited resources. Hence, we import virtually all final goods and services and raw materials.

Hence, the contractionary effect of the fall in net exports is limited. In contrast, the size of k of the US economy is much greater given their smaller leakage. Although tax rates in US are generally higher than that in Singapore, their greater self-sufficiency and consumerism

culture results in a much lower MPM and MPS, and thus a much greater multiplier. The fall in export revenue from China would have a greater impact on their national income.

That said, the impact of China's slowing down might not reduce US and Singapore's exports at all given the low income elasticity of demand by the Chinese for the 2 countries' goods.

## II. income elasticity of demand

Ten years ago China could produce on its own because they were focusing on the low end of consumer goods without much technology. But now technology is a necessity because they are trying to go up the value-added chain. Given the exports to China from the USA and to a smaller extent, Singapore, are high technology goods, the demand for these goods might be income inelastic. Thus the slowing down of China might lead to a less than proportionate fall in demand for USA's and Singapore's exports. In fact, China's demand for some of the top exports from the USA such as airplanes and high-tech computer goods has remained relatively strong despite the slow-down.

With China's slower growth, investment flow from China into Singapore and the USA might fall, compromising BOP and long term growth.

- With the foreign reserves accumulated over the years, China has been increasing its investment in other countries through its state-owned companies. This source of investment in physical assets increases the quantity of resources in the recipient economy and together with the transfer of technology, increases the productive capacity of the economy. The slowing down of the Chinese economy if persistent might see a lot of these investments being halted as funds run low.
- This fall in direct investment from China could adversely affect the productive capacity causing a fall in AS as shown by the leftward shift of the AS curve from  $AS_0$  to  $AS_1$  if the fall in investment brings investment below the replacement rate.
- The fall in the ability of the economy to produce would reduce the long term growth of economies such as Singapore and the USA, as seen in the fall in the potential output.
- The fall in long-term capital flows would negatively impact the capital account and together with the fall in net exports, Singapore's and the USA's BOP is likely to deteriorate.

### **Evaluation:**

The extent of the impact depends on:

#### I. China's importance as a source of investment

- Unlike Africa where domestic investment is limited and FDI from China provides the important physical assets that is necessary for long-term growth, Singapore and the USA are not as dependent on China for investment. Although the lack of domestic investment in Singapore means that Singapore is highly reliant on foreign sources of investment, FDI from China to Singapore only makes up a small proportion of total FDI in Singapore.

The slowing down of the Chinese economy could bring about lower prices of goods and services and commodities and thus lower world inflation which could instead boost growth in the other economies.

- The lower demand from China for goods such as cars and electronic products would reduce the overall global demand, thus resulting in cheaper final goods for the rest of the world.

- China, the second largest economy in the world, is also the largest importer of several major commodities such as copper, rubber and crude oil. A slowdown in growth when expected to persist, would result in firms cutting production due to lower expected rate of returns. This reduces the country's demand for resources and thus the global prices. The cheaper imported commodities would lower the cost of production of firms in the USA and Singapore, increasing their willingness and ability to produce.

**Evaluation:**

Extent of impact depends on:

- I. Reliance on imported commodities
  - Given that both Singapore and the USA are importers and reliant on these commodities and goods and services, the lower world prices would benefit both economies to a large extent.
  - Singapore's lack of natural resources means that she imports virtually everything. The USA, on the other hand, is rich with resources. But these resources are insufficient to satisfy domestic wants as well as the production for exports.

**Conclusion**

All in all, the direct effect of China's slowdown on the economies of Singapore and the USA is not likely to be significant as yet, partly because the growth rate of China although slowing down, remains relatively high at 7.8%.

**Marking Scheme:**

Level	Descriptors
5	<ul style="list-style-type: none"> <li>• Thorough analysis on the impact of China's slower growth on the 2 economies of US and Singapore                             <ul style="list-style-type: none"> <li>○ Although China is not a very significant trading partner of Singapore and US, students need to understand that China is the 2<sup>nd</sup> largest economy and its growth has impact on many economies and thus there might be significant secondary spill over effect on Singapore and US</li> </ul> </li> <li>• Thorough evaluation of the extent of the impact with clear understanding of the factors affecting the extent of impact</li> <li>• Convincing stand that shows clearly the key considerations that affect how student came to the stand</li> <li>• Well-structured with clear flow</li> <li>• Excellent use of examples to show application e.g. link to clear characteristics and statistics</li> </ul>
4	<ul style="list-style-type: none"> <li>• Good analysis on the impact of China's slower growth on the 2 economies of US and Singapore                             <ul style="list-style-type: none"> <li>○ No depth in analysis but with sound evaluation – cap at 14m</li> </ul> </li> <li>• Good evaluation of the extent of the impact with clear understanding of the factors affecting the extent of impact</li> <li>• No consistent use of relevant examples to show application</li> <li>• Understand the difference between slower growth and negative growth</li> <li>• Some scope e.g.                             <ul style="list-style-type: none"> <li>○ Covered BOP, both actual and potential growth but did not cover inflation</li> <li>○ covered BOP, actual growth and inflation but did not cover potential growth</li> </ul> </li> </ul>

3	<ul style="list-style-type: none"> <li>• Some analysis on the impact of China's slower growth on the 2 economies of US and Singapore</li> <li>• Some evaluation of the extent of the impact <u>though not rigorously explained</u></li> <li>• <i>Limited scope e.g. constrain discussion to BOP and actual growth</i></li> </ul>
2	<ul style="list-style-type: none"> <li>• Some explanation, though weak, on the effects of China's slower growth on the macroeconomic goals of Singapore and US</li> <li>• No / vague attempts to discuss the extent of impact</li> </ul>
1	<ul style="list-style-type: none"> <li>• Smattering of points that shows weak understanding of question requirements</li> <li>• Poor content with several conceptual errors</li> </ul>

- 6 (a) Using the principle of comparative advantage and real-world examples, explain why you would support free trade. [10]
- (b) 'The main concern of globalisation is that it brings about cyclical fluctuations to an economy's circular flow of income.' Discuss. [15]

**Part (a): suggested answer****INTRODUCTION**

Free trade occurs when a government does not impose tariffs and non tariff barriers to shield local industries from foreign competition.

According to the principle of comparative advantage, if countries specialise and trade according to the product in which they have lower opportunity cost in production, trade is mutually beneficial.

**BODY**

According to the theory of comparative advantage, even if one country has *absolute advantage* over others in the production of all goods, trade is still mutually beneficial as long as there is comparative advantage (CA) in the production of these goods. A country is said to have a CA in the production of a good if it can produce that commodity at a lower opportunity cost than another country, *i.e.* less amount of another good is given up in order to produce it.

Countries are now able to consume beyond their production possibility curve after specialisation and trade based on CA. Each combination lies outside the PPC. Before trade, it is a desirable but unattainable combination. However, after free trade based on comparative advantage, countries are now able to consume beyond what their own PPC.

These benefits are born out in reality where different countries have different factor endowments. Singapore's strength lies in her technological superiority due to the large amount of investments pumped into R&D. In contrast, due to her scarcity of land, lack of natural resources and a small population size, there is a lack of CA in the production of labour-intensive goods such as agricultural produce and textiles. This means the opportunity cost of diverting land to the production of agricultural goods is high given its limited land space. Hence, there is a benefit of importing these items at a cheaper price, e.g. rice and meat from land abundant countries like China, Thailand and Australia which can produce them at a lower opportunity cost.

Free trade helps to increase Singapore's export earnings where this initial injection into its circular flow of income means an immediate rise in its national output and income. This rise in income in turns activates the multiplier process, raising standard of living of Singaporeans.

In addition, free trade and specialisation increases efficiency and enables firms to enjoy economies of scale as they operate larger scale of production and also improve the quality of goods and services that consumers can get to enjoy. Hence, free trade increases the consumer welfare through access to cheaper and better-quality goods and services and a greater variety of goods and services.

**Conclusion**

Hence, I would support free trade as both theory and practice bears evidence that the world economy has grown tremendously when free trade is practised with opportunities for both poor and rich countries to experience a higher standard of living.

L 3	• Competent understanding of how free trade based on CA brings about mutually beneficial outcomes for all countries.
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	<ul style="list-style-type: none"> <li>Explained successfully effects on output, consumption, standard of living.</li> <li>Real world examples are used.</li> </ul>
L2	<ul style="list-style-type: none"> <li>Good understanding of CA, pattern of trade and benefits of free trade for all countries.</li> <li>Explained sufficiently at least 2 clear benefits.eg output and consumption with links to comparative advantage and real world examples based on different factor endowments.</li> <li>Tables may or may not have been used.(e.g. alternative: <math>AE=Y</math>, AD/AS effects of trade).</li> </ul>
L1	<ul style="list-style-type: none"> <li>Smattering of points.</li> <li>Cursory understanding of the principle of comparative advantage and benefits of free trade.</li> </ul>

(b) 'The main concern of globalisation is that it brings about cyclical fluctuations to an economy's circular flow of income.' Discuss. [15]

**Suggested answer**

**Introduction**

Globalisation is the process of continuing integration of the countries in the world where national markets become increasingly interlinked through greater mobility of goods and services, capital, labour and technological know-how amongst countries.

**BODY**

A main concern of globalisation is that it brings about cyclical fluctuations and instability to a country's circular flow of income.

A country's circular flow of income in a 2 sector economy refers to the income received by households in return for the output produced for firms. In an open economy, the national income calculated by the expenditure method may be represented as the summation of consumption, investment and government expenditure and net exports, i.e., the aggregate demand or expenditure (AE) on domestically produced goods and services. An injection or withdrawal into this circular flow of income can either expand or shrink its circular flow and hence its level of national income.

The initial equilibrium national income is  $OY_e$ . A fall in net exports causes a fall in the AE as illustrated by a downward shift of the aggregate expenditure curve from  $AE_0$  to  $AE_1$ , bringing about a new but lower equilibrium national income of  $OY_1$ .

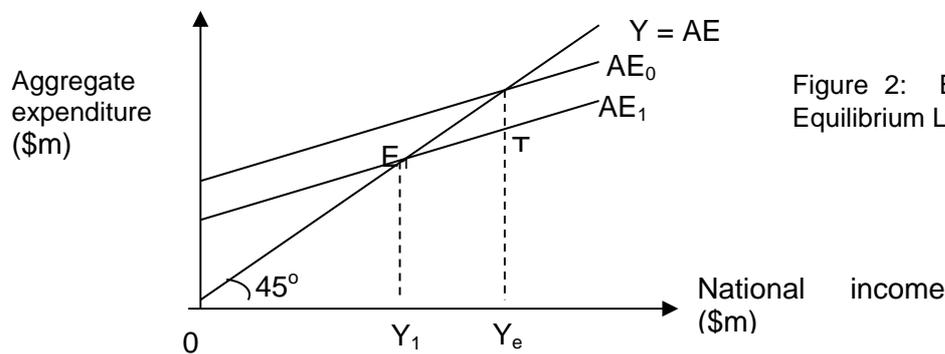


Figure 2: Effect of a Fall in AE on Equilibrium Level of National Income

Conversely, a period of robust growth in the world economy with huge injections into a country's circular flow of income can bring about rapid economic growth beyond full

employment level. This upswing cause inflationary pressure on general prices of goods and services for its citizens.

Hence, cyclical fluctuations is a main concern and likely to be the main concern especially for a very open economy as the more open an economy is to trade and capital flows, the more vulnerable it will be to changes in the level of economic activity in the rest of the world. This increased interdependence results in greater risk and severity of an economic instability.

However, it is less of a concern for countries such as China which have a huge domestic market that it can turn inwards to sustain growth and escape somewhat any severe impact of global recession. Effective domestic growth policies can be used to counter cyclical fluctuations arising from external demand

**Anti-thesis**

Another *equally* real concern is the re-structuring and unemployment woes that a country has to undergo as it opens itself to the challenges of globalisation.

This applies especially to more developed countries where globalisation can transfer jobs from developed countries to less developed countries. Globalization levels the playing field, in a way that makes it hard for developed countries to compete. With increased globalisation, there is the emergence of lower-cost producers such as China and India and increased competition. Hence, industries in Singapore that compete directly with the exports of these countries will be forced to shut down or relocate to lower-cost countries, resulting in unemployment.

Nevertheless, structural unemployment may be argued to be an inevitable adjustment for an economy if it seeks to benefit from the trade opportunities presented by globalisation and is thus not the most critical concern.

With globalization, countries could import cheap unskilled workers from abroad to replace expensive local workers. Thus the unskilled workers could suffer from stagnant or falling earnings. On the other hand, the supply of skilled workers is more limited. With globalization, there is increase demand for skilled workers and this will push up wages.

However, if countries can implement effective policies to narrow the income gap through, for example, progressive tax system and redistribute the income through subsidies on education and other basic necessities, this would not be a key concern compared to the unpredictable and severe recession that can hit a country when the whole world goes into a recession.

**CONCLUSION**

Hence, we can see globalisation poses some challenges to every country. There is no denying that cyclical fluctuations will always be expected and as long as a country is very open to trade, it is one of the main concerns especially if it is severe and prolonged. However, a country should also look at other important concerns such as sustainable growth and environmental issues and equity.

L4	(i) Thorough explanation and discussion of globalisation impacts on cyclical fluctuations and at least 2 other valid concerns. (ii) Good use of diagrams and examples. (iii) Evaluation and insightful conclusion based on clear criteria.
L3	(i) Good explanation and discussion of globalisation impacts of cyclical fluctuations on a country's circular flow with reference to the AE=Y model and multiplier effects. (ii) Good explanation at least 2 other valid concerns.

	(iii) Some evaluation of which may be a more critical concern with clear criteria. (iv) Good use of diagrams
L2	(i) Some explanation of globalisation impacts of cyclical fluctuations on a country's circular flow of income with reference to the $AE=Y$ or $AD/AS$ model. (ii) Some recognition and sufficient explanation of at least 1 other valid concern. (iii) Brief mention of whether cyclical fluctuation is the main concern and why (iii) Diagrams may not have been used.
L1	Smattering of points. cursory understanding of globalisation and cyclical fluctuations on the circular flow of income as a concern. Some mention of other concerns.



TEMASEK JUNIOR COLLEGE  
Preliminary Examination 2014  
General Certificate of Education Advanced Level  
Higher 1

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## ECONOMICS

8819/01

Paper 1

29 August 2014  
3 hours

Additional Materials: Answer Paper, Cover Page

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### READ THESE INSTRUCTIONS FIRST

**Do not turn this page over until you are told to do so.**

Write your name and CG number on all the work you hand in.  
Write in dark blue or black pen on both sides of the paper.  
You may use a soft pencil for any diagrams, graphs or rough working.  
Do not use staples, paper clips, highlighters, glue or correction fluid.

#### Section A

Answer **all** questions.

#### Section B

Answer **one** question.

Begin each question on a separate sheet of answer paper.  
Fasten your work for Section B and the Cover Page together.  
Hand in your answer to each question **separately**.  
The number of marks is given in brackets [ ] at the end of each question or part question.

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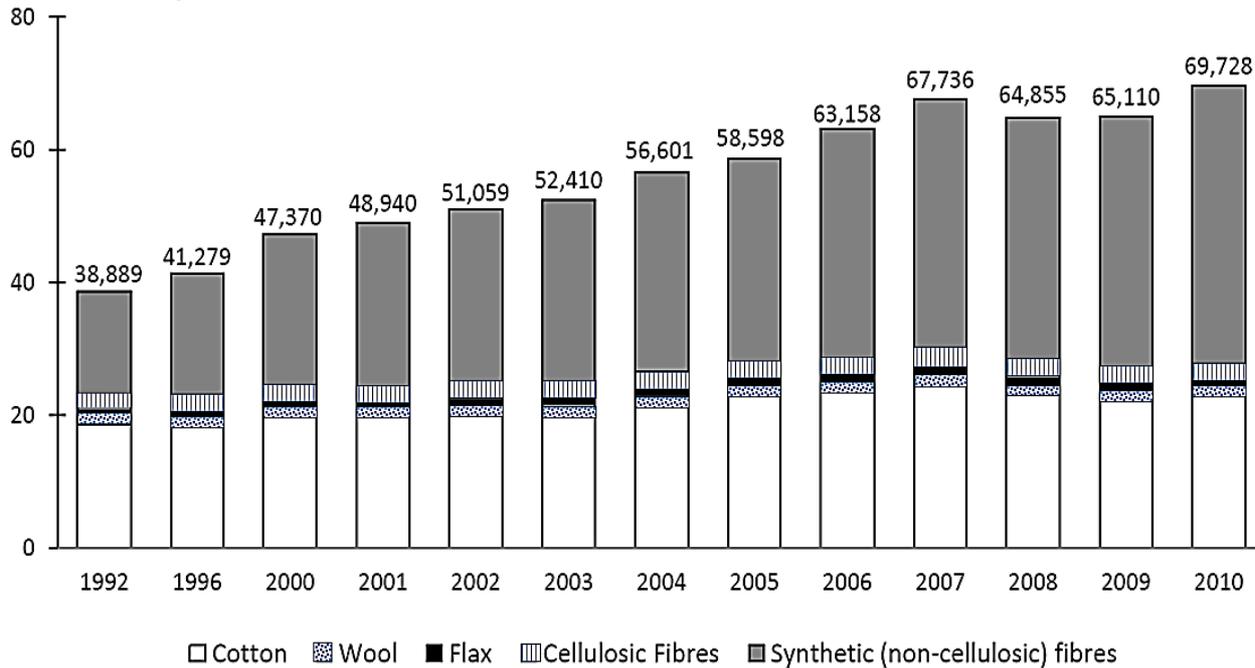
This document consists of 8 printed pages.

Section A

Answer all questions.

**Question 1 The Textile Conundrum**

**Figure 1: Evolution of world apparel fibre consumption (million tons)**



Source: Food and Agriculture Organization (FAO), United Nations, 2013

**Table 1: Cotton prices**

Year	2012	2013	2014 *	2015 *
<b>Cents per pound</b>	196.7	199.3	195.6	207.5
<b>% change</b>	-40.9	1.3	-1.9	6.1

\* projected prices

Source: ICAC, The Economist Intelligence Unit, 21 May 2014

**Extract 1: The global forecast for cotton**

Following estimated growth of 2.4% in 2012, global cotton consumption is expected to slow moderately before picking up again. Consumption growth in Asia will remain relatively firm in 2013, before lower cotton yarn import demand from China constrains consumption in 2015. The end of China's stockpiling policy is set to have significant repercussions on global markets, with demand from Chinese mills expected to grow from 2015 as reserves are released and global prices move downwards to reflect this. A decline in output is also expected as farmers switch to alternative crops.

The slump in global cotton prices in previous years discouraged cotton planting, especially in Brazil and Australia. A further fall in output of around 4% is forecast in 2013 as persistently low prices, coupled with higher prices for alternative crops such as soybeans, have led to farmers switching crops. In the northern hemisphere, cotton acreage is estimated to have shrunk, most significantly in the US and China. However, this will have been partly offset by an increase in cotton planting particularly in Argentina and Brazil.

We estimate the global market surplus at 3.5m tonnes. Supply will continue to exceed demand throughout the forecast period. While such high stocks would suggest downward pressure on

prices, this will be more than offset by the fact that a large proportion (over 50% in 2012 and over 60% in 2013) of the stock will be held in China. Outside China, stocks will fall, supporting our forecast of a gradual recovery in prices.

Benchmark cotton prices trended upwards during the first quarter of 2014, recovering much of the ground that they lost in the second half of 2013. Compared with a heavy global stock position, the price rise appears contradictory. However, the price increase largely reflects concerns about US production this season, where we expect output to fall substantially. With the end of China's stockbuilding policy, which sucked in global production and supported prices, the fundamentals of the market are weighed against sustained high prices in 2014 – 2015. We expect the recent high prices to cut some demand for cotton and prompt switching to synthetic fibres. In 2015 a tighter global market will support limited price gains, but there are substantial downside risks to the market if China releases additional stocks of cotton.

Source: Intelligence Unit, *The Economist*, 21 May 2014

### **Extract 2: Clothing to dye for: the textile sector must confront water risks**

Textiles leave one of the largest water footprints on the planet and dyeing poses an especially big problem. Dye houses in India and China are notorious for not only exhausting local water supplies, but for dumping untreated wastewater into local streams and rivers. The industry's challenge is to adopt more water-friendly technologies to dye cotton and polyester, the two most mass marketed textiles. So what can companies do to mitigate the effects of this timeless, yet toxic, dyeing process?

"There is no silver bullet," said Kathy Hattori, who runs a natural dye manufacturing company Botanical Colors. Diluting a dye, she countered, simply means wasting more water. Much of the answer in solving the waste involved in dyeing textiles lies in a factory's mechanisation. Various fabrics require different manufacturing processes, so one best technology does not exist for low-water or waterless dyeing.

One company taking on the textile sector's excessive consumption of water is ColorZen. Compared to conventional processes, ColorZen claims its technology can finish cotton fabric using 90% less water and 75% less energy. Another US firm, AirDye, insists its technology uses a sliver of the water and energy compared to traditional dyeing processes. Instead of water, the company's technology uses air to disperse dye, so colour lasts longer and is more resilient to chemicals and washings.

In Tirupur, India, home to scores of factories and workshops where workers dye materials for t-shirts and other garments marketed around the world. Local dye houses have long dumped wastewater into the local river, rendering groundwater undrinkable and local farmland ruined. Despite tougher regulations, a watchful local press, and the closure of companies in non-compliance, water pollution has festered. The city's 350,000 residents, not multinational textile companies, pay the price. The effects of pesticides and fertilisers on water, makes the global textile industry one of the most polluting and waste-generating sectors in the world

The global demand for cheap clothing will push dye houses to simply react to local regulations by moving operations to another city. Moral outrage will not convince many leading clothing manufacturers to change their ways; as long as companies do not pay a price for the land and water their suppliers poison, watch for the excessive use and abuse of water to dye clothing to continue.

Source: *Guardian Professional*, 12 August 2013

### **Extract 3: Haiti minimum wage increase ignites competition row in textile industry**

The issue of the minimum wage is inflaming employment relations in Haiti, as garment factory owners and workers unions argue about the optimum rate amid fears the country's textile exports may become uncompetitive if the bar is set too high.

Garments constitute 90% of Haiti's exports, earning \$800m (£485) a year, the biggest source of foreign exchange after diaspora remittances. The sector employs 31,000 people, a significant if small contribution to the organised jobs market in a poor, predominantly young workforce beset by unemployment rates of more than 40%.

Ironically, the dispute is on the 12% increase in minimum wage which was recommended by Haiti's high wage council. But the increase is described as a "miserable" wage. Some of the unions are asking for a 150% increase to 500 gourdes per day where were dismissed as irresponsible. Haiti's minimum wage, they say, is already four times that of textile workers in Bangladesh. Garment factory owners recently wrote an open letter exhorting workers to "keep Haiti competitive" in the race against "big rivals" – Bangladesh, Cambodia and Vietnam. It is a struggle to sell Haiti as a garment hub because energy costs are high and workers less skilled and productive compared with rival locations in Asia.

While many see the garment industry as the key to tackling unemployment, farming has long been Haiti's economic mainstay. Laleau, Haiti's finance minister, and a trained economist, has a step-by-step plan "We need basic jobs for people without skills," he says, "but those jobs will not be the locomotive of our economy ... [For that] we need to value the asset that is our people, and create opportunities for them through vocational training."

The government has just signed an agreement to establish Haiti's first agricultural free zone for organic fruit and vegetables for export; many believe the republic's salvation lies in going back to the soil. Farms can create food security, food sovereignty and perhaps even export income, they argue. But agriculture, long underfunded, has become unproductive. It contributes just 25% of GDP, compared with 55% in the 1980s. This is mainly because a third of harvests goes to waste due to poor handling and non-existent storage facilities and transport networks. "We export just 30% of our crop," he says.

For Laleau, it is all about timing. He wants to move from basic jobs to those that utilise the skills and overwhelming number (7 in 10) of Haitians who are unemployed that are under 30. But it will be up to his government to achieve this.

Source: Adapted from *The Guardian*, 21 December 2013

### Questions

- (a) (i) Compare the world consumption of cotton and synthetic fibres from 1992 to 2010. [2]
- (ii) Explain possible reasons for the above observation. [2]
- (b) With the aid of a diagram, account for the projected surge in price of cotton in 2015 as shown in Table 1. [6]
- (c) (i) Using Extract 2, explain the need for government intervention in the textile sector. [4]
- (ii) Discuss how governments should intervene in this market. [8]
- (d) As a consultant, examine the policies you would recommend to the Haitian government in response to its unemployment issues. [8]

**[Total: 30]**

**Question 2 Singapore and the Dynamic Environment of Global Trade****Table 2: Singapore's current account balance (S\$ million)**

2008	2009	2010	2011	2012	2013
39,251.70	47,068.60	76,278.90	78,728.70	62,671.60	68,264.00

Source: Adapted from Singstat

**Table 3: Singapore's imports by source**

Non-Oil Imports - Selected Countries (2007-2012) as a Percentage of Total Imports						
	2007	2008	2009	2010	2011	2012
United States	12.3	13.3	10.5	12.0	12.4	12.2
China	12.1	12.0	9.5	11.6	12.1	12.4
India	2.2	3.0	2.1	3.2	4.5	4.1

Source: Adapted from Singstat

**Table 4: Singapore's exports by destination**

Non-Oil Exports - Selected Countries (2007-2012) as a Percentage of Total Exports						
	2007	2008	2009	2010	2011	2012
United States	8.8	7.4	5.7	6.9	6.1	6.1
China	9.7	9.7	8.5	11.0	11.9	12.2
India	3.3	3.7	3.0	4.0	3.9	3.0

Source: Adapted from Singstat

**Extract 4: Policy reforms in China**

Since the late 1970s, China's manufacturing-led economy has been characterised by rapid double-digit GDP growth. However, in the wake of the global slowdown, China became more cognisant that relying on the model of manufacturing and export-led growth is not sustainable. There is a pressing need to ensure a structural shift from an investment-led to a consumption-based growth, and the government is committed to develop a more sustainable and steady economy, albeit with slower growth. [China's growth rate is forecast at 7.5% p.a.]

One major development is to build a competitive and vibrant economy. Policies are needed to tackle existing market restrictions (ranging from state dominance of the market, to industrial overcapacity, as well as financial restrictions) and accelerate the opening up of China's economy. Reform policies aim to open the Chinese economy to more private and foreign participation, consequentially allowing the Chinese economy to be more efficient and integrated with the global economy. They also seek to enhance the ease of doing business and increase market participation. With the end goal of addressing overcapacity, the Chinese government will allow private and foreign investments to participate in State Owned Enterprises [SOEs] so as to make them more competitive.

Source: Adapted from *IE Insights*, 15 Feb 2014

**Extract 5: India – the new export focus for Singapore?**

India's GDP is forecast to grow an average of 6% to 8% through 2016 with a middle class that is expected to nearly double by then, indicating a huge potential in the domestic market.

India is one of the world's most important emerging markets and the second most populous nation after China. The country is Singapore's ninth largest trading partner, with total trade amounting to S\$35.4 billion in 2011. It has a fast growing consumer market, and opportunities are ripe for Singapore companies to enter into the education, premium healthcare, F&B and retail sectors to meet the needs of the growing upper middle class which is expected to reach 129 million by 2025.

Source: Adapted from IE Singapore, 24 July 2013

**Extract 6: Examples of Singapore's success stories**

International Enterprise (IE) Singapore is the government agency driving Singapore's external economy. The IE Singapore vision is for a thriving business hub in Singapore with Globally Competitive Companies (GCCs) and leading international traders. The following are examples of successful overseas ventures.

**Charles & Keith:** From humble beginnings, in Ang Mo Kio, Charles and Keith Wong have built a significant international brand. With its growing reputation for producing top-quality women's shoes – and later men's shoes under the Pedro line – overseas businesses were eager to partner Charles & Keith in their respective markets. Over 30 factories in China and Malaysia supply shoes to a diverse range of outlets including Singapore, Japan, Dubai and Taiwan.

**SATS:** SATS is Singapore's leading provider of gateway services and food solutions with over 60 years of operating experience. Having forged a solid reputation as a reliable and premier provider of inflight catering as well as passenger, ramp, cargo and baggage handling services in the aviation industry, it has successfully expanded its presence beyond Singapore and ventured into the non-aviation sector. Today, SATS is present in 44 airports across 12 countries. SATS hoped to ride on the booming Indian aviation market as early as 2003. Today, there are more than 20 international airports in India. By 2011, the Mumbai-Delhi air route was the tenth busiest airline routes in the world with a total domestic passenger load exceeding 4.3 million. Growing incomes in India are likely to boost SATS future in this emerging market.

Source: Adapted from IE Singapore, 2013

**Extract 7: US trade sanctions**

US government moved to impose substantial punitive tariffs on hundreds of millions of dollars of imported steel products from South Korea and eight other countries, a much-anticipated decision that marks one of the largest anti-dumping cases in recent memory. Steel imports from the nine countries may be hit with tariffs up to 118%, but the lion's share in this case — from South Korea — was targeted for levies with much smaller duties of 10% to 16%.

In the short term, the tariffs, if finalised, are expected to curb steel imports and lift US prices of certain steel goods, which could be felt by American businesses and consumers. The tariffs also may help restore several hundred steel factory jobs idled because of pressures from imports and probably will embolden domestic steel makers to file more claims of unfair pricing against foreign shippers. Worldwide, China is a leading producer and exporter of steel, but the country didn't figure into Friday's announcement because the US already had levied big anti-dumping tariffs on its tubular steel goods in 2010, which nearly halted its imports in that category.

Source: *Los Angeles Times*, 13 July 2014

**Extract 8: Singapore's competitiveness at risk**

The Monetary Authority of Singapore's (MAS) traditional defence of a strong Singapore dollar policy is built on balancing imported inflation against export competitiveness. The MAS believes a strong currency does not hurt manufacturing as the heavy reliance on imported components - which are cheaper when our currency is strong - helps hold down costs.

But this leaves service exports in the cold - and subject to the vagaries of a strong currency - because they are typically much less reliant on imported inputs. The negative effect of an over-valued currency on service exports like tourism and medical care was very evident in the aftermath of the Asian Currency Crisis of 1997 and 1998. We saw inbound tourism from East and South-east Asian countries dry up. Singapore's private hospitals and clinics were also adversely affected.

Singapore has not benefited much from the US recovery. The EU is still in the doldrums, while Japan is vigorously re-structuring, beginning with aggressively weakening the yen via quantitative easing. China is re-balancing its economy towards domestic demand and services. The US is also regaining competitiveness due to shale oil and gas, lower wages and a resurgent industrial policy.

Meanwhile, the recent Indian elections may translate to a vigorous manufacturing drive by the Modi government. And, if it can straighten out its politics and policies, Myanmar, with abundant resources and cheap labour, may prove to be a big draw for foreign direct investments.

Source: *The Straits Times*, 29 July 2014

**Questions**

- (a) (i) Explain how the current account of an economy is calculated and suggest an explanation for the 62% growth in the current account of Singapore from 2009 to 2010. [3]
- (ii) Using Tables 3 and 4, explain the change in relative importance of the USA and China as Singapore's trading partners, from 2007 to 2012. [2]
- (b) Explain one reason why the Chinese government is promoting structural change. [3]
- (c) Extract 5 reports that the Indian middle class is expected to double by 2016. Explain how this might affect trade between India and Singapore. [4]
- (d) Analyse potential impacts of the "punitive tariffs" on American producers and consumers. [8]
- (e) Discuss the threats and opportunities facing the economy of Singapore in light of recent developments. [10]

**[Total: 30]**

**Section B**

Answer **one** question from this section.

- 3 (a) Explain why education is a merit good but not a public good. [10]
- (b) Discuss the view that governments should always intervene in the market for education. [15]
- 4 (a) Explain why the external consequences of inflation may seem to be more important than the domestic consequences for the economy of Singapore. [12]
- (b) Discuss whether Singapore's exchange rate policy is effective to deal with inflation stemming predominantly from a tight labour market. [13]

**Question 1 The Textile Conundrum**

**(a) (i) Compare the world consumption of cotton and synthetic fibres from 1992 to 2010. [2]**

- Both world consumption of cotton and synthetic fibres rose
- The rate of increase for synthetic fibres was higher than cotton

**(ii) Explain possible reasons for the above observation. [2]**

- Increase in world income → increase in the demand of these materials
- Increase in the price of cotton → higher increase in demand for synthetic fibres

**(b) With the aid of a diagram, account for the projected surge in price of cotton in 2015 as shown in Table 1. [6]**

- Demand for cotton expected to increase
- Soyabean are in competitive supply with cotton → farmers switching to alternative crops → decreasing their supply of cotton
- Supply of cotton is likely to be price inelastic
- Demand for cotton is relatively price inelastic as wool and synthetic fibres may not be very close substitutes
- Both demand and supply for cotton are price inelastic → fall in supply and rise in demand → 'surge' of cotton prices

**(c) (i) Using Extract 2, explain the need for government intervention in the textile sector. [4]**

- Production of textile → water pollution → negative externalities [1m]
- Leads to overproduction and overconsumption of textiles [1m]
- "...dye houses were dumping untreated waste water into the local river, rendering groundwater undrinkable and local farmland ruined" [1m]
- Result in deadweight loss [1m]

**(ii) Discuss how governments should intervene in this market. [8]**

Level	Description	Marks
L3	For a well-developed response that discusses the various policies in which the government may use to intervene in the market with reference to the source.	5 – 6
L2	For an answer with some development or an unbalanced discussion with little reference to source.	3 – 4
L1	For any undeveloped responses that make no reference to the source.	1 – 2
E	For answers that show a well substantiated evaluation	+2

**(d) As a consultant, examine the policies you would recommend to the Haitian government in response to its unemployment issues. [8]**

Level	Description	Marks
L3	For a well-developed response that examines the policies in the government may use to address unemployment with reference to the source.	5 – 6
L2	For an answer with some development or an unbalanced discussion with little reference to source.	3 – 4
L1	For any undeveloped responses that make no reference to the	1 – 2

	source.	
E	For answers that show a well substantiated evaluation	+2

**Question 2 Singapore and the Dynamic Environment of Global Trade**

<b>(a)</b>	<b>(i)</b>	<p><b>Explain how the current account of an economy is calculated and suggest an explanation for the 62% growth in the current account of Singapore from 2009 to 2010.</b></p>	<b>[3]</b>															
		<ul style="list-style-type: none"> <li>• The current account contains: the balance of trade in goods and services, net property income from abroad and net unilateral transfers. [1]</li> <li>• The addition of all positive and negative payments reveals the current account balance [1]</li> <li>• The 62% growth can be explained by the recovery of other countries from the 2008/9 recession [1]</li> </ul>																
	<b>(ii)</b>	<p><b>Using Tables 3 and 4, explain the change in relative importance of the USA and China as Singapore’s trading partners, from 2007 to 2012.</b></p>	<b>[2]</b>															
		<ul style="list-style-type: none"> <li>• The data reveal the relative increase in total trade with China and the relative decline in total trade with the USA [1]</li> <li>• This could be due to the decoupling of the US and Chinese economies [1]</li> </ul>																
<b>(b)</b>		<p><b>Explain one reason why the Chinese government is promoting structural change.</b></p>	<b>[3]</b>															
		<ul style="list-style-type: none"> <li>• Achieve sustainable growth [1]</li> <li>• Current pattern of growth makes China vulnerable to external shocks [1]</li> <li>• This has caused an imbalance with a relatively low level of consumption expenditure [1]</li> </ul>																
<b>(c)</b>		<p><b>Extract 5 reports that the Indian middle class is expected to double by 2016. Explain how this might affect trade between India and Singapore.</b></p>	<b>[4]</b>															
		<ul style="list-style-type: none"> <li>• The rise of a significant middle class in India may boost demand for Singaporean export goods [1]</li> <li>• Singaporean firms are eager to develop markets beyond the borders of the city-state [1]</li> <li>• A reputation for high quality medical service may encourage Indians to seek treatment in Singapore [1]</li> <li>• Invisible exports may also rise with more Indians visiting Singapore or travelling on Singapore Airlines [1]</li> </ul>																
<b>(d)</b>		<p><b>Analyse potential impacts of the “punitive tariffs” on American producers and consumers.</b></p>	<b>[8]</b>															
		<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr style="background-color: #333; color: white;"> <th style="width: 10%;">Level</th> <th style="width: 70%;">Description</th> <th style="width: 20%;">Marks</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">L3</td> <td>For a well-developed response that discusses the various positive and negative impacts of the tariffs on American producers and consumers, with reference to the source.</td> <td style="text-align: center;">5 – 6</td> </tr> <tr> <td style="text-align: center;">L2</td> <td>For an unbalanced response that deals mainly with the impacts of the tariffs, with reference to the source.</td> <td style="text-align: center;">3 – 4</td> </tr> <tr> <td style="text-align: center;">L1</td> <td>For any undeveloped responses that make no reference to the source.</td> <td style="text-align: center;">1 – 2</td> </tr> <tr> <td style="text-align: center;">E</td> <td>For answers that show evaluative judgment or comment.</td> <td style="text-align: center;">+2</td> </tr> </tbody> </table>	Level	Description	Marks	L3	For a well-developed response that discusses the various positive and negative impacts of the tariffs on American producers and consumers, with reference to the source.	5 – 6	L2	For an unbalanced response that deals mainly with the impacts of the tariffs, with reference to the source.	3 – 4	L1	For any undeveloped responses that make no reference to the source.	1 – 2	E	For answers that show evaluative judgment or comment.	+2	
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<b>(e)</b>		<b>Discuss the threats and opportunities facing the economy of Singapore in light of recent developments.</b>	<b>[10]</b>															
		<table border="1"><thead><tr><th data-bbox="336 320 437 367">Level</th><th data-bbox="437 320 1190 367">Description</th><th data-bbox="1190 320 1311 367">Marks</th></tr></thead><tbody><tr><td data-bbox="336 367 437 477">L3</td><td data-bbox="437 367 1190 477">For a well-developed or elaborated response that discusses the various threats and opportunities facing Singapore, with reference to sources.</td><td data-bbox="1190 367 1311 477">6 – 8</td></tr><tr><td data-bbox="336 477 437 613">L2</td><td data-bbox="437 477 1190 613">For an unbalanced response that deals mainly with either threats or opportunities facing Singapore, with reference to sources; or a purely theoretical explanation of threats and opportunities.</td><td data-bbox="1190 477 1311 613">3 – 5</td></tr><tr><td data-bbox="336 613 437 692">L1</td><td data-bbox="437 613 1190 692">For undeveloped responses that make no reference to the source.</td><td data-bbox="1190 613 1311 692">1 – 2</td></tr><tr><td data-bbox="336 692 437 770">E</td><td data-bbox="437 692 1190 770">For answers that show evaluative judgment or comment about the relative extent of the threats or opportunities.</td><td data-bbox="1190 692 1311 770">+2</td></tr></tbody></table>	Level	Description	Marks	L3	For a well-developed or elaborated response that discusses the various threats and opportunities facing Singapore, with reference to sources.	6 – 8	L2	For an unbalanced response that deals mainly with either threats or opportunities facing Singapore, with reference to sources; or a purely theoretical explanation of threats and opportunities.	3 – 5	L1	For undeveloped responses that make no reference to the source.	1 – 2	E	For answers that show evaluative judgment or comment about the relative extent of the threats or opportunities.	+2	
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**Topic: Market Failure and Government Intervention****3 (a)** Explain why education is a merit good but not a public good. [10]**(b)** Discuss the view that governments should always intervene in the market for education. [15]**(a) Explain why education is a merit good but not a public good. [10]**

Level	Description	Marks
L3	For a developed explanation of education as a merit good but not a public good.	7 – 10
L2	For an undeveloped explanation of merit and public goods.	3 – 6
L1	For an answer that briefly displays knowledge of merit and public goods.	1 – 2

**(b) Discuss the view that governments should always intervene in the market for education. [15]**

Level	Description	Marks
L3	For an analytical answer that conveys understanding and assesses the extent of government intervention in the different levels of education.	8 – 11
L2	For an undeveloped or unbalanced argument of government intervention in the market for education.	3 – 7
L1	For an answer that briefly displays knowledge of education as a source of market failure.	1 – 2
E2	For well-substantiated opinions with economic analysis.	3 – 4
E1	For non-substantiated opinions without economic analysis.	1 – 2

**Topic:** How the Macroeconomy works, Inflation

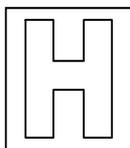
- 4 (a) Explain why the external consequences of inflation may seem to be more important than the domestic consequences for the economy of Singapore. [12]
- (b) Discuss whether Singapore's exchange rate policy is effective to deal with inflation stemming predominantly from a tight labour market. [13]

**(a) Explain why the external consequences of inflation may seem to be more important than the domestic consequences for the economy of Singapore. [12]**

Level	Description	Marks
L3	For a developed explanation of why external consequences of inflation may seem to be more important than the domestic consequences given Singapore's openness and her reliance on trade.	8 – 12
L2	For an undeveloped explanation of the external and domestic consequences of inflation in the Singapore economy, OR an unbalanced explanation of either the external or domestic consequences of inflation in the Singapore economy.	3 – 7
L1	For an answer that briefly displays knowledge of the adverse effects of inflation.	1 – 2

**(b) Discuss whether Singapore's exchange rate policy is effective to deal with inflation stemming predominantly from a tight labour market. [13]**

Level	Description	Marks
L3	For an analytical answer that conveys understanding and assesses the extent of the effectiveness of Singapore's exchange rate policy in mitigating inflation from a tight labour market.	6 – 9
L2	For an undeveloped discussion or unbalanced argument of how Singapore's exchange rate policy is not effective in mitigating inflation stemming from a tight labour market.	3 – 5
L1	For an answer that briefly displays knowledge of Singapore's exchange rate policy.	1 – 2
E2	For well-substantiated opinions with economic analysis.	3 – 4
E1	For non-substantiated opinions without economic analysis.	1 – 2



TEMASEK JUNIOR COLLEGE  
Preliminary Examination 2014  
General Certificate of Education Advanced Level  
Higher 2

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## ECONOMICS

9732/01

Paper 1

29 August 2014  
2 hours 15 minutes

Additional Materials: Answer Paper, Cover Page

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### READ THESE INSTRUCTIONS FIRST

**Do not turn this page over until you are told to do so.**

Write your name and CG number on all the work you hand in.  
Write in dark blue or black pen on both sides of the paper.  
You may use a soft pencil for any diagrams, graphs or rough working.  
Do not use staples, paper clips, highlighters, glue or correction fluid.

Answer **all** questions.

Begin each case study on a separate sheet of answer paper.  
At the end of the examination, fasten your work for **each case study separately**.  
The number of marks is given in brackets [ ] at the end of each question or part question.

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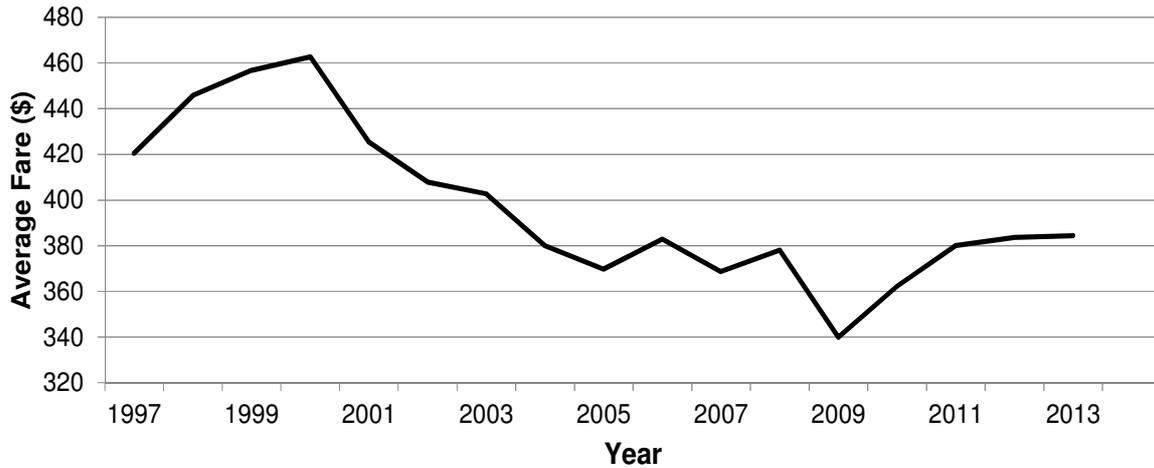


Answer all questions.

**Question 1**

**The Evolution of the US Domestic Airline Industry**

**Figure 1: Annual US Domestic Average Itinerary Fare in 2014 Constant Dollars**



Source: Bureau of Transportation Statistics, US

**Table 1: Net Income of US Carriers (in millions of dollars)**

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Total	-9,104	-27,220	18,186	7,691	-23,750	-2,526	3,666	1,392	364	12,771

Source: Bureau of Transportation Statistics, US

**Extract 1: Airlines: Who Can Tolerate Them**

The “big bang” in the airline world was October 24, 1978. On that momentous day, the Airline Deregulation Act was signed into law. Prior to the new law, airlines were governed by the Civil Aeronautics Board (CAB). It sets fares and granted (or not) licenses to airlines for new routes. The system had functioned for over four decades when in the early 1970’s, the Arab oil embargo drastically increased fuel prices and the economy suffered from stagflation. The rate system often subsidised inefficient routes. As airfares were escalating rapidly, congressional pressure mounted to scrap this antiquated bureaucracy. The theory was that an industry once untethered from government shackles would surely thrive under unfettered capitalism.

Post 1978, the stampede to compete was fast and furious. The “Act” basically allowed, perhaps encouraged, any sentient being who, satisfied adequate pecuniary requirements and experience, to join the fray. And in the intervening twenty-five year period, 129 enterprising souls did exactly that. By the end of 2003, only 15 of these start-ups remained, with that number much less today. Some of the great entrepreneurial success stories were Southwest, JetBlue, and America West (now merged into US Airways.) Of the twenty-three major and regional carriers licensed before the mass “airline rush”, only seven survive today and three of those are small regional airlines in Alaska and Hawaii. Bankrupted are old great names of Eastern Airlines, Braniff and Pan American. Most of the others have been merged out of existence so that only United, Delta, US Airways and, with fate hanging, American remain extant. Of these remaining majors, it should be noted that all have been through at least one bankruptcy.

Source: Adapted from *Forbes*, 20 Aug 2012

**Extract 2: How Airline Mergers Saved an Industry—and May Even Benefit Fliers**

In the airline industry, the "turbulence" puns never seem to end, because there's always something that rattles the big carriers and shakes up the business. All the recent bankruptcies allowed the airlines to trim an excess supply of jets and cut labour costs that got inflated during the late 1990s, when the carriers were flush and the unions for pilots, flight attendants and machinists had the leverage to demand generous contracts. They also set the stage for a spate of mergers, including American and TWA in 2001; US Airways and America West in 2005; Delta and Northwest in 2008; and United and Continental in 2010. Once American and US Airways have merged, the industry will have shrunk from eight or nine big carriers in 2000 (depending on how you count) to just four. Delta, United, Southwest and the new American will control about 85 per cent of all domestic air travel.

Consolidation is finally helping a money-losing industry become profitable. Fliers may associate bankrupt carriers with fire-sale airfares, but on the whole, a dysfunctional airline industry is a net drag on the US economy. "What we should all root for is an equilibrium in which the airlines are stable enough to make some money for shareholders and provide steady employment, while not charging consumers too much," says Seth Kaplan, managing partner of the trade publication *Airline Weekly*.

Too much consolidation, of course, can generate monopolies that gouge consumers. But so far that hasn't happened. Since 2000, the average airfare, adjusted for inflation, has fallen by 18 per cent, according to the Department of Transportation. Airfares have risen more sharply since 2009, but that follows a plunge in fares during the recession, with ticket prices settling more or less where they were before the downturn. "Mega-mergers over the last seven years have not caused US domestic passengers to experience dramatically higher airfares or drastically reduced competition on most routes," a recent study by consulting firm PricewaterhouseCoopers concluded.

Profit-hungry carriers undoubtedly will push fares as high as possible if a shortage of competition on some routes lets them get away with it. But there are still discounters like Spirit and Frontier eager to find markets where they can undercut established carriers by offering lower fares. Airlines do charge more for extra baggage and other extras these days, but travellers have some control over whether to pay those fees or not. As much as travellers like to gripe about flying, the experience is actually getting better. Mild weather, better technology and other factors have contributed to the better performance, but larger route networks with more integration help, too.

Source: Adapted from *US News*, 14 Feb 2013

**Extract 3: American and US Airways Officially Merge to Create World's Biggest Airline**

The world's biggest airline was officially created on Monday with the merger of American Airways and US Airways, capping a round of consolidation that has worried the US government, rivals and consumer groups. The merged airline will take the American Airlines name and will have a global network of nearly 6,700 daily flights to more than 330 destinations in more than 50 countries, and more than 100,000 employees worldwide. The company has a firm order for 600 new aircraft.

Last month, the Justice Department gave the \$11bn merger the go-ahead after initially raising anti-trust concerns. Under the terms of the settlement, American and US Airways must divest themselves of prime take-off and landing slots at six key airports in Washington, New York, Chicago, and other cities. The two carriers will be forced to sell those slots to low-cost carriers such as Southwest and JetBlue. "This agreement has the potential to shift the landscape of the airline industry. By guaranteeing a bigger foothold for low-cost carriers at key US airports, this settlement ensures airline passengers will see more competition on non-stop and connecting routes throughout the country," said attorney general Eric Holder.

Source: Adapted from *The Guardian*, 9 Dec 2013

**[Turn Over**

**Extract 4: What's Next for the Industry?**

With airline consolidation reshaping the industry, PricewaterhouseCoopers (PwC) identifies four key trends that will likely define the industry in the near-term:

**Sustained profitability:** Domestic airlines have been profitable since 2010, and analysts expect 2013 to be profitable as well. Network carriers have been able to exert capacity discipline, eliminating redundant or unprofitable routes and rescheduling flights to better align with customer demand. In addition, as carriers replace their aging fleets, they'll see additional gains from newer, more fuel-efficient planes.

**Business model convergence:** Low-cost carriers (LCCs) are contending with aging aircraft that are driving maintenance costs higher and a maturing workforce that increases labour cost pressure. As LCCs have increased prices to cover increasing costs, their fares are more closely matching those of the network carriers. According to the report, stable LCC markets experienced a 19 per cent increase from 2008 to 2013, over twice the nine per cent increase in non-LCC markets. Now that mega-mergers have changed the competitive landscape, the business models of these remaining airlines are converging.

**Ultra LCCs and mainline unbundling:** Ultra LCCs are rapidly growing. As LCC airfares continue to rise, ultra LCC airlines distinguish themselves by charging the lowest base fare and collecting the highest ancillary fees. Ultra LCC traffic has almost doubled from 2008 to 2013, according to PwC, and if this business model continues to prove successful, it will likely incentivise some carriers to unbundle their product and services mix, at least for certain passenger segments.

**Improvements to product quality:** More carriers are competing for customers based on product and service offerings, as passengers continue to search for and book flights based on best price, reliability, convenience and amenities. As a result, airlines are increasing investments in customer experience improvements such as in-flight Wi-Fi, premium seating options, and operational reliability infrastructure.

"Carriers today are able to make more investments in improving their operations, as merger-driven consolidation has had a positive impact on the financial stability of the domestic airline industry," continued Jonathan Kletzel, US Transportation and Logistics leader, PwC. "Customer experience will remain a priority for airlines, as companies continue to upgrade their operations and improve efficiency in this time of relative financial stability."

**Source: Adapted from PwC US, 2014**

**Questions**

- (a) (i) State the theoretical relationship between market power and prices in an industry. [1]
- (ii) Do the data reflect this relationship? Explain why or why not. [5]
- (iii) Describe the trend of the net income of US carriers over the period of 2004 to 2013. [2]
- (b) (i) Identify how the market structure for domestic US airlines has evolved since the early 1970s. [2]
- (ii) Explain the reasons for the evolution identified in b(i). [4]
- (iii) Discuss the costs and benefits of the consolidation. [8]
- (c) Assuming you are the economic advisor to the CEO of Jetblue, justify your recommended strategies for Jetblue to remain competitive in the airline industry. [8]

**[Total: 30]**

## Question 2

## Singapore and the Dynamic Environment of Global Trade

Table 2: Singapore's Current Account Balance (S\$ million)

2008	2009	2010	2011	2012	2013
39,251.70	47,068.60	76,278.90	78,728.70	62,671.60	68,264.00

Source: Adapted from Singstat

Table 3: Singapore's Imports by Source

Non-Oil Imports - Selected Countries (2007-2012) as a Percentage of Total Imports						
	2007	2008	2009	2010	2011	2012
United States	12.3	13.3	10.5	12.0	12.4	12.2
China	12.1	12.0	9.5	11.6	12.1	12.4
India	2.2	3.0	2.1	3.2	4.5	4.1

Source: Adapted from Singstat

Table 4: Singapore's Exports by Destination

Non-Oil Exports - Selected Countries (2007-2012) as a Percentage of Total Exports						
	2007	2008	2009	2010	2011	2012
United States	8.8	7.4	5.7	6.9	6.1	6.1
China	9.7	9.7	8.5	11.0	11.9	12.2
India	3.3	3.7	3.0	4.0	3.9	3.0

Source: Adapted from Singstat

**Extract 5: Policy Reforms in China**

Since the late 1970s, China's manufacturing-led economy has been characterised by rapid double-digit GDP growth. However, in the wake of the global slowdown, China became more cognisant that relying on the model of manufacturing and export-led growth is not sustainable. There is a pressing need to ensure a structural shift from an investment-led to a consumption-based growth, and the government is committed to develop a more sustainable and steady economy, albeit with slower growth. [China's growth rate is forecast at 7.5% p.a.]

One major development is to build a competitive and vibrant economy. Policies are needed to tackle existing market restrictions (ranging from state dominance of the market, to industrial overcapacity, as well as financial restrictions) and accelerate the opening up of China's economy. Reform policies aim to open the Chinese economy to more private and foreign participation,

consequentially allowing the Chinese economy to be more efficient and integrated with the global economy. They also seek to enhance the ease of doing business and increase market participation. With the end goal of addressing overcapacity, the Chinese government will allow private and foreign investments to participate in State Owned Enterprises [SOEs] so as to make them more competitive.

Source: Adapted from *IE Insights*, 15 Feb 2014

### **Extract 6: India – the New Export Focus for Singapore?**

India's GDP is forecast to grow an average of 6% to 8% through 2016 with a middle class that is expected to nearly double by then, indicating a huge potential in the domestic market.

India is one of the world's most important emerging markets and the second most populous nation after China. The country is Singapore's ninth largest trading partner, with total trade amounting to S\$35.4 billion in 2011. It has a fast growing consumer market, and opportunities are ripe for Singapore companies to enter into the education, premium healthcare, F&B and retail sectors to meet the needs of the growing upper middle class which is expected to reach 129 million by 2025.

Source: Adapted from IE Singapore, 24 July 2013

### **Extract 7: Examples of Singapore's Success Stories**

International Enterprise (IE) Singapore is the government agency driving Singapore's external economy. The IE Singapore vision is for a thriving business hub in Singapore with Globally Competitive Companies (GCCs) and leading international traders. The following are examples of successful overseas ventures.

**Charles & Keith:** From humble beginnings, in Ang Mo Kio, Charles and Keith Wong have built a significant international brand. With its growing reputation for producing top-quality women's shoes – and later men's shoes under the Pedro line – overseas businesses were eager to partner Charles & Keith in their respective markets. Over 30 factories in China and Malaysia supply shoes to a diverse range of outlets including Singapore, Japan, Dubai and Taiwan.

**SATS:** SATS is Singapore's leading provider of gateway services and food solutions with over 60 years of operating experience. Having forged a solid reputation as a reliable and premier provider of inflight catering as well as passenger, ramp, cargo and baggage handling services in the aviation industry, it has successfully expanded its presence beyond Singapore and ventured into the non-aviation sector. Today, SATS is present in 44 airports across 12 countries. SATS hoped to ride on the booming Indian aviation market as early as 2003. Today, there are more than 20 international airports in India. By 2011, the Mumbai-Delhi air route was the tenth busiest airline routes in the world with a total domestic passenger load exceeding 4.3 million. Growing incomes in India are likely to boost SATS future in this emerging market.

Source: Adapted from IE Singapore, 2013

### **Extract 8: US Trade Sanctions**

US government moved to impose substantial punitive tariffs on hundreds of millions of dollars of imported steel products from South Korea and eight other countries, a much-anticipated decision that marks one of the largest anti-dumping cases in recent memory. Steel imports from the nine countries may be hit with tariffs up to 118%, but the lion's share in this case — from South Korea — was targeted for levies with much smaller duties of 10% to 16%.

In the short term, the tariffs, if finalised, are expected to curb steel imports and lift US prices of certain steel goods, which could be felt by American businesses and consumers. The tariffs also may help restore several hundred steel factory jobs idled because of pressures from imports and probably will embolden domestic steel makers to file more claims of unfair pricing against foreign shippers. Worldwide, China is a leading producer and exporter of steel, but the country didn't figure into Friday's announcement because the US already had levied big anti-dumping tariffs on its tubular steel goods in 2010, which nearly halted its imports in that category.

Source: *Los Angeles Times*, 13 July 2014

### **Extract 9: Singapore's Competitiveness at Risk**

The Monetary Authority of Singapore's (MAS) traditional defence of a strong Singapore dollar policy is built on balancing imported inflation against export competitiveness. The MAS believes a strong currency does not hurt manufacturing as the heavy reliance on imported components - which are cheaper when our currency is strong - helps hold down costs.

But this leaves service exports in the cold - and subject to the vagaries of a strong currency - because they are typically much less reliant on imported inputs. The negative effect of an over-valued currency on service exports like tourism and medical care was very evident in the aftermath of the Asian Currency Crisis of 1997 and 1998. We saw inbound tourism from East and South-east Asian countries dry up. Singapore's private hospitals and clinics were also adversely affected.

Singapore has not benefited much from the US recovery. The EU is still in the doldrums, while Japan is vigorously re-structuring, beginning with aggressively weakening the yen via quantitative easing. China is re-balancing its economy towards domestic demand and services. The US is also regaining competitiveness due to shale oil and gas, lower wages and a resurgent industrial policy.

Meanwhile, the recent Indian elections may translate to a vigorous manufacturing drive by the Modi government. And, if it can straighten out its politics and policies, Myanmar, with abundant resources and cheap labour, may prove to be a big draw for foreign direct investments.

Source: *The Straits Times*, 29 July 2014

### **Questions**

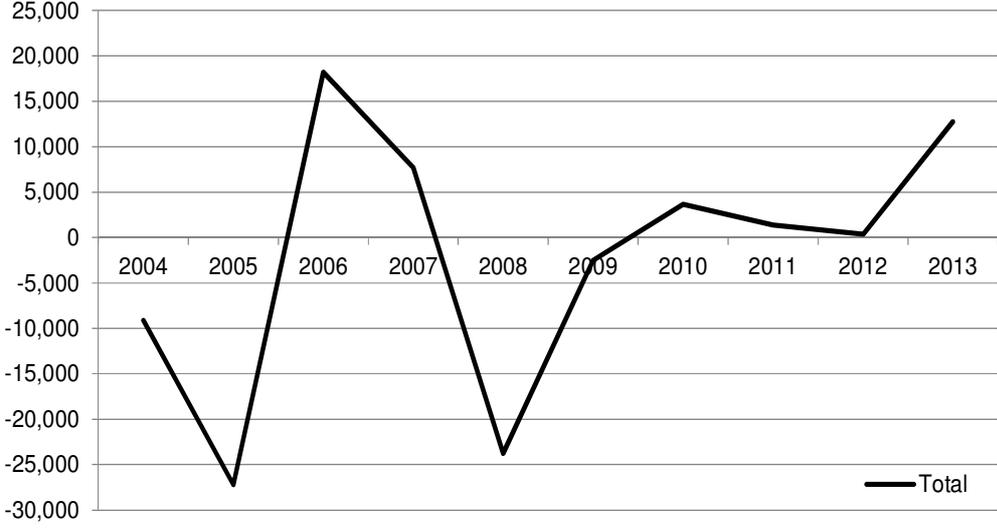
- (a) (i) Explain how the current account of an economy is calculated and suggest an explanation for the 62% growth in the current account of Singapore from 2009 to 2010. [3]
- (ii) Using Tables 3 and 4, explain the change in relative importance of the USA and China as Singapore's trading partners, from 2007 to 2012. [2]
- (b) Explain one reason why the Chinese government is promoting structural change. [3]
- (c) Extract 6 reports that the Indian middle class is expected to double by 2016. Explain how this might affect trade between India and Singapore. [4]
- (d) Analyse potential impacts of the "punitive tariffs" on American producers and consumers. [8]
- (e) Discuss the threats and opportunities facing the economy of Singapore in light of recent developments. [10]

**[Total: 30]**

**Question 1 — The evolution of the US domestic airline industry**

**Suggested answers**

<b>(a)</b>	<b>(i)</b>	<b>State the theoretical relationship between market power and prices in an industry.</b>	<b>[1]</b>
		The greater the market power, the stronger the monopoly power, the higher the prices.	
	<b>(ii)</b>	<b>Do the data reflect this relationship? Explain why or why not.</b>	<b>[5]</b>
		<p>No, the data does not reflect this relationship stated in a(i) because despite the number of carriers shrinking “from eight or nine big carriers in 2000 to just four” (Extract 2), fare prices generally fell from 2000. [1]</p> <p>Demand factor [2m]</p> <ul style="list-style-type: none"> <li>• The fall in fare prices (especially between 2008 and 2010) could be due to the subprime mortgage crisis that led to a recession. This resulted in a fall in demand for air travel, which is a luxury good, and hence a fall in fare prices.</li> </ul> <p>Cost factors [2m]</p> <ul style="list-style-type: none"> <li>• Market dominance: as firms consolidate and grow bigger, they are at a better position to reap internal economies of scale (e.g., bulk buy, managerial economies, etc.), and this would result in their AC and MC falling, and hence translating to cheaper prices</li> <li>• Price wars: as the domestic carriers are generally oligopolistic in nature and are therefore mutually interdependent, there is a tendency for them to engage in price wars. This is evidenced in the “fire-sale airfares” (Extract 2) charged by airlines. This might possibly motivate the airlines to continually lower prices to undercut one another, resulting in a price war and hence a fall in fare prices.</li> <li>• Bundling (indirect price discrimination): the fall in fare prices could also be due to the existence of low cost carriers that charge low base fares but high ancillary fees. The low base fares could have lowered the average fare prices.</li> </ul> <p><i>Students just need to cite one possible demand and another possible cost factor to score all 4m in the explanation component.</i></p>	

	<p>(iii) Describe the trend of the net income of US carriers over the period of 2004 to 2013. [2]</p>	
	 <p>• Net income level of the US carriers generally increased over the period of 2004 to 2009 [1]</p> <p>• The net income level of US carriers experienced great fluctuations between 2004 and 2009, but these fluctuations moderated after 2009. [1]</p>	
<p>(b) (i)</p>	<p>Identify how the market structure for domestic US airlines has evolved since the early 1970s. [2]</p>	
	<p>The deregulation of US domestic airlines in 1978 has caused the industry to evolve from a <u>more</u> oligopolistic market structure to a <u>more</u> monopolistic competitive market structure. [1m]</p> <p>However, consolidation in the 2000s has caused the <u>more</u> monopolistic competitive market structure to revert to a <u>more</u> oligopolistic market structure. [1m]</p>	
	<p>(ii) Explain the reasons for the evolution identified in b(i). [4]</p>	
	<p>Deregulation [2]:</p> <ul style="list-style-type: none"> <li>• The deregulation of the US domestic airline industry was a government intervention to open the industry to higher levels of competition. This could force carriers to increase efficiency and hence mitigate the rising costs arising from:             <ul style="list-style-type: none"> <li>○ Arab oil embargo → rising cost of fuel (Extract 1)</li> <li>○ Inefficient routes (i.e. insufficient passengers per flight to cover the cost of flying)</li> <li>○ Bureaucracy</li> </ul> </li> <li>• The rising cost of production were passed onto consumers as rising fares, resulting in mounting congressional pressure to review the regulated industry in the interest of consumers.</li> </ul> <p>Consolidation [2]:</p> <ul style="list-style-type: none"> <li>• The airline industry was making losses, causing many firms to face bankruptcy. This led to the merger of firms in order to survive.</li> </ul>	

	<ul style="list-style-type: none"> <li>○ Labour costs were high due to the unionisation of workers that allowed for a greater bargaining power for higher wages. Airlines were earning supernormal profits then and hence, were not as stringent with wage increases.</li> <li>○ However, they were unable to cope with the high costs of production when their revenue fell and hence some resulted in bankruptcy.</li> <li>○ Merger of firms occurred, allowing the newly merged firm to reap internal economies of scale (e.g., bulk buy, managerial economies, etc.). This may help firms to lower their costs of production and become profitable.</li> </ul> <ul style="list-style-type: none"> <li>• Mergers and acquisitions occurred as firms seek to reduce competition and increase their market share.             <ul style="list-style-type: none"> <li>○ The larger market share may increase the firm's market power and enable the firm to set higher prices, hence earning higher revenue and profits.</li> <li>○ The larger firm may also compete away market share from smaller firms, resulting in a rise in demand. This may lead to an increase in total revenue and profits.</li> </ul> </li> <li>• Consolidation may have occurred because larger firms tend to have greater ability to deal with demand shocks than smaller firms.             <ul style="list-style-type: none"> <li>○ The 2008 subprime crisis resulted in the global recession and a fall in demand (both internal and external) for flights. Smaller firms tend to have less ability to deal with sudden shocks relative to the larger firms. Hence, the smaller firms may have fallen out of the industry (shut down) or may have been acquired by the larger firms, resulting in the consolidation.</li> </ul> </li> </ul> <p><i>Students just need to cite one possible reason for the consolidation to score the 2m.</i></p>	
(iii)	<b>Discuss the costs and benefits of the consolidation.</b>	<b>[8]</b>
	<p><u>Introduction</u></p> <p>A consolidation in the airline industry would reduce the number of existing firms and allow major airlines such as "Delta, United, Southwest and the new American" to have larger market shares and market power in air travel. This answer analyses the costs and benefits of the consolidation to households, firms and the economy.</p> <p><b>Costs:</b></p> <p><u>Households</u></p> <ul style="list-style-type: none"> <li>• The consolidation increases the market dominance of the airlines, which may reduce consumer surplus.             <ul style="list-style-type: none"> <li>○ With the consolidation, the degree of competition in the airline industry is further reduced. The newly merged firm enjoys greater market power and with its increased pricing power due to fewer available substitutes, it has the ability to set higher prices and reduce output. As suggested in Extract 2, "profit-hungry carriers undoubtedly will push fares as high as possible" on routes with less competition. Hence, the firm may enjoy a higher level of supernormal profits.</li> <li>○ Higher prices would reduce consumer surplus.</li> </ul> </li> </ul>	

Economy

- The increased market dominance may worsen market failure and inequity.
  - [market dominance diagram to illustrate market failure] The difference between price and marginal cost is now greater and hence allocative inefficiency is worsened, with the result being a larger deadweight loss.
  - As profits are concentrated in the hands of the merged firms, and firms enjoy these profits at the expense of consumers who have to bear the higher prices, there is greater inequity.

**Benefits:**

Firms

- The consolidation might have helped with the survival of some of the major players that could have filed for bankruptcy, if not for the merger.
  - According to Extract 2 and Table 1, “Consolidation is finally helping a money-losing industry become profitable” and the airline industry has been making profits in recent years.
  - The merger is likely to improve the firm’s efficiency by cutting redundant or unprofitable routes, or replacing aging fleet that was not as fuel-efficient.
  - By merging to achieve greater scale of production, firms are able to enjoy greater internal economies of scale through marketing economies such as bulk purchase of aircrafts or lower unit costs of advertising.
  - These have enabled firms to lower their unit cost of production and hence increase profitability.

Households

- The cost savings mentioned above can be passed on to consumers in terms of lower prices, enhancing consumer welfare.
- Stability in the airline industry brought about by the consolidation also allows for greater stability in employment in the industry.

**Evaluation**

- Even though there is increased market dominance, there has not been a significant increase in fares. Instead, extract 2 mentioned, “Since 2000, the average airfare... has fallen by 18 per cent”. The consolidation may not necessarily result in higher prices and hence the costs mentioned above. This could be because the internal economies of scale reaped by the merged airlines and costs savings were also translated to lower prices for consumers.
- In particular, the merger between American and US Airways requires them to divest “prime take-off and landing slots at six key airports” which will increase the competition on “non-stop and connecting routes throughout the country”. The government can regulate the consolidation such that it allows firms to be profitable without reducing the level of competition in the market.
- Hence, the benefits of consolidation may potentially outweigh the costs, which perhaps can be inferred from the stance of the Department of Justice in allowing the merger of American and US Airways.

*Other possible costs:*

- *Union loses bargaining power*
  - *Consolidated firms have greater leverage over workers in comparison to the 1990s where individual firms with smaller market share*
- *Loss in choice of airlines that ply similar routes, lowering consumer surplus.*

*Other possible benefits:*

- *Higher returns on investment in the airline industry might result in greater investor*

	<p><i>optimism</i> → higher levels of investment → increase in AD</p> <ul style="list-style-type: none"> <li>Reduce business costs due to improvement in transportation networks</li> </ul> <table border="1"> <thead> <tr> <th>Level</th> <th>Description</th> <th>Marks</th> </tr> </thead> <tbody> <tr> <td>L3</td> <td>For a <b>well-developed and balanced</b> discussion of costs and benefits of consolidating the airline industry on households, firms OR the economy. <b>Well-supported</b> with case study evidence.</td> <td>5-6</td> </tr> <tr> <td>L2</td> <td>For an underdeveloped OR unbalanced discussion of costs and benefits, OR an answer not well-supported with case evidence.</td> <td>3-4</td> </tr> <tr> <td>L1</td> <td>For an answer that shows <b>some</b> knowledge of benefits and costs of consolidation.</td> <td>1-2</td> </tr> <tr> <td>E</td> <td>For a <b>substantiated judgment</b> and/or <b>evaluative assessment</b> based on economic analysis.</td> <td>1-2</td> </tr> </tbody> </table>	Level	Description	Marks	L3	For a <b>well-developed and balanced</b> discussion of costs and benefits of consolidating the airline industry on households, firms OR the economy. <b>Well-supported</b> with case study evidence.	5-6	L2	For an underdeveloped OR unbalanced discussion of costs and benefits, OR an answer not well-supported with case evidence.	3-4	L1	For an answer that shows <b>some</b> knowledge of benefits and costs of consolidation.	1-2	E	For a <b>substantiated judgment</b> and/or <b>evaluative assessment</b> based on economic analysis.	1-2	
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(c)	<p><b>Assume you are the economic advisor to the CEO of Jetblue. Justify your recommended strategies for Jetblue to remain competitive in the airline industry.</b></p>	[8]															
	<p><u>Introduction</u></p> <p>In view of the recent spate of mergers by major network carriers, there are clear changes in the domestic airline industry. Given these changes, competitive strategies ought to be reviewed in order to keep abreast with the times. New strategies should focus on two key aspects, avoiding or mitigating the threats. As well as seizing the opportunities that are opening up. In order to identify these strategies, one needs to first recognise the current situation and possible trends in the industry.</p> <p><u>Current situation + Possible trends (as seen in Extract 4)</u></p> <p><b>Segmenting of the market:</b></p> <ul style="list-style-type: none"> <li>Clear segmenting of the market into 3 separate segments             <ul style="list-style-type: none"> <li>(1) Network carriers – American Airways, Delta Airlines</li> <li>(2) Low-cost carriers – Southwest, Jetblue</li> <li>(3) Ultra low-cost carriers – Spirit, Frontier</li> </ul> </li> <li>While the industry may exhibit certain characteristics that would take after the major players, individual firms that belong to the separate segments will still be able to exhibit characteristics and behaviour that differs from the overall industry</li> </ul> <p><b>Mergers of major network carriers:</b></p> <ul style="list-style-type: none"> <li>Industry is evolving to become more oligopolistic in nature due to the various mergers and acquisitions. As such, the remaining network carriers will be gaining in market share and power.</li> <li>Network carriers will then have greater price setting abilities, which further restricts the smaller firms in the industry to following the prices set</li> </ul> <p><b>Government stance on mergers in the industry</b></p> <ul style="list-style-type: none"> <li>By allowing the merger of American and U.S. Airways, it implies that the U.S. government is not against the consolidation of the industry in light of the possible benefits it brings in comparison to the potential damages if a major airline closes down</li> <li>Nonetheless, the ruling for the newly formed American Airways to divest its</li> </ul>																

slots is seen as guaranteeing a bigger foothold for low-cost carriers at key U.S. airports and is a signal for other firms in the industry about the government's attitude towards competition

**Business model of low-cost carriers converging to that of network carriers**

- Higher costs experienced by low-cost carriers due to
  - Aging aircraft fleet which would cost more to maintain and will have lower cost efficiency
  - Maturing workforce which will increase labour costs as these workers are promoted and given wage increments through seniority
- Due to this increasing cost of production, low –cost carriers increase their fares to retain their profit margins, hence, fares will given to resemble network carriers
- This results in low-cost carriers losing their competitive edge over network carriers, which was always the lower fares due to their ability to keep costs low

**Growth of ultra low-cost carriers**

- Emergence of ultra low-cost carriers resulting in a new wave of price competition by these carriers in an attempt to undercut BOTH network and low-costs carriers

**Increasing emphasis in improving product quality**

- Customers are placing more value on customer experience and this is resulting in firms being more willing to invest in improving product quality (e.g. in-flight Wi-Fi, premium seating options, and operational reliability infrastructure)

Given these current and future trends, Jetblue needs to understand its position as a **low-cost carrier in the U.S. domestic airline industry** and the various threats and opportunities that it faces in order to implement possible strategies.

Threats:

- **Increasing costs** (as explained in the convergence of business models with network carriers)
- **Falling demand** → Falling revenue
  - Demand for Jetblue may be competed away by network carriers who would have consolidated and are now better placed to engage in aggressive competitive strategies (i.e. price wars, advertisements) as they are able to reap greater internal economies of scales, hence, incurring lower average costs, directing the profits to these competitive efforts
  - Demand for Jetblue may also be competed away by ultra low-cost carriers who are able to charge a much lower airfare for the same product – air travel. Customers who are more price elastic in their demand may choose to switch to ultra low-cost carriers due to the rising airfares charged by Jetblue due to the increasing cost of production. These customers tend also to be those who are flying short-haul flights and are not overly concerned in the disparity between the services provided on a low-cost carrier like Jetblue and the services that will incur high ancillary fees on ultra low-cost carriers such as Spirit

Opportunities

- **Divestment of the newly formed American Airways**

- Mandate by the Justice Department for the firm to divest themselves of prime take-off and landing slots at six key airports will allow other firms to gain a foothold in the industry.
  - These slots are the rights to operate a service at a particular time and place. As such, by having a greater number of such slots, an airline is basically able to obtain greater market power in the industry since other airlines will not be able to take-off and land on the firm's slots.
  - As mentioned in Extract 3, this divestment provides opportunities for other firms such as Jetblue to purchase these slots and increase their market power
- **U.S. government's stance on mergers and acquisitions**
    - While there were objections to the various mergers and acquisitions in the industry, most of these seem to have been approved by the U.S. Justice Department.
    - This might signal to firms that such actions are acceptable under certain circumstances, hence, providing an opportunity for Jetblue to follow suit if necessary
    - However, a merger may not necessarily be the way to go since Jetblue may lose its identity in the merger. Mergers may also result in a lengthy period of de-conflicting with the other firm (i.e. Southwest) where two firms may have differing ideas of how the merged firm should be managed.
    - It is good to note that the network carriers are moving towards the route of merging with others only when they are facing bankruptcy and it does seem as though merger is a desperate measure to prevent the firm from shutting down.
    - In the case of Jetblue, it might wish to engage in acquisition processes that will still allow it to gain market power and increase its output, thereby reaping more substantial internal economies of sale to reduce its LRAC.
    - Assuming that Jetblue is willing to pass these cost savings on as lower prices, it will definitely cement its status as a low-cost carrier and to make its demand more price inelastic.

It is vital to understand that the trends identified can be seen BOTH as threats and opportunities, depending on how the firm approaches the situation and the strategies implemented. That will eventually result in the firm – Jetblue benefiting or losing due to these trends.

#### Strategies in response

- Upgrade operations and improve efficiency & buy newer, more fuel-efficient planes
  - Lower costs of production → cope with the rising costs and maintain cost advantage
  - However, one still needs to take into account the high initial cost outlay in order to replace the entire fleet. As such, a possible suggestion would be to do so in parts, and to proceed with the replacement when the firm is earning supernormal profits to sustain this increased expenditure and still break even (normal profits).
  - It would be important to identify the presence of long run cost savings in order to justify short run expenditure as well

- Adopt business model held by ultra low-cost carriers in charging low airfares but higher ancillary fees so as to compete for market share through low pricing but to cover its increasing costs through ancillary fees
  - The optional ancillary fees will also reduce operational costs since not every passenger will opt for these “added” services
  - By charging a lower base fare, it might translate to consumers as lower prices since there will be consumers who might not consume any of the added services that will be charged ancillary fees
  - However, there are several questions should be asked at point of decision: (1) consider the pros and cons of competing with ultra LCCs, especially given LCC’s rising costs (2) how would a firm that is facing rising costs still be able to reduce its airfare?
- Improvement of product quality
  - Differentiate services and strengthen brand loyalty
  - Jetblue needs to focus on non-price competitive strategies so as to reduce its substitutability in relation to other low-cost carriers and definitely to ultra low-cost carriers
  - This may result in an increased market share → ability to pass on higher costs in terms of higher prices due to relative price inelasticity of demand → higher total revenue to offset increases in costs
- With the sale of taking-off and landing slots to low-cost carriers under the terms of the settlement, Jetblue could buy the slots in order to expand Jetblue’s routes and possible flight timing
  - In doing so, it may allow Jetblue to gain a larger market share, hence, increasing total revenue.
  - Prime slots may allow Jetblue’s flights to shift to certain timings that would greatly influence the demand of passengers. It may result in Jetblue flights becoming more price inelastic as well for certain passengers who would wish to fly at these prime timings and won’t mind paying the added premium to do so.
  - Operating flights from these key US airports could also ensure a greater chance of survival.
- Giving up status as low-cost carriers and converge towards a network carrier either by merging/acquiring another airline or to attempt to do so on its own may be a possible strategy as increasing scale of production to reap internal economies of scale in order to tackle the increasing costs of production

Conclusion

Eventually, Jetblue may have to consider if it would be better placed to compete against the major network carriers, or to complete against the ultra low-cost carriers seeing how its current category (LCC) might converge with network carriers and may even be acquired by the network carriers.

Level	Description	Marks
L3	For a <b>well-developed and balanced</b> justification of recommended strategies that Jetblue is able to adopt given the current trends in the industry. <b>Well-supported</b> with case study evidence.	5-6

		L2	For an underdeveloped recommendation of strategies that Jetblue is able to adopt <b>with</b> reference to current trends that is supported by case study evidence and/or a developed recommendation of strategies that is <b>not well</b> supported with case study evidence.	3-4	
		L1	For an answer that shows <b>some</b> knowledge of the airline industry and the possible strategies available to Jetblue <b>without</b> any attempt to justify with case evidence.	1-2	
		E	For a <b>substantiated judgment</b> and/or <b>evaluative assessment</b> based on economic analysis.	1-2	

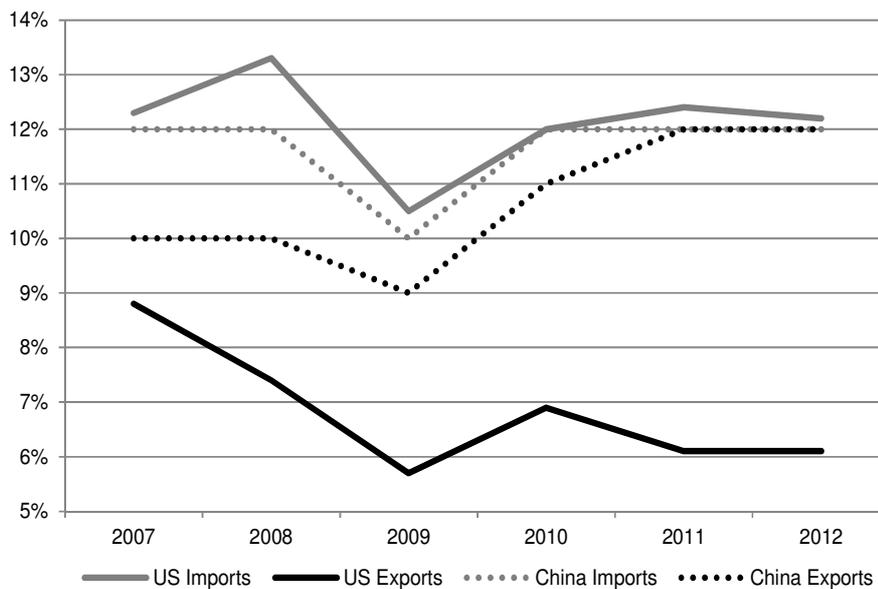
**Question 2 - Suggested Answers**

(a) (i) **Explain how the current account of an economy is calculated and suggest an explanation for the 62% growth in the current account of Singapore from 2009 to 2010.** [3]

- The current account of the balance of payment contains four items: (1) the balance of trade in goods; (2) the balance of trade in services; (3) net primary income flow or net property income from abroad; (4) and the secondary income flow or net unilateral transfers. [1]
- The addition of all positive and negative payments reveals the current account balance. Credit items could include export revenue, dividends from foreign financial investments and transfer of financial assets from Singapore to overseas. Debit items could include import expenditure, repatriation of money from foreign workers in Singapore and grants by the Singaporean government to developing countries. [1]
- The 62% growth from 2009 to 2010 can be explained by the recovery of other countries from the 2008/9 recession leading to an increase in Singapore's exports. [1]

*NOTE: Any reference to "recovery from recession" and "exports" will be credited.*

(ii) **Using Tables 3 and 4, explain the change in relative importance of the USA and China as Singapore's trading partners, from 2007 to 2012.** [2]



- The data reveal the relative increase in total trade with China and the relative decline in total trade with the USA. [1]
- This could be due to the decoupling of the US and Chinese economies. Between 2007 and 2012, the US economy was undergoing a recession caused by the financial crisis (hence lower ability to purchase Singaporean exports), while the Chinese economy, relatively sheltered from the ill effects of the financial crisis, managed to recover fairly quickly (hence higher ability to purchase Singaporean exports). [1]

**(b) Explain one reason why the Chinese government is promoting structural change. [3]**

- The government of China is promoting structural change to achieve sustainable growth. [1]
- The pattern of growth in China when unevenly relying on investment and exports makes China vulnerable to external shocks. [1]

*Any one of the following:*

- This has caused an imbalance with a relatively low level of consumption expenditure [1] **OR**
- Consumption expenditure is essential to ensure real GDP per capita increases in China [1] **OR**
- High levels of investment expenditure may lead to a waste of resource if the economy develops excess capacity [1]

**(c) Extract 6 reports that the Indian middle class is expected to double by 2016. [4] Explain how this might affect trade between India and Singapore.**

- The rise of a significant middle class in India may boost demand for Singaporean export goods because Singapore's economic growth relies on exports. [1]
- The extracts reveal that Singaporean firms are eager to develop markets beyond the borders of the city-state. For instance, Charles and Keith may be able to export to India or engage in outward financial direct investment (FDI) and set up stores in India. *References to SATS will also be credited with 1 mark.* [1]
- The extracts also refer to Singapore's private hospitals. A reputation for high quality medical service may encourage Indians to seek treatment in Singapore; adding to Singapore's invisible exports. [1]
- Similarly, invisible exports may also rise with more Indians visiting Singapore or travelling on Singapore Airlines. Foreign travel may be income elastic and the rising levels of affluence may boost tourism, as has been the case with China. [1]

**(d) Analyse potential impacts of the "punitive tariffs" on American producers and consumers. [8]**

*Introduction*

- This essay analyses the potential positive and negative impacts on American producers and consumers of punitive tariffs imposed by the US government on imported steel products.

*Thesis: Positive Impacts on American Producers*

- One of the major problems of increased globalisation is the dislocation caused by inflows of cheaper imports. The US government may have reacted to political pressures from unions and workers to protect their jobs from cheaper steel imports. Structural change can be painful and often countries are quick to accuse competitors of "cheating" i.e. unfair competition by dumping.
- The use of punitive sanctions may appear to be a solution to the problem of importing steel. Raising the price of imports creates a level playing field with

the domestic production of steel. In the short-term workers retain employment and firms continue to make profits. The tariff raises the price of imported steel and because of the likely negative cross price elasticity the demand for US steel will rise.

- The creation of, or the protection of, jobs in the US steel industry will have a positive impact on the households of American steel workers. This is a potential impact on consumers.

*Anti-Thesis: Negative Impacts on American Producers and Consumers*

- Producers: However, one of the fundamental principles of economics is that competition can lead to efficiency. Protecting firms from competition may weaken the incentives to cut costs or innovate. The long term future of protected industries may be damaged by protection and the 118% tariff may just delay the inevitable decline.
- Consumers: US buyers of steel products may also suffer negative consequences. Steel is a primary product and an increase in price may filter through to increases in the CPI and add to inflationary pressures. Persistent inflationary pressures fuel inflationary expectations and wage price spirals can develop. An increase in wages without an increase in output will simply add to the cost disadvantages of US producers. The US has a major auto industry that is a heavy user of steel. The industry's inability to obtain the cheapest supplies of steel may reduce its international competitiveness. Thus the sanction may provoke the decline of other industries. This is especially important in a globalised world. The US car industry competes with Korea, Japan and Europe and its domestic and export markets may be damaged by higher raw material costs.
- Similarly consumers may pay higher prices for goods containing US steel, or they may switch to buying cheaper imported substitutes. As mentioned above if steel prices impact on the CPI households may claim higher wages to protect their real income. A fall in real income may represent a fall in household material standards of living.

*Conclusion*

- In conclusion, overall the real issue is that dumping is often hard to accurately identify, because lower labour costs or significant economies of scale may cause lower prices and marginal costs are not easily measured. If the allegation is unfounded there may be a long-term negative impact on the US economy that will impact both US producers and consumers, which suggests that it is not in the interests of the USA to impose punitive tariffs as they are only punishing themselves ultimately.

*NOTE: Clear reference to impacts on American producers and consumers is required.*

Level	Description	Marks
L3	For a well-developed response that discusses the various positive and negative impacts of the tariffs on American producers and consumers, with reference to the source.	5 – 6
L2	For an unbalanced response that deals mainly with the impacts of the tariffs, with reference to the source.	3 – 4

L1	For any undeveloped responses that make no reference to the source.	1 – 2
E	For answers that show evaluative judgment or comment.	+2

**(e) Discuss the threats and opportunities facing the economy of Singapore in light of recent developments. [10]***Introduction*

- This paper examines the threats and opportunities facing Singapore's economy in light of the recent developments in Asia, the USA, and Europe.

*What are the major international events or trends that impact Singapore's economy*

- Asia is facing major economic changes. First, according to Extract 5, China is restructuring its economy away from an investment and export-driven economic model in favour of consumption-based growth, and building a more competitive and vibrant economy that opens China to more private and foreign participation. Second, according to Extract 6, India has a growing middle class with a fast growing consumer market with rising incomes. Third, in Extract 9 there is the rise of Myanmar, with its abundant resources and cheap labour, which may be a big draw for Foreign Direct Investments (FDI). Fourth, also in Extract 9, Japan is "vigorously re-structuring" through its continued quantitative easing leading to a weakening yen.
- The USA is starting to recover while Europe languishes. In Fourth, in Extract 9 it is stated that the USA is recovering, gaining competitiveness due to share oil and gas, lower wages, and a resurgent industrial policy, while the European Union (EU) is still in the "doldrums", meaning still facing low growth rates and high unemployment.

*Threats*

- It can be argued that the recent Eurozone crisis and the continued low growth rates and high unemployment in Europe pose a threat to Singapore's economic growth. As Singapore is a trade-dependent economy and Europe is one of Singapore's major trading partners, weak economic growth and high unemployment could mean continued falling exports to Europe, which could potentially hamper Singapore's actual growth.
- It can also be argued that the rise of Myanmar as a resource-abundant, low-cost producer could draw away FDI from Singapore, thus potentially posing a threat to Singapore's actual and potential growth. This is because Singapore now faces a new competitor for investments, and Myanmar arguably is a more attractive investment destination since its opening up from junta rule.
- It can further be argued that, while a weakening yen implies cheaper Japanese imports for Singapore, it means that Singapore exporters will face a tougher time exporting goods to Japan. This is because the Singapore dollar will appreciate vis-à-vis the Japanese yen due to aggressive expansionary monetary policies and continued quantitative easing (QE) by Shinzo Abe. In addition, Japanese QE could result in asset bubbles in Singapore, for instance in the property and stock markets, due to the rapid inflows of cheap capital. Therefore, the events in Japan could potentially pose a threat to Singapore.
- It can also be argued that if China's rebalancing efforts lowers China's rates of economic growth or causes China's national income to fall, during the transition from an investment and export-driven model towards consumption-based growth, this may negatively impact Singapore's exports to China.

*Opportunities*

- However, a rising China and India may also provide opportunities for the Singapore economy. First, rising consumption-based growth in China could mean increases in Singapore exports to China as well as increases in Singapore exports to other countries if China reduces its exports, which would promote actual growth thus increasing Singapore's AD, and possibly promoting investments into export-oriented sectors, thus potentially increasing Singapore's AS. Second, the growing middle class in India with rising incomes means a fast expanding consumer market for Singapore to export to. Therefore, this could mean good news in terms of higher growth and lower unemployment for Singapore's economy.
- Furthermore, in the USA, recovery could mean rising incomes, which could potentially translate into more Singapore exports to the USA. This would eventually raise Singapore's AD and thus promote actual growth, and lower unemployment in Singapore. Therefore, a healthy USA would be beneficial to Singapore.
- It can also be argued that the rise of Myanmar also provides Singapore companies with a good chance to invest overseas, with many Singapore firms such as Yoma Strategic Holdings investing in Myanmar. Capital outflows to Myanmar could possibly result in future inflows into Singapore's current account. In addition, Singapore companies could tap on the comparative advantages afforded by the relatively cheap land and labour in Myanmar, thus benefiting from international trade and globalisation. Therefore, a rising Myanmar may not pose a real threat to Singapore.

*What are the major domestic trends facing Singapore's economy*

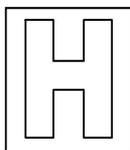
- Extract 5 reveals that the exchange rate mechanism may be creating problems for the many service based industries in Singapore. The Monetary Authority of Singapore (MAS) has a policy stance of allowing a gradual appreciation of the Singapore dollar. Tourism, for example, does not rely on imported raw materials and therefore there is no mitigation from the appreciating Singapore dollar. Tourism may be relatively price elastic as there are other holiday destinations that may be close substitutes.
- Furthermore, restrictions on the growth of foreign workers may result in wage cost-push inflation. These threats can be managed if Singaporean businesses can take advantage of the incentives offered by the government to increase productivity.

*Evaluative Conclusion*

- In conclusion, the various recent events will have an impact on Singapore, but the extent of the threats or opportunities depends heavily upon how the Singapore government responds to these changing circumstances. Through the judicious use of exchange rate policy and supply side policies to manage the economy, Singapore can weather the vicissitudes of economic change. To a large extent, the developments in Asia will likely impact Singapore to a larger extent compared to the changes in the USA and Europe because of the economic rise of Asia and the varied myriad economic changes in Asia.

Level	Description	Marks
L3	For a well-developed or elaborated response that discusses the various threats and opportunities facing Singapore, with reference to sources.	6 – 8
L2	For an unbalanced response that deals mainly with either threats or opportunities facing Singapore, with reference to sources; or a purely theoretical explanation of threats and opportunities.	3 – 5

L1	For undeveloped responses that make no reference to the source.	1 – 2
E	For answers that show evaluative judgment or comment about the relative extent of the threats or opportunities.	+2



TEMASEK JUNIOR COLLEGE  
Preliminary Examination 2014  
General Certificate of Education Advanced Level  
Higher 2

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## ECONOMICS

9732/02

Paper 2: Essay Questions

15 September 2014  
2 hours 15 minutes

Additional Materials: Answer Paper, Cover Page

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### READ THESE INSTRUCTIONS FIRST

**Do not turn this page over until you are told to do so.**

Write your name, CG, centre and index numbers on all the work you hand in.  
Write in dark blue or black pen on both sides of the paper.  
You may use a soft pencil for any diagrams, graphs or rough working.  
Do not use staples, paper clips, highlighters, glue or correction fluid.

Answer **three** questions in total, of which **one** must be from Section A, **one** from Section B and **one** from **either** Section A or Section B.

Begin each essay on a separate sheet of answer paper.  
At the end of the examination, fasten your work for **each essay separately**.  
The number of marks is given in brackets [ ] at the end of each question or part question.

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This document consists of 2 printed pages



Answer **three** questions in total.

**Section A**

**One or two** of your three chosen questions must be from this section.

- 1 (a) Using the concept of opportunity cost, explain why countries trade. [10]  
(b) In Singapore, the government levies a sales tax on cigarettes and tobacco products and it is amongst the highest in the world. In contrast, the Chinese government levies a comparatively lower sales tax and an additional import duty on cigarettes and tobacco products. Assess the economic case for these two different approaches. [15]
- 2 Casual video game publisher G5 Entertainment has reported growth of 500% in mobile game downloads in 2011. Mobile games tend to be cheap or free with game upgrades that can be bought. That makes a mobile game cheaper than a \$60 console game.  
*Adapted from: News10, 29 Feb 2012*  
(a) Using relevant economic concepts, explain the likely reasons for the proliferation of mobile games downloads. [10]  
(b) Assess how related markets might be affected by the growth in mobile gaming. [15]
- 3 The theory of natural monopoly has been criticised as an excuse for defending monopolistic privileges, and has no place in the 21<sup>st</sup> century. Explain the “theory of natural monopoly” and discuss the extent to which the statement is valid for the case of 21<sup>st</sup> century Singapore. [25]

**Section B**

**One or two** of your three chosen questions must be from this section.

- 4 ‘The Monetary Authority of Singapore’s [MAS] traditional defence of a strong Singapore dollar policy is built on balancing imported inflation against export competitiveness.’  
*The Straits Times, 29<sup>th</sup> July 2014*  
Assess the extent to which an improvement in the living standards of an economy requires that managing inflation be the top economic priority. [25]
- 5 In response to the global financial and economic crisis that started in 2008, countries around the world embarked on an unprecedented level of intervention with the aim to keep the economy buoyant and stop a full-scale assault on the labour market.  
(a) Explain the major macroeconomic indicators used by the government of Singapore to guide economic policy decisions. [10]  
(b) Discuss the view that short-term fiscal interventions create more problems than they solve. [15]
- 6 (a) Explain the impact of a quota on a small, open economy. [8]  
(b) Assess the threats and opportunities presented by the openness of the Singapore economy. [17]

### Essay Question 1

**Topics:** Scarcity, Choice and Opportunity Cost, Market Failure, Government Intervention, International Trade, Protectionism, Role of Government

#### Past A Level Questions

**H1 N2011 EQ 4:** Explain how the concept of opportunity cost can be used to analyse the basis for trade between countries. [10]

**H2 N2010 EQ 4:** In the UK, entry to national museums and art galleries is free of charge and tickets to see the opera are heavily subsidised. In contrast, in Japan, entry to national museums and art galleries comes at a high price and a ticket to see opera is among the most expensive in the world. Assess the economic case for these two different approaches. [13]

- a) Using the concept of opportunity cost, explain why countries trade. [10]
- b) In Singapore, the government levies a sales tax on cigarettes and tobacco products, and is amongst the highest in the world. In contrast, the Chinese government levies a comparatively lower sales tax and an additional import duty on cigarettes and tobacco products. Assess the economic case for these two different approaches. [15]

a) Using the concept of opportunity cost, explain why countries trade. [10]

Introduction

- Opportunity cost refers to the next best alternative forgone when a choice is made.
- The theory of comparative advantage states that a country is able to enjoy higher consumption levels if it were to specialise goods in which it has comparative advantage in, and trade the good for other goods in which it has a comparative disadvantage in.
- Thesis statement: this essay will explain, via the theory of comparative advantage, that countries engage in international trade because of differences in opportunity cost.

Explain how differences in opportunity cost explains why countries trade

- Figure 1 shows the production possibility curve of the USA ( $PPC_{US}$ ) and Mexico ( $PPC_M$ ). On the left, USA can produce either 500 computers or 500 shirts or any combination of computers and shirts along  $PPC_{US}$ . On the right, Mexico can produce either 100 computers or 400 shirts, or any combination of computers and shirts along  $PPC_M$ .

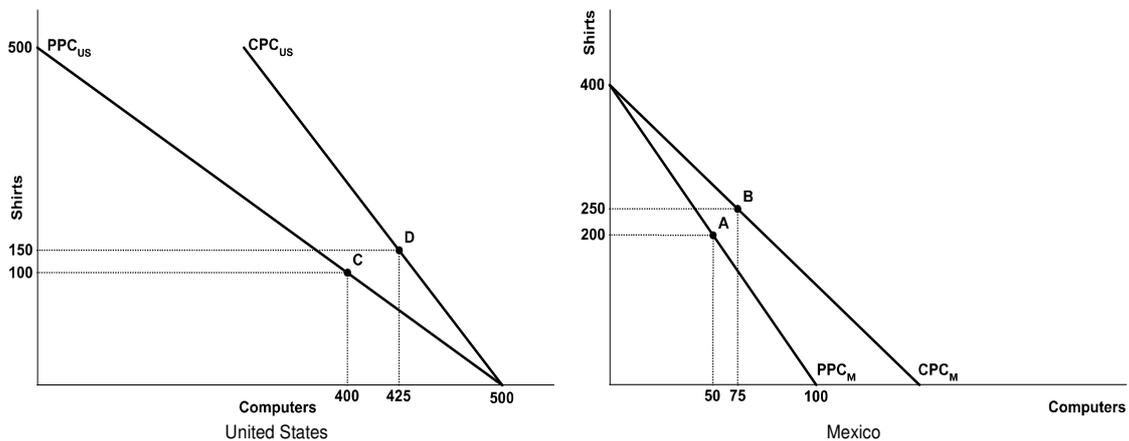


Figure 1: Consumption of Production Possibilities for US and Mexico

- The slope of  $PPC_{US} = \frac{500}{500} = 1$ , which shows that USA's opportunity cost of producing 1 computer is 1 shirt. The slope of  $PPC_M = \frac{400}{100} = 4$ , which shows that Mexico's opportunity cost of producing 1 computer is 4 shirts. USA has a lower opportunity cost and hence a comparative advantage in producing computers. Conversely, Mexico has a lower opportunity cost and hence a comparative advantage in producing shirts.
- If both countries were in autarky, USA produces and consumes 100 shirts and 400 computers (Point C), while Mexico produces and consumes 200 shirts and 50 computers (Point A).
- Assume the terms of trade to be: 1 computer : 2 shirts. With complete specialisation, USA produces 500 computers while Mexico produces 400 shirts. Trade then enables USA to consume at any point along its new post-trade consumption possibilities curve  $CPC_{US}$ , while it enables Mexico to consume at any point along its new post-trade consumption possibilities curve  $CPC_M$ . Both  $CPC_{US}$  and  $CPC_M$  have the same slope, which is equivalent to the exchange rate, 1 computer : 2 shirts.
- If USA exports 75 computers and imports 150 shirts from Mexico, it now consumes at Point D with 425 computers and 150 shirts. This is better than its autarky consumption level at Point C, where only 400 computers and 100 shirts were consumed.

- From Mexico's perspective, if it exports 150 shirts and imports 75 computers from USA, it consumes at Point B with 250 shirts and 75 computers. This is also better than its autarky consumption level of Point A, where only 200 shirts and 50 computers were consumed.

#### Conclusion

- Therefore when opportunity costs of producing different goods differ between the 2 countries, specialisation and trade according to comparative advantage is beneficial to both countries.
- If the slopes of both countries' PPC's were identical, then there is no difference in the opportunity costs of producing either good. Neither country has comparative advantage in either good so there is nothing to be gained from international specialisation and trade. Trade between the two countries will not occur.

Level	Description	Marks
L3	For an answer that uses diagrams and/or tables to effectively illustrate opportunity cost and comparative advantage	7 – 10
L2	For an answer that displays good understanding of opportunity cost and comparative advantage	3 – 6
L1	For an answer that displays knowledge of opportunity cost and comparative advantage, or for a brief and undeveloped answer	1 – 2

- b) In Singapore, the government levies a sales tax on cigarettes and tobacco products, and is amongst the highest in the world. In contrast, the Chinese government levies a comparatively lower sales tax and an additional import duty on cigarettes and tobacco products. Assess the economic case for these two different approaches. [15]

#### Introduction

- Market failure refers to the situation where the free market fails to achieve an outcome that maximises society's welfare
- However, the government's intervention in a market might not necessarily be restricted to correcting market failure, and instead choose to pursue other economic objectives
- Thesis statement: this essay would examine the economics issues inherent in the tobacco market and use economic theory to justify the two contrasting approaches

#### Explain how negative externalities results in market failure

- Negative externalities refer to the adverse effects imposed on third parties from the production or consumption of a good. A person who smokes in public harms the people nearby, and these passive smokers are third parties who run the risk of getting health problems even though they are not consuming any cigarettes.

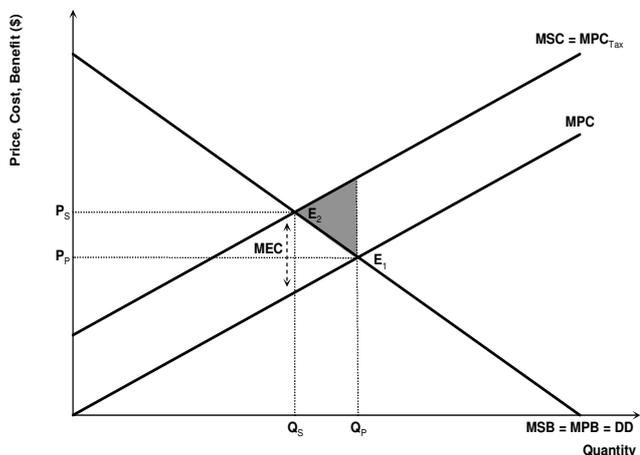


Figure 2: Negative Externality and a Sales Tax

amount equal to MEC. Assuming that there are no positive externalities, the market demand curve is identical to the MPB and MSB curves.

- Without government intervention, the free market equilibrium occurs where  $MPB = MPC$  at output  $Q_p$ . The social equilibrium however, is where  $MSB = MSC$  at output  $Q_s$ . Between  $Q_s$  and  $Q_p$ , as  $MSC > MSB$ , negative welfare (deadweight loss) of area A is generated. Since  $Q_p > Q_s$ , the good is said to be over-produced.
- A demerit good explanation is also acceptable

- Marginal External Costs (MEC) is defined as the additional costs imposed on third parties from the production or consumption of a good. When there are negative externalities, the full costs incurred by society include both the private costs and external costs. Marginal Social Cost is therefore equal to the sum of Marginal Private Costs and Marginal External Costs:  $MSC = MPC + MEC$

- When there are negative externalities, the MSC curve lies above the MPC curve by the

Explain how a sales tax corrects the market failure and restore the market to socially optimal equilibrium

- By imposing a sales (specific) tax that is equal to the MEC, MPC would pivot to  $MPC_{Tax}$ . The new private equilibrium  $Q_s$ , where  $MPC_{Tax} = MPB$  now coincides with the social equilibrium  $Q_s$  where  $MSB = MSC$ . Allocative efficiency is achieved as the output has been reduced to the socially optimal level.

Explain how an import duty helps protect the domestic Chinese tobacco industry

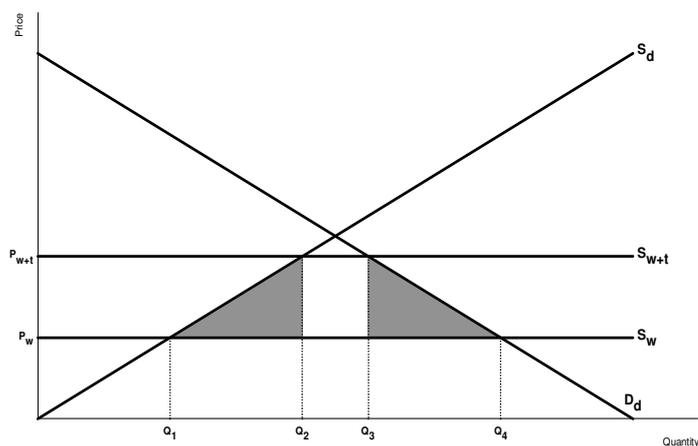


Figure 3: Market Effects of an Import Duty

- In Figure 3, at the world price,  $P_w$ , domestic tobacco producers will produce  $Q_1$  while the quantity demanded by consumers of tobacco products is  $Q_4$ . If an import duty is imposed, the supply curve of imported tobacco shifts vertically up from  $S_w$  to  $S_{w+t}$  raising the price of imports by the amount of the tariff, i.e.,  $P_w$  to  $P_{w+t}$ . At  $P_{w+t}$ , domestic tobacco production rises from  $Q_1$  to  $Q_2$  while domestic consumption falls from  $Q_4$  to  $Q_3$ . As a result tobacco imports fall from  $(Q_4 - Q_1)$  to  $(Q_3 - Q_2)$ .

- By reducing the quantity of tobacco imports, the import duty has effectively allowed domestic tobacco producers to increase their production and continue to operate in the market. This could also be used to protect the employment opportunities of the domestic Chinese tobacco farmers and workers.

Discuss the effectiveness of the two policies in helping the respective governments in achieving the policy objectives

- While a well designed sales tax could potentially restrict the consumption of tobacco products, the addictive nature of these products could imply that the demand function of these goods are relatively more price inelastic and hence sales tax could have limited deterrent effect on the consumers.
- Similarly for the import duty, if the local Chinese tobacco producers are very inefficient and incur a relatively exorbitant cost of production, the import duty would not be as effective in protecting the local tobacco industry.

Account for the difference in approaches

- Even though the two governments are faced with a similar market, their intervention approach is quite different. However, there could be an economic case for their contrasting approaches.
- Demand conditions might be different for both tobacco markets, hence the need to impose different sales tax rates. Due to differences in taste and preferences, and information imperfection, tobacco in Chinese society tends to be viewed as a more socially acceptable good than in Singapore, and hence the demand for tobacco in China might be more price inelastic, and hence a higher tax rate is justifiable.
- Singapore does not have a domestic tobacco industry while the tobacco industry in China plays a non-trivial role in the Chinese economy. From Singapore's point of view, an additional import duty is not necessary. This is in contrast with China as an import duty can effectively shield the domestic tobacco market from overseas competition and help protect the interests of the Chinese tobacco producers and workers.
- Other points could include:
  - Different extent of government failure
  - Difference in belief

Conclusion

- Ultimately, it is hard to conclude that one approach possesses a stronger economic case than the other, as the fundamental economic conditions of these two countries are vastly different.
- Governments intervene in markets for a variety of reasons and the pursuit of allocative efficient outcomes might not necessarily be the only objective that the government is trying to achieve. These perspectives are made more complex when different governments are presented with varying economic and political conditions. It could well be true that both cases are equally justifiable from an economic perspective.
- However, if the belief is for market forces and price mechanisms to function efficiently (and how this would result in favourable macroeconomic conditions), then Singapore's approach of market correction could arguably bear more economic weight. Moreover, since China National Tobacco Corporation (a Chinese state-owned monopoly) is one of the world's largest tobacco products manufacturers, protectionism could arguably be construed as a politically motivated policy decision rather than an economically sound one.

Level	Description	Marks
L3	For an analytical answer that justifies the economic case for the two approaches. This could include discussions on the limitations and unintended consequences of the policies. In order to score the full 11 marks, candidates must compare and analyse the economic case for the two different approaches.	8 – 11
L2	For an answer that displays good understanding of the economic objectives and the respective policies used to tackle these economic issues	3 – 7
L1	For an answer that displays knowledge of negative externality or demerit good, or for a brief and undeveloped answer	1 – 2
E2	Evaluative points that are well substantiated with evidence and clear theoretical analysis.	3 – 4
E1	Evaluative points that are not substantiated and without economic analysis	1 – 2

- 2 Casual video game publisher G5 Entertainment has reported growth of 500% in mobile game downloads in 2011. Mobile games tend to be cheap or free with game upgrades that can be bought. That makes a mobile game cheaper than a \$60 console game.

*Adapted from: News10, 29 Feb 2012*

- (a) Using relevant economic concepts, explain the likely reasons for the proliferation of mobile games downloads. [10]
- (b) Assess how related markets might be affected by the growth in mobile gaming. [15]

**(a) Using relevant economic concepts, explain the likely reasons for the proliferation of mobile games downloads. [10]**

This answer seeks to explain the likely reasons for the proliferation of mobile game downloads using demand and supply analysis, and also price elasticity concepts. The increase in mobile games downloads may be caused by increases in both demand and supply while the extent of increase can be accounted for by the price elastic demand and supply of mobile games.

**Increase in Demand**

• Change in taste and preference in favour of mobile games:

As mobile phones are portable, one is able to play mobile games on the go. Due to the busy lifestyles, the convenience of mobile gaming has led to a favourable change in taste and preferences towards mobile gaming. Also, viral games like *Angry Birds* and *Flappy Bird* have influenced the masses to download mobile games, hence increasing the demand for mobile games.

• Increase in income

As the global economy experiences a recovery from the Global Financial Crisis, national income levels have increased. This may result in an increase in demand for smartphones, which are normal goods. Smartphones offer a more accessible and compelling mobile gaming experience that has even attracted consumers who have not traditionally been gamers. Hence, the increase in demand for smartphones may increase demand for mobile games as well.

*(Increase in size of population, increase in price of substitutes and decrease in price of complements are also acceptable reasons for the increase in demand)*

**PES analysis:**

Compared to PC or console games, mobile games generally take lesser time to develop, and can be produced cheaply by individual and small developers → supply of mobile games is relatively more price elastic → with an increase in demand, the increase in quantity is more than proportionate to the increase in price.

**Increase in Supply**

• Increasing number of firms:

The introduction of many easy-to-use game-developing tools that do not require heavy coding has enabled novices to create their own games easily using the simple user interface. This has led to the entry of many indie game developers. Furthermore, the profitability of the mobile gaming industry may be attracting other types of game developers into the market. For instance, Eutechnyx, the developer of NASCAR games, is moving some of the teams of developing console games to mobile games. Hence, with the increase in the number of developers in the mobile game market, the supply of mobile game is likely to increase.

*(Improved technology is an acceptable reason for the increase in supply)*

**PED analysis:**

Demand for mobile games are likely to be elastic because unlike the avid computer gamers, mobile gamers are relatively less addicted and committed to the game, mostly playing the games to kill time. → with an increase in supply, the increase in quantity is more than proportionate to the increase in price.

*Analysis should include a diagram to show how a simultaneous increase in demand and supply may result in an increase in equilibrium quantity, and how price elastic demand and supply of mobile games have resulted in the rapid increase in mobile game downloads.*

Knowledge, Application, Understanding and Analysis		
L3	For an answer that explains demand and supply factors of mobile gaming with appropriate use of examples and diagrams <b>AND</b> uses elasticity concepts to account for the proliferation of mobile games downloads.	7-10
L2	For an answer that explains demand and/or supply factors of mobile gaming with appropriate use of diagrams.	4-6
L1	For an answer that shows some knowledge of demand and/or supply factors influencing mobile game downloads.	1-3

**(b) Assess how related markets might be affected by the growth in mobile gaming. [15]**

As mobile gaming grows rapidly, its impact will be felt across several markets that are related to it, as well as market that are related to markets that are affected.

**Explain the impact on market for inputs of mobile gaming:**

e.g. software for game developers, game engineers

- As the demand for mobile game rises, demand for software that are used to develop these games may increase as well since the demand for software is derived from the demand for mobile games. → Equilibrium price and quantity increases.

**Explain the concept of CED**

- Cross price elasticity of demand (CED) refers to the degree of responsiveness of demand for a good to a change in the price of another good, ceteris paribus. If the related good is a substitute, the CED will be a positive figure. An increase in price of the substitute will increase the demand of the good. The figure will be negative for a complement.

**Explain the impact on market for complements and their related markets**

e.g. game merchandise, smartphones, portable chargers

- Game merchandise like t-shirts, stuffed animals and phone covers are complements of mobile games, with a negative figure for CED. The growth in mobile gaming is likely to increase the demand for game merchandise → Increase in equilibrium price, quantity, and total revenue.

- With the increasing demand for game merchandise, demand for services of fan product providers such as PopAppStore, is likely to increase too → Increase in equilibrium price, quantity, and total revenue in the game merchandise market.
- As smartphones are required to play the mobile games, the demand for smartphones may increase with the growth in mobile gaming. Non-smartphone users may switch to buying smartphones so that they can play mobile games. Smartphone users may also buy a new smartphone that has a larger screen, better graphics and larger memory capacity to enhance their gaming experience → Increase in equilibrium price, quantity, and total revenue in the smartphone market.
- As the demand for smartphone increases, the demand for its factors of production, such as rare earths metals, may also rise as their demand is derived from the demand for smartphones → Increase in equilibrium price, quantity, and total revenue

**Explain factors that may affect the extent of impact**

- Magnitude of CED
  - eg. As Singapore has a high smartphone penetration rate of 87% and many mobile games can be downloaded onto one smartphone, mobile gamers do not need to buy an additional phone to play a new mobile game. Therefore, they are weak complements and the impact of growth in mobile gaming is likely to be limited. However, in countries with low smartphone penetration rate such as Indonesia or India, smartphone and mobile games may be close complements and the growth of mobile gaming may result in a significant increase in demand for smartphones.
- Nature of complements
  - eg. The more gaming-centric a smartphone is, the greater the extent of impact. For example, Sony Ericsson launched the Xperia Play in 2011, a gaming-centric smart phone, which features a 4-inch touch-screen and a slide-out controller reminiscent of Sony's PlayStation Portable controls. The growth of mobile games is likely to result in a greater increase in demand for Xperia Play compared to other smartphones.
  - eg. the operating system - not all mobile games are compatible on all operating systems. Certain games are only released on the iOS, for example, Tiny Wings and Clumsy Ninja. Hence, for smartphones with an operating system that offers a greater variety of mobile games, the extent of impact is likely to be greater.  
(PES analysis is also accepted)

**Explain the impact on market for substitutes and their related markets**

e.g. handheld games, console games, books

- With the growth in mobile gaming, demand for other forms of gaming or entertainment may fall, resulting in fall in price, quantity and total revenue. For instance, in 2012, consumers spent more on iOS App Store and Google Play games than on software for dedicated gaming handhelds like the 3DS and PlayStation Vita..

**Explain factors that may affect the extent of impact**

- Magnitude of CED - proximity of the substitute to mobile games
  - eg. Most mobile players are just casual gamers who are trying to kill time whereas console game players may be avid gamers who want a more immersive gaming experience that comes with better storyline, character development and

intricate soundtracks. Hence, mobile games and console games are likely to be weak substitutes and the extent of impact is limited.

- The strategies taken by the competitors
  - eg. Console game producers may choose to release mobile versions of their console games to keep up with the competition from mobile games. For example, Activision brought the console game 'Call of Duty' into the mobile game market while Electronic Arts brought in 'Plants vs Zombies'. By entering the mobile gaming market, console gaming firms can also advertise and promote the console version of their game to the emerging audience of casual players. This may potentially intrigue the mobile gamers to buy the console version and increase demand for console games. (There is a possibility for the two goods to become complements.)

*(Time period or PES analysis is also accepted)*

**Evaluation**

*(Make a judgement on which market is likely to have the most significant impact, whether substitutes or complement markets will be affected more, or which factor is the most important in influencing the extent of impact)*

- eg. The overall impact on the related markets is eventually dependent on tastes and preferences of the consumers as taste and preferences influences the proximity of the related goods to mobile games, the success of the strategies taken by the competitors and whether console games can eventually become a complement of mobile game.

Level	Description	Marks
L3	For an answer that provides a well considered, balanced and well justified argument on how the related markets might be affected by the growth in mobile gaming.	9 - 11
L2	For an answer that provides an adequate analysis of the impact on related markets but answer lacks in scope and depth. There are also attempts to provide a balanced argument.	4 - 8
L1	For an answer that is mostly descriptive, with some inaccuracies.	1 - 3
E2	For a judgment based on economic analysis / adequately substantiated.	3 - 4
E1	For an unexplained judgment, or one that is not supported by economic analysis.	1 - 2

3. The theory of natural monopoly has been criticised as an excuse for defending monopolistic privileges, and has no place in the 21st century. Explain the “theory of natural monopoly” and discuss to what extent is the statement valid for the case of 21st century Singapore. [25]

Introduction:

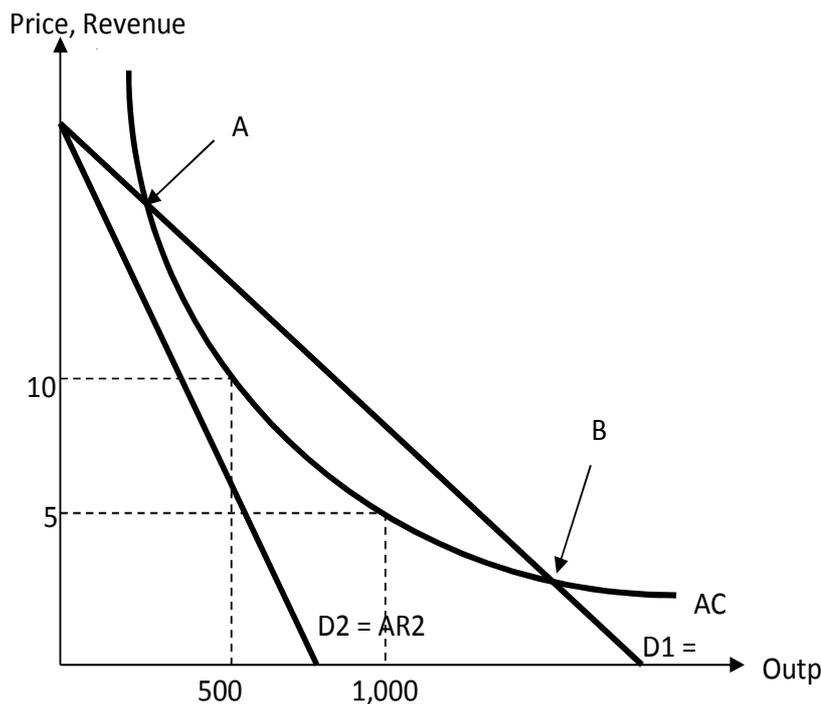
The theory of natural monopoly has long been used in economic analysis to justify the presence of monopolies in certain industries within an economy. It is also thanks to this theory that these firms continue to enjoy supernormal profits and insurmountable barriers to entry. However, as the global economy continues to evolve and technological advancements are made, the once impenetrable walls of this theory has begun to show cracks in reasoning.

Thesis Statement:

This essay shall attempt to firstly explain the theory of natural monopoly, before providing detailed discussion on the validity of the theory in the context of 21<sup>st</sup> century Singapore.

Explain “theory of natural monopoly”:

- A natural monopoly refers to a market where economies of scale are so substantial such that average costs are falling throughout the entire range of the market demand.
- In such a market, the fixed cost incurred in setting up the infrastructure is very large relative to the marginal cost of supplying the product. Hence the shape of the AC curve tends to follow the shape of the AFC curve, which explains why AC is downwards sloping throughout.
- In such a market, it is less costly for one firm to supply the entire market than for two or more firms. Furthermore, the market may only be large enough to profitably support one firm.



**Figure 1: Natural Monopoly**

- In Figure 1, the average cost AC is decreasing over the whole range of market demand D1. If there is only firm producing 1000 units of output at an average cost of \$5, the total

cost is  $\$5 \times 1000 = \$5,000$ . If there are two smaller equal sized firms producing 500 units each at a higher average cost of \$10, the total cost incurred is  $\$10 \times 2 \times 500 = \$10,000$ . Thus it is less costly for one firm to supply the market than for two or more firms.

- Besides being most cost efficient to have only one supplier, Figure 1 also shows that market can only profitably support one firm. With a single firm, the market demand  $D_1$  is also the firm's demand curve. **This firm can make supernormal or at least normal profits**, anywhere from point A and B because its average revenue curve  $AR_1$  lies above its average cost curve  $AC$ . If there were two equal sized firms, the market demand curve  $D_1$  would be split into two, with each firm facing a demand curve of  $D_2$  [market dd is equally shared]. Since  $D_2$  lies entirely below the  $AC$  curve, both firms end up making losses.
- A natural monopoly applies to industries where the fixed cost incurred in setting up the infrastructure is very large relative to the marginal cost of supplying the product. Hence the shape of the  $AC$  curve tends to follow the shape of the  $AFC$  curve, which explains why  $AC$  is downward sloping throughout.
- Typical examples of natural monopolies include telecommunications, rail transport and public utilities (supply of gas, water and electricity). In these industries, it is very expensive to install the pipes, cables and tracks for the distribution grid / network required to serve the entire city or country. On the other hand, the marginal cost of supplying a telephone call, pumping a litre of water or carrying an extra passenger on a train is very low in comparison.
- In such 'networked' industries, having more than one set of infrastructure may result in wasteful duplication of resources. For example, for rail transport, it would be quite wasteful to have two parallel rail tracks running the same route, especially if one set of tracks is sufficient to meet the demand. It would be more efficient to let a monopoly rail operator build one set of tracks and be the sole supplier of that route.
- Even in the absence of significant economies of scale, a natural monopoly may arise if the size of the market demand is so small such that it is only viable for one firm to operate. For example, if the demand for bus services between two small towns is only about 20 passengers a day, even though there is inherently not be much economies of scale involved, there is simply too little demand to support more than one bus service operator.
- In view of the theoretical underpinning of the concept, it seems to justify the existence of the market structure seen in these industries even in Singapore. Historically speaking, clear examples of monopolies were those of SingTel (telecommunication industry) and Singapore Mass Rapid Transit (SMRT) (rail services).
- SingTel was initially granted 15 years of monopoly status, from 1992 to 2007, as the conventional wisdom then was that telecommunication was a natural monopoly given the prevailing state of technology. SingTel was tasked to upgrade Singapore's telecommunications infrastructure, and it was granted a guaranteed domestic market to enable it to recoup its infrastructural costs.
- Likewise, in terms of rail transportation, there are strong arguments for not having duplicated services, hence, lending itself nicely as a natural monopoly. The provision of mass rapid transit (MRT) services involves a high initial capital outlay to cover the cost of infrastructure such as tracks and station boxes. Economies of scale are likely to be so significant that unit costs are only minimised if the entire line is operated by a single producer. This paved the way for a singular operator - SMRT.
- For both industries, their status as natural monopolies provided them with clear justifications to continue enjoying monopolistic privileges as mentioned in the statement, even in the context of Singapore, which has in place the Competition Commission of Singapore (CCS) that enforces the Competition Act. The Competition Act prohibits anti-competitive activities, such as the existence of monopolies. Therefore, it is observed that

the theory of natural monopoly has a place in Singapore as it supports the existence of monopolies such as SingTel and SMRT.

Discussion of validity:

- The command phrase lends itself to a thesis – antithesis approach
- Thesis: Statement is valid and natural monopolies no longer have place in the case of 21<sup>st</sup> century Singapore.
- Antithesis: Statement is invalid and natural monopolies still have a place even in the case of 21<sup>st</sup> century Singapore.

Connecting/Linking Statement:

However, we have seen a change in the situation of these industries. While SingTel and SMRT still have a relatively dominant position in their respective industries, we are seeing a movement away from them being monopolies. As such, there is a strong argument for the validity of the statement, which claims that natural monopolies no longer have a place in the 21<sup>st</sup> century Singapore.

Thesis: Statement is valid and natural monopolies no longer have place in the case of 21<sup>st</sup> century Singapore.

Case of SingTel:

- The telecommunication market in Singapore was for a long time supplied by SingTel – a natural monopoly. However, as the Singapore economy grew, more competition was subsequently introduced in the mobile telecommunication market with the entry of M1 Mobile and subsequently Starhub.
- Even though prices of mobile services and handsets fell substantially due to increased competition, all three companies remained profitable, proving that the former natural monopoly had already evolved into a more competitive market. The earlier concerns that SingTel would collapse with the dismantling of its monopoly business did not materialise. Instead, it has taken on an external business orientation, growing to become a regional and global telecommunications player with investments in over 20 countries and territories, and showing steady gains in net profit and revenue.
- This clearly violates the theory of natural monopoly where the introduction of competition will lead to the firms suffering from subnormal profits.
- Further de-monopolisation would also happen in other aspects of the telecommunication industry, such as Internet provision in Singapore. Several factors has allowed multiple firms beyond the 3 major mobile phone providers to be set up and provide fibre optic broadband services. As part of the Intelligent Nation 2015 blueprint by Infocomm Development Authority of Singapore (IDA) for galvanising Singapore into a sophisticated city with seamless high-speed connectivity, OpenNet was tasked the responsibility for building, managing and operating a high quality and high-speed fibre network.
- Given that OpenNet has absorbed the high set-up costs, other downstream operators (i.e. MyRepublic) are able to bypass this natural barrier to entry and compete effectively in this market. The level of competition that exist in the market is evident given the recent price war that saw M1 slashing the price of its 1Gbps broadband service in response to MyRepublic's pricing.
- Therefore, the case of SingTel not only illustrates that natural monopolies no longer have a place in the 21<sup>st</sup> century Singapore, it also pushes the argument for more competition in such industries that might have been natural monopolies previously.

Case of SMRT

- If we are taking a broader view on MRT services in Singapore, one can argue that there is clear evidence that higher level of competition now exists in the provision of MRT services where there are several routes that have been opened up since the start of the MRT line in Singapore.
- However, these routes are no longer being operated by a single firm – SMRT. Instead, Singapore Bus Service Transit (SBS) has entered the fray and is providing MRT services for both the North East Line as well as the upcoming Downtown Line.
- This is evident that competition is being introduced into the MRT market since consumers can now compare between two providers in terms of service quality.
- The concept of contestability is further introduced in the MRT market by a government policy in 2008. Operators now are to bid to operate an MRT line for a fixed period of time. Operators can be selected based on the costs, the quality of the services they offer, or both. Operators who do not perform up to the mark risk losing their licences at the end of the fixed term. This threat of losing their licences to other operators provides a stronger incentive to be efficient and cost-effective in operations. This is a clear signal by the government that a market that is dominated by a single firm indefinitely is not in line with the aims of Singapore in the 21<sup>st</sup> century.
- Once again, we have an authentic example of how the theory of natural monopoly is irrelevant in the case of 21<sup>st</sup> century Singapore.

Case of Singapore Power (SP)

- Singapore Power (SP) was established as a company, which owned and operated all electricity undertakings, including power generation, transmission, distribution and retailing.
- When SP was set up, it was part of the corporatisation of Public Utility Board (PUB), which was to gradually introduce competition in the electricity generation and retail markets so as to encourage investment, increase production and reap the benefits of competitive electricity prices. This move in itself was already a signal by the government that Singapore is moving away from the concept of natural monopoly in the electricity market to embrace greater levels competition.
- However, the move failed to attract new entrants because of the market dominance of SP. SP's ownership of the transmission grid conferred it de facto monopoly powers since it was clearly not viable for new entrants to set up a parallel grid.
- As such, the government adjusted the structure of the industry to enable competition by separating the contestable segments (i.e. generation and retail) from the non-contestable segments (i.e. transmission and distribution).
- The government further ensures a level playing field through Energy Market Authority (EMA) by regulating the non-contestable segments to ensure that they keep the infrastructure accessible to all parties on equal terms and that they do not have commercial interests in the parts of the market that are open to competition. This effectively reduces the barriers to entry for new firms to compete in the market.
- As a result of increased competition, firms involved in the contestable segment are thriving, refuting the claim that the electricity market has to remain as a monopoly in order for the industry to be profitable.

Antithesis: Statement is invalid and natural monopolies still have a place even in the case of 21<sup>st</sup> century Singapore.

#### Case of Public Utility Board (PUB)

- Public Utility Board (PUB) is a statutory board in Singapore that is responsible for the collection, production, distribution and reclamation of water in Singapore.
- As the provision of utilities such as water will usually result in the presence of a natural monopoly given the high fixed costs involved in the processes involved, PUB still exists as a nationalised natural monopoly in Singapore. One reason is that water is a strategic resource of Singapore, with one of Singapore's water sources involving state-to-state relations. A second reason, which is more relevant to this essay, is that the monopoly character of the water industry is particularly strong.
- As such, the very existence of a publicly owned and operated natural monopoly backs the purpose of the theory of natural monopoly, refuting the statement that the theory has no place in the case of 21<sup>st</sup> century Singapore.

#### Case of SP

- While the electricity market has been opened to competition, there is still a large segment of the market that is non-contestable. A clear example would be the transmission aspect, which requires a large amount of fixed costs to set up a power grid for the whole of Singapore to rival SP's ownership of the existing power grid.
- As such, the companies that operate in the non-contestable sector are still deemed as natural monopolies.

#### Case of MRT

- If one takes a closer look at the MRT market, it is also evident that while there is some semblance of competition in the market, it still exists predominantly as a natural monopoly. This is especially clear when we are looking at the routes that the companies (SMRT and SBS) provide services for. There is no direct competition between the firms for the same route as it is definitely inefficient to have parallel rails running across the same route in Singapore.
- While the government has attempted to introduce competition into the market, the traditional sense of competition has been eschewed in favour of having two operators each running different MRT lines. This operator will then be the sole provider (monopoly) for the route so as not to end up with a duplication of routes by competing firms, resulting in wastage of resources.
- Therefore, individual firms are still operating based on the theory of natural monopoly, illustrating that the presence of such a theory is not redundant in the case of 21<sup>st</sup> century Singapore.

#### Evaluative Conclusion

- The theory of natural monopoly is one created through observations by economists at the point in time. As time passes, the theory will begin to sound less resolute as circumstances change. Nonetheless, it is still too premature to make the claim that there is "no place" for the theory in the 21<sup>st</sup> century Singapore since we are still seeing signs of industries that do abide by the characteristic patterns of a natural monopoly.

- Instead of saying that the theory is irrelevant, I believe that it would make more sense to alter the theory such that it will continue to evolve with the dynamic nature of the economy. Flexibility needs to be incorporated to provide a better application model for this theory in the 21<sup>st</sup> century.
- Apart from that, governments need to understand that they theory has its flaws and to not overly defend a firm's monopolistic position and privileges by blindly imposing the theory on the industry, especially if the industry has shown signs that competition can be supported.
- A government must accept that some of its industries are much better off as natural monopolies while some should be de-monopolised to increase the efficiency in the market itself. All we are doing is to look at which end of this evolutionary spectrum the industry is resting on.
- In the case of Singapore, the government has done a fair job in opening up markets for further competition regardless of its traditional position as a natural monopoly, and I truly believe that this should be the way forward in the 21<sup>st</sup> century.

**NOTE: Requirements of the question:**

(1) One needs to understand how this “theory of natural monopoly” helps in defending “monopolistic privileges” and what these “privileges” are. This can be illustrated from the theoretical analysis of a natural monopoly and how the firm is able to earn supernormal profits in the long run.

According to the theory where it is costly and unprofitable for a competitive firm to enter the market, governments may have intervened to facilitate in sustaining the monopolistic status of the firm. In doing so, it justifies the defence of “monopolistic privileges”, allowing these firms to continue earning supernormal profits at the expense of the consumers.

(2) Next, the essay needs to tackle the validity of the statement in the Singapore context. Students will have to provide examples of natural monopolies in Singapore and argue (with clear analysis) that these examples either still exist, or no longer exist in the 21<sup>st</sup> century.

Level	Description	Marks
L3	For an analytical answer that conveys understanding of what the theory of natural monopoly means and assesses whether the theory of natural monopoly is still relevant in the 21 <sup>st</sup> century Singapore context, well substantiated with authentic evidence. Assessment of the statement should be based on the understanding of past and present situations.	15 – 21
L2	For a developed understanding of the theory of natural monopoly but shows an unbalanced argument on the validity of the statement, with clear application to the Singapore context OR a balanced argument on the validity of the statement, without clear application to the Singapore context.	6 – 14
L1	For an answer that briefly displays knowledge of the theory of natural monopoly without any analysis of the statement.	1 – 5
E2	For a well-substantiated opinion with economic analysis.	3 – 4
E1	For a non-substantiated opinion without economic analysis.	1 – 2

- 4 'The Monetary Authority of Singapore's [MAS] traditional defence of a strong Singapore dollar policy is built on balancing imported inflation against export competitiveness.'

*The Straits Times, 29<sup>th</sup> July 2014*

Assess the extent to which an improvement in the living standards of an economy requires that managing inflation be the top economic priority. [25]

### Introduction

- Living standards of an economy can be in terms of material and non-material. In the narrow, measurable sense, material standard of living refers to the amount of goods and services that an average citizen can consume over a period of time, usually a year. Non-material living standard can be defined as the quality of life and measurements usually include stress levels, amount of leisure and the state of environment.
- As stated in the preamble, the MAS uses a gradual appreciation of the Singapore dollar through the use of exchange rate (monetary) policy to manage imported inflation while ensuring at the same time that Singapore's exports remain competitive.
- However to enjoy an improvement in living standards, governments generally aim to achieve the following macroeconomic goals; price stability, sustainable economic growth, low unemployment and healthy balance of payments but a government's policy decision inevitably leads to conflicts, or trade-offs in macroeconomic objectives and it is impossible to achieve all the goals simultaneously.
- Hence in light of the above, this essay will assess the extent to which managing inflation be the top economic priority to improve the living standards of an economy.

### **Body**

Thesis: Managing inflation should be the top economic priority to achieve better living standards

*[One can choose to either explain the problem of inflation OR explain how managing inflation will improve living standards]*

- Inflation is defined as a sustained increase in the general price level, and becomes a problem when it is inordinate. Both demand and cost pressures can lead to demand-pull and cost-push inflation respectively.
- Cost-push inflation refers to inflation caused by persistent increases in production costs, independent of demand.
- If firms face a rise in costs, they will probably respond by raising prices, partly by passing the costs on to consumers, and partly by cutting back on production. This can be modelled by continual upward shifts in the horizontal AS curve (explain with diagram). This would cause general price levels to rise and a fall in real national income.
- Inflation would erode the internal value of money, leading to a fall in purchasing power. With the same amount of money, consumers can now purchase lesser units of goods and services and hence their material living standards fall.
- Explain how Singapore exchange rate policy works to increase net exports to increase AD and improve material living standards.
- In addition, for cases where if inflation levels are high (> 5%) and unexpected or cost-push in nature, investment may be reduced.
- This is because such inflation adds to much uncertainty. As a price increase may be due to inflation or increased demand levels, prices no longer serve as accurate signals for efficient resource allocation. Businessmen would find it difficult to make long-term plans and may be deterred from investing in Singapore.
- This fall in investment would lead to a multiplied fall in aggregate demand and real national income through the reverse multiplier effect.

- Since GDP growth is a key factor in influencing per capita income, governments aiming to achieve better living standards may have to leverage on managing inflation using a gradual appreciation of the Singapore dollar to manage costs of imports and export competitiveness to drive economic growth (explain/elaborate).
- Anti-thesis: Managing inflation should not be the top economic priority to achieve better living standards  
*[One can choose to either explain that due to trade-offs, conflicts in macroeconomic objectives, managing inflation alone will not improve material living standards OR explain that other macroeconomic objectives are also as important to improve living standards OR explain how managing inflation alone will not improve non-material living standards]*
- However, for Singapore, managing inflation using the exchange rate policy may lead to conflicts with other macroeconomic objectives.
- Singapore's exchange rate policy — the gradual and modest appreciation of the Singapore dollar by the MAS, would cause foreign imported consumer and producer goods to become cheaper. The lower prices of imported inputs would decrease costs of production and hence mitigate imported inflation.
- With lower inflation rates, households' purchasing power would not fall as much, and their material living standards are raised. The caveat, is that an appreciation of the Singapore dollar causes export prices to rise in terms of foreign currency, hence Singapore may lose export competitiveness.
- Due to the relatively close substitutes of Singapore's exports from other countries, the demand for Singapore's exports is likely price elastic (depending on industry, candidates may argue otherwise).
- The rise in export prices can thus cause a more than proportionate fall in the quantity demand of her exports, resulting in a fall in export earnings.
- Ceteris paribus, there will be a fall in net exports, leading to a multiplied fall in AD, hence lowering material living standards.
- With Singapore being heavily reliant on trade, the fall in net exports could be substantial and have serious repercussions on the economy.
- The Singapore government hence has to "balance imported inflation against export competitiveness".
- A severe fall in AD could also lead to fall in employment levels. With labour a derived demand, there will be a fall in the demand for labour and employment level will also decline. With a fall in disposable income, material living standards will again fall.
- In this case, where export competitiveness is adversely affected, managing inflation may not be the top economic priority to improve living standards.
- To improve living standards, price stability may not be the foremost economic priority as addressing high unemployment levels could be more pertinent.
- As high unemployment levels has an adverse effect on living standards. With less disposable income, the unemployed would experience a fall in material living standards as they are only be able to consume fewer goods and services. This may also affect their non-material standard of living as there is undesirable stress associated with unemployment especially with large financial commitments such as mortgage payments and the inability to find jobs to provide for themselves and their families.
- This was seen in the US during the 2008 subprime mortgage crisis that saw unprecedented increase in unemployment levels. During the global financial crisis, Americans reported high levels of depression and the experienced low living standards from the gloomy economy outlook.
- One thus may argue that managing unemployment be the top economic priority in improving both material and non-material living standards.

Evaluative Conclusion

- While managing inflation is no doubt important to improve living standards, especially in the face of high imported inflation which Singapore faces, it may not always be the top economic priority.
- This is because the achievement of price stability may not improve non-material living standards and that there could be trade-offs which could lower living standards as a whole.
- There is hence a need to balance negative impact on the quality of life from managing inflation. Policies could be implemented alongside the exchange rate policy to also address issues of environmental degradation for instance, to improve living standards of an economy.
- Whether the attainment of a goal is the top economic priority, I believe depends on the state the economy.
- For instance, when an economy like the US is facing high unemployment levels, the top economic priority then could be to stimulate economic growth and provide job opportunities to raise employment levels as taking steps to achieve this macroeconomic goal would likely improve material living standards the most.
- Given the dynamic nature of economies, it is not necessary that the achievement of a particular goal will always be the top priority.

Level	Description	Marks
L3	A balanced answer that displays strong economic analyses and conveys good understanding of question requirements by assessing the extent of improvement in living standards through the management of inflation.	15 – 21
L2	For an undeveloped discussion or unbalanced argument on how managing inflation will improve living standards.	6 – 14
L1	For an answer that briefly displays knowledge of macroeconomic objectives and living standards OR a brief and undeveloped answer.	1 – 5
E2	For well-substantiated opinions with economic analysis.	3 – 4
E1	For non-substantiated opinions without economic analysis.	1 – 2

**Preliminary Examination Paper 2 Q5**

In response to the global financial and economic crisis that started in 2008, countries around the world embarked on an unprecedented level of intervention with the aim to keep the economy buoyant and stop a full-scale assault on the labour market.

**Explain the major macroeconomic indicators used by the government of Singapore to guide economic policy decisions.** [10]

**Discuss the view that short-term fiscal interventions create more problems than they solve.** [15]

*["unprecedented level of intervention" is often described in each economy as the "stimulus package"; government action to stimulate growth and employment.]*

**(a) Explain the major macroeconomic indicators used by the government of Singapore to guide economic policy.**

Introduction

- Most economies have four major macroeconomic goals. These are; price stability, low unemployment rates, sustainable economic growth and healthy balance of payments.
- The performance of the economy, in relation to these objectives, ***indicates*** the need for policy adjustment.
- In recent years, many economies have also attached increasing importance to income equality for inclusive growth and financial prudence.

Body

- Inflation rate
- Singapore is a small open economy with no natural resources.
- With international trade an essential element of the economy, price stability (low inflation rates) has been a central objective of the government to ensure the *price competitiveness* of Singaporean goods and services.
- Inflation, defined as general increase in the price level, is hence a major macroeconomic indicator used by the Singapore government to guide economic policy.
- Changes in the general price levels can be measured in a number of ways. One of the most common measurements is the Consumer Price Index (CPI). The CPI measures the change in prices of the basket of goods and services bought by a typical Singaporean household.
- The 'core' CPI gives a more accurate picture of the impact of price change on households as it removes the distorting influences of accommodation and private road transport.
- Generally in Singapore, the government aims to keep inflation under 3%.

[The government has a range of indices it uses to measure price changes across the economy. Students can also include the "GDP deflator" as one of the useful measurements used by the government.]

- Unemployment rate
  - The unemployment rate is another major macroeconomic indicator.
  - The unemployed can be defined as members of the labour force who are actively seeking employment but without work.
  - The unemployment rate is calculated as a percentage of the number of unemployed over the labour force, and is usually around 2% in Singapore. This is as good as it gets – FULL employment.
  - Singapore experiences a net labour inflow and the major government concern has been to reduce structural unemployment among Singaporeans.
  - Nonetheless, during times of economic crisis, such as the recent 2008 global financial crisis, cyclical or demand-deficient unemployment can also be of concern.
  
- Economic growth
  - Economic growth, usually referred as long-term changes in the productive capacity of the economy, is also a major indicator.
  - In the short term, actual growth can be defined as increases in real output.
  - The Gross Domestic Product (GDP) is the most common measure of output. It measures the value of all final goods and services produced within the geographical boundary of a country over a period of usually a year.
  - However, real GDP per capita is probably the best measure of growth.
  - In the past Singapore has grown at an approximate average rate of 8% per annum
  - During the take-off and growth stages of an economy the annual rate of GDP is faster. A successful, or developed economy, means that expected future growth rates will be typical of most other developed economies at around 3% p.a.
  
- Balance of payments
  - The final major indicator of success is the international balance of payments (BOP).
  - This is simply a statement of the economic transactions (inflows and outflows) between Singapore and the rest of the world over a period of time.
  - The account is always balanced and sums to zero, but may not be in equilibrium.
  - While the BOP is a major indicator, it is specifically the current account position which is important to Singapore. This is because of Singapore's heavy reliance on international trade due to the small domestic market.
  - In the case of Singapore, current account surpluses have been consistently recorded and this reflects the competitiveness of her exports.\*

[\* A current account or trade deficit may not always indicate that the economy is doing badly. For instance, the US has run trade/current account deficits for more than 30 years, but is still considered a relatively successful economy.]

### Conclusion

- All four macroeconomic indicators explained above are crucial in helping policy makers decide appropriate policies to implement to achieve their goals.
- While these indicators may not be perfect, they are still of value.

[Possible evaluative remarks which may gain you additional marks but not required in this question:

- Currently in Europe, and to some extent the US, debt has become a major issue. Financing growth by borrowing is regarded by many as unsustainable. The amount of debt or fiscal position can hence also be a major indicator of an economy's performance.
- In Singapore, public policy is giving more attention to income equality and policies are enacted to lower the Gini co-efficient to reflect a more equal distribution of income. Thus income inequality can be another indicator.]

Level	Description	Marks
L3	The writing conveys a strong understanding and provides developed explanations of the four major macroeconomic indicators in relation to the Singapore context.	7 – 10
L2	For an answer which is underdeveloped (explanations for indicators are incomplete) OR some explanations for the indicators are inaccurate.	3 – 6
L1	For an answer that has insufficient scope and breadth (only 1 – 2 indicators are mentioned), displaying brief knowledge and poor understanding of the indicators.	1 – 2

**(b) Discuss the view that short-term fiscal interventions create more problems than they solve.**

*[Just like the previous question 4, a discussion question of this type generally has **many** possible answers. A tip is to define the scope to guide your approach and explicitly convey this to the marker. As time is scarce, especially under exam conditions, you need to prioritise and choose pertinent points to develop. A detailed discussion is better than a narrative that contains a list of points. It impresses upon the examiner that you have a good understanding of the subject.]*

Introduction

- Fiscal interventions are associated with John Maynard Keynes. Keynes believed that government intervention could be used to lift the economy out of cyclical depressions.
- Essentially, short-term fiscal interventions, also known as fiscal policy, involves the manipulation of government expenditure (G) and taxes (T) to deliberately influence aggregate demand (AD).
- Fiscal policy can be expansionary or contractionary in nature. The former involves raising G and decreasing T while the latter includes decreasing G and increasing T.
- In light of the limitations and hence problems that fiscal interventions can cause, this essay will discuss the view that more problems are created than solved when fiscal policy is implemented.

Body

- Short-term fiscal interventions may 'solve' unemployment and low economic growth
- The 2008 global financial crisis, which had a contagion effect on many other economies, was one of the most serious economic problems in living memory. Today, many economies are still suffering from the consequences of the rapid decline in global demand.
- The situation of the 2008 crisis was similar to the Great Depression of the 1930s, where there was a period of low growth and *excessive* rates of unemployment.
- As businesses (firms) and households were not spending due to the poor economic outlook, Keynes suggested that the government should spend its way out of the recession.
- For example, assume the government spends \$500 million to build a hospital. This means an injection of \$500m into the economy, and income to the factors of production used to build the hospital.
- Unemployed factors (labour) can be used to construct the hospital and households will receive factor incomes (wages), which will trigger consumption expenditure.
- Let us assume that the marginal propensity to consume (MPC) is 0.8. This means that out of every additional ten dollars income, eight dollars is spent on consumer goods and services.
- The additional consumption expenditure stimulates more output and greater use of unemployed factors of production. Economists describe this as the multiplier process.
- In this example, where the  $MPC=0.8$ , the multiplier is 5. In other words the initial injection by government will create a total expenditure of \$2,500m.
- [Draw either the 45 degree model or AD/AS]
- With the multiplied increase in national output due to the multiplier effect, an expansionary fiscal policy stimulates economic growth.

- Unemployment also falls as there is greater utilisation of resources.
- Short-term fiscal interventions however, may also create problems

### Debt

- Although the Keynesian system as described above appears to work well, it is not without problems.
- Firstly, and perhaps most importantly, the financing of the new hospital may require government borrowing. Borrowing creates debt. Many economies in Europe suffer from indebtedness and this has limited the scope of government expenditure. [*You can make reference to Greece, Portugal or Ireland.*]
- Although Keynes suggested that debts could be repaid in the upswing of the economic cycle, this has tended not to happen.
- Instead, the repayment of debt, with interest, incurs opportunity costs. It can require the sacrifice of future consumption as taxes may be raised to service the debt.

### Crowding out effect

- A number of other issues, such as resource and financial crowding-out can be cited as problems created by intervention.
- If G is financed by borrowing, the increase in demand for loanable funds would drive interest rates up, increasing the cost of borrowing.
- This can crowd out private demand of funds by firms and households, in turn leading to investment and consumption falling.

### Time lag

- There could also be considerable time lag for the fiscal policy to be implemented and take effect.
- For instance, the effects of an expansionary fiscal policy – a multiplied increase in national output, could occur only after the recession and during the upswing of an economy. It would then lead to inflationary pressures and possibly aggravate inflation.
- In this instance, we could hence argue that short-term interventions create more problems than they solve.

[Students may also include the small multiplier size in Singapore's context, possible trade-off between inflation and unemployment as possible points.]

### Evaluative conclusion [2 well-substantiated opinions]

- In the context of Singapore, a fiscal stimulus may increase imports, especially since we are import reliant. Coupled with the small multiplier size due to our larger marginal propensity to withdraw, this means that the eventual increase in AD and hence national output would be much lesser in reality and limited in its effectiveness.
- Despite the potential problem short-term fiscal interventions may cause, my fundamental view is that in modern economies, the resolution of many problems cannot be solely left to market forces.
- There are also no perfect solutions to economic problems; there are always opportunity costs. The best example of this has been the recent 2008/9 Great Recession. Through

unprecedented government intervention (stimulus packages worth approximately US\$2 trillion (1.5% of global GDP – and the IMF recommended 2%)), the spectre of a global depression similar to the experiences of the 1930s was averted. The short-term intervention may arguable have prevented years of hardship caused by significant increases in unemployment.

- Moreover, the prospect of widespread and severe unemployment is too serious to be ignored.
- Government intervention is required, and as Milton Friedman asserted “there is no such thing as a free lunch”. Problems will always exist and governments have to balance their economic aspirations against the political, social and environmental realities that they face.

Level	Description	Marks
L3	The writing conveys a sense of discussion and demonstrates that the writer understands Keynesian fiscal intervention and can weigh success against potential trade-offs or consequences. Higher marks can only be awarded if the answer acknowledges the contextual issues raised in the preamble.	8 – 11
L2	The writing has a sound knowledge base but may exhibit error and/or omission.	4 – 7
L1	For any responses that make demonstrate incomplete understanding of fiscal intervention and potential problems of policy implementation.	1 – 3
E2	The writer expresses a sensible conclusion to a discussion that is sensitive to the preamble that pertains to the extraordinary crisis of 2008.	3 – 4
E1	The discussion is drawn to an evaluative conclusion although the conclusion may lack supporting arguments or contextual accuracy.	1 – 2

**Preliminary Examination EQ 6 – Suggested Answers**

- (a) Explain the impact of a quota on a small, open economy. [8]
- (b) Assess the threats and opportunities presented by the openness of the Singapore economy. [17]

\*\*\* \*\*

- (a) Explain the impact of a quota on a small, open economy. [8]

Introduction

- Protectionism refers to the imposition of economic policies aimed at restricting trade between countries, designed primarily to protect domestic businesses and workers from foreign competition.
- There are many types of protectionist measures, such as tariffs and quotas.
- An import quota is a direct restriction on the quantity of imports. The quota is typically enforced by issuing licenses to a group of individuals or firms. The quota directly reduces the availability of imports, hence pushing up prices of imported goods.
- This paper explains the welfare impacts of a quota on a small, open economy.

Analysis of a Quota

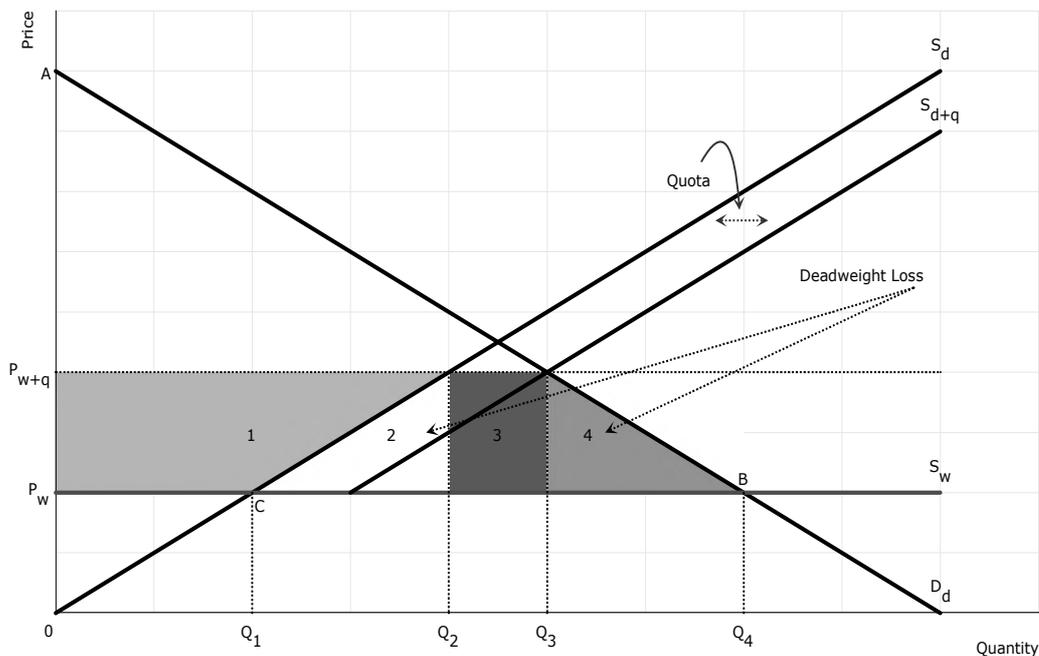


FIGURE 1: WELFARE EFFECTS OF A QUOTA

- In Figure 1,  $D_d$  and  $S_d$  are the domestic demand and domestic supply curves of a good. Assuming that a particular country is too small to affect prices in global markets, it can import as much as it wants of the good at the world price of  $P_w$ . Hence,  $S_w$  represents the supply curve of imports and is infinitely price elastic at price  $P_w$ . At  $P_w$ , domestic

producers will produce  $Q_1$  while the quantity demanded by consumers is  $Q_4$ . The difference is made up of imports of  $(Q_4 - Q_1)$ .

- Suppose an import quota of  $(Q_3 - Q_2)$  is imposed. The world supply,  $S_W$ , ceases to be relevant. Instead the quota results in the combined supply (local supply + quota) to be  $S_{d+q}$ , which is horizontal to the right of  $S_d$  by the quantum of the quota,  $(Q_3 - Q_2)$ . The new equilibrium price is now higher at  $P_{W+q}$ , where the new market supply  $S_{d+q}$  meets the market  $D_d$ . Local consumption falls from  $Q_4$  to  $Q_3$  while local production rises from  $Q_1$  to  $Q_2$ . Imports fall from  $(Q_4 - Q_1)$  to the quota amount of  $(Q_3 - Q_2)$ .

### Effects on Efficiency

- Before the quota, the consumer surplus was area  $ABP_W$ . With the quota, the price rises from  $P_W$  to  $P_{W+q}$ , causing consumer surplus to fall by the area  $(1 + 2 + 3 + 4)$ .
- Before the quota, the producer surplus was equal to area  $0CP_W$ . With the quota, the price rises to  $P_{W+q}$  while domestic output rises from  $Q_1$  to  $Q_2$ , causing producer surplus to rise by area 1.

### Allocation of the Quota

- To allocate the quota, the government can do several things.
- First, the government can choose to sell off the quota licenses; second, give quota licenses to local importers; and, third, give quota licenses to foreign exporters.
- First, the government benefits from selling off the quota licenses as it is able to recover up to the entire area 3 from the revenue generated.
- Second, if it gives the licenses to domestic importers, these firms can buy imports at  $P_W$  and resell them at a higher price,  $P_{W+q}$ , thus making profits (known as quota rents) of area 3. However, if the quota licenses are given to foreign exporters, the quota rents are transferred abroad.
- The net welfare effect of the government selling the quota licences and giving the licences to local importers =  $\Delta$  Consumer Surplus +  $\Delta$  Producer Surplus + ( $\Delta$  Government Revenue or  $\Delta$  Quota Rents) =  $-(1 + 2 + 3 + 4) + (1) + (3) = -(2 + 4)$ .
- Area  $(2 + 4)$  is thus the deadweight loss arising from the imposition of the quota. In these two cases, using either a quota or an equivalent tariff results in the same welfare loss to society.
- However, if the government gives quota licences to foreign exporters, where the quota rents will flow abroad, society loses an additional area 3 of welfare. Hence the deadweight loss is area  $(2 + 3 + 4)$ . In this case, imposing a quota results in a greater welfare loss as compared to imposing an equivalent tariff.

### Conclusion

- In conclusion, the general impacts of a quota on a small and open economy are higher prices, lower consumption, and deadweight losses to society.

Level	Description	Marks
L3	For an elaborated answer that explains the welfare impacts of a quota with a well-explained diagram.	6 – 8
L2	For a developed explanation of a quota and its impacts.	3 – 5
L1	For an undeveloped explanation of a quota.	1 – 2

**(b) Assess the threats and opportunities presented by the openness of [17] the Singapore economy.**

## Introduction

- Globalisation refers to the increasing integration and interdependence of the world's economies arising from increased trade and greater international mobility of factors of production like capital, labour, and enterprise.
- Singapore's openness, in terms of its external orientation, implies that globalisation will present threats and opportunities to Singapore.
- This paper assesses the threats and opportunities to Singapore's economy by increased labour and capital mobility and a heavy dependence on international trade.

## Threats from Labour &amp; Capital Mobility

- It can be argued that Singapore's openness to increased labour mobility and capital mobility could possibly impact Singapore negatively.
- First, increased labour mobility may cause structural unemployment and depressed wages for less skilled labour. For instance, Singapore firms, especially construction and electronics manufacturers, arguably prefer to hire cheaper foreign workers from developing countries in order to reduce costs and hence raise profits. This generally harms some workers as it causes structural unemployment and depressed wages.
- Second, increased international labour mobility has also resulted in greater income inequality in Singapore. For example, Singapore's Gini coefficient, a measurement of inequality, was 0.478 in 2012 and 0.463 in 2013. This is because, being internationally immobile, lower skilled workers – for example elderly less-educated workers – have little choice but to suffer from lower wages arising from the influx of cheap foreign labour, while internationally mobile high skilled workers like doctors and bankers find their wages pushed up due to global competition for talent. Therefore, one threat of Singapore's openness is income inequality.
- Third, Singapore also bears the social cost of increased immigration, which strains existing social amenities like housing, public transport, schools and hospitals. Furthermore, if immigrants are unable to integrate with locals, Singapore's social fabric is weakened as locals find their culture, values, and way of life threatened. All these problems cause social discontent.
- Fourth, as Singapore is an international financial hub, allowing free movement of short-term capital ('hot money') can potentially result in asset bubbles, which arguably threatens macroeconomic stability. During a booming stock or property market, foreign capital adds further to speculative demand, which drives asset prices even higher. Rising residential property prices raise the costs of home ownership for those who genuinely need to buy a house to stay in, for instance, newly-married couples. Rising prices of commercial property raises business costs and reduces the country's international competitiveness. Furthermore, when such speculative bubbles burst, households would face a sudden drop in wealth, which leads to cutbacks in consumption. Saddled with bad loans, banks could cut back on lending, which further curbs consumption and investment. Aggregate Demand (AD) could fall, leading to an economic downturn.

### Threats from Dependence on Trade for Singapore

- It can be further argued that a heavy dependence upon the external sector implies that Singapore is vulnerable to external demand shocks and imported inflation. Any major economic recession in Singapore's trading partners would negatively impact her economy. For instance, if there is a global downturn or prolonged recession, Singapore's exports would fall and her AD could fall, leading to an economic downturn and demand-deficient unemployment. Furthermore, Singapore may face the threat of imported inflation as it is heavily dependent on imported goods; any worldwide increases in the prices of commodities, for instance oil and food, may result in imported inflation, which would harm both households and firms. Thus, a heavy dependence on trade is a major vulnerability.

### Opportunities from Labour & Capital Mobility

- On the other hand, it can also be argued that Singapore benefits from opportunities presented by international factor mobility. First, international mobility of labour and capital allows Singapore to acquire factors of production which it is less abundant in and to also acquire better quality resources. This increase in the quantity and quality of the factors of production shifts Singapore's PPC out (or LRAS to the right), thus raising Singapore's long-run economic growth.
- Second, Singapore firms often invest in developing countries to exploit the relatively cheaper land and labour, typically by setting up export-oriented manufacturing operations. For instance, companies in Singapore are now investing in Myanmar after its opening up to trade, in order to exploit the abundant natural resources and labour there. Thus, Singapore firms that send out FDI enjoy lower costs and higher profits, while their consumers benefit from cheaper imported manufactured goods.
- Third, inflows of financial capital into Singapore (foreign purchases of financial assets like bonds and shares) also benefit the country as these inflows provide additional funding for capital accumulation. Owners of such financial capital in Singapore also benefit from higher returns and from risk diversification when they invest their funds in developing countries (emerging markets). Thus, Singapore firms and investors both benefit from Singapore's position as a financial centre.

### Opportunities from Trade for Singapore

- Furthermore, Singapore's openness also means that Singapore benefits from international trade. First, Singapore can produce for a much larger world market, which enables some Singapore firms to reap both internal and external economies of scale. Foreign competition also forces local producers to innovate, cut costs, and improve product quality. Local consumers may enjoy lower prices as well as higher product quality. The exploitation of economies of scale and greater competition also reduces both productive and allocative inefficiency, thus enabling Singapore to better utilise its scarce resources in maximising its welfare.
- Second, Singapore cannot produce some goods domestically because of unfavourable climate or the lack of key resources. Singapore therefore has to import such goods, which widens consumer choice. In addition, intra-industry trade also enhances the degree of product differentiation as imports allow local consumers to enjoy more variations of a given product.

- Third, Singapore’s openness means that trade can be an “engine of growth”. As Singapore is small, it lacks sufficient domestic demand to enable full utilisation of resources. Trade allows Singapore to overcome domestic demand constraints by providing access to larger world markets. With additional demand from exports, greater utilisation of otherwise unemployed resources raises output, income, and employment. Rising export demand further stimulates investments, causing the AS to shift outwards faster. Seen from these perspectives, trade arguably acts as an engine of growth as it enables both AD and AS to increase faster than under autarky.

### Evaluative Conclusion

- In conclusion, Singapore faces a myriad of threats and opportunities because of her openness to factor inflows and outflows and trade.
- Being a small, open economy, Singapore does not have the option of relying on domestic demand. She has little choice but to embrace globalisation, which however brings an increased risk of macroeconomic instability and a faster pace of structural change. Singapore has managed to cope well so far by focusing on building and preserving long-term productive capacity as well as facilitating factor mobility. This has enabled her economy to be flexible and resilient to better ride the waves of globalisation.
- To deal with the threats and opportunities, Singapore generally adopts a managed float exchange rate regime, allowing a gradual appreciation, and a range of supply side policies which ameliorate the threats and maximise the opportunities faced.
- To minimise structural unemployment, Singapore controls foreign immigration with a foreign worker levy and mandatory ratios of domestic to foreign workers. This ratio varies across industries with sectors like construction having more lax ratios compared to others like retail. The tax and the ratio are relaxed when the economy is booming but tightened when the economy is faltering. This allows Singapore to expand capacity quickly when demand is rising while preserving jobs when demand is falling.
- Another policy to fight structural unemployment and reduce income inequality is to train workers to acquire new skills. The government, through the Workforce Development Agency (WDA) and the National Trades Union Congress (NTUC), subsidises, coordinates and certifies upgrading training.
- Therefore, in the final analysis, the threats facing Singapore have to be carefully mitigated by prudent, long term government policies while the benefits of the opportunities have to be pragmatically reaped in Singapore’s interest.

Level	Description	Marks
L3	For well-developed and balanced arguments with relevant examples that analyse threats and opportunities from Singapore’s openness.	10 – 13
L2	For more developed arguments that explain threats AND opportunities posed by Singapore’s openness.	6 – 9
L1	For a one-sided, unbalanced explanation of the threats OR opportunities posed by the openness of Singapore’s economy.	1 – 5
E2	For an evaluative assessment of threats and opportunities posed by the openness of the Singapore economy.	+2
E1	For a judgment on whether openness of Singapore’s economy poses threats or opportunities.	+2

Tampines JC completely missing.

VICTORIA JUNIOR COLLEGE  
2014 JC2 PRELIMINARY EXAM

H2 ECONOMICS – PAPER NO. 9732/01

17 September 2014

8:00 – 10:15 am

Wednesday

2 hours 15 mins

**Additional Materials:** Answer Paper

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**READ THESE INSTRUCTIONS FIRST**

Write your name and class on all the work you hand in.  
Write in dark blue or black pen on both sides of the paper.  
You may use a soft pencil for any diagram, graphs or rough working.  
Do not use staples, paper clips, highlighters, glue or correction fluid.

Answer **all** questions.

At the end of the examination, fasten your work securely, by question, using the strings provided.

The number of marks is given in [ ] at the end of each question or part question.

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This document consists of **8** printed pages.

Answer **all** questions.

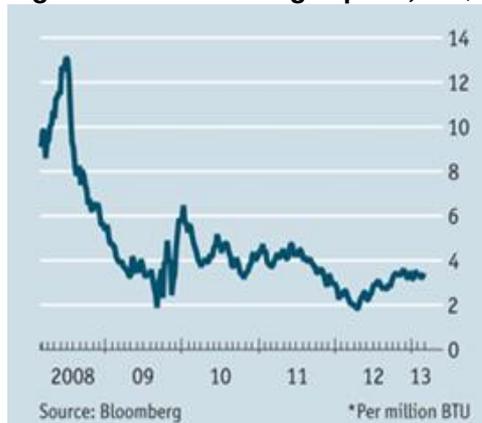
### Question 1

#### US Natural Gas Boom

##### Extract 1: America's bounty - Gas works

At the turn of the millennium, America's conventional gas fields were in decline. Natural gas from shale rock was known to geologists but had never been worth extracting. Now shale contributes a third of America's gas supplies. By 2035, the country's share of total world supplies could be nearly half. A key reason for this rise is the improvement in hydraulic fracturing (or fracking) to obtain the gas, which caused the cost of producing natural gas to tumble down.

**Figure 1: USA natural gas price, US\$\***



Source: The Economist, 2 June 2012

Cheap gas is helping various parts of America's economy. The country's industry uses around a third of its gas output. The biggest winner might be the petrochemicals industry. It uses gas as feedstock to make chemicals such as methanol and ammonia, a vital ingredient of fertiliser. These chemicals in turn provide cheaper raw materials for carmakers, agriculture, household goods and builders, or go for export at prices to compete with the world's lowest-cost producers, the state-owned petrochemicals firms in the Middle East.

Dow Chemical and others have announced a raft of new investments in America to take advantage of low gas prices. The United States might export fewer cheap raw materials to countries with low labour costs to be made into goods to export back to America. The country could do the job itself, shortening the supply chain and returning manufacturing jobs to America in industries where petrochemicals are a large part of the cost base.

There are non-industrial benefits too. Low gas prices have meant saving the average American household US\$926 a year and lowering the cost of heating schools and other government buildings.

Source: Adapted from, The Economist, 14 July 2012

##### Extract 2: America's cheap gas: Bonanza or bane

The shale gas billowing out of American soil is a source of concern as well as cheap energy. Instead of banking handsome profits, many of the oil and gas firms that drill for shale gas are suffering from the boom. Abundant supplies and slow growth in demand have sent gas prices crashing. After falling to below US\$2 per mBTU (British thermal units) in early 2012, prices have now nudged back to US\$3.40. But for many drillers this is still not enough. Most gas wells require US\$4 or more to cover costs. However, energy giants such as ExxonMobil, Shell and Chevron are able to put up with low prices.

To cork the flow, firms have shut down some existing wells and stopped investment in new ones. Exporting liquefied natural gas (LNG) would be another way to deal with the gas glut. Outside America, prices are typically much higher. But gas-consuming American businesses object. In the hope of keeping domestic gas prices ultra-low, they are lobbying the government to block exports.

Source: Adapted from, The Economist, 2 March 2013

**Extract 3: Thanks to LNG, spare gas can now be sold the world over**

Some 90 per cent of gas trade in the world is regional, where gas is supplied through pipelines; liquefied natural gas (LNG) connects the bits where the pipelines do not reach. The technology for LNG allows “stranded” gas, too far from its markets to travel down pipelines, to get to customers. Some gas-market analysts reckon that the growth in LNG and its ability to link regional markets will cause a more global and competitive market to emerge.

However, building a liquefaction facility is highly capital-intensive. Big LNG projects need customers in order to secure finance for building the liquefaction and re-gas terminals and the specialist tankers that shuttle between them. And costs have been increasing steeply, making it ever harder for the export of natural gas to be profitable. Currently, only 19 countries export LNG, with the 10 biggest companies in the LNG market supplying more than two-thirds of the world’s demand.

Source: Adapted from, The Economist, 14 July 2012

**Extract 4: Can natural gas help tackle global warming?**

The United States has reached a striking milestone. Carbon-dioxide emissions from the energy sector have sunk to their lowest levels in 20 years. Many analysts give credit to the recent flood of cheap natural gas, which is shoving aside coal as America’s top source of electricity. The burning of natural gas to produce a certain amount of energy creates only about half as much carbon-dioxide as from burning coal, with carbon-dioxide being the main gas warming the planet.

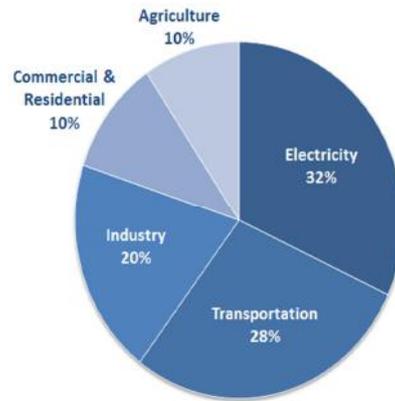
Yet some environmentalists have argued that the accolades for natural gas are premature. While the shale gas boom has led to lower carbon pollution from U.S. power plants, the process to extract natural gas from shale rock can release plenty of methane into the atmosphere, which is a potent greenhouse gas. Officially, the Environmental Protection Agency (EPA) estimates that those methane leakage rates are about 3 percent only. But the EPA number is only an estimate, and it’s based on industry data that is hard to verify. However, it is possible for gas producers to employ a range of technologies, from better pipeline maintenance to dry seals on compressors that can reduce the amount of methane escaping into the air.

The view that natural gas has a modest role in a clean energy future is supported by the fact that natural gas is still a fossil fuel, which even if it produces less carbon than coal, still produces a fair amount of carbon. Studies have shown that replacing all of the world’s coal plants with natural gas would do little to slow global warming as compared to having a climate policy that explicitly reduces emissions.

There is also the worry that the flood of cheap shale gas in the United States has undermined the advance of lower-carbon sources such as wind, solar, and nuclear power which could prove counterproductive in the long run. However, given the “constraints of money and politics”, natural gas may still have an important role as a “bridge fuel” en route to the cleaner and renewable energy sources.

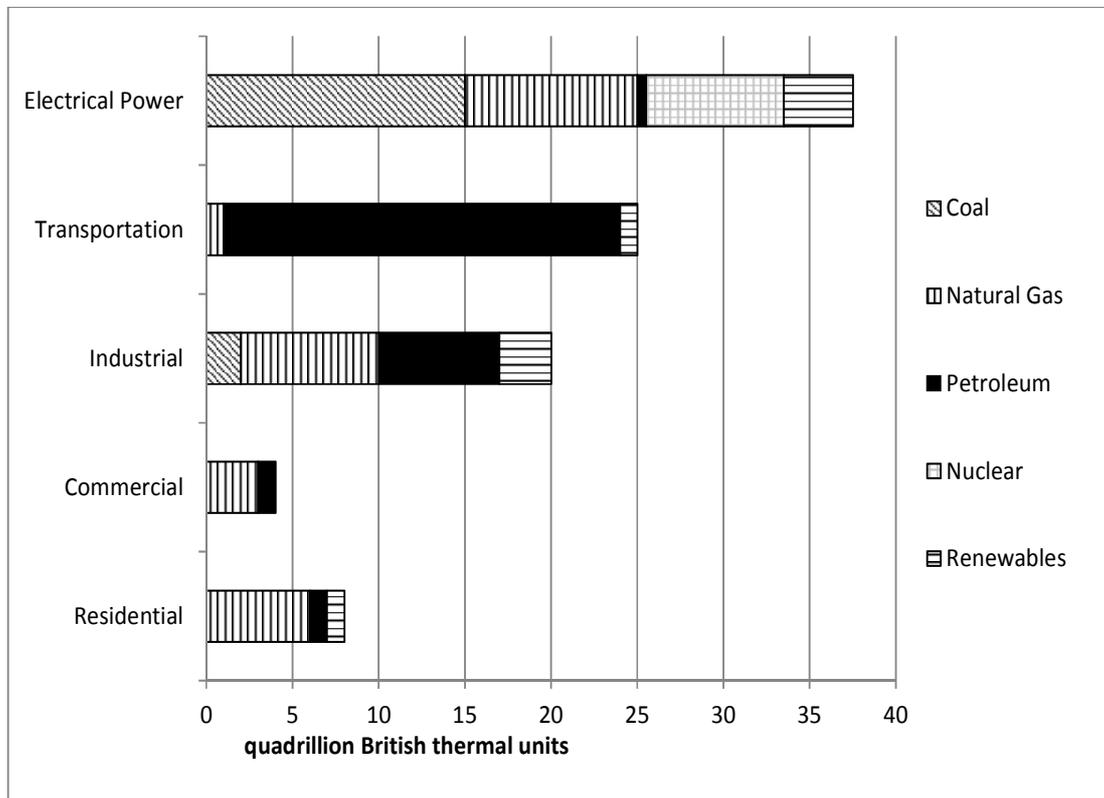
Source: Adapted from, Washington Post, 20 August 2012

Figure 2: Sources of greenhouse gas emissions in USA, 2012



Source: US Environmental Protection Agency

Figure 3: USA Energy Consumption by Fuel and Sector, 2012



Source: Bipartisan Policy Centre

**Questions**

- (a) i) Describe the trend of the price of natural gas in USA between 2008 and 2012. [1]
- ii) Using the data and a diagram, account for the trend observed. [4]
- (b) i) With reference to the data, explain the type of market structure in which the US natural gas industry operates in. [2]
- ii) Explain why big natural gas producers may be better able to withstand low prices of their output. [2]
- (c) The price of natural gas is typically much higher outside of USA.
- Explain how you would expect this price differential to change over time. [3]
- (d) Assess how the export of natural gas will impact producers and households in USA. [8]
- (e) Assuming that you are an economist, discuss the extent to which the increased availability of natural gas can address the problem of global warming. [10]

[Total: 30]

## Question 2

## A look at Germany and Spain

Table 1: Selected Economic indicators

<b>Germany</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
Real GDP growth ( annual % )	4.0	3.0	0.7
Inflation (annual % change)	1.1	2.1	2.0
Unemployment rate (%)	7.1	5.9	5.4
Current account balance ( in billions, US\$)	207	273	240
<b>Spain</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
Real GDP growth ( annual % )	-0.2	0.1	-1.6
Inflation (annual % change)	1.8	3.2	2.4
Unemployment rate (%)	20.2	21.8	25.2
Current account balance ( in billions, US\$)	-62.5	- 55.1	-15.6

Source: data.worldbank.org

Table 2: Euro/US\$

	2009	2010	2011	2012
Euro/US\$	0.72	0.75	0.72	0.78

Source: European Central Bank

**Extract 5: European recession deepens, unemployment climbs**

Four years after the most serious economic crisis in Europe since the Second World War, the continent is once again sliding deeply into recession. The new data on economic decline follow the release last month of figures revealing that unemployment in the Eurozone had reached a record level of 11.2 percent.

Based on its large export industry, Germany has been able to maintain economic growth in recent months. However, as austerity measures take effect across Europe and major markets in Asia recede, it is only a question of time before the current crisis hits Germany full force. These European economies are forced to cut spending even further especially to public sector wages and pensions, and raise taxes to retain access to the capital market, even though they had no growth to speak of. In Spain, its government has announced its aim to slash the budget deficit to the European Union's 3 percent (of GDP) target by 2016. One of the measures is the €6.5 billion cut in public services including the elimination of 57 public organisations and 90 other state and regional bodies.

Adapted from Bloomberg, Aug 2012

**Extract 6: Spanish Crisis**

During the 1990s and early 2000s, Spain enjoyed rapid economic growth. However, in 2008, Spain was badly affected by the global credit crisis, where households were burdened by huge mortgage debt, leading to a deep recession that they are still struggling to recover from. Spain has seen a relative decline in competitiveness compared to the Eurozone average. This has made Spanish exports more expensive. Being part of the Eurozone, they can't devalue, meaning there is no quick fix to their uncompetitive exports. Unemployment remains stubbornly high in Spain, especially youth unemployment. Nearly a third of Spain's workforce is on temporary contracts, a large percentage that makes the jobless rate tremendously volatile and has reduced the incentive to train workers. Commentators have also pointed to an inflexible labour market where wage rigidity in Spain is high.

Adapted by Telegraph, UK April 2012

**Extract 7: Germany's recovery**

German Chancellor Angela Merkel must be in a mood to celebrate. Not only has the German economy bounced back from the 2009 financial crisis -- with revitalized export industries and record-low unemployment -- it has done so while most other European economies are still reeling. Job market has been helped as firms developed a series of flexible instruments that allowed them to tweak working hours and pay to their economic needs by temporarily cutting wages and hours, for instance -- rather than shedding workers when production declined.

These measures reduced costs, gave firms room to manoeuvre during the recent crisis, and in general, reinvigorated German industries, which are once again admired around the globe. Germany's education and training system is also more job-friendly than its Euro counterparts.

Germany is well known for its export sector, and is still outperforming compared to other parts of Eurozone. The main driver of German growth in the first quarter was exports, according to the country's statistical office. That reflected German companies' success in selling top-of-the-range manufactured goods and services outside the Eurozone -- especially to China and Russia. German products are in demand not because they are the cheapest but because they are the best.

There is clearly much to learn from the German model, but blind replication may not be the answer.

Adapted from BBC news, July 2013

**Extract 8: EU warned against trade protectionism**

The complaints the EU plans to file with the World Trade Organization (WTO) against Chinese duties on seamless steel tubes are connected to the recent accusation of China dumping solar panel into EU. This has created disputes between the two sides, but mounting trade protectionism will cause serious damage to the EU amid its economic slump, an expert said Wednesday.

"The EU has seen a sharp decline in its industrial core competitiveness. Facing China's low priced products, increasingly advanced technology and huge amount of investment, the EU can do nothing but resort to protectionism," Zhao Yongsheng, a visiting scholar with the Institute of European Studies of the Chinese Academy of Social Sciences, told the Global Times. "The EU is willing to engage in tit-for-tat duties. Even though it always advertises itself as a paragon of openness and democracy, the EU is now practicing a 'closed-door' policy. China is the EU's biggest source of imports by far, and has also become one of the EU's fastest growing export markets thus the effects of such a practice will be seriously damaging to the EU at a time of economic slump," Zhao said.

Adapted from *FT.com*, June 2012

**Questions:**

- (a) i) Describe the trend in the current account balance of Spain between 2010 and 2012. [2]
- ii) Explain a possible reason for the changes in Spain's current account balance from 2010 to 2012. [2]
- (b) Using the data, explain whether there was an improvement in the average standard of living of the residents of Germany in 2012. [4]
- (c) Using the AD-AS model, explain how austerity measures may have deepened the recession in the EU. [4]
- (d) Using the data, discuss whether the EU should implement protectionism against China. [8]
- (e) Discuss whether Spain should adopt similar measures as Germany to address her macroeconomic problems. [10]

[Total: 30]

---End of paper---

2014 H2 Economics Prelim Exam Paper 1 Answers

Question 1

(a)	<b>i) Describe the trend of the price of natural gas in USA between 2008 and 2012.</b>	[1]
	Overall, price of natural gas decreased from 2008 to 2012.	
	<b>ii) Using the data and a diagram, account for the trend observed.</b>	[4]
	Improvement in extraction of natural gas has reduced marginal cost of producing gas, leading to a rightward shift in the supply curve. Evidence: "Improvement in fracking to obtain natural gas" (Extract 1 para 1) [2m]	
	The "growth in demand" for natural gas was also slow (Extract 2 para 1), suggesting that the increase in supply exceeded the increase in demand → supply shift right more than demand → surplus → overall price of natural gas decreased [2m]	
	Award max 3m if only supply side reason is mentioned. 1m for diagram	
(b)	<b>i) With reference to the data, explain the type of market structure in which the US natural gas industry operates in.</b>	[2]
	Oligopoly industry. [1m]	
	Evidence: - Presence of "energy giants such as ExxonMobil, Shell and Chevron" suggest that the market is concentrated in the hands of a few large firms.	
	[Any 1 evidence + explain → 2marks]	
	No marks for theoretical explanation that is not backed up by evidence from the extract.	
(b)	<b>ii) Explain why big natural gas producers may be better able to withstand low prices of their output.</b>	[2]
	Big natural gas producers have more market power → likely to have consolidated some supernormal profits [1m] → deeper pockets to sustain the fall in revenue because of lower prices of output. [1m]	
	Or	
	Big natural gas producers have a larger market share, hence produce a larger amount of output. As a result, they are able to reap internal economies of scale → unit cost of production falls with output. [1m] The lower unit cost of production helps to cushion the fall in revenue as a result of lower prices of their output. [1m]	
	Max of 1m for identification of 2 points, but without any explanation of any of the points.	
(c)	<b>The price of natural gas is typically much higher outside of USA.</b>	[3]
	<b>Explain how you would expect this price differential to change over time.</b>	
	Currently, the price of natural gas is typically higher outside of USA due to the high demand and limited supply in those countries. As US exports natural gas to these	

	<p>countries, the supply of natural gas increases in these other markets, causing prices of natural gas in other countries to fall [1m].</p> <p>At the same time, the supply of natural gas in US will decrease, causing the prices in US to rise [1m], and hence the price differential should fall over time [1m].</p> <p>Other possible answer: As mentioned from the extract, gas-consuming American businesses object to the idea of exporting LNG. With US not supplying much to the overseas markets, there will be little change to the prices of natural gas outside of US. As such, there might not be much change to the price differential over time.</p>	
<b>(d)</b>	<b>Assess how the export of natural gas will impact producers and households in USA.</b>	<b>[8]</b>
	<p><u>Introduction</u></p> <p>Export of natural gas reduces the supply for domestic economy → fall in supply leads to higher domestic prices of natural gas.</p> <p>The effects can be assessed by looking at the impact on different producers' cost and revenue and the impact on prices for consumers and jobs for members of households.</p> <p><u>Producers:</u></p> <ul style="list-style-type: none"> <li>- Related industries e.g. petrochemicals, agriculture, automobile that rely on oil as a factor input will experience higher COP. Assuming revenue unchanged, firms may experience fall in profits. (Evi: Extract 1 para 2)</li> <li>- Ev: extent of impact depends on the degree of dependence on natural gas. Greater the degree of dependence → more inelastic the demand for natural gas is, greater the increase in COP.</li> <li>- For natural gas producers, exporting natural gas to countries where demand exceeds supply → open up new markets for natural gas producing firms in US (extract 2 para 4) → increase demand for natural gas → higher revenue</li> <li>- Ev: however cost of building liquefaction facility is capital intensive and costs have been increasing steeply (extract 3 para 2) → higher costs of production means it may be hard for export of natural gas to be profitable despite the extra source of revenue for the firms.</li> </ul> <p><u>Households:</u></p> <ul style="list-style-type: none"> <li>- Households face higher prices → lowers consumer surplus</li> <li>- Pay higher prices for electricity bills → increase cost of living; less ability to spend on consumption of goods and services → fall in material SOL</li> <li>- Ev: impact more significant for lower income families as utility bills form a larger proportion of their expenditure → rising inequity</li> <li>- Domestically, higher COP for natural gas might result in some firms (car exporters) off-shoring, leaving for countries with low labour costs to reduce their COP to maintain/increase profitability ( Extract 1 para 3) → increase in layoffs → those working for these industries will suffer from unemployment and loss of income.</li> </ul> <p><u>Synthesis</u></p> <p>Based on trade theory, exports disadvantage domestic consumers (households and domestic firms) due to the rise in price (lose consumer surplus) but is advantageous to exporting firms (gain in producer surplus). Using DD/SS analysis, if the gain in producer surplus &gt; loss in consumer surplus and there is supposed to be a net gain in welfare → society as a whole gains. But the gas firms are gaining at expense of the</p>	

	<p>consumers → rising Y inequity.</p> <p><u>Conclusion:</u></p> <ul style="list-style-type: none"> <li>- Extent of impact on different party differs</li> <li>- Gainers likely to be gas producing firms that are able to export gas to overseas market</li> <li>- Domestic producers and consumers likely to be adversely affected, with those producers heavily reliant on natural gas, as well as lower-income consumers affected most.</li> <li>- While society as a whole gains, there will be a fall in equity of distribution. The US govt would need to address this if it were to allow the export of natural gas.</li> </ul> <table border="1" data-bbox="325 651 1227 1514"> <thead> <tr> <th data-bbox="325 651 432 712">Level</th> <th data-bbox="432 651 1227 712">Descriptors</th> </tr> </thead> <tbody> <tr> <td data-bbox="325 712 432 909">L3 6 - 7</td> <td data-bbox="432 712 1227 909">Well-developed and balanced answer, analysing the impacts on different producers and consumers. Answers also well-supported by evidence.</td> </tr> <tr> <td data-bbox="325 909 432 1263">L2 3 - 5</td> <td data-bbox="432 909 1227 1263">Able to provide well-explained answer but limited in scope, not covering the impact on both producers and consumer, as mentioned in the question.  OR  Covers scope but under-developed explanations (gaps in explanation) or lack evidence</td> </tr> <tr> <td data-bbox="325 1263 432 1391">L1 1 - 2</td> <td data-bbox="432 1263 1227 1391">Answers largely inaccurate and theoretical, with little use of evidence from case materials;</td> </tr> <tr> <td data-bbox="325 1391 432 1514">E 1</td> <td data-bbox="432 1391 1227 1514">Able to make reasoned conclusion, weighing the extent of the impacts on the various parties.</td> </tr> </tbody> </table> <p>Answers should not focus on the macroeconomic effects. Max 1m given for the explanation on the macroeconomic effects e.g. on households (effect on income and jobs)</p>	Level	Descriptors	L3 6 - 7	Well-developed and balanced answer, analysing the impacts on different producers and consumers. Answers also well-supported by evidence.	L2 3 - 5	Able to provide well-explained answer but limited in scope, not covering the impact on both producers and consumer, as mentioned in the question.  OR  Covers scope but under-developed explanations (gaps in explanation) or lack evidence	L1 1 - 2	Answers largely inaccurate and theoretical, with little use of evidence from case materials;	E 1	Able to make reasoned conclusion, weighing the extent of the impacts on the various parties.	
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(e)	<b>Assuming that you are an economist, discuss the extent to which the increased availability of natural gas can address the problem of global warming.</b>	<b>[10]</b>										
	<p><u>Introduction</u> Global warming → market failure Natural gas is an alternative fossil fuel to coal and switching to natural gas can help to reduce greenhouse emissions, reducing global warming. The extent of which it can address the problem depends on the benefits vs the costs of switching to natural gas.</p> <p><u>Explain market failure problem</u></p>											

- There is market failure because of the presence of negative externalities. Production of goods and services release greenhouse gases brings about global warming which affects third parties, other than the producers and consumers in the market. Global warming results in melting of ice caps, increasing flooding. It also disrupts ecosystems, causing animal species to become extinct.
- The presence of negative externalities will cause a divergence in the cost curves, where  $MSC > MPC$ . Assuming no externalities in consumption,  $MPB = MSB$ . When left to the free market, producers only care about the individual cost and benefits, and hence market equilibrium is where  $MPB = MPC$ . Society takes into account all the costs and benefits to all individuals, and hence social equilibrium is where  $MSC = MSB$ . There is thus overproduction of goods and services → allocative inefficiency → Welfare loss to society.

Thesis: Increased availability of natural gas helps to address the problem of global warming.

- Natural gas is an alternative fossil fuel to coal, which releases much lesser amounts of carbon dioxide as compared to coal, with carbon dioxide being the main gas contributing to global warming. The switch to natural gas has helped to reduce carbon-dioxide side emissions from the energy sector, reducing global warming, and hence the market failure problem.  
Evidence: "carbon-dioxide emissions from the energy sector sank to lowest".  
From figures 2 and 3, natural gas is one of the main gases being used in many of the key sources of greenhouse gas emissions, hence switching to natural gas will help to reduce greenhouse gas emissions significantly.
- While the extraction of natural gas produce methane, which also harms the environment, firms can reduce the emissions by employing "a range of technologies" to reduce amount of emissions  
Ev: costly to implement technologies and firms may lack the incentive to do so as the benefits to them may be limited.

Anti-thesis:

Increased availability of natural gas might not address the problem of global warming

- "Extraction of natural gas from shale rock releases methane, a potent greenhouse gas → offsetting the benefits from lower carbon pollution from using natural gas  
→ Ev: while there is evidence that methane leakage rates about 3% and may seem to be not as serious, it's just an estimate and it's difficult to verify the exact amount of leakage
- Ultimately, natural gas is still a fossil fuel and will still release carbon dioxide when burned – still leads to carbon emissions, polluting environment. Merely slowing down the process of global warming, not tackling the root of problem by reducing emissions – should instead focus more on policies that reduce emissions  
→ Ev: "studies have shown that replacing plants with natural gas would do little to slow global warming"
- Switching to an alternative fuel like natural gas might not address the root of the problem as the negative externalities is still not internalised, i.e. the problem is that producers and users of energy don't factor in the MEC of their production and consumption of dirty fuel in their decision making, leading to over production/consumption and hence the problem of global warming. Effective tackling of the problem requires measures that would make the parties concerned internalise the externality concerned, even in the case of

natural gas, which although causes less pollution, still contributes some pollution. As such, more targeted policy like carbon taxes, which help to reduce the amount of emissions through internalising the externalities by increasing the cost of production, might be more useful.

E.g. - According to figure 2, transport contributes 28% of greenhouse gas emissions while figure 2 indicates that petrol, a dirty fuel, is the largest source of energy for transportation. This could be because a petrol powered car is cheaper than one powered by natural gas. Some policy incentive would be needed to get cars users to switch to gas-powered cars.

- Given that natural gas is still a non-renewable source, its supply might be limited and may not be sustainable to rely on it to address the global warming problem. Renewable sources of energy like wind, solar and nuclear power are better alternatives as not only are they renewable, they also release negligible amount of carbon emissions and hence will be more effective in reduce the greenhouse effect as compared to using natural gas.
  - ➔ Ev: From figure 3, currently the use of nuclear and renewable energy already low – increased availability and use of natural gas might further deter efforts to look for more sustainable alternatives for the longer-term
  - ➔ Ev: However, renewable sources of energy like wind, solar and nuclear, are typically more costly and hence firms have less incentive to invest in these alternatives. Also, given the budget deficit that US faces, should the government need to co-invest or provide subsidies to incentivise firms to invest in such technologies, the government’s budget deficit might worsen - “constraints of money and politics”

#### Synthesis

- Increasing the availability and hence usage of natural gas has proved to be effective in reducing greenhouse gases.
- However, it is likely that natural gas still has only a “modest role” to play because ultimately it is still a fossil fuel that emits greenhouse gases and will still pollute environment, and is thus also not a sustainable measure for the longer term.

#### Conclusion

- In the shorter term, the role of natural gas may be more significant given the money and political constraints of alternative sources of renewable energy
- Switching to natural gas only helps to slow down the global warming process. Hence, natural gas thus plays the role as a “bridge fuel” to facilitate the long run switch to cleaner sources of energy.
- In addition, it does not solve the root of the market failure problem as negative externalities are still not factored into the consumption and production processes and hence, other forms of government intervention would be necessary.
- In the longer-term, it is not possible to depend entirely on switching to natural gas to reduce global warming. Ultimately, renewable natural sources of energy with negligible emissions will still be a better option to reduce global warming in the long run.

Level	Descriptors
L3 6 - 8	Well-developed and balanced answer that demonstrates sound application of theory and well-supported by evidence. Recognises the limitations of using natural gas and there are other better options or policies.
L2 3 - 5	Able to provide well-explained but one-sided argument or balanced argument but under-developed explanations (gaps in explanation), with some use of evidence.
L1 1 - 2	Answer largely theoretical, with little evidence from the case materials. Largely irrelevant answers which focuses on explaining the market failure problem.
E 1 - 2	Able to come to a conclusion with a reasoned judgement. Able to recognise that the switch to natural gas does not solve the root of the market failure problem and is not a long term solution to the problem of global warming.

Question 2

ai)	<p><b>Describe the trend in the current account balance of Spain between 2010 and 2012.</b></p> <p>Answer: The current account balance of Spain is in deficit throughout the entire period of 2010 – 2012 (1) but the current account balance has been improving every year (1) or deficit has reduced. (1)</p>	2m
aii)	<p><b>Explain a possible reason for the changes in Spain's current account balance from 2010 to 2012.</b></p> <p>Answer: Current account balance has been improving and it could be due to increase in the export revenue or a decrease in the import expenditure.</p> <p>Import expenditure could be falling due to higher unemployment or falling income given the negative growth in 2010 and 2012 (Table 1). (1) With less jobs and income, the purchasing power of the Spanish consumers will fall and as such they would have to cut down on their spending on goods and services which includes imports. This will lead to lesser imports demanded and a reduction in the total import expenditure of the nation. (1)</p> <p>OR Export revenue could be rising due to the falling value of the Euro (1). (Table2) With a lower Euro value, the amount of foreign currency that foreign consumers have to pay for the Spanish goods and services will fall. With Spanish goods and services now being relatively cheaper to foreigners, they will likely increase their consumption and increase the total export revenue of the country. (1)</p>	2m
b)	<p><b>Using the data, explain whether there was an improvement in the average standard of living of the residents of Germany in 2012.</b></p> <p>Standard of living is usually measured from a material and non-material perspective. Growth in real GDP leads to higher purchasing power. (1) Lower unemployment rate = more jobs available so more income hence material SOL improved (1) But this is assuming the population size stays the same. If the rate of the population increase is faster than the growth in real GDP, there would be a fall in the average material standard of living instead. (1) Furthermore, we are unable to determine the changes in the non-material SOL from given data and thus cannot say for certain if there is an overall improvement in the average material and non-material SOL in 2012 (1)</p>	4m
c)	<p><b>Using the AD-AS model, explain how austerity measures may have deepened the recession in the EU.</b></p> <p>Answer: Austerity measures include reduction in government spending and raising taxes. Public sector and wages are reduced as well as mentioned in Extract 5. (1m)</p> <ul style="list-style-type: none"> <li>- Cut in wages reduces household's income thus purchasing power drops and leading to a fall in consumption.</li> <li>- Raising taxes reduces disposable income and post-tax profits for consumers and firms respectively leading to a fall in consumption and investment. The resultant fall in AD impedes economic growth. Cutting government spending via public sector organisation will reduce AD as well. (2m)</li> </ul>	4m

	<ul style="list-style-type: none"> <li>- Since C, I and G falls, AD falls and National income falls via multiplier. As National income falls, government ends up collecting less tax revenue and it means government spending is cut further. (1m)</li> <li>- All these leads up to further fall in AD thus national income.</li> </ul> <p>Austerity measure- 1m Link to AD – 1m Link to national income with multiplier – 2m</p>	
d)	<p><b>Using the data, discuss whether EU should implement protectionism against China.</b></p> <p>Answer: Protectionism takes some of these forms - restricting imports by quotas or raising tariffs or currency devaluation. Protectionism is chosen as a measure to tackle the problems of recession.</p> <p>Thesis : Yes, EU should implement protectionism on China</p> <ul style="list-style-type: none"> <li>- Based on Extract 8, it will seem like EU is countering dumping from China where China was accused of selling their solar panels at prices below their marginal cost. For EU to impose anti-dumping measures is to bring China's selling price in line with domestic prices. This will help EU's domestic producers from being wiped out by unfair competition from China.</li> <li>- Given that unemployment rate is high in most Eurozone countries like Spain (Table 1), protectionism helps to protect jobs in their domestic economy as prevention of imports will not only reduce import expenditure thus raising AD but also to prevent further cuts in domestic employment level in times of recession.</li> <li>- To temporarily reduce current account deficit (Table 1: Spain's current account deficit). Imposing protectionism will help cut foreign import expenditure and thus lessen the foreign exchange outflow and help to reduce the current account deficit in some of these Eurozone countries.</li> </ul> <p>Anti- thesis: No, EU shouldn't impose protectionism on China</p> <ul style="list-style-type: none"> <li>- However, based on Extract 8, it may suggest that by accusing China of dumping, it could be a case of using it as a disguise to protect inefficient industries in EU. After all, from the same extract, it is mentioned that China is developing better products with advancement in technology or China simply have comparative advantage in certain products based on different factor endowment so for EU to resort to protectionism may not solve its root problem in its goods market.</li> <li>- This may invite retaliation from China and this will further shrink export market in EU; resulting in loss of demand for export from EU, worsening the recession. From Extract 8, it can be inferred that since China is increasingly an important trade partner, this will have dire consequences on EU's growth.</li> <li>- Extract 8, "China is the EU's biggest source of imports by far..." By imposing protectionism would mean that factor inputs will be more expensive for EU producers who still depend on China for raw materials and imported inputs. This will add to the higher production cost for them and that would make their own domestic goods less price competitive.</li> <li>- Other reasons: Poorer innovation and quality can result in loss of export competitiveness.</li> </ul> <p><b>Conclusion:</b> Overall, there may be acceptable economic benefits for imposing protectionism on China given the current recession in Europe but more as a temporary measure rather than long term measure. In the long run, protectionism reduces efficiency, growth, employment and real income</p>	8m

	<p>hence the cost of protectionism is much higher than the benefits of doing so.</p> <p>Mark scheme</p> <table border="1"> <tr> <td>L3</td> <td>Well developed and balanced explanation with reference to extracts.</td> <td>6-7m</td> </tr> <tr> <td>L2</td> <td>Able to provide well explained but one sided argument or balanced argument but under developed explanations with lack of evidence</td> <td>3-5m</td> </tr> <tr> <td>L1</td> <td>Able to provide theoretical reasons or limited reasons for or against protectionism.</td> <td>1-2m</td> </tr> <tr> <td>E1</td> <td>Able to make reasoned conclusion</td> <td>+1 m</td> </tr> </table>	L3	Well developed and balanced explanation with reference to extracts.	6-7m	L2	Able to provide well explained but one sided argument or balanced argument but under developed explanations with lack of evidence	3-5m	L1	Able to provide theoretical reasons or limited reasons for or against protectionism.	1-2m	E1	Able to make reasoned conclusion	+1 m	
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e)	<p><b>Discuss whether Spain should adopt similar measures as Germany to address her macroeconomic problems.</b></p> <p>Answer:</p> <ul style="list-style-type: none"> <li>Spain's macroeconomic problems primarily include</li> <li>negative GDP growth, High unemployment rates and a current account deficit as seen in Table 1.</li> <li>Other issues in Spain: Rigid wage system, lack of incentive to train workers, losing competitiveness. ( Extract 6)</li> </ul> <p><u>Thesis – Germany's measure can address Spain's problems. (Extract 3)</u></p> <p><u>Measure 1</u></p> <p>1) One measure that Spain could learn from Germany would be to <u>cut the wages and working hours</u> of the workers during the economic downturn. As demand for goods and services would decline during a downturn, firms would likely reduce the number of workers hired when output falls, resulting in higher unemployment. By reducing the wages and the number of hours worked by each worker, the firm would be able to afford to continue hiring the same number of workers while producing a lower amount. This would ensure that current workers would still be employed despite the downturn.</p> <p><u>Anti – thesis – Evaluation of measure 1</u></p> <p>1) Cutting the wages and hours of workers in Spain is less likely to succeed due to the inflexible labour market that currently exists in the country. (Extract 6) Spanish workers might be more resistant to such cuts as seen observed from the wage rigidity in the country. If such measures are forced on to them, workers might even go on strikes which would further adversely affect the economic conditions.</p> <p><u>Measure 2</u></p> <p>Another measure that Spain could adopt would be to <u>improve the education and training of their workforce</u>. This would ensure that the labour force would have the relevant skills for expanding industries (Job friendly skills) and reduce structural unemployment. In addition, with higher skills, the country would also be able to attract greater foreign direct investments in high end industries that would create jobs and increase economic growth. As the workers improve their skills and productivity, this would increase the productive capacity and hence potential growth of the country. With a lower cost of production, this might also increase the price competitiveness of Spain's exports and lead to an improvement in their BOP and subsequently EG.</p> <p><u>Anti – thesis – Evaluation of measure 2</u></p> <p>The limitation of trying to improve the education and training system is that it might take some time before the effects can be seen. To fully educate or train people will not happen overnight and years may be required before the labour force is equipped with the required skills. In addition, given the</p>	10m												

austerity measures in place, the government might not be able to fund such changes in the economy. (Extract 5: One of the measures is the €6.5 billion cut in public services)

Measure 3

One of the main drivers of German growth comes from their high quality exports (German products are in demand not because they are the cheapest but because they are the best) to booming economies such as China and Russia. As such, Spain could offer incentives or provide subsidies that would encourage producers to conduct more research and developments to produce better quality goods that would be more competitive in the world market. This could result in an increase in exports of Spain and lead to more jobs created in the export industry. As more workers are hired and the income increases, there will be a multiplier effect resulting in further improvements in employment and economic growth.

Anti – thesis – Evaluation of measure 3

Investments in Research and Developments to improve the products will take a long time before any results can be observed. Given the dynamic nature of the business world, in the time for Spain to carry out the R&D, other countries/businesses might have already developed even better products that would adversely affect the export competitiveness of the Spanish goods. Even with all the resources incurred, there is no guarantee that better quality products can be developed and help improve the Spanish economy. These resources could have been used in other areas to greater effect.

Conclusion

If Germany's measures could be successfully implemented in Spain, there is a high chance that the country's macroeconomic problems could be solved. Nonetheless, with the current state of the Spanish economy and the various problems that she faces, it would be highly unlikely the same measures would be effective. The most likely measure that would make a difference in the short term would definitely be the cutting of wages and hours worked but the government would need to make harsh but necessary laws if it was to succeed.

Level	Descriptors	Marks
L1	Incomplete explanation of the workings of the measures	1-3m
L2	Detailed analysis of how the measures can address Spain's macroeconomic problems and some attempt at assessing the effectiveness.	4-6m
L3	Clear evaluation of the possible measures taking into account the characteristics of the Spanish economy.	7-8m
E1	Mainly unexplained judgment	2m
E2	Judgment based on analysis; good effort at substantiation	1m

VICTORIA JUNIOR COLLEGE  
2014 JC2 PRELIMINARY EXAM

H2 ECONOMICS – PAPER NO. 9732/02

4 September 2014

8:00 – 10:15 am

Thursday

2 hours 15 mins

**Additional Materials:** Answer Paper

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**READ THESE INSTRUCTIONS FIRST**

Write your name and class on all the work you hand in.  
Write in dark blue or black pen on both sides of the paper.  
You may use a soft pencil for any diagram, graphs or rough working.  
Do not use staples, paper clips, highlighters, glue or correction fluid.

Answer **three** questions in total, of which **one** must be from Section A, **one** from Section B and **one** from **either** Section A or section B.

Start each question on a FRESH piece of paper.

At the end of the examination, fasten your work securely, by question, using the strings provided.

The number of marks is given in [ ] at the end of each question or part question.

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This document consists of **3** printed pages.

Answer **three** questions in total

**Section A**

**One or two** of your three questions must be from this section.

1. The Spanish government, which is struggling to cut one of the Eurozone's largest public deficits during a recession, has raised taxes on tobacco.

Source: <http://www.eurocare.org>, 26 June 2013, accessed on 25 August 2014

- a) Explain why an increase in indirect tax on a good like tobacco tends to cause consumers to suffer more than producers. [10]
- b) Discuss how the combination of a recession and increases in indirect taxation might affect the markets for different goods. [15]
2. a) Explain the sources of market power. [10]
- b) Discuss the extent to which market power determines a firm's pricing decision. [15]
3. The Singapore government uses the Certificate of Entitlement (COE) system, the electronic road pricing (ERP) system and the improvement of the public transport system to address the problem of traffic congestion.
- Explain and evaluate the Singapore government's policies for reducing traffic congestion. [25]

**Section B**

**One** or **two** of your three questions must be from this section.

4. a) Explain the causes of disequilibrium in the balance of payments. [10]
- b) Do you agree that the Singapore government's focus should always be to correct a balance of payments deficit? [15]
5. Although the US economy started to recover in June 2009, by the end of 2012, its unemployment rate had dropped by 1.7 percentage points only, to 7.8 percent.
- Source: US Bureau of Labour Statistics
- a) With reference to the circular flow of national income, explain how monetary policy could reduce unemployment. [10]
- b) Discuss whether monetary policy is the most effective way to reduce unemployment in USA. [15]
6. Nations benefit from markets becoming more integrated because of globalisation.
- Comment. [25]

----End of paper-----

## Answers to 2014 H2 Economics Prelim Exam (Paper 2)

### Question 1

The Spanish government, which is struggling to cut one of the Eurozone's largest public deficits during a recession, has raised taxes on tobacco.

Source: <http://www.eurocare.org>, 26 June 2013, accessed on 25 August 2014

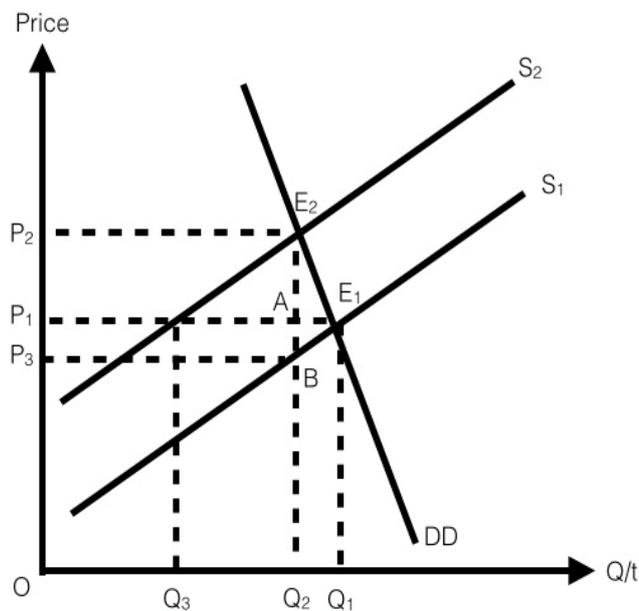
- Explain why an increase in indirect tax on a good like tobacco tends to cause consumers to suffer more than producers. [10]
- Discuss how the combination of a recession and increases in indirect taxation might affect the markets for different goods. [15]

a)

Intro:

- Definition of indirect tax
  - A compulsory levy on goods and services and producers have the legal responsibility to pay the tax to the government
- To examine the impact on consumers and producers, we will have to make use of the concepts of price elasticity of demand and supply.

Body:



- Equilibrium price and quantity is determined by the intersection of the demand and supply curves.
- Initial equilibrium was at point  $E_1$ , where the demand curve  $D_1$  intersects with supply curve  $S_1$ , and equilibrium price and quantity is  $P_1$  and  $Q_1$  respectively.
- When a tax is levied on goods and services, it has the effect of increasing the marginal cost of production, represented by an upward shift of the supply curve from  $S_1$  to  $S_2$ .
- At the initial equilibrium price of  $P_1$ , the quantity supplied is  $Q_3$  and quantity demanded is  $Q_1$ , resulting in a shortage of  $Q_3Q_1$  unit of goods. In light of the shortage, frustrated consumers will be willing to pay higher prices and this signal to the producer will result in producers increasing the quantity supplied. Quantity demanded will fall and quantity supplied will increase until quantity demand equals quantity supplied at point  $E_2$ , where quantity demanded and supplied will be  $Q_2$ , and equilibrium price is  $P_2$ .
- Consumers will suffer as their expenditure on the good has now increased from  $OP_1E_1Q_1$  to  $OP_2E_2Q_2$ .
- Producers also suffer as their total revenue has fallen from  $OP_1E_1Q_1$  to  $OP_3BQ_2$ .

- The relative impact on consumers and producers will depend on the relative price elasticity of demand and supply.
  - Price elasticity of demand measures the degree of responsiveness of a change in quantity demanded to a change in price, ceteris paribus and price elasticity of supply measures the degree of responsiveness of a change in quantity supplied to a change in price.
  - Consumers will suffer more because the demand for cigarettes is relatively more price inelastic due to the fact that it is habit forming and there are no close substitutes for cigarettes. Thus, firms are able to pass on the tax burden to the consumers.
  - This can be seen from the diagram where the tax burden for consumers, represented by the area  $P_2E_2AP_1$  is larger than the tax burden for producers,  $P_1AP_3B$ .

Conclusion

Consumers will bear a greater burden when the demand for the good is relatively more price inelastic than supply.

Level	Descriptor	Marks
3	Detailed, complete and accurate explanation of how consumers will bear a greater tax burden.	7-10
2	Underdeveloped explanation of how consumers will bear a greater tax burden.	5-6
1	Mere listing of relevant ideas with limited explanation	1-4

b)

Intro:

- When there is both a recession and an increase in indirect tax, it will affect the markets for goods differently based on the nature of the goods. The nature of the goods will determine how demand changes in times of a recession and therefore, affect how the price and quantity of the good sold will change.

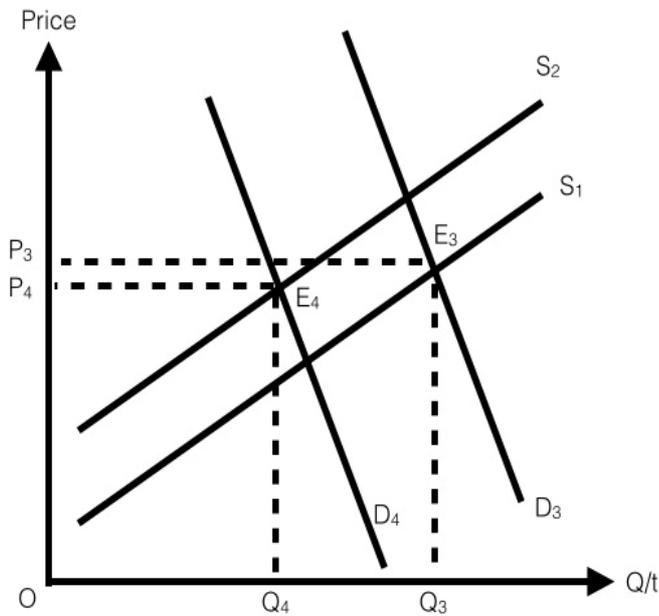
Body:

- Effect of an indirect taxation on supply curve
  - Decreases supply, represented by an upward shift of the supply curve
- Recession
  - Fall in income affects demand as there is a fall in the ability of consumers to pay for goods
  - Lowers demand for normal goods
    - Q definitely falls, effect on P depends on whether demand or supply saw a greater change
  - Increases demand for inferior goods
    - P definitely rises, effect on Q depends on whether demand or supply saw a greater change

**Normal Good**

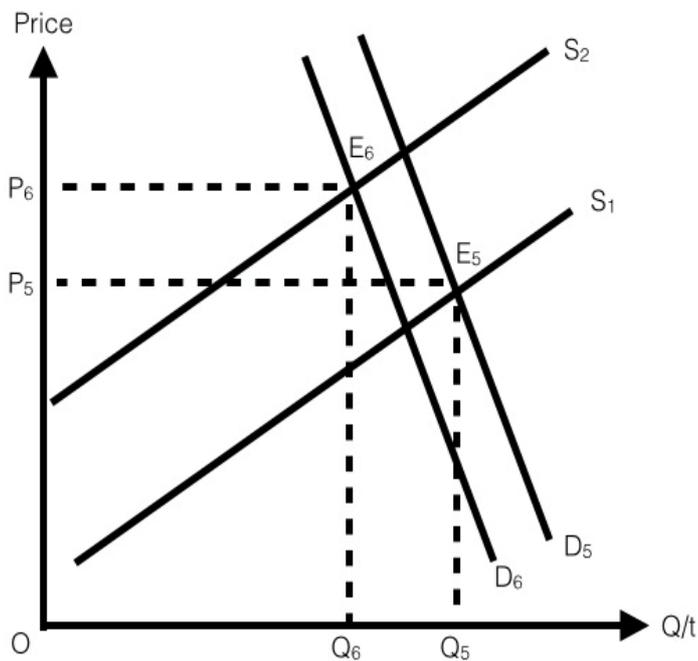
- Nature of good is determined by how demand changes when income changes
- Income elasticity of demand ( $E_Y$ ) measures the degree of responsiveness of a change in demand to a change in income, ceteris paribus.

Scenario 1: Fall in demand, shifts more than supply



- Extent of shift of demand will be larger when the good is a luxury good –  $E_Y > 1$
- When there is a decrease in income, there will be a more than proportionate decrease in demand for luxury goods such as branded bags and cars.
- Initial equilibrium was at  $E_3$ , where equilibrium price and quantity is  $P_3$  and  $Q_3$
- Demand will decrease from  $D_3$  to  $D_4$ , new market equilibrium is at  $E_4$ , where equilibrium price decreases from  $P_3$  to  $P_4$  (because there is a surplus at the original equilibrium price) and quantity decreases from  $Q_3$  to  $Q_4$

Scenario 2: Fall in demand, shifts less than supply

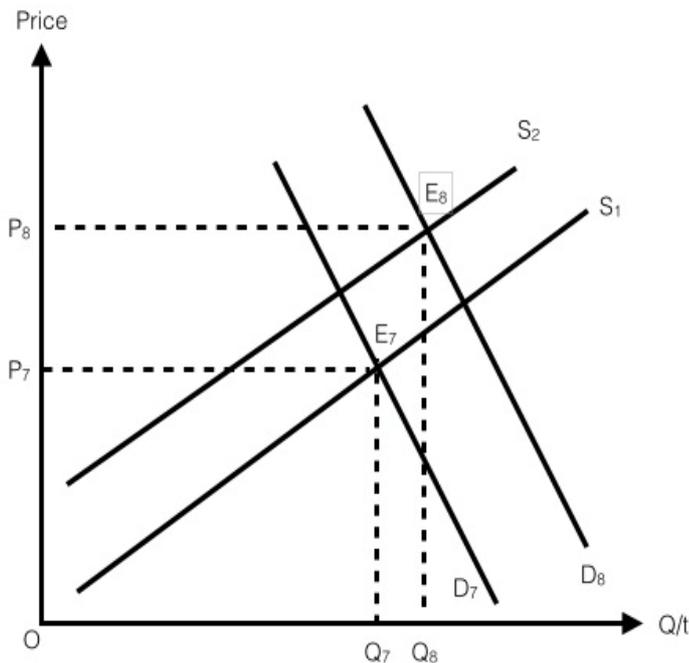


- Extent of shift of demand will be smaller when the good is a necessity -  $E_Y < 1$  (illustrate with example, effect on P & Q)
- When there is a decrease in income, there will be a less than proportionate decrease in demand for necessities such as food.
- Initial equilibrium was at  $E_5$ , where equilibrium price and quantity is  $P_5$  and  $Q_5$
- Demand will decrease from  $D_5$  to  $D_6$ , new market equilibrium is at  $E_6$ , where equilibrium price increases from  $P_5$  to  $P_6$  (because there is a shortage at the original equilibrium price) and quantity decreases from  $Q_5$  to  $Q_6$

### Inferior good

#### Scenario 3: Demand increases, shift more than supply

- During a recession, the demand for inferior goods such as canned food would increase.
- Impact on P and Q would depend on the relative magnitude of shift of demand and supply.
- Initial equilibrium was at  $E_7$ , where equilibrium price and quantity is  $P_7$  and  $Q_7$
- Demand will increase from  $D_7$  to  $D_8$ , new market equilibrium is at  $E_8$ , where equilibrium price increases from  $P_7$  to  $P_8$  (because there is a shortage at the original equilibrium price) and quantity increases from  $Q_7$  to  $Q_8$



#### Scenario 4: Demand increases, shift less than supply

- Analysis similar to Scenario 3 except that equilibrium quantity would decrease instead of increasing

### Sharpness of change in price

In the above scenarios, how sharply price changes depend on the extent of the change in demand / supply and the price elasticity of demand and supply.

The more price inelastic are demand and supply, the sharper is the change in price required to clear the market. As demand and supply tend to be price inelastic in the short-run compared to the long run (it takes time for consumers to find substitutes and firms are constrained by fixed factors in the short-run), the change in prices tend to be sharper in the short-run compared to long run.

Conclusion

Effect on the different markets depends on the nature of the goods, which then affects how much the demand curve would shift by. It also depends on the extent of the rise in indirect taxation. The combined effect on P & Q depends on the relatively magnitude of shift for demand and supply. The analysis is also dependent on the type of countries we are looking at as different countries and different societies would view the same good differently. A cheap car may be seen as an inferior good in an affluent country whereas the same car may be seen as a luxury good in a developing country. Even within one country, different consumers may view the same products as different types of goods. The overall impact on demand would depend on the relative size of the proportion of the market that views the same products differently.

Level	Descriptor	Marks
3	Well-developed analysis of the combined effect of an increase in indirect taxation and a recession on the price and quantity of different types of goods and services	9-11
2	Underdeveloped analysis of the combined effect of an increase in indirect taxation and a recession on the price and quantity of different types of goods and services	6-8
1	Mere listing of points and definitions	1-5
E2	Evaluative argument that is supported by economic reasoning	3-4
E1	Unsubstantiated judgment	1-2

## Question 2

- a) Explain the sources of market power. [10]  
b) Discuss the extent to which market power determines a firm's pricing decision. [15]

a)

### Intro

- Market power is a firm's ability to influence the market price without losing all of its sales volume.
- It depends on the degree of closeness of substitutes of competitors' products and the number of competing firms in the market.
- This in turn depends on the extent of differentiation of the product and the level of entry barriers.

### Body

#### • **Product differentiation**

- The degree of closeness of available substitutes determines a firm's market power. If there are many firms due to low entry barriers, but each firm is able to differentiate its product such that its consumers perceive the products of its competitors to be imperfect substitutes, the firm will possess some market power. E.g. monopolistic competitive firm like a restaurant business.
- The greater the degree of product differentiation, the higher is the firm's market power.
- Product differences can be real (achieved via innovation) or imaginary (achieved via persuasive advertising)
- When large sums of money are involved in creating these differences (e.g. branding via advertisements) or when patents are obtained to sustain the product differentiation, market power is preserved because these methods of product differentiation create entry barriers. This idea is developed below.

#### • **Entry barriers**

- A barrier to entry refers to any obstacle placed by incumbent firms or disadvantage faced by potential competitors which restricts or prevent them from competing with established firms in the market.
- The fewer the number of firms in the market, the fewer the number of substitutes that consumers can turn to when a firm raises its price. Thus, the higher is the firm's market power.
- Types of entry barriers

#### Artificial

Artificial barriers are created by existing firms or the government, to limit the entry of new firms.

- Intellectual property rights  
E.g. Patents  
To promote inventions (e.g. improved pharmaceutical drugs) governments may issue patents. A patent grants an inventor the exclusive rights to produce/sell the product or use the production process that is patented for a limited period of time. The aim of patents is to help the inventor to at least recoup its costs of R&D. However, the effect is that competition is limited since new firms who do not have the right to use the knowledge needed for producing the good will be unable to enter the market.
- Trade barriers  
Governments may impose tariffs / quotas on certain imports to reduce foreign competition and so increase the market power of domestic firms in those industries. (e.g. rice in Japan)

#### Natural

- **Natural** barriers are 'natural' in the sense that they are inevitable in a particular market or industry.
  - High startup cost

- Applicable to industries that need an extensive distribution network which is costly -- pipes, cables (e.g. utilities, cable TV, rail travel), or has high initial capital outlay (e.g. airlines, airport service, mobile telecommunication service). New firms are deterred from entering such industries due to lack of ability or willingness to incur the huge costs.
- Economies of scale (EOS)
  - This refers to decreases in unit costs with increases in output level.
  - When the production process provides a lot of scope for technical EOS (e.g. car manufacturing), the incumbent firms tend to grow to a large size to enjoy the cost savings (if the market demand allows it) and acquire cost advantage over potential new entrants.
  - EOS enables incumbent firms to practice limit pricing to deter the entrance of new firms. I.e. exploit EOS and charge a low price that is not profit maximising (but sufficient for it to earn at least normal profits) such that new firms find hard to match.
  - When the MES is high relative to market demand, which tends to be so for industries with extremely high startup costs => only 1 or a few firms can produce profitably. When only 1 firm can produce profitably, the industry is a natural monopoly.
- Geographical distance
 

Vast geographical distances keep markets in different locations separated from each other. This limits the extent of competition in each market. Reason: The high cost incurred in transporting goods between markets makes it unprofitable for firms to expand beyond their existing markets. The high costs incurred in travelling between markets discourages consumers from sourcing for cheaper alternatives in other markets despite the high prices they are charged.

**Conclusion**

The above entry barriers explain why some markets are either monopoly or oligopoly.

**Marking scheme**

L1	1-4	Mainly listing of factors
L2	5-6	Explanation of factors but with gaps Limited in scope
L3	7-10	Has depth of explanation <ul style="list-style-type: none"> <li>- Considers at least 3 relevant entry barriers.</li> <li>- Links barriers to entry with availability of substitutes.</li> </ul> Uses relevant and appropriate examples Points are organised in a meaningful way

b)

Intro

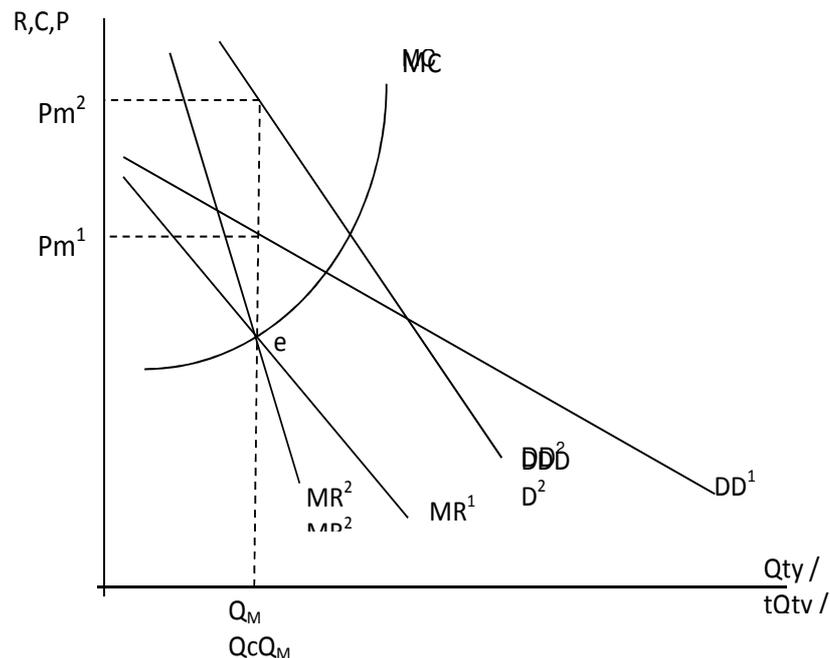
- In traditional firm theory, firms aim to maximise total profits
- Firm's pricing decision is about deciding the price level of its output.
- In determining the extent to which market power determines a firm's pricing decision, the market structure, the contestability of the market and the firm's objectives should be considered.

Body

**Thesis** (Market power determines pricing decision)

- The greater is the market power, the higher is the price that a firm could charge  
When there are few close substitutes available, the profit-maximising firm is able to charge a higher price.

- A profit maximising firm adopts the marginalist principle of producing where marginal revenue (MR) equals marginal cost (MC). When  $MR > MC$ , total profits can be increased by increasing output since producing 1 more unit adds more to TR than to TC. When  $MR < MC$ , total profits can be increased by reducing output since producing 1 less unit reduces TR by less than TC. The highest level of total profits is hence attained when  $MR = MC$ .
- It will charge the highest price, as determined by the level of demand, for this profit-maximising output level.
- For the same MC curve, the more inelastic is demand ( $DD^2$ ), the higher is the price charged ( $Pm^2$  instead of  $Pm^1$ ).

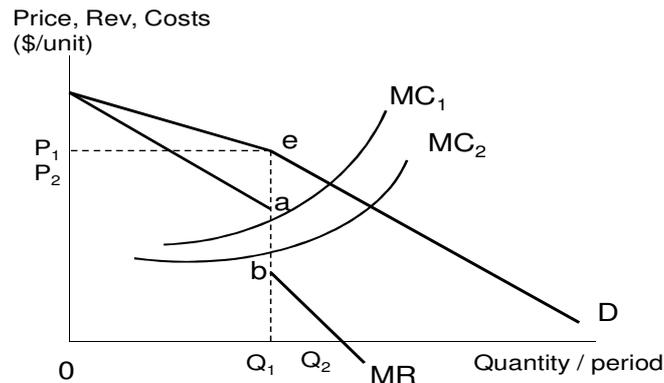


- When there is no market power, as in perfect competition, the firm is forced to be a mere price taker.
- A firm with limited market power, as in monopolistic competition, would be pricing its output rather closely to min AC.
- Market power enables a firm to engage in PD
  - A firm with market power (and hence price setting ability) can engage in price discrimination – i.e. charge different prices to different customers or different prices to the same customer depending on the quantity purchased.
  - This enables it to capture consumer surplus and earn higher revenue for the same output level. For example, instead of charging all buyers the same price for a magazine, the publisher charges a higher price in the market with inelastic demand (e.g. corporations) and lower price in market with elastic demand (students).
- **Anti-thesis** (Market power alone does not determine pricing decisions)
  - **Rival consciousness**  
A firm with market power does not necessarily exploit its market power by charging the profit-maximising price. Pricing decision could be determined by anticipated reaction of other firms. This would be the case in an oligopoly where each seller takes the actions and reactions of their rivals' marketing strategy into account when making business decisions.

E.g.:

- 1) Deciding whether to increase price in the face of a rise in MC

In the kinked DD model, it is assumed that rival firms will match a price cut but not a price increase. This gives rise to a discontinuous MR curve, such that it is possible for MC to change (within a certain range: a to b), but yet the firm does not change its price because if it were to raise its price but the other firms don't follow, it would lose a significant amount of market share to the other few dominant firms.



- 2) Deciding not to base price on own profit-maximising level of output but to follow the leader for fear of starting a price war by pricing the good independently of others

*However, if rival consciousness drives firms to collude (explicit or implicit), then market power is still important in the pricing decision of firms.*

- A cartel acts like a monopoly and charges the monopoly price to maximise collective profits, thus exploiting its market power
- A price leader will seek to maximise his profits and charge a price that enables it to earn the highest possible profits

○ **Contestability of the market**

A firm in an industry with a few firms or no other firms may not exploit market power if the market is contestable.

A **contestable market** is a market in which the costs of entering and leaving are low such that the firms that are already in the market are constantly *threatened* by the entry of new firms who are willing to engage in *hit and run tactics*.

In such a market, the existing firm(s) will not exploit its market power and charge the monopoly price since doing so results in high profits that induces firms to enter. Instead, the existing firm set  $P = AC$  or close to  $AC$  and is prepared to earn less profits.

*However, if the incumbent firm could use strategic entry deterrence, i.e., let it be known that any firm that dares to enter will face all-out war, then the potential entrant will be deterred. In the meantime, the incumbent firm may exploit its market power in pricing.*

*The implication is that the source of market power matters in determining whether market power determines a firm's pricing decision.*

○ **Separation of ownership and control in companies**

Decision making with regards to pricing in some firms is not by owners (who aim for highest possible profits) but by salaried managers (other aims like career progression and bonus pay). As such, the sales manager doesn't necessarily exploit market power and charge the price and produce the output that yields maximum profits.

The latter may pursue profit-satisficing instead where it seeks to maximise TR subject to a positive economic profits constraint. This means a price between  $P_m$  and  $P_o$  is charged (refer to diagram 2).

The separation of ownership and control tend to be found in big corporation

- **Other conditions need to be present to engage in 3rd degree PD.**  
Besides market power, there must be i) Difference in PED, ii) markets must be kept separate.
- **Government regulation**  
A firm with market power, e.g. rail service, may be subject to pricing regulation by the government . E.g. a government owned company may be will be subjected to MC pricing (to achieve allocative efficiency) or AC pricing (to reduce allocative inefficiency). [Explain with reference to the natural monopoly diagram]. The firm is thus prevented from exploiting its market power for profit maximisation.

- **Synthesis**

- It depends on the type of market structure (monopoly or oligopoly, type of oligopoly), degree of contestability of market (how costly is entry and exit) and the objectives of the firm.

Conclusion

- Market power determines pricing decision to a large extent if the firm is profit-maximising, has no rival consciousness and the market has low contestability due to high costs of entry and exit. This would be so for an un-regulated natural monopoly or a collusive oligopoly with very high entry barriers that aims to maximise total profits.
- Many industries in the real world are either monopolistic competitive or non-collusive oligopoly.
  - In monopolistic competition where there is no rival consciousness, the firm would exploit the limited market power and given its profit motive (given that many small enterprises are owner managed), would charge a price that enables it to maximise total profits.
  - In non-collusive oligopoly, market power may be over-taken by other factors in pricing decisions, namely, the aim of profit-satisficing such that market power is not fully exploited in pricing. This is applicable in non-collusive oligopolies that consist of a few big firms where ownership and management are separated.
- Lastly, regardless of the extent of market power, if firms are subject to government regulation in pricing, then market power does not determine a firm's pricing decision.

Marking scheme

L1	1-5	Largely listing of arguments for or/and against. Limited explanation
L2	6-8	Explanation of arguments but with gaps Rather 1 sided
L3	9-11	Explanation of arguments for and against is supported by rigorous economic analysis (rich application of relevant models/ theories/ concepts) Sufficient scope Uses relevant examples
E1	1-2	Able to distil what the discussion depends on
E2	3-4	Above + considers different contexts (industries) for substantiation or evaluates the anti-thesis arguments to arrive at a reasoned stand

**Question 3**

*The Singapore government uses the Certificate of Entitlement (COE) system, the electronic road pricing (ERP) system and the improvement of the public transport system to address the problem of traffic congestion.*

**Explain and evaluate the Singapore government's policies for reducing traffic congestion [25]**

Intro

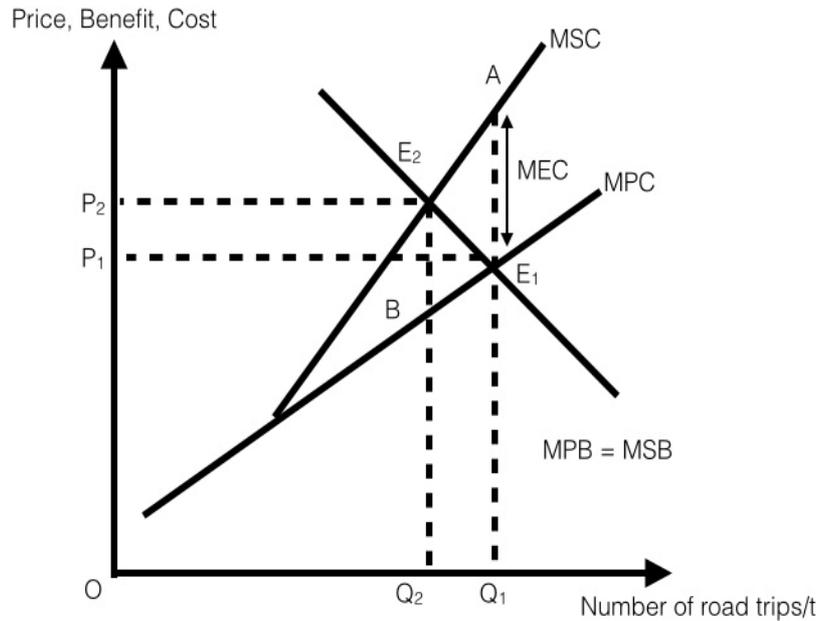
- Governments will intervene when they are trying to achieve the microeconomic goals of equity of distribution and efficiency in resource allocation. In the case of intervention to reduce traffic congestion, the government is trying to reduce inefficiency in this case by addressing the market failure brought about by traffic congestion.
- Market failure is the situation in which ~~there isn't~~ the price mechanism does not bring about efficient allocation of resources and the welfare of society is not maximized.

Body

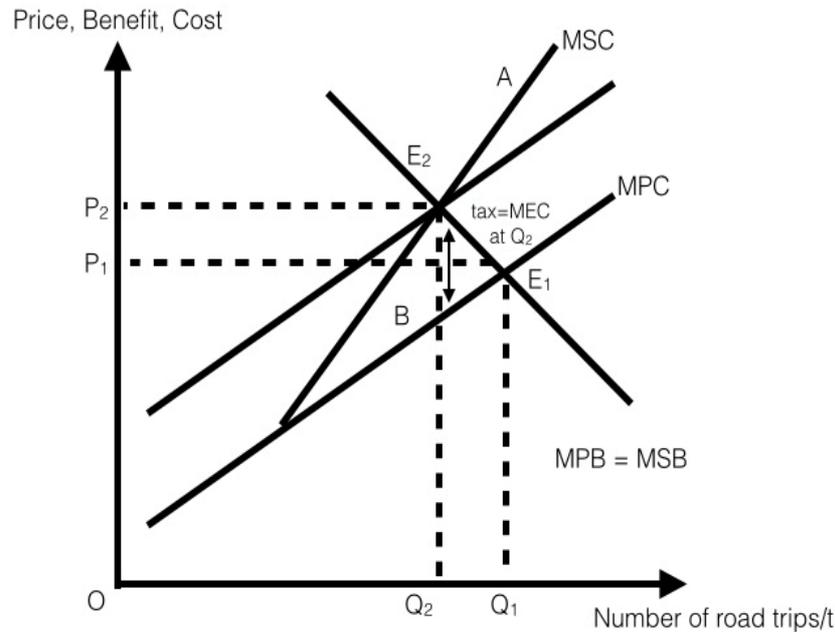
Explain that the existence of traffic congestion indicates market failure

Market failure in the form of traffic congestion occurs

- because the negative externalities brought about by traffic congestion are disregarded in car users' decision making.
- When considering whether to use the car, owners only consider the marginal private benefit (MPB) and marginal private cost (MPC) of using the car.
- MPB of using the car includes convenience and the satisfaction derived from driving the car
- MPC of using the car includes petrol cost, cost of servicing the car
- The free market equilibrium will occur when MPC intersects MPB to give equilibrium quantity of  $Q_1$
- However, car usage generates traffic congestion which generates negative externalities, which are costs borne by third parties who are not involved in the use of cars. Examples of MEC would include loss in man hours and hence output for the employers of the drivers caught in the traffic jam.
- The presence of MEC will cause a divergence between MPC and MSC, as seen in the diagram. The socially optimal level of output is where MSC intersects MSC at  $E_2$ , to give output  $Q_2$ .
- From society's point of view, there is an overconsumption of cars, which is the usage of cars, of  $Q_1Q_2$  units and the welfare of society is not maximized.
- Additional cost of consuming  $Q_1Q_2$  units is  $AE_2Q_2Q_1$  and the additional benefit is  $E_2E_1Q_1Q_2$
- Since additional cost is greater than additional benefit, there is a welfare loss represented by the triangular area of  $AE_2E_1$



- Explain how the COE system works (COE) and its limitations
  - COE represents a right to vehicle ownership and use of the limited road space (for 10 years)
  - It is a quota system as it limits the number of cars that can be on the road. In order to get a COE, one has to bid for the COE.
  - Bidding is an efficient way of allocating resources as the bidders would consider their satisfaction they would get when using the car and would then bid the maximum value they are willing to pay for the COE
  - This policy is easy to implement and monitor as it is illegal to buy a car without a COE
  - The quota system provides certainty of outcome by controlling the car population
  - However, this measure does not address the market failure caused by *usage* of cars. Rather, it targets the problem indirectly by controlling car ownership. While this could address the market failure brought about by car usage, the problem is that it can lead to over-correction, i.e. too blunt, where people who may not use the car often or do not use the car during peak hours, are also required to pay for the COE, discouraging them from buying a car.
  - On the other hand, the measure might be counter-productive. After having paid a large sum of premium for COE, Singaporeans might use their cars even more. i.e. to spread it the fixed cost.
  - Also, it might result in inequity of distribution issues, as those who need the car more may not be able to afford the COE premium.
  
- Explain how ERP works and its limitations
  - ERP is an electronic toll collection scheme to manage the traffic by way of road pricing. It is a usage-based system
  - Cars have to pay tolls when they pass by ERP gantries, located at roads leading into the Central Business District and expressways
  - This increases the marginal private cost of using cars.



- The amount of tax they pay would be equal to the amount of MEC at quantity  $Q_2$ . This causes the drivers to internalize the external cost associated with excessive car usage.
  - This measure is easy to implement as all vehicles are fitted with the necessary equipment to allow for payment of the fee when they pass by the gantries.
  - However, the exact amount of tax to be imposed is not easily determined and the government may over-correct the market failure by imposing a tax that is too high an amount.
  - The amount of tax being imposed currently is also negligible compared to the premium that was paid for COE, thus reducing the effectiveness of this policy.
- Explain how the improvement of public transport would help in reducing the market failure brought about by congestion and its limitations
    - In recent years, Singapore's public transport system has seen several improvements
    - The opening of the Circle Line in 2009 and Downtown Line in 2013 aimed to improve the connectivity of the rail network in Singapore.
    - If the vehicle owners switch to public transport, it will greatly reduce the negative externalities brought about by traffic congestion.
    - However, it is not easy to get the rich and wealthy to switch to taking public transport as they may view public transport as an inferior good. Furthermore, if the drivers have already paid for a car, they would want to utilize their cars as much as they can, driving a car also brings more convenience as compared to taking public transport.
    - Also, the proposed improvements to public transport, which sees small towns being connected by the rail network, are only expected to finish in the year 2030. This is a long-term solution and its effects would only be seen in the long run.

**Synthesis:**

- In order to address the market failure brought about by traffic congestion, a multi-pronged approach is required where policies implemented would address the limitations of the other policies. For Singapore, policies are aimed at discouraging the use of cars by making it more expensive to do so and by making alternatives like public transport more attractive.

**Conclusion**

- The policies that are currently implemented do not solve the problem of market failure completely. However, this may be the best set of solutions that the Singapore government has to deal with the problem, as there has been fine-tuning to both COE and ERP since their implementation.
- Although the COE system does not seem to have fulfilled its purpose of discouraging car usage, it does not mean that it should be discontinued. The bidding process ensures efficiency. It also allows adjustment for increases in income over time. As consumers' income increases, they would be paying more for COE, unlike the ERP measure. As mentioned earlier on, the COE bidding system results in greater inequity. Whether this is worth it depends on whether the society values efficiency over equity.
- In time to come, as Singapore sees a further increase in income, the current ERP rates might no longer be effective in deterring car usage. Perhaps the government can consider raising ERP rates by a substantial amount to cause drivers to feel a greater pinch when using their cars in the city center.

Level	Descriptor	Marks
3	Well-developed explanation and evaluation of all 3 policies to address the problem of traffic congestion	15-21
2	Underdeveloped explanation and evaluation of all 3 policies to address the problem of traffic congestion	9-14
1	Mere listing of points/definitions	1-8
E2	For an evaluation assessment based on economic analysis (taking into consideration Singapore's existing infrastructure and situation)	3-4
E1	For an unexplained assessment or one that is not supported by economic analysis	1-2

**Question 4**

- a) Explain the causes of disequilibrium in the balance of payments. [10]  
b) Do you agree that the Singapore government focus should always be to correct a balance of payments deficit? [15]

a)

**Intro:**

The balance of payments (BOP) of a country is a statement of all the international transactions of a country with the rest of the world over a period of time, usually a year. The two main accounts in the balance of payments account is the current and capital account. A balance of payment disequilibrium means that it can either be in a deficit or a surplus. Causes of a BOP deficit can be broken down according to causes that affect the current and capital accounts. In the arguments below, the assumption is that the current account was initially in a state of equilibrium.

**Body:**

**CURRENT ACCOUNT**

The current account records payments and receipts from trade in goods and services, payments and receipts of income in the form of rent, interest, profits and dividends and unilateral transfers. The main source of a current account deficit is usually from changes in the trade component of the current account.

One possible cause of a deficit could be a **fall in national income of the country's major trading partners** for example the case of global recession in 2008. A fall in income of her trading partners will mean lower purchasing power and thus the ability and willingness to buy imports of goods and services from the country will fall causing a deficit in the current account.

Another cause could be the **higher domestic inflation rate in the country relative to her trading partners**. Local consumers will find that price of domestic goods are higher while price of foreign goods are now relatively cheaper. Local consumers will switch to imports. Given that the domestic price of exports are relatively higher and demand for export to be price elastic, quantity demanded for her exports will fall more than proportionate to the rise in price resulting in a fall in export earnings and a current account deficit.

Another reason for the deficit in current account could be **the loss of comparative advantage of her exports**. With the emergence of other lower cost producers example, China, with abundance of cheap labour, many developed countries will find that their costs are relatively higher in labour intensive industries. As such their labour intensive exports will now be relatively less price competitive. There will be fall in demand for their goods leading to a deficit in the current account-

There can also be a loss of non-price competitiveness due to slower rate of innovation leading to slower development of product design, features and variety. This will lead to a fall in export. The loss of price and non-price competitiveness will lead to a current account deficit causing the balance of payments to be a deficit if the capital account balance is unchanged.

A **capital account** (records international transactions of real assets and financial assets) deficit can cause the balance of payments to be in disequilibrium.

The deficit in the capital account might be due to capital outflow from locals purchasing foreign bonds or deposits due to **higher overseas interest rates, expected capital gains or expected appreciation of the foreign currency**. All these will mean a higher rate of returns

on funds. This will lead to outflow of short term capital also termed hot money or speculative money.

Deficit in the capital account could also be due to long term capital outflow. Domestic investors increase their direct investments overseas due to favourable corporate tax and lower cost of doing business abroad. Domestic firms may also purchase a large volume of shares of foreign firms as part of portfolio investment. These funds may stay in the foreign countries over a long period of time to ensure that the business earn sufficient profits ensuring a higher rate of return. When the overall outflow from direct investment and portfolio investment is more than the inflow of both foreign direct investment and portfolio investment into the local economy, the capital account will be in a deficit and if the current account is unchanged, the balance of payments will be in a deficit and is at disequilibrium.

**Conclusion:**

The possible causes of balance of payment deficit as seen above can have macro impact on the economy. Because of these possible impacts, government may need to take measures such as expenditure switching, expenditure reducing and exchange rate policies to correct the disequilibrium.

Level	Descriptor	Marks
1	Provide listing of various factors affecting both current and capital account as causes for the disequilibrium.	1-4
2	Underdeveloped explanation of how various factors account for the disequilibrium in the balance of payment. It might be limited to only 1 of the accounts. (low L2-5ms)	5-6
3	Detailed and accurate explanation for various factors to account for the B of P disequilibrium (current and capital account deficit)	7-10

b)

**Approach:**

This part requires a discussion of the various consequences of the balance of payments deficit on the Singapore economy. The context of the Singapore government being 'small and open' will also be a factor that the government must weigh on **to determine whether** the focus should always be to correct the balance of payments deficit over other economic goals.

**Intro:**

Most governments aim to achieve the various macroeconomic objectives of low inflation, low unemployment, healthy balance of payments and sustained growth. As it is difficult to achieve all these objectives simultaneously, government may need to prioritise the objectives. In the case of the Singapore government, there is a need to focus on achieving a healthy balance of payments to ensure achievement of the other objectives given the relative importance of the external sector.

**Body**

**Thesis:** The Singapore government focus should be to correct a balance of payments deficit if

**1. It is a source of internal imbalance**

Assuming there was initially external balance (i.e. BOP equilibrium) and taking the deficit to be from the current account, a BOP deficit will result in a fall in aggregate demand. **National income will fall** and fall by a multiplied amount through the downward multiplier process. For Singapore, which is a small and open economy, the impact is quite significant though the multiplier value is small because of the large contribution of the net export to aggregate demand and thus to the overall gross domestic product.

The government should focus on correcting the deficit especially if the deficit was due to loss of export price competitiveness with the entry of low cost producers from emerging economies such as China and India. The loss of comparative advantage will be *permanent*

*and the deficit will be persistent* if no action is taken. This loss of price competitiveness will result in long term costs as this will prevent the country from attaining the other macro-economic objectives such as employment and sustained growth.

Given that export is the main engine of growth, a persistent current account deficit will a persistent fall in actual growth. The government would need to find new niche areas to create new areas of comparative advantage to replace the loss of comparative advantage of existing industries in order to sustain growth.

Structural unemployment may result if the workers displaced from the declining industries are not flexible and receptive to the retraining to equip themselves with the new skills set to move to other industries. If not addressed, extended period of unemployment will lead to erosion of skills and reduce employability of the laid-off workers. The loss of human capital limits the growth of the economy over time.

A deficit that occurs in the capital account could result from negative net capital inflows due to fall in inward foreign direct investment. A fall in foreign direct investment into a small and open economy like Singapore with a small domestic market and reliance on foreign capital, technology and skills, will have significant negative consequences. Foreign direct investment by firms is an important source for creating employment for small and open economies like Singapore. Overtime, this will negatively impact potential growth and thus **limit the goal of achieving sustained actual growth.**

The balance of payments deficit could also lead to a weakening of the exchange rate given that the economy is operating on a managed float system. The deficit will result in an increase in supply of domestic currency or/and decrease in the demand for the domestic currency in the foreign exchange market. This will lead to a depreciation of the currency if the fall is within the band. Singapore is highly dependent on import of resources like fuel, raw materials and intermediate goods given that she lacks resources for production. A weakened currency will mean an increase in the domestic price of imported final goods and semi-finished components for production. Costs of production will increase leading to **cost-push inflation.** This means there will be increase in domestic price of her exports. This will in turn reduce her export competitiveness and significantly reduce export revenue given that demand for her exports tends to be price elastic. The deficit in the balance of payments will worsen, increasing the supply of the local currency in the foreign exchange market. Central Bank will need to use its foreign exchange reserves to buy up the currency to maintain the currency within the band. This runs down the reserves.

The buying up of local currency to keep the S\$ from falling below the band will lead to decreases in the domestic money supply. This has a dampening effect on AD and real GDP.

## **2. It is a source of income inequality**

The rise in unemployment may lead to an increase in income inequality. Firms retrench workers to cut cost due to the lower aggregate demand and the rise in unplanned inventories. Factor owners may see an increase in profits from this cost saving exercise while those retrenched and underemployed will have lower income and widen the existing income gap.

**Anti-thesis:** The Singapore government focus should NOT be to correct a balance of payments deficit.

There is no need for correction of the balance of payment deficit if the value of the **deficit** as a percentage of GDP **is small and of a short term nature.** A short term deficit may occur due to a temporary increase in import expenditure. This can be seen in sharp increase in global oil price increase or increase in global prices of food and commodities. Demands for such goods are price inelastic. An increase in prices of such goods will lead to an increase in import expenditure since quantity demanded fall less than proportionate to the increase in price. With export revenue unchanged, there will be a deficit in the current account.

A deficit in the current account might ease inflationary pressure if a substantial proportion of the aggregate demand is from net exports and the economy was already experiencing demand pull inflation. With total trade contributing close to 300 percent of gross domestic product, a current account deficit will reduce the aggregate demand and ease domestic inflation.

With the shift of the economy to the service sector, it now accounts for about 40% of GDP, the weakening of the exchange rate from the balance of payments deficit may be a good thing as it will increase export competitiveness of her service sector. The service sector does not use imported inputs and thus will gain much from the weaker local currency.

If the deficit in balance of payments is due to increase outward bound foreign direct investment of local firms, this should not be of concern. Domestic firms are increasing their investment in emerging economies like Vietnam. Such large outflow of investments abroad would result eventually in inflow in the long run as the dividends and profits earned by such investment will flow back as property income from abroad. This will improve the current account of the balance of payment.

**Synthesis:**

Whether the Singapore government focus should be to correct a balance of payments deficit will depend on a variety of factors such as the cause of the deficit, the prevailing level of resource utilisation and the extent of impact on the economy due to the nature of the economy. A short term deficit due to factors such as global commodities inflation is less of a concern compared to loss of export competitiveness of goods and services and may require action by the government.

**Conclusion:**

When there is a large and persistent deficit leading to negative impact on the achievement of the other macroeconomic objectives, government should focus on correcting the balance of payment deficit. For a small and open economy like Singapore, this is particularly significant. When a persistent BOP deficit is not rectified and MAS has to revise downwards the lower limit for intervention, i.e., the exchange rate has to be allowed to drop, inflation will rise and this is ultimately bad for economic growth because investments will be discouraged. In order to correct the deficit, it is important to implement policies to correct the cause of the deficit. With the loss of comparative advantage being a major factor leading to a deficit, there is a need for the government to constantly restructure the economy to suit the changing demand and supply conditions in the international market.

Level	Descriptors	Marks
1	Mere listing of the effects of BOP deficit (i.e. limited explanation). Weak analysis of the effects of balance of payments deficit.	1-5
2	Considers the merits for correcting a balance of payments deficit, though points are still underdeveloped and lack of consideration of the Singapore context in some areas.  Possibly one sided without examining why the government might not focus on correcting the balance of payments deficit.	6-8
3	Theoretically rigorous, accurate and complete explanation of the effects of BOP deficit. Balanced analysis.	9-11
E1	Unexplained judgment	1-2
E2	Judgment supported by analysis of the criteria (e.g. consideration of the context).  Have a clear reasoned stand.	3-4

**Question 5**

*Although the US economy started to recover in June 2009, by the end of 2012, its unemployment rate had dropped by 1.7 percentage points only, to 7.8 percent.*

*Source: U.S. BUREAU OF LABOR STATISTICS*

- a) With reference to the circular flow of national income, explain how monetary policy could reduce unemployment. [10]
- b) Discuss whether monetary policy is the most effective way to reduce unemployment in USA. [15]

a) Intro

- Circular flow of income is the flow of income from firms to HHs (when firms pay for factor services) and then back to firms when the income is spent on the output of the firms. Keynes' model of income determination will be used to explain how monetary policy could reduce unemployment.
- Monetary policy is the process by which the monetary authority of a country, usually the central bank, changes the money supply and/or interest rate for the purpose of influencing the level of economic activity in the country.

Content

- In a modern 4-sector economy made up of households, producers, government and foreigners, not all income earned by HHs is spent on domestic consumer goods/services. Some of it will be saved, some of it be taxed by the government and HHs will also use part of their income to purchase imports in an open economy. When this happens, there are withdrawals from the circular flow. A withdrawal (W) from the circular flow is an income receipt that is not passed on through spending. In a 4 sector model, W include saving (S), taxes (T) and import expenditure (M).
- The presence of W means that not all income earned by HHs is passed back to firms via HHs' spending. However, withdrawals get injected back into the circular flow in the form of investment expenditure (I), government expenditure (G) and export expenditure (X). An injection into the circular flow is an *income receipt not caused by HH spending*.
- Thus, in a 4-sector model, firms in the country receive payments i) from HHs for consumer goods/services, ii) from firms for capital goods, iii) from the government and iv) from foreigners for exports.
- National income is in a state of equilibrium when total W = total J because then AE which is  $C+I+G+(X-M)$  equals national income (NY) and firms will neither be increasing nor decreasing their output.

To reduce the unemployment in an economy, an expansionary monetary policy should be adopted. This means a deliberate raising of the money supply or lowering of interest rates to boost AD. With lower interest rate, the cost of borrowing will fall. Consumers will receive lower returns to their savings from banks, so C will be encouraged. For firms, there will be higher returns to investment, so I will increase.

In addition if the country is having a flexible exchange rate system, the decrease in interest rates might lead to an outflow of hot money and a depreciation of the domestic currency. This could result in higher export expenditure as foreigners will now find the domestic goods and services relatively cheaper.

- Assuming Constant  $MPC_d = 0.6$ , i.e. consumption of domestically produced goods & services increases by \$0.6 when NY increases by \$1. Constant  $MPW = MPS + MPT + MPM = 0.4$ , i.e. total withdrawals increases by \$0.40 when NY increases by \$1

- As earlier explained, the expansionary monetary policy will result in the investment or consumption or export expenditure rising by \$100m with everything else held constant.
- This causes firms to experience an unplanned decrease in inventories as more goods and services are bought. The firms will then increase its production to restore inventories to the planned levels by increasing its demand for factor services which include labour. This will cause an increase in factor income paid out by \$100m.
- Following the increase in employment of workers and subsequent increase in households' income of \$100m, the purchasing power of households rise, causing a rise in induced consumption. This consumption however does not rise by the full extent of the rise in income. Given  $MPC_D$  of 0.6, induced consumption rises by only \$60m with the rest of the increase (\$40m) going to higher savings, taxes and imports
- The increase in induced consumption of \$60m leads to further increases in revenue of firms producing the consumer goods & services. These firms will then increase their employment of factor services to increase output by \$60m. Thus, more income will be earned by households employed in this sector.
- The rising income of \$60m leads to yet more expansion in consumption (\$36m), savings, taxes and imports (\$24m) Each subsequent round of expansion in  $C_D$  gets smaller due to the leakages at each round (increases in S, T and M) The process continues until the total rise in  $W = \text{initial rise in } J$  (if the initial rise was from rise in I or X) = \$100m and new equilibrium achieved at a higher level of Y which translates into increased employment of workers
- With a multiplier (K) of 2.5 where  $K = 1 / (1 - MPC_D)$ , the increase in C/I of \$100m, working through the multiplier process, will cause NY and thus employment to rise by \$250m.

Conclusion

Expansionary MP can reduce unemployment but the final impact depends on nature of the economy, especially the size of the multiplier.

Level	Descriptor	Mark
3	Detailed explanation of how an expansionary monetary policy can reduce unemployment through the circular flow of income	7-10
2	Incomplete explanation of the effects of monetary policy on unemployment	5-6
1	Some knowledge of how a monetary policy works and what is the circular flow of income.	1-4

b)

Intro

USA is a large and open economy with a sizeable domestic consumer market with a floating exchange rate system.

Body

Thesis

Due to the large domestic market and the consumer spending culture of the population, the MPC in USA tends to be significant. This would result in a large multiplier thus leading to a large decrease in unemployment as national output expands significantly due to the changes in C/I.

In addition, given the flexible exchange rate system, the lower interest would result in a depreciation of the US dollar thus stimulating exports and creating more jobs in the export related industries.

Anti-thesis

Limitations of monetary policy

- The policy might not be effective if the economy is facing a liquidity trap. This occurs when the market interest rate in the country has already reached its lowest possible level and cannot fall any further. Thus, there will not be any significant increases in C and I, if any at all. Given that the US central bank has already been reducing interest rates significantly over a period of time, it might not be possible to reduce it much lower and this would explain why there is not significant decrease in unemployment.
- During a recession, investment and consumption may not change in response to a fall in interest rates. Firms are unlikely to borrow to invest if they are already facing excess capacity and when business outlook is poor. Households facing the prospect of retrenchments and falling incomes are also unlikely to be enticed by lower interest to borrow for consumption. Thus, an expansionary policy might not be able to reduce the unemployment in the country.
- Nonetheless, given the fact the US economy is starting to recover as stated in the extract, this might mean that the outlook would be improving and monetary policy would be somewhat effective in improving the unemployment situation.

Despite the improving economy and increased production output in the United States, there does not seem to be a corresponding decrease in the unemployment rates. This would imply that the unemployment is unlikely to be due to a lack of demand and thus mean that an expansionary policy will not be effective at all.

#### Structural Unemployment

One major kind of unemployment that might be present would be structural unemployment. Structural unemployment is caused by structural changes in the economy that result in some workers becoming unemployed for very long periods of time because they cannot find jobs that require their particular skills even though there are job vacancies available. After the financial crisis in the US, there were many jobs there were no longer relevant in the economy and this meant that the workers who were laid off, were unable to find jobs that match the skills that they possessed. This would cause an increase in structural unemployment.

A more appropriate policy to reduce structural unemployment in the US would therefore be the implementation of supply side policies that aim to provide the workers with the necessary skills to take up the existing jobs in the country. The government could provide training facilities or subsidies to encourage workers to go for further training and upgrade themselves. This will ensure that they are equipped with the skills that employers would require and enable that to seek employment in the expanding sectors thus reducing the unemployment in the country. Given the high education level of most workers in the US, training them to pick up new relevant skills should not be too difficult.

However, the cost of providing or subsidizing such training can impose a burden on the government budget especially if the newly acquired skills are not what is required by the markets. This might be a cause for concern given the large budget deficit that the US government is already facing. This might mean that the government might not be able to provide sufficient funds to reduce the unemployment significantly.

#### Frictional unemployment

Other than structural unemployment, it is likely that frictional unemployment will also exist in the country. This is associated with the normal turnover of labour. Frictional unemployment arises because it takes time for people who have left their jobs or have just entered the labour force to find jobs due to imperfect information. Furthermore, unemployed people may choose not to take the first job they are offered in the hope that they will receive a better job offer.

Instead of adopting an expansionary policy to tackle this form of unemployment, it would be more effective if the government were to improve the flow of information in the labour market. This can be achieved by setting up specialised employment agencies or having career fairs whereby the different employers and job seekers could come together. This will reduce the time require for the unemployed to find suitable jobs and for employers to find suitable employees.

#### Conclusion

Whether or not MP policy is effective to resolve unemployment in the economy will depend on the state of the economy and more importantly the cause of the unemployment. Given that the economy is already recovering in the US, it is likely that the unemployment that exists is not due to a deficiency in demand. This means that the monetary policy will not be effective

and other supply side policies that target structural and frictional unemployment would be required instead.

<b>Level</b>	<b>Descriptor</b>	<b>Mark</b>
3	Clear analysis of what affects the effectiveness of monetary policy and how other policies might better address the types of unemployment that exist in the given context.	9-11
2	Incomplete analysis of the effectiveness of monetary policy and other policies that might be more appropriate with limited reference to the US economy.	6-8
1	Brief economic explanation of effectiveness of the policy and some knowledge of the different types of unemployment.	1-5
E2	For an evaluative assessment based on economic analysis and context of USA.	3-4
E1	Unsubstantiated assessment of the effectiveness of Monetary policy in reducing unemployment	1-2

**Question 6**

**Nations benefit from markets becoming more integrated because of globalization.**

**Comment.** [25]

**Approach:**

*This question requires candidates to recognize the effects of globalization; in particular how the increased integration of the various markets can benefit different types of countries. These are the goods and services markets, labour markets and capital markets. Essentially, the impact on these markets is likely to be different for Developed (DC) versus Developing countries (LDC).*

*This question has two main parts. The first part requires candidates to examine how the increased integration of markets affects economies and thus, benefit from it. This part requires candidates to examine impact on economic growth via Trade, Foreign Direct Investments, Labour movements and transfer of technology.*

*The second part requires candidates to examine how different countries benefit differently from each of these markets with some examples to illustrate. The extent to which economies benefit depends on the nature of these economies, the size of the economy, the current state in which they are in and the policy options at the disposal of governments.*

*Candidates should demonstrate that the degree of benefits is unequal across different economies because factor endowments are different.*

**Intro:**

1. Explain that economic globalization which is the increased integration of product, capital and labour markets has occurred as a result of:
  - lower transport costs;
  - improving technology; and
  - enhanced communications
2. Briefly highlight how globalization can affect the macroeconomic goals and standard of living
  - Via the aggregate goods and services market on macroeconomic goals (EG, UnN, inflation and BOP) and SOL when trade restrictions are reduced / removed;
  - Via capital markets / flows (funding and investments) on macroeconomic goals (EG, UnN, inflation and BOP) and SOL; and
  - Via labour mobility (as immigration increases) that affects SR cost of production and long run productive capacity of economies

**Body:**

3. Explain the link between globalization and markets
  - Via goods and services markets (export and import markets)
  - Via capital markets ('hot' money, FDI and investments)
  - Via labour markets (immigration of unskilled and skilled labour)
4. Explain how trade based on Comparative Advantage (CA) Theory brings about overall net benefits to nations
  - CA theory focuses on difference in opportunity cost of producing same good, given a set of assumptions
  - Free trade based on CA benefits both nations that trade
  - Extension of this theory implies that free trade using CA theory brings about rise in overall production levels and thus, economic growth from higher output levels.
  - Similarly higher consumption levels lead to rise in welfare to society

5. Explain how goods and services market changes affect the macroeconomic goals
- Better access to larger markets for exports as well as more diversified sources of import
  - This largely depends on the endowment and comparative advantage present in the economies
- (a) Positive impact
- Higher export revenue to boost actual growth of economies (apply Keynes analysis)
  - Job creation as economy expands
  - Improvements to current account balance of BOP
  - Import of capital goods to boost productivity and productive capacity (lowers cost of production), i.e. potential growth
- (b) Negative impact
- Higher import expenditure due to excessive consumption or capital goods
  - Worsen current account balance of BOP
  - Structural unemployment – increased exports and imports result in structural unemployment because those workers who are retrenched in declining import-competing industries do not have relevant skills to take up job vacancies in expanding export industries. I.e. assumption of perfect factor mobility in theory of CA does not hold.

*Note: Candidates can include any points that may be relevant*

6. Explain how capital market changes affect the macroeconomic goals
- Better access to capital markets allow MNCs to borrow funds for investments cheaply
  - This is dependent on the quality of the financial and regulatory institutions present in the economies
- (a) Positive impact
- Inflow of hot money affects loanable funds. This helps to keep interest rate low which encourages investment which is needed for actual and potential growth.
  - Inflow of FDI promotes economic growth (AD and AS) and job creation
  - Improves capital account balance of BOP
- (b) Negative impact
- Inflow of FDI may result in income disparity as demand for higher skilled labour leads to faster rise in wages versus the low skilled workers
  - Outflow of FDI (investing nation) may result in unemployment
  - Outflow (investing nation) worsens capital account balance of BOP

*Note: Candidates can include any points that may be relevant*

7. Explain how labour market changes affect the macroeconomic goals
- Availability of 'cheaper' low-skilled workers helps reduce cost of production particularly for labour-intensive industries
  - Availability of skilled workers helps to improve productive capacity of economies
  - Improvement in labour mobility improves income equality between countries
- (a) Positive impact
- Lowers short run production costs and improves long run productive capacity
  - Improves income inequality as labour moves to nation where wages are higher, thus levelling the wage levels over time; or skilled workers can move across national boundaries to seek out higher wages in nations where skilled workers are scarce
- (b) Negative impact

- Unemployment due to competition from influx of cheaper labour E.g. Cheaper foreign labour replaces local unskilled worker in Singapore because they are willing to accept lower wages compared to domestic worker
- Possible externalities from social integration issues

*Note: Candidates can include any points that may be relevant*

8. Analyse how different economies are affected differently
- (a) Between Developed (DC) versus Less developed economies (LDC)
- Eg. DCs gain from cheaper import of raw materials while LDCs gain from import of capital goods
  - Eg. DCs gain from cheaper alternative goods while LDCs gain from exports to DCs
  - Eg. LDCs gain from inflow of FDI while DCs gain from outsourcing
  - Eg. LDCs gain from improvement in capital account as a result of FDI inflow while DCs gain from current account inflow as profits are repatriated
  - Eg. Unskilled workers in DCs lose jobs as cheaper labour in LDCs replace them in their jobs
  - Eg. LDCs infant industries may lose out to global competition
- (b) Between Large versus Small economies
- Small economies gain from access to larger markets that help boosts their exports
  - Large economies gain from having more alternative sources of import (diversification that helps reduce dependence and hence, possible imported cost-push pressures)
- (c) Difference in Terms of Trade
- Nations that export higher value goods and services versus nations that are agriculture based and thus, tend to have disadvantage terms of trade
- (d) Degree of openness to trade and capital flows
- Nations that are dependent on trade sector to drive economic growth versus those that are dependent on domestic sectors
  - Nations that are dependent on FDI for economic development versus those that able to rely on domestic investments
- (e) Availability of spare resources within respective economies
- This prevents inflationary pressure as AD rises

**Evaluation:**

9. Explain how benefits generally outweigh costs for most economies
- Gains from trade outweigh the costs since economic growth allows the economic pie to grow (income levels rise and more jobs are created)
  - Improved efficiency leads to lower price and increased variety → society's welfare gain
  - Such gains can then be re-distributed by government to improve equity in the long run
  - With higher income levels, funds would be available to deal with externalities such as environmental pollution

**10. Conclusion:**

Benefits generally outweigh the costs of globalization that bring about higher volumes and values in trade for goods and services, capital flows and labour mobility

Short run effects versus long run effects on the development of economies is a key consideration (while there may be short term negative impact, there could be long run benefits that aid the overall development of an economy as a result of globalization)

Benefits for economies are uneven:

- Gains from globalization tend to be different between different types of economies

- Even for similar economies, the results are also likely to be different as a result of difference in state of economy, difference in endowments, difference in government policies; and difference in labour and capital composition

**Mark Scheme**

Level / Marks	Descriptors / Proficiency
L1 1 – 6	Demonstrated some understanding of the impact of globalization.
L2 7 – 10	Able to explain benefits and costs as a result of globalization and trade with some <u>gaps in explanation</u> Eg. only goods and services market (ie. international trade arguments)
11 – 13	Able to explain benefits and costs as a result of globalization and trade Eg. Goods and services market plus capital market (ie. FDI and hot money)
L3 14 – 17	Able to link the characteristics of nations to the extent of impact of globalization in terms of goods and services market, capital market and labour market with some <u>gaps / lack of clarity</u> in explanation
18 – 21	Able to demonstrate clear links between the characteristics of nations to the benefits and costs of globalization in terms of goods and services market, capital market and labour market AND understanding of <b>'uneven'</b> effects on nations
E1 1 – 2	Unsubstantiated judgements / conclusions
E2 3 – 4	Well-substantiated judgements / conclusions. Insightful comments that are substantiated.

**YISHUN JUNIOR COLLEGE  
JC2 PRELIMINARY EXAMINATIONS 2014**

**ECONOMICS**  
Higher 2

**9732/01**

**21 AUGUST 2014**  
1400h – 1615h

Additional materials:  
Writing paper  
Cover page



**TIME 2 hours 15 minutes**

**INSTRUCTIONS TO CANDIDATES**

Write your name, CTG and index number in the spaces provided on the cover page and on all sheets of writing paper handed in.

Write in dark blue or black pen.

You may use a soft pencil for any diagrams, graphs or rough working.

Do not use highlighters, glue or correction fluid.

Answer **all** questions.

At the end of the examination, tie a cover page to **two** separate questions:

1. Question 1, and
2. Question 2.

**INFORMATION FOR CANDIDATES**

Including this cover page, there are **eight** pages in this question booklet.

The number of marks is given in brackets [ ] at the end of each question or part question.

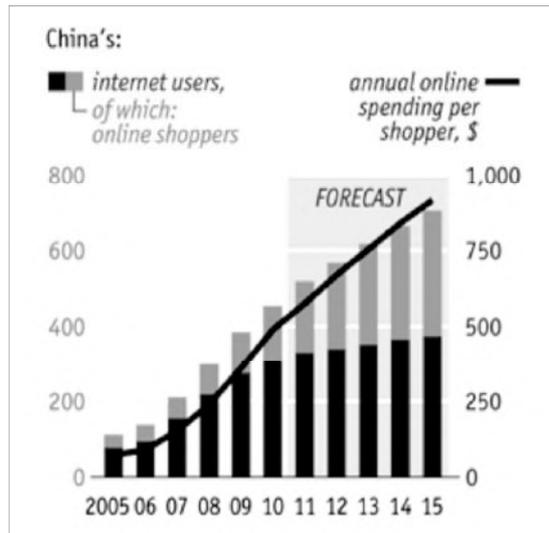
You are reminded of the need for good English and clear presentation in your answers.

Answer **all** questions.

**Question 1**

**Growth and Acquisitions**

**Figure 1: Online shoppers in China as a proportion of total internet users (in millions) from 2005 to 2015**



Source: Boston Consulting Group

**Extract 1: Acquisitions in the Southeast Asian market**

Singapore and Southeast Asian tech start-ups are being eyed by foreign buyout firms in the wake of declining prospects in the struggling economies of Europe and the United States. The region's rapid adoption of the Internet, especially in social media and mobile usage, is generating a wealth of opportunities, according to industry experts.

Mr Bernard Leong, co-founder of tech blog SGEntrepreneurs, told The Straits Times: '(Investors) are looking at Southeast Asia as the next China before it gets big. Indonesia, for example, has a growing middle class, which is largely surfing the Web using mobile phones'. Mr Hugh Mason, co-founder of Joyful Frog Digital Incubator, said: 'Southeast Asia is attractive because it is where the next billion people are going to be. There are 600 million people now and the populations of the emerging markets in Indochina, Myanmar and Philippines are continuing to grow'.

Three local companies have been acquired this year. StubHub, a subsidiary of e-commerce giant eBay, snapped up Peekspy, which allows users to see the view they can expect before they buy an event ticket. Admax, a digital advertising network, was bought by Indian company Komli Media, while food review website HungryGoWhere was snapped up by telco SingTel.

Mr Michael Yap, deputy chief executive of the Media Development Authority, added 'We'll also be funding new firms started by experienced technopreneurs – entrepreneurs in the IT industry – with better international links to countries such as Russia and China, so as to help their start-ups venture overseas'.

Source: *The Straits Times*, 12 June 2012

**Extract 2: The growth of online shopping**

The anti-monopoly bureau of the Ministry of Commerce (MOC) in China has approved plans by Wal-Mart Stores, allowing the U.S. retail giant to control China's largest online supermarket, Yihaodian. If successful, the acquisition will help Wal-Mart grab a bigger slice of China's booming online shopping market.

However, the MOC emphasised that the acquisition can only be completed under several restrictive conditions. Because of its comprehensive strength in both offline and online retailing, the acquired company will be able to gain a dominant position if it is allowed to enter China's value-added service market through Yihaodian. This 'may have an effect of restricting market competition in China's service market'.

According to a statement released by Yihaodian: 'Yihaodian fully respects and welcomes the MOC's decision. We have maintained high-speed growth since launching in 2008 and will create greater value for consumers as our partnership with Wal-Mart deepens'.

Founded in Shanghai in July 2008, Yihaodian sells a range of goods including food, cosmetics and consumer electronics. One of the key factors that help to give the companies an edge over others is the convenience of a one-stop shopping destination for a growing middle-class who is using their mobile phones for their online shopping needs. Other factors such as a high degree of consumer choice from budget to gourmet products from other countries play an important role in influencing customers' preference.

The website had more than 18 million registered users as of May 2011, and its sales exceeded 800 million yuan (126 million U.S. dollars) in 2010, according to company information. The online shopping market in China has been prospering despite an economic downshift, with the country's online population of shoppers reaching 210 million by the end of June.

Source: *Xinhua*, 14 August 2012

**Extract 3: More investment = more jobs = more foreigners**

The Government's 'yes' to investments and inflows of foreign workers which led to today's infrastructure crunch is also why Singapore now enjoys low unemployment.

National Development Minister Khaw Boon Wan pointed out that from 2005 to 2006 following the 2003 SARS crisis and recession, Singapore was experiencing 'difficult times' when the future was uncertain and the country struggled for a stretch to secure investments. It was looking for investments to create jobs for Singaporeans, but companies also needed foreigners to fill positions that required a wide range of skill sets.

'Then suddenly, they came in a bunch. Do we take them or miss them? Sometimes we have to take a decision which has both negative as well as positive consequences. We have to weigh and make the trade-offs,' he said.

Source: *The Straits Times*, 4 June 2012

**Questions**

- (a) (i) Compare the changes in the number of online shoppers in China between 2005 and 2015 with the change in internet users over the same period. [2]
- (ii) Explain possible reasons for these changes observed. [5]
- (b) Explain why foreign firms are choosing to invest in South-East Asia. [5]
- (c) Discuss the impact of the Wal-Mart's acquisition on the online retailing market in **China**. [8]
- (d) Discuss the view that the Singapore government's 'yes' to 'investments and inflow of foreign workers...is also why Singapore now enjoys low unemployment'. [10]

[Total: 30]

## Answers

- (a) (i) Compare the changes in the number of online shoppers in China between 2005 and 2015 with the change in internet users over the same period. [2]

Acceptable answers from Figure 1:

1. both were increasing over the time period (1m)
2. the rate of increase in the number of online shoppers is greater than the rate of increase for internet users (1m)

Accept any other plausible answer based on the data.

**Examiners' Comments:**

- a) Some students did not phrase their answers using comparative statements. As a result, the comparisons were not highlighted in their answers and could not be given full credit.

- (ii) Explain possible reasons for these changes observed. [5]

Acceptable answers mainly from Extract 2; students may use own knowledge as well:

*To explain why both number of online shoppers and internet users have increased:*

- (Extract 2) 'a growing middle-class who is using their mobile phones for their online shopping needs', 'other factors such as a high degree of consumer choice from budget to gourmet products from other countries play an important role in influencing customers' preference' and 'The online shopping market in China has been prospering despite an economic downshift' – leading to **increase in demand** for internet services and online shopping
- *or* (Extract 2) entry of new firms into the market, for example, Wal-Mart (i.e. **increase in supply**) providing internet services and opening of online shops

*To explain why the rate of increase in the number of online shoppers is greater than the rate of increase for internet users:*

1. as more and more people jump on the internet bandwagon, the market reaches saturation – there are fewer people with no internet access – however, a user with access to the internet may not necessarily use it as a tool to perform online shopping – this may suggest that there is still potential for the market to grow – additionally, as more companies leverage on the online medium to sell their products, this may entice users to switch to online shopping
2. *or* the network effect from the usage of the internet is greater – the online medium increases in value as more people use it – this leads to a rapid rise initially, followed by a plateau as more people have access to it; the network effect from online shopping may be arguably less – this means that there are likely other factors affecting the rate of increase such as consumers' convenience / firm's price and non-price competitive behaviour that may encourage the rapid uptake in online shopping

Accept any other plausible answer which explains the data.

Max 3m for explaining only one of the changes observed in a(i).

**Examiners' Comments:**

- a) Many students only explained the reason for one of the changes cited previously. As a result, only a max of 3m was given, despite some students writing lengthy responses.

(b) Explain why foreign firms are choosing to invest in South-East Asia. [5]

Acceptable answers mainly from Extract 1:

- (Extract 1) 'Media Development Authority's funding for new firms' – government policies which help to build a conducive environment for the inflow of FDI – when funding is given out, the start-up cost is lower – this increases the profitability (costs can be reduced) of investing in SEA – encouraging foreign firms to invest in SEA
- (Extract 1) 'Southeast Asia is attractive because it is where the next billion people are going to be. There are 600 million people now and the populations of the emerging markets in Indochina, Myanmar and Philippines are continuing to grow' – rising income / rising population signals that there is likely to be rising consumer expenditure – rate of return from investment in SEA is expected to be higher as compared to other countries due to increasing profitability (revenue increasing) – encouraging foreign firms to invest in SEA

*Max of 5m for any 2 reasons from the data, well-explained.*

*Max of 3m for any 1 reason from the data, well-explained.*

*Answers can take a macroeconomic slant, but must centre back on reasons for **firms'** decision*

*Max of 3m if students only use own knowledge because Extract 1 clearly states both revenue and cost reasons.*

**Examiners' Comments:**

- Students were required to cite 2 possible reasons for firms' investment in SEA to get full credit.
- Majority of students were able to explain these reasons, however, their explanation lacked the concept of profitability in order to be given full marks.

(c) Discuss the impact of the Wal-Mart's acquisition on the online retailing market in China. [8]

Acceptable answers:

*Whether firms will restrict output due to market power, or to increase scale of production*

- acquisition leads to smaller number of firms, with the market share / power of each firm increasing – the level of competition in the online retailing market decreases – each firm has greater market power – better able to restrict output to raise price – likely leading to a rise in equilibrium price charged – leading to a reduction in consumer surplus
- HOWEVER, firms may not choose to restrict output as there are gains from expanding its scale of production in the form of internal EOS reaped e.g. in terms of marketing or storage EOS for retailing firms – this means that ceteris paribus, firms can earn greater profitability when they produce at a larger scale – thus if raising output (there is an expectation that the number of consumers will continue to expand rapidly) helps the firm increase profits, it will lead to a rise in equilibrium quantity transacted in the market
- with a lowering of average cost (AC) due to internal EOS (which also lowers LRMC), the firm may choose to pass on the cost-savings to consumers in the form of lower prices if it helps to increase profits – in this situation, equilibrium price in the online retailing market may fall
- the increase in profits could also allow firms to engage in R&D that could help to lower costs of production – similarly, equilibrium price in the online retailing market may fall

*Evaluation*

- e) in China, in the SR after acquisition, the equilibrium price and quantity is likely to rise – this is because Wal-Mart is likely to take some time to further consolidate and strengthen its brand name / brand loyalty in the eyes of the consumers to ensure that certain key aspects such as affordability (i.e. Wal-Mart will still keep prices low) and quality of goods aren't being compromised despite the change in management, i.e. making sure the DD is less elastic so as to be able to raise prices, TR and profits later, ceteris paribus
- f) HOWEVER, in the LR, the bigger firm is likely to exercise its market power by restricting output to increase prices so as to achieve higher profitability, especially given its less price elastic demand after acquisition. The motive behind acquisition is to reduce the number of substitutes in the market – if it is also successful in making its DD less elastic (with instilling brand loyalty) – then it will also be reducing the closeness of substitutes in the market – this makes DD for its product less elastic – essentially, a less elastic DD reduces the ruinous effects of price competition and the degree of product differentiation also enables the good sold to command a premium over other similar goods (either due to perceived or real differences)
- g) to some extent, even in the LR, the bigger firm may not be able to flex its exploitative powers, if the MOC in China ensures that it creates a contestable market in the service industry – thus helping to equalise the competitive conditions between the incumbent and the potential entrants.

Level	Descriptors	Marks
L1	Major conceptual errors and/or merely stating / listing of points	1-2
L2	Well-developed but one-sided answer on: <ul style="list-style-type: none"> <li>- direction and extent of change in <u>only</u> equilibrium price or quantity</li> <li>- explaining an impact on equilibrium price and quantity without considering other alternatives</li> </ul> Answer may be balanced but under-developed	3-4
L3	Well-developed and balanced answer that explains the direction and extent of change in equilibrium price and quantity	5-6
E1	Unexplained judgement	1
E2	Judgement supported with analysis	2

**Examiners' Comments:**

- a) Some students were unsure what an acquisition meant and instead explained the effect of an entry of a new firm. While in the main the analysis tended to be correct, the premise was flawed.
- b) Some answers took on a macroeconomic analysis, when a microeconomic one would have been more appropriate to analyse the impact on the online market.
- c) Some answers did not tailor their responses to the retailing market, and this led to relatively weaker analysis.

**(d)** Discuss the view that the Singapore government's 'yes' to 'investments and inflow of foreign workers...is also why Singapore now enjoys low unemployment'. [10]

Acceptable answers:

- a) with greater FDI: as  $I$  is a component of  $AD$ , as  $I$  increases,  $AD$  increases as well – assuming the economy is currently operating below full capacity, when  $AD$  increases – firms face an unplanned reduction in physical stocks – they will step up production to meet the rising demand by hiring more resources, including labour – this will cause employment and real GDP to rise by multiple times through the multiplier effect – this causes economy to move towards full employment output level – in the LR, investment also increases productivity – the increase in LRAS leads to higher potential output and employment
- b) with the inflow of foreign workers: there is a greater quantity (and maybe, quality) of resources –  $AS$  increases – the increase in quantity of FOP / efficiency of FOP leads to an increase in productivity assuming that the combination of factor inputs leads to more output being produced per unit of resource – in the SR, this means that firms hire more resources, including labour, in order to produce more and thus, there is a rise in employment
- c) HOWEVER, as mentioned in Extract 3, there are pros and cons associated with an FDI-driven economy – the assumption here is that the investment can significantly raise the level of productivity and thus lead to an increase in output and employment – however, if the investment is spent on projects with little returns to the capital investment ploughed into the economy, then the rise in employment is more certain in the SR (due to the increase in total spending), but becomes more questionable in the LR.
- d) in Singapore, there are measures put in place to ensure that the quality of FDI attracted is high in terms of its positive returns to the economy, as well as in its ability to carve out a new niche / avant-garde market for Singapore to head towards.
- e) also, the inflow of foreign workers may lead to an increase in  $AS$  and thus, full employment national output – if this gap is large, it signals an increase in demand-deficient / cyclical  $unN$ , ceteris paribus – in addition, the inflow of foreign workers may lead to a changing  $CA$  and, thus there may be a need to restructure the economy – as the economy undergoes restructuring, structural  $unN$  is likely to be on the rise given that a segment of our labour force is still occupationally immobile.
- f) the reason why the low-skilled foreign worker can displace our local workers is because we have lost / don't have  $CA$  in low-skilled activities – this means that we are less cost-competitive in the production of lower value-added  $g/s$  as compared to foreign workers from countries with a  $CA$  in such activities – in which case, the argument that mobility of FOP, a change in the  $qty$  / quality of resources affecting our  $CA$  – thus causing  $unN$ , especially structural  $unN$  still holds
- g) HOWEVER, the inflow of foreign workers must be significant and prolonged enough for it to cause a change in our  $CA$  to the lower-skilled domestic and construction industries and thus cause a rise in structural  $unN$  – this is unlikely to be the case since foreign workers were brought in as a temporary measure to ease inflationary pressures in lieu of a tight domestic labour market

Level	Descriptors	Marks
L1	Major conceptual errors and/or merely stating / listing of points	1-2
L2	One-sided answer in terms of <ul style="list-style-type: none"> <li>- explaining <u>either</u> how <math>I</math> / foreign workers can lead + not lead to low <math>unN</math></li> <li>- <u>or</u> explaining how <math>I</math> + foreign workers can lead to a low <math>unN</math></li> </ul>	3-5

	<p><u>without antithesis</u> - <u>or antithesis without thesis</u> (Max 4m for one-sided answer)</p> <p>Under-developed but balanced answer</p>	
L3	<p>Well-developed and balanced answer comprising:</p> <ul style="list-style-type: none"> <li>- How FDI and inflow of foreign workers can lead to low unN</li> <li>- How FDI and inflow of foreign workers <u>may not</u> lead to low unN and/or other factors could have explained for low unN</li> </ul>	6-8
E1	<p>Unexplained judgement</p> <p>Generic / theoretical judgement not supported with relevant examples from the Singapore economy</p>	1
E2	<p>Judgement supported with analysis</p> <p>Uses relevant examples from the Singapore economy to support the judgement</p>	2

**Examiners' Comments:**

- a) Generally, most students were able to analyse how investments can lead to low unemployment.
- b) However, they were less clear as to how an inflow of foreign workers can result in low unemployment.
- c) The discussion on whether investments and foreign workers, as well as other relevant factors to lower unemployment, was not so well-developed. For example, students brought in supply-side policies to tackle low unemployment without linking back to the question and explaining why alternative measures had to be looked into.

**Question 2****Retail, Gaming and Tourism in Singapore****Table 1: Economic indicators of the Singapore economy, 2009 to 2013**

	2009	2010	2011	2012	2013
GDP (in current US\$ millions)	192 406	236 420	274 065	286 908	297 941
Portfolio equity, net inflows (in current US\$ millions)	962	5 290	- 5 730	3 561	- 90
Total reserves (in current US\$ millions)	192 046	231 259	243 798	265 910	277 797
Foreign direct investment, net inflows (in current US\$ millions)	23 821	55 075	50 367	61 159	63 772
Exports of Goods and Services (% of GDP)	192	199	200.2	195.1	190.5
Imports of Goods and Services (% of GDP)	168	173	174	173	168
Retail Sales Index*, excluding motor vehicle sales (2010 as base year)	94	100	108	111	112

\*Retail Sales Index is an estimate measurement of all goods sold by retailers. This is also often taken as a proxy indicator for the level of consumer confidence. The Retail Sales Index usually increases when consumer confidence is improving.

Source: World Bank and Singstat

**Extract 4: Competition a game-changer for Orchard Road**

Orchard Road, long synonymous with Singapore retail, has established itself globally as a prominent shopping belt due to its high concentration of retail stores offering mid to luxury brands. In recent years, Orchard Road has had to counter competition from an increasing number of sources. A property research analyst argues that competition is in fact good for Orchard Road and may hold the key to achieving a new level of success.

One of the key emerging sources of competition for Orchard Road is Changi Airport. While airport retail space around the world was largely leased for marketing purposes in the past, retailers are seeing strong sales growth at these stores. Changi Airport, for instance, registered 9 per cent annual growth in retail sales to a record of more than \$2 billion in 2013.

Changi Airport is one of the most highly connected airports to the rest of the world, and this translates to a high volume of passengers going through its doors daily. In 2013, the airport handled a record 53.7 million passengers; this is after three consecutive record-breaking years in 2012 (51.2 million), 2011 (46.5 million) and 2010 (42 million). The 37.1 million passengers handled in 2009 was a slight dip from 2008. This high volume thus provides retailers an excellent opportunity to market their brands to a wide catchment comprising a constant volume of potential customers from transit passengers, tourists and locals alike.

The 100% government-owned Changi Airport Group (CAG) is the sole landlord of the airport complex, and is able to manage the development in a more integrated and holistic fashion. In addition to ensuring that the retail tenant-mix and concepts across its three terminals are

differentiated, CAG has the capacity to introduce airport-wide programmes to promote its retail offerings and add tenants in customer retention and creation.

To continue growing its non-aviation business, the airport has plans for a mixed-use development codenamed Project Jewel, slated for completion by 2018. Retailers seeking a prime spot to build their profile among an international crowd may find Project Jewel an ideal location, with its likely iconic status and direct connectivity to the three existing terminals. The new development also has the potential to attract a higher volume of visitors as its retail area will be entirely accessible to all visitors – unlike most of the existing airport space, which is open to travellers only.

However, there are still some pull factors to Orchard Road. Retailers enjoy economies of agglomeration when located in Orchard Road, and Orchard Road landlords have been enhancing their developments and trying hard to differentiate developments from others – this has given shoppers a wider array of options. Orchard Road remains popular with international retailers looking to locate their first Singapore store.

The Urban Redevelopment Authority (URA) has been proactive in ensuring that Orchard stays attractive and relevant as a desired retail destination. It has led infrastructural and landscape changes to the area to improve the shopper's experience and encouraged landlords to enhance their assets through various schemes. The Singapore Tourism Board (STB) and the Orchard Road Business Association (ORBA) are also constantly working to promote Orchard Road as an attractive retail destination.

The competition that Orchard Road faces serves as a constant motivation for it to continue differentiating itself and sharpen its appeal to international shoppers. After all, the competition for new retailers is not just between Orchard and Changi Airport; the real challenge could be the one the Singapore retail market faces from other regional and global cities to attract and retain international brands.

Source: Adapted from *The Business Times*, 13 March 2014

### **Extract 5: Singapore's gaming industry defies odds**

Marina Bay Sands (MBS), the world's most expensive stand-alone casino resort at US\$6.9 billion, held its grand opening in 2010 in the teeth of a persistent global economic slump and in direct competition with the world's second-most expensive casino resort, the US\$5.7 billion Resorts World Sentosa (RWS). Many analysts doubted that these giants in the gaming industry would profit. They were wrong.

A year later, MBS and RWS Sentosa are the world's most profitable casinos. Singapore's economy grew a record 14.5% in 2010. Booming tourism has helped to fuel that growth, with visitor arrivals up 20% and expenditures up 49% in 2010. Forecasts for 2011 project Singapore's casino revenue at US\$6.4 billion, which would make it the world's number two gaming destination, just ahead of the Las Vegas Strip and trailing only Macau.

But seeing MBS just in terms of money misses much of the story. 'There is no doubt that the two integrated resorts (IRs) have added a new sense of vibrancy to Singapore,' University of Nevada-Las Vegas Singapore campus dean Andy Nazarechuk said. 'In the past you would hear comments about Singapore being conservative or boring - you don't hear those comments anymore.'

MBS has become an architectural icon, with three hotel towers linked by the SkyPark 57 stories above Singapore's financial district. The resort includes 2,560 hotel rooms, a

permanent production of Disney's *The Lion King* in one of its two theatres, the lotus-shaped ArtScience Museum, 121,000 square metres of convention space, a 74,300 square-metre mall with 300 stores, and more than 50 food and beverage outlets, including cuisine by six celebrity chefs representing four continents. MBS 'has incorporated everything Las Vegas Sands had learned in Las Vegas and Macau and created one of the most exciting IRs in the world,' Nazarechuk says.

Despite some teething problems, MBS attracted 19.6 million visitors in its first year. 'We are now top of the minds of many leisure and business travellers and have received overwhelming and positive responses,' a spokesperson for the resort said. 'With the various attractions lined up and future plans to keep our visitors engaged, we are confident that we will not only sustain but broaden the type of tourists who visit Singapore.'

MBS targets business travellers and the meetings, incentives, conventions and events (MICE) sector, while RWS, featuring a Universal Studios theme park, aims at the leisure and family markets. 'They appear to be perfectly complementary with regard to their products, facilities and experience offered,' said Robert Hecker, a managing director from a hospitality consultant firm. 'They are mostly attracting and accommodating distinctly different demand segments.'

As anyone who has visited Singapore recently knows, the addition of nearly 3,000 rooms at MBS hasn't caused hotel rates to plunge. 'There were initial concerns it might take a while to absorb the new rooms supply, but the scale of induced demand created extends beyond what the property itself can accommodate, so it's been beneficial to the entire market,' Hecker said.

'There's a race going on around the region about tourism being part of the future economy. Singapore has just blown past everyone,' former MBS chief executive Thomas Arasi said. Even better days may be ahead as the IRs come fully online. RWS still has a record-setting aquarium, a museum and a water park in the works.

So with all this good news, why is there so much discontent circling the IRs? Prime Minister Lee championed the IRs against unprecedented public opposition by Singapore's standards. His ruling People's Action Party (PAP) received the lowest vote total in history during the 2011 General Election, down nearly 10% from the previous election, with two cabinet ministers losing their seats.

The government imposes a S\$100 daily entry tax (or S\$2,000 annually) for residents to enter a casino, has banned casino shuttle buses in residential areas, and has issued fines for local promotions in its effort to discourage Singaporeans from gambling. Yet there's still a public perception that too many Singaporeans are spending too much money at the casinos.

'It depends on who you ask,' Workers' Party Member of Parliament Gerald Giam said in response to a question about whether the resorts are good for Singapore. 'Undoubtedly tourism receipts have increased and the IRs have contributed to GDP growth, and the owners and developers of the IRs have benefited. However, the IRs' overall impact on society as a whole is unclear.'

'The casinos bring with them moral and social costs,' opposition Singapore Democratic Party leader Chee said. 'The kinds of jobs they create will not help Singapore generate the kinds of talent that will be required for our economy's future. The priority of pursuing GDP growth at all cost by this government is ultimately unsustainable.'

Source: Adapted from *Asia Times*, 28 June 2011

### Questions

With reference to Table 1,

- (a) (i) explain **one** possible reason why Singapore's Balance of Payments may have worsened from 2009 to 2013. [2]
- (ii) use the concept of the circular flow of income to explain how the changes in Singapore's GDP from 2009 to 2013 could have arisen. [3]
- (iii) to what extent does the change in volume of passengers handled by Changi Airport (Extract 4) account for the change in Singapore's Retail Sales Index, a proxy indicator for the level of consumer confidence, from 2009 to 2013? [4]
- (b) The upcoming mixed-use development in Changi, Project Jewel, will have a retail area that is 'entirely accessible to all visitors' (Extract 4). Is Project Jewel a public good? Explain. [3]
- (c) With reference to Extract 5, discuss whether the launch of the IRs has increased the standard of living of Singaporeans. [8]
- (d) Extract 4 mentions the role that URA and STB, two government agencies, played to help make Orchard Road remain attractive to retailers; extract 5 mentions how the government had championed the development of the IRs.

Discuss the view that the government's interventions will be the most crucial determinant for success, for both Orchard Road and the IRs. [10]

[Total: 30]

**Answers**

With reference to Table 1,

- (a) (i) explain **one** possible reason why Singapore's Balance of Payments may have worsened from 2009 to 2013. [2]

Acceptable answers from Table 1:

1. Fall in net inflows of portfolio equity, leading to a worsening of capital & financial account from 2009 to 2013 – this could contribute to any possible worsening of Singapore's BoP. (2m)
2. *or* Rise in total reserves, leading to worsening of capital & financial account from 2009 to 2013 – similarly contribute to any possible worsening of Singapore's BoP. (2m)
3. *or* Rise in import expenditure (168% of US\$192 406 million in 2009 has increased to 168% of US\$297 941 million in 2013)

*Correct identification without any explanation can be credited with 1m.*

**Examiners' Comments:**

a) There were three main types of answers:

- i. Surprisingly, about half the answers scored no credit. Most of these answers tend to state the fall in exports as the possible cause for the worsening of Singapore's BoP. Upon closer reading of the data, it is the proportion of export (X) to GDP that has fallen slightly, not the inflow of export revenue. Since GDP has increased over time, a simple calculation would have shown that the export revenue has **clearly** increased over time.
  - ii. The second type of answer (about 30% of the answers) scored full credit. These answers were able to correctly identify a reason for the worsening of Singapore's BoP, and also correctly identify the BoP account in which it belongs to.
  - iii. The third type of answer (about 20% of the answers) scored one mark. These answers did not identify / identified incorrectly the BoP account in which the change occurred.
- b) Some of the answers spent a disproportionate amount of time explaining why, for example, there was a fall in net inflows of portfolio equity, instead of / in addition to explaining why a fall in net inflows of portfolio equity may worsen Singapore's BoP. The former explanation is not required.

- (ii) use the concept of the circular flow of income to explain how the changes in Singapore's GDP from 2009 to 2013 could have arisen. [3]

Students need to first recognise that Singapore's GDP has increased from 2009 to 2013.

Acceptable answers from Table 1:

1. X has increased
2. FDI (I) has increased

The process explanation should include (most of this):

- i. X and/or I increased
- ii. Injections more than withdrawals
- iii. Unplanned fall in stocks
- iv. Firms will raise production

- v. Hire more factors of production
- vi. National income will increase as a result
- vii. Leading to subsequent increase in induced consumption and further rise in national income by multiples

*1m for identifying an appropriate injection from the case (no sign of withdrawals decreasing in Table 1)*

*2m for explaining process for how an increase in injection leads to an increase in national income*

**Examiners' Comments:**

- a) Some answers surprisingly did not pick an injection and/or withdrawal from the Table, and instead came up with their own change.
- b) The answers, in the main, reflected a poor understanding of the circular flow model. The common mistakes were:
  - i. Being able to draw the circular flow model diagram, without any accompanying explanation.
  - ii. Constantly linking the changes in injection(s) back to changes in Aggregate Demand.
  - iii. Explained that general price levels change as part of the process.
  - iv. Neglected to explain the change in levels of withdrawal as part of the process.
  - v. Unable to state the end point of the explanation, as national income reaches a new equilibrium level, i.e. when the change in injection equals the change in withdrawal.
  - vi. Cited consumption as an injection.

- (iii)** to what extent does the change in volume of passengers handled by Changi Airport (Extract 4) account for the change in Singapore's Retail Sales Index, a proxy indicator for the level of consumer confidence, from 2009 to 2013? [4]

Possible answers:

*Yes, the change in volume of passengers could account for the change in Retail Sales Index*

- 1. Volume of passengers has increased, as has Retail Sales Index from 2009 to 2013. This positive correlation could point to the possibility that the increase in volume of passengers has helped to contribute to the increase in retail sales. (this is also corroborated with how Changi Airport has experienced a 9% annual growth in retail sales – though this information is not required in the answer)

*However...*

- 2. There are other reasons that could contribute to an improving consumer confidence such as:
  - a. Increase in real GDP
  - b. Increase in X
  - c. Data that cannot be found in Table 1

*Mark allocation:*

- a) Up to 2m for a one-sided answer

**Examiners' Comments:**

- a) While most answers were able to cite the positive correlation between the volume in passengers handled by Changi Airport and Singapore's Retail Sales Index, very few answers could make an explicit link that a higher volume of passengers meant that there are more tourists, demand for retail goods and services would increase (population size

increase, as a non-price determinant of demand), expenditure on retail would increase, and hence the Retail Sales Index would increase.

- b) About half the answers made no attempt to provide a judgement regarding the “extent to which” that the change in volume of passengers handled by Changi Airport account for the change in Singapore’s Retail Sales Index.
- c) Surprisingly large number of answers used the words “moreover”, “furthermore” when they were trying to explain **alternative** reason to the volume of passengers handled by Changi Airport for the change in Singapore’s Retail Sales Index.
- d) About 40% of the answers rightly pointed out that Orchard Road would be a major contributor to Singapore’s Retail Sales Index as well, considering that it is a major shopping street. However, very few explicitly highlighted that locals who shopped at Orchard Road also contributed to Singapore’s retail sales; otherwise, it would seem to suggest that the increased volume of passengers (i.e. tourists) would then proceed to shop at Orchard Road as well. Without mentioning locals, it would turn what was originally intended as an alternative factor to Singapore’s retail sales, to another supporting statement for the thesis, i.e. the volume of passengers would strongly account for the Retail Sales Index.

- (b) The upcoming mixed-use development in Changi, Project Jewel, will have a retail area that is ‘entirely accessible to all visitors’ (Extract 4). Is Project Jewel a public good? Explain. [3]

Explain that Project Jewel is rivalrous and/or excludable to justify why Project Jewel is not a public good.

*Mark allocation:*

- a) No marks awarded for just stating whether Project Jewel is a public good, or with very poor / erroneous explanation
- b) Up to 3m for well-developed explanation that Project Jewel is either rivalrous or excludable, and hence is not a public good
- c) Up to 1m for a well-developed but erroneous explanation that Project Jewel is non-rivalrous and non-excludable, and hence is a public good (credit for knowledge of content, but penalised for poor application)

**Examiners’ Comments:**

- a) The best (i.e. most efficient) answers cited that public goods needed to be non-rivalrous and non-excludable, and then went on to explain why Project Jewel was either rival or excludable. These answers gained full credit.
- b) Some other answers that gained full credit were able to explain why Project Jewel was rival and excludable.
- c) Many answers did not gain full credit because they either cited that Project Jewel was non-excludable, or they were able to identify the characteristic but could not complete the explanation.
- d) Answers that identified Project Jewel as a public good mostly scored no credit. The common mistakes are:
  - i. Project Jewel is non-excludable because it is accessible to all shoppers, travellers and non-travellers alike. Accessibility is not the main determinant for non-excludability. Recall that non-excludable means that it is impossible or very costly to exclude non-payers from the use of a good or service. Making a shopping mall accessible does not preclude the ability to restrict access one day. Claiming that Project Jewel is non-excludable is accessible to all is the same as claiming that a free unisex public toilet is non-excludable.
  - ii. Project Jewel is non-rivalrous because the presence of one shopper in Project Jewel does not reduce the satisfaction of another shopper. Answers that could

point to the fact that Project Jewel is a very large shopping mall, and the sense of crowdedness may only set in at a very large volume of shoppers, and hence it is essentially non-rivalrous would receive one mark – there were, however, very few of such answers. Most answers did not explain; another small handful erroneously stated that shoppers could enjoy the goods and services without reducing the satisfaction of other shoppers.

(c) With reference to Extract 5, discuss whether the launch of the IRs has increased the standard of living of Singaporeans. [8]

Possible answers:

*Standard of living has increased:*

1. IRs may have contributed to booming tourism – X rises – AD rises – real national income, employment rises – purchasing power rises – material SOL ↑
2. IRs have contributed to vibrancy in Singapore in terms of entertainment, retail, F&B etc. – more variety of goods and services available for consumption + more “fun” image – material and/or non-material SOL ↑
3. IRs have also contributed to the growth of hospitality and entertainment industries, attracting FDI into these and other related industries – I rises – AD and AS rises – real national income, employment rises while full employment rises as well with minimal increases in inflation rate – likely sustained increases in purchasing power – material SOL ↑

*Standard of living may not increase:*

4. Social problems arising due to IRs
5. Industry growth may not help long-term economic growth for Singapore, e.g. instead of focusing on industries that have a focus on technology

*Conclusion:*

6. It seems that the short-term economic benefits are clear – the issue would be whether these benefits are fairly distributed to Singaporeans in general, or will it just benefits the owners, shareholders of the IRs as well as the firms in related industries and employees of all these firms.
7. Even so, Chee’s comment does cast a doubt as to whether these economic benefits are even sustainable. The IRs will bring in an influx of technologies and talent related to the hospitality and entertainment industries, but these may not be where Singapore’s true Comparative Advantage lies. For more sustainable economic growth, we may be better off considering a more prudent approach.
8. Nonetheless, the IRs do bring with it a vibrancy to Singapore – and the benefits of attracting FDI, foreign talent to Singapore as a result, could be intangible.
9. The economic arguments aside, there are clear negative externalities that could arise due to the presence of the IRs. The issue is the size of these externalities, in comparison to the economic benefits, if any.
10. **(Markers’ Notes) The jury is still out on this issue.** Today, in 2014, Singapore’s gaming revenues have begun to stagnate, as we are now a close third behind the Las Vegas strip, a distance behind the world leader in Macau. Upcoming developments in Australia and Japan will threaten our current standing as Asia’s #2 / World’s #3 in terms of gaming revenues. The social costs are still being studied, but we know there are problems – gambling, crime, money laundering etc.

Level	Descriptors	Marks
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L1	Major conceptual errors and/or merely stating / listing of points	1-2
L2	Well-developed but one-sided answer on: <ul style="list-style-type: none"> <li>- Whether standard of living has increased, with a focus on either material <u>or</u> non-material SOL</li> <li>- How standard of living (both material &amp; non-material) has increased <u>or</u> has not increased</li> </ul> Answer may be balanced but under-developed	3-4
L3	Well-developed and balanced (material & non-material) answer that explains whether standard of living has increased	5-6
E1	Unexplained judgement	1
E2	Judgement supported with analysis	2

**Examiners' Comments:**

This question received a wide range of answers in terms of quality.

- a) Surprisingly, a significant minority could not explain the impact on material SOL well. This was the low-lying fruit in the question.
- b) Many answers stated that gambling would give rise to negative externalities, without explaining how external costs may arise.
- c) A significant minority also made the transition from real GDP to real GDP per capita in their analysis – there was no data shown to suggest that real GDP per capita had increased. The two are **not** the same. If an inference is to be made, there must at least be an assumption made about population growth.
- d) About 30% of the answers had erroneous analysis regarding the \$100 tax on Singaporean entry into the casinos. The main errors were:
  - i. The tax reduced disposable income. -- Since this is a consumption tax, you only incur the tax when you decide to consume, i.e. enter the casino. The same applies to Goods & Services Tax – the GST tax rate does not affect disposable income.
  - ii. The tax (and the ban on shuttle buses, fines on advertising) means Singaporeans are discouraged from using the casinos, and hence their SOL (material and/or non-material) falls. – Since the tax and other regulations have been in place since the launch of the IRs, Singaporeans never had an opportunity to use the casinos without paying the \$100 entry tax. At the very most, they would just choose not to patronise the casino. Their SOL should not fall, and should at the very least remain unchanged.
- e) A small minority quoted extensively without any attempt to use economic analysis.

- (d)** Extract 4 mentions the role that URA and STB, two government agencies, played to help make Orchard Road remain attractive to retailers; extract 5 mentions how the government had championed the development of the IRs.

Discuss the view that the government's interventions will be the most crucial determinant for success, for both Orchard Road and the IRs. [10]

**Possible answers:**

The intent of the question is to draw out a discussion on what can be considered determinants for success for Orchard Road and the IRs. A broad range of answer can be considered, though students should define what 'success' means, and whether they see Orchard Road and the IRs as two homogenous entities, or a cluster of firms that could offer very differentiated goods and services.

For the purpose of discussion, one possible approach to the question is to define success as level of profits earned, and to see Orchard Road and IRs as two homogenous entities.

*Government's intervention is a crucial determinant:*

1. In the case of Orchard Road- URA has worked hard to reduce the costs (infrastructural changes) of redevelopment and facilitate changes to allow Orchard to stay attractive (regulations), while STB has helped to attract more tourists, hence helping Orchard Road to increase demand. In the case of the IRs, the government was the crucial barrier to entry, and the granting of licenses to LVS and Genting was a key first step to allowing the IRs to be developed in Singapore.

*Government's intervention is not a crucial determinant / may be an impediment:*

2. Government's objective may not necessarily be the success of Orchard Road and the IRs alone. There are other objectives such as the building up of the tourism industry as a whole, or maintaining social order. As such:
  - a. Government (CAG) also has a part to play in building up Project Jewel, which may turn up to be a key competitor to Orchard Road (as well as the IRs for retail). If this helps to build up the tourism industry and revenues as a whole, government may not be too concerned whether the revenues flow to Orchard Road and the IRs specifically.
  - b. Government levies a tax on Singaporeans' entry into the casinos at the IRs, possibly reducing the revenue that the IRs will earn from Singaporeans.

*There could be other factors*

3. Orchard Road's and the IRs' ability to continuously differentiate themselves will be crucial as well, as they have to find ways to increase demand / make their demand more price inelastic
4. The strategies that regional and other international destinations use to attract tourists will also have an impact on the success of Orchard Road and the IRs

*Conclusion:*

5. Orchard Road and the IRs are currently still icons in Singapore's tourism scene – the government will not allow these to fail as it could tarnish Singapore's image and/or drag down the rest of the industry
6. Nonetheless, Orchard Road and the IRs cannot solely depend on the government's interventions, and have to find their own ways of safeguarding their interests / success sustainably, i.e. does not conflict with government's other objectives

Level	Descriptors	Marks
L1	Major conceptual errors and/or merely stating / listing of points	1-2
L2	Well-developed but one-sided answer on: - Government's intervention is <u>or</u> is not a crucial determinant of success  Answer may be balanced but under-developed	3-5
L3	Well-developed and balanced answer that explains whether government's intervention is a crucial determinant to the success of Orchard Road and the IRs	6-8
E1	Unexplained judgement	1
E2	Judgement supported with analysis	2

**Examiners' Comments:**

This last question invited answers to use the data extensively, since many relevant

arguments could be found within the data. However, the major flaw in a large majority of the answers was the inability to handle the part of the question, "...most crucial determinant for success, **for both Orchard Road and the IRs.**" The analysis should have been centred around the determinants for the success of the retailers in Orchard Road and the IRs, i.e. **firms.**

- a) A common error was to analyse how government intervention would / would not lead to success for the Singapore economy. Answers that only focused on this aspect would receive very little credit. Other answers were partially redeemed, when they went on to explain that a broadly healthy Singapore economy would mean increases in household income and purchasing power, and drive up retail sales, use of the IRs etc.
- b) A small minority of answers analysed Changi Airport's success as synonymous to the success of Orchard Road and the IRs.
- c) A small minority mistook STB and URA as non-government bodies. It was explicitly stated in the question that STB and URA are government agencies.
- d) About 40% of the answers contained discussions on whether or not the government should intervene. This was irrelevant to the question.
- e) A small minority of answers claimed that private firms would not bother with efforts to attract more consumers. This would not make sense for any profit-maximising firms, since more consumers = more revenue = possibly more profits. The only possible reason would be that it is too costly to do so and hence profits may even fall, though these answers did not include this analysis.
- f) The small minority of good answers showed good application of the data to the question, with very good arguments. The more basic arguments explained with economic analysis, that the government's efforts were essentially a form of subsidy and hence lower the cost of production (advertising costs) for firms. More advanced arguments went on to talk about how the government helped to pool resources because attracting tourists would potentially have a positive impact on all the retailers and tourist destinations in Singapore – it made sense for one organisation to do so, rather than several small private entities to advertise and possibly duplicate efforts. Some other answers were convincing in arguing that the IRs could be considered an infant industry that required some degree of government intervention / protection to be launched. All of these answers then made explicit links to the firms and how their profits could increase. These answers, in the main, were a pleasure to read.

**YISHUN JUNIOR COLLEGE  
JC2 PRELIMINARY EXAMINATIONS 2014**

**ECONOMICS**  
Higher 2

**9732/02**

**15 AUGUST 2014**  
0800h – 1015h

Additional materials:  
Writing paper  
Cover page



**TIME 2 hours 15 minutes**

**INSTRUCTIONS TO CANDIDATES**

Write your name, CTG and index number in the spaces provided on the cover page and on all sheets of writing paper handed in.

Write in dark blue or black pen.

You may use a soft pencil for any diagrams, graphs or rough working.

Do not use highlighters, glue or correction fluid.

Answer **three** questions in total, of which **one** must be from Section A, **one** from Section B and **one** from **either** Section A or Section B.

At the end of the examination, tie all your attempted questions to a **one** cover sheet. Indicate clearly on the cover sheet the **number** of your attempted questions.

**INFORMATION FOR CANDIDATES**

Including this cover page, there are **two** pages in this question booklet.

The number of marks is given in brackets [ ] at the end of each question or part question.

You are reminded of the need for good English and clear presentation in your answers.

Answer **three** questions in total.

### Section A

**One or two** of your three chosen questions must be from this section.

- 1 (a) Explain the causes of market failure that arise in the healthcare market. [10]
- (b) Assess whether subsidies can address the market failure above. [15]
- 2 Advancement in technology, coupled with lower labour costs, and rising income levels have had major impacts on markets such as electronic and print books.
- Discuss the likely effects on the expenditure by consumers in these markets. [25]
- 3 (a) Explain the key differences between oligopolistic competition and monopolistic competition. [10]
- (b) Discuss the view that oligopolists will definitely exploit consumers given that they have market power. [15]

### Section B

**One or two** of your three chosen questions must be from this section.

- 4 In a country such as Singapore which has no natural resources and therefore depends much on its people, the assertion that is often made is it is important for Singapore to improve her labour productivity.
- (a) Explain the macroeconomic goals of a government. [10]
- (b) Discuss the extent to which an improvement in labour productivity can help Singapore achieve sustained economic growth. [15]
- 5 In the years after the Global Financial Crisis, large economies like the US and UK have faced slow recoveries, with the threat of re-entering recession always looming. Analysts suggested that these governments need to reverse their current contractionary fiscal policy, and implement further expansionary monetary policy to help boost growth.
- Discuss the appropriateness of these suggested policies in helping governments prevent recession. [25]
- 6 (a) Explain the theory of Comparative Advantage. [8]
- (b) Globalisation benefits small and open countries such as Singapore most; hence these governments should continue to embrace globalisation. Discuss. [17]

Essay Q1 Review

1	(a)	Explain the causes of market failure that arise in the healthcare market.	[10]
	(b)	Assess whether subsidies can address the market failure above.	[15]

Examiners' Comments for Q1a

It was clear that majority of the students were able to explain the existence of positive externalities in healthcare market that causes the market to fail.

However, there were several common weaknesses:

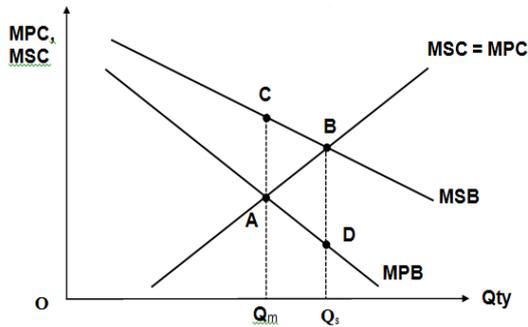
- A large number of answers did not consider at least one other cause that lead to the failure in healthcare market – question required an explanation of causes. For students who did, the understanding of imperfect information as a possible cause of market failure was generally not well-explained.
- Some answers contained rehearsed answers and failed to explain the process of how to arrive at  $Q_e$ , where  $MPB = MPC$  but  $MSB > MSC$  due to the existence of MEB.
- Some answers did not even attempt to link the explanation to the healthcare market, i.e. completely theoretical explanation of a positive externality.
- A handful of students explained income inequality as one of the causes of market failure – income inequality is the result of the price mechanism working too efficiently, and should be considered a separate problem from market failure, i.e. the inability of an unregulated market to operate efficiently.

Q1a Suggested Answer

1. **Introduction:** Define market failure

**Body:**

- Explain why healthcare is a market failure – the consumption of healthcare generates positive externalities
- Explain the divergence between private benefits and social benefits and under-allocation of resources
  - An individual will only take into account his private marginal cost (e.g. financial cost of healthcare) and private marginal benefit (e.g. good health).
  - However, this individual does not consider the positive externalities that would be generated by the healthcare (i.e. the marginal external benefits, MEB, e.g. positive impact on economy, less spread of diseases) to the third parties. These are not taken into consideration by the individual. Hence, there is a divergence between the marginal social benefit, MSB and marginal private cost, MPB
  - Based on the price mechanism, the market equilibrium level of healthcare is where marginal private cost (MPC) equates to the marginal private benefit (MPB).
  - Due to the presence of positive externalities as explained above, the marginal social benefit (MSB) is greater than MPB at the market equilibrium level of healthcare (i.e.  $0Q_m$ ). The socially efficient level of healthcare should be at  $0Q_s$  where MSB equates to MSC i.e. the external benefits are taken into account. The price mechanism thus under-allocates resources to healthcare. This under-consumption of healthcare of  $Q_m Q_s$  results in welfare to society not being maximised or further consumption beyond  $Q_m$  to  $Q_s$  will increase net societal welfare (i.e.  $MSB > MSC$ ).



**Explain why market imperfections such as imperfect knowledge and market dominance lead market failure (choose one cause of market failure apart from positive externalities, and explain it well).**

4. *Imperfect information – Information failure occurs when people have inaccurate, incomplete, uncertain or misunderstood data and so make potentially inaccurate decision.*
- a. *Imperfect information may arise when consumers lack the understanding of the possible positive effects of healthcare on themselves. Consumers do not have the perfect information of what is good for them (MPB is underestimated) and so their rational decision will be to under-consume. (merit good argument)*
  - b. *Also, when there is asymmetric information, for e.g. the doctor knows more than the patient. The doctors determine what a patient needs, however doctors may be incentivised to over-prescribe or to suggest more expensive treatments, as the cost of treatment has a direct link on the financial benefits they receive. In this case, there could be supply-induced demand, and lead to consumption beyond the socially desirable level. Therefore the market fails to allocate resources efficiently. (moral hazard argument)*

OR

5. *Market dominance*
- a. *There might be imperfect competition when the supply of healthcare services is restricted due to education and licensing requirements, causing supply curve to shift leftward as compared to a market with fewer restrictive licensing requirements, physicians are able to command higher fees. As such, the output may be restricted and higher price will be charged.*

*\*note: Inequality in income distribution as well as its effects in terms of income inequity, should not be used as an explanation for a cause of market failure. Market failure is an inefficient allocation of resources – inequality in income distribution resulting in income inequity is the result of the free market operating efficiently!*

**MARK SCHEME 1(a)**

Level	Descriptor
L3 7-10	1. Well-developed explanation of how externalities and at least how one other form of market imperfections lead to market failure.
L2 5-6	2. Under-developed explanations of the causes of market failure. <u>OR</u> 3. Only one cause of market failure is explained.
L1 1-4	4. Answers contain statements without any clear attempts to explain the content. <u>OR</u> 5. Contains major conceptual errors.

1	(a)	Explain the causes of market failure that arise in the healthcare market.	[10]
	(b)	<b>Assess whether subsidies can address the market failure above.</b>	<b>[15]</b>

**Examiners' Comments for Q1b**

While the performance for Q1a was more encouraging, many students did not grasp the requirements of the question, and did not link their Part B answers closely to the material explained in Part A.

However,

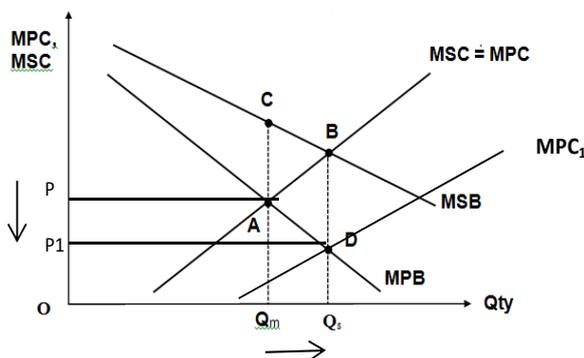
- a) Some answers contained analysis of how subsidies work that was incoherent and/or not properly sequenced.
- b) Some answers misinterpret the question entirely, resulting in a discussion of the various measures that can be used to correct market failure instead of focusing on the issue at hand.
- c) A significant number of answers showed poor analysis, for example:
  - i. Subsidies are given to the consumers and it reduces the cost and thus, MPB shifts. When the reasoning is as such, it is not the cost that is reduced but the purchasing power that increases.
  - ii. Subsidies are flexible – without any further explanation on what this means and whether this is supposed to be a plus or minus point for subsidies.
  - iii. Stating that the government is unable to measure the correct size of subsidies, but not explaining that the correct size is MEB at  $Q_s$  and why it is difficult the approximate MEB.
  - iv. Stating that the disadvantage of subsidies is that it cannot solve imperfect information. Subsidies can solve the problem of imperfect information, just that it is not a sustainable policy as it doesn't tackle the root problem.
- d) A majority of answers contained regurgitation of content with little or no application to the context at hand.

**Q1b Suggested Answer**

1. **Introduction** – Briefly explain the corrective measures taken by government.

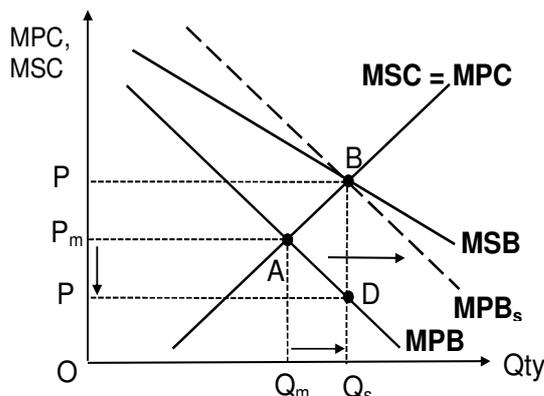
Body:

- 2. Explain how subsidies work (1) – increase the supply of healthcare
  - a. The government estimates the socially optimal amount and provides subsidies to hospitals = MEB at  $Q_s$  (BD)
  - b. As the subsidies lower cost of production, MPC of production will shift down,  $P$  reduces.
  - c. Subsidies lower the price and encouraged consumption of healthcare.



- d. For e.g.: Singapore government gives subsidies to private healthcare institutions for training of healthcare professionals – this increases the supply of healthcare

3. Explain how subsidies work (2) – increase the demand of healthcare
  - a. Subsidies that are received directly by consumers will act on the demand curve (MPB) as the subsidies increase their disposable income. Demand increases such that the market-optimal output now coincides with the social-optimal output.



- b. For e.g.: Polyclinic and public hospital fees are generally subsidised, though the quantum varies by nationality.
4. Explain the advantages of subsidies
  - a. Subsidies still allow market to operate. It encourages individuals and hospitals to internalise the external benefits. The size of the subsidy can also be adjusted (fairly easily) in accordance to the magnitude of the problem.
  - b. Targeted subsidies (e.g. means-testing) also allow the lower income group to receive basic healthcare.
5. Explain the disadvantages of subsidies
  - a. Subsidies given are measured by different levels and types of positive externalities and operate under different degrees of imperfect competition. It will be administratively difficult and expensive to grant the amount of subsidy – might lead to under/over-subsidies.
  - b. Even if the government decides on the amount of subsidy, the measurement of external benefits will be a problem as the third party benefits are not quantifiable.

*Evaluation*

6. Able to increase the output consumed/ produced (due to affordability) but not solving the root cause of the healthcare problem.

**Answer may contain a discussion on alternative policies. However, these should be used to illustrate why the subsidies may not necessarily be the most appropriate / effective to address all the causes of market failure in terms of positive externality / market dominance / imperfect information.**

7. Explain alternative policy (1) – moral suasion
  - a. Government could reduce imperfect information through campaigns and advertisement – increase awareness of the beneficial effects of good health
  - b. Encourages consumption and reduces the gap between the perceived MPB and the true MPB of healthcare
  - c. For e.g.: Cervical Cancer campaign by HPB, IQuit campaign
8. Evaluate the effectiveness of moral persuasion
  - a. Providing necessary information of healthcare can correct the market due to imperfect information but sometimes individuals are reluctant to change their

*mindset towards healthcare. Individuals can interpret information given differently. As such, the result of moral suasion is not guaranteed and it might end up incurring a higher cost as compared to subsidy.*

*b. Even if the campaign takes effect, it requires time for the effects to show.*

9. Explain alternative policy (2) – direct provision

*a. Government takes over the role of provision of healthcare. This can increase the supply of healthcare. At the same time, it can help solve market failure arising from market dominance in the healthcare sector. (a variant of this is nationalisation)*

10. Evaluate the effectiveness of direct provision

*a. In the event that market-based solutions don't work well, this could be a more direct approach.*

*b. However, this might create over-reliance on government / crowd out private investment. Also, publicly-run healthcare institutions around the world are generally more inefficient (long waiting times, incompetent medical staff) compared to privately-run healthcare institutions. It may also take time for the government to build up the necessary infrastructure and personnel with expertise, if these are not already readily available.*

11. Explain alternative policy (3) – legislation

**Conclusion**

12. Evaluative comments can centre around a particular context, e.g. Singapore.

**MARK SCHEME 1(b)**

Level	Descriptor
<b>L3</b> 9-11	1. Full marks can be awarded for a well-developed (rigour of analysis, use of relevant diagrams) and balanced (yes, subsidies can address the causes of market failure vs. no, subsidies are unable to address the causes) answer on whether subsidies can address the causes of market failure explained in Part A. 2. Credit can also be awarded to a discussion of other policies to complement / used in place of subsidies. 3. Answer may contain a few minor conceptual errors.
<b>L2</b> 5-8	4. An under-developed, but balanced answer on whether subsidies can address the causes of market failure explained in Part A. <u>OR</u> 5. A well-developed but one-sided explanation of whether subsidies can address the causes of market failure explained in Part A. (max 6m) 6. Answer may contain some minor conceptual errors.
<b>L1</b> 1-4	7. Answer is descriptive, irrelevant and/or contains too many major conceptual errors.
<b>E2</b> 3-4	A. Well-reasoned assessment on effectiveness (focusing on key word of “can” / “cannot” address causes of market failure) of subsidies and any other policy(ies) used as part of answer. Top credit may be awarded if answer contains a discussion based on a particular context, e.g. Singapore’s healthcare market.
<b>E1</b> 1-2	B. For an unsubstantiated assessment.

Essay Q2 Review

<b>2</b>	<b>Advancement in technology, coupled with lower labour costs, and rising income levels have had major impacts on markets such as electronic and print books.</b>
	<b>Discuss the likely effects on the expenditure by consumers in these markets.</b> [25]

Q2 Approach

The best approach for this question, was to work backwards. So this required a strong grasp of what could affect the direction and extent of change in consumer expenditure, given any changes in demand / supply under certain conditions for PED / PES (and even YED). XED is the only elasticity concept that should not have been used in this essay.

Since consumer expenditure is defined as the market price paid multiplied by the quantity transacted, then there are four scenarios that will determine the direction of change: (1) both market price and quantity rise; (2) both market price and quantity fall; (3) market price rises while quantity falls; (4) market price falls while quantity rises. For (1) and (2), the direction of change in consumer expenditure is unambiguous - (1) will lead to expenditure rising and (2) will lead to expenditure falling. For (3) and (4), then it is a matter of determining the relative extent of change in market price and quantity. (We've ignored four other scenarios where only price or quantity changes because the analysis is straightforward, and that it is less likely that the extent of change in demand and supply is exactly the same - you may still use these scenarios where appropriate.)

Still on the technical aspect of theory, let's observe how the four above scenarios could arise:

(Scenario 1) market price and quantity will both rise when (a) demand rises only, (b) rise in demand is greater a rise in supply; should supply fall, we have to consider both the relative extent of change in demand and supply, along with PED / PES.

(Scenario 2) market price and quantity will both fall when (a) demand falls only, (b) fall in demand is greater a fall in supply; should supply rise, we have to consider both the relative extent of change in demand and supply, along with PED / PES.

(Scenario 3) market price rises while quantity falls when (a) supply falls only, (b) fall in supply is greater than a fall in demand; should demand rise, we have to consider both the relative extent of change in demand and supply, along with PED / PES.

(Scenario 4) market price falls while quantity rises when (a) supply rises only, (b) rise in supply is greater than a rise in demand; should demand fall, we have to consider both the relative extent of change in demand and supply, along with PED / PES.

Using scenario (1b) for e-book market

Now if you look at the question, is it possible to explain that demand changes outweigh the supply changes? Yes. For example, if electronic books (e-books) are considered luxury goods, then  $YED > 1$  and hence when income increases there will be a more than proportionate rise in demand. At the same time, the technological changes may shift tastes and preferences towards e-books, hence increasing demand as well. With two strong factors explaining for a rise in demand, it may well outweigh the likely increases in supply due to fall in cost of production (technological improvement and lower labour costs). What needs to be analysed is that since demand rises more so than the rise in supply, then there will be a shortage at the original equilibrium price, leading to an upward pressure on prices (followed

by elaboration on the price adjustment process). With both price and quantity increased in the new equilibrium, consumer expenditure has increased. This conclusion could have been made using only YED, without further references to PED / PES.

For additional credit, it would then have been possible to make a claim that PES is likely to be high since the improvement in technology could have made it much easier to scale up production, e.g. improving factor mobility, or relying more on capital which is easier to scale than a labour-intensive production process; likewise, comments can be made about how PED is likely to be high as well since it may not be considered a necessity, and while e-books are cheap, the complementary products (electronic devices) may incur a higher one-off cost as compared to buying individual print books. This means that as the prices adjust upwards from that initial shortage, the price elastic supply means firms will increase quantity supplied more than proportionate to the price increase, though this is somewhat cancelled out by consumers reducing their quantity demanded more than proportionate to the price increase, hence limiting the eventual increase in price. So while consumer expenditure has definitely increased, it may not have increased as much as, say for example if PES was high but PED was low.

An answer as detailed as this, albeit with analysis only on a single market, would earn L2:14 and E1:2 = 16/25. This is quite achievable.

Using scenario (4b) for print book market

The analyses similar to the above are: (i) demand increases as income increases because print books can be deemed necessity goods, (ii) supply increases due to technological improvement as well as lower labour costs.

The only difference could be, to complement the earlier analysis, that tastes and preferences are switched away from print books, and hence demand falls.

As a result, there are two strong supply factors indicating a rise in supply, while the net effect on demand is, let's say, just a slight fall. The outcome (after price adjustment explanation) is that price falls and quantity rises. As mentioned earlier, since expenditure is  $P \times Q$ , this means the impact on expenditure is ambiguous - it depends on the relative fall in price as compared to the rise in quantity. This is where the PED / PES analysis becomes critical to determine the impact on expenditure.

**Examiners' Comments for Q2**

Overall, there was a sense that students mainly attempted this question out of desperation, i.e. did not know how to do all other remaining questions. As a result, some of the essays tended to be short (1-2 pages). There is no doubt that the technical rigour required for this essay is high compared to most other questions, but it is not difficult to master. The common mistakes are categorised below for easy reference; they are also arranged in order of severity within each category, not necessarily in order of frequency observed:

Content errors (fundamental - must know and can be rectified by own revision)

- a) 15% of the answers (about 10 candidates) could not differentiate between demand and quantity demanded. For example: A few answers explained how lower labour costs will lower cost of production of e-books, making e-books cheaper and hence demand for e-books increase. Since the analysis centres around cost of production, it is supply that rises due to a fall in cost of production. When a surplus arises, the prices are bid downwards and it is quantity demanded that increases. This is a movement along demand curve, and not a shift in the demand curve.
- b) 80% of the answers (about 60 candidates) did not or could not define demand and supply.

- c) 15% of the answers (about 10 candidates) mistook "consumer expenditure" to be the consumption function as part of aggregate demand, and went on to explain the impact of the changes on the economy using AD/AS analysis.
- d) 40% of the answers (about 30 candidates) either did not display knowledge the consumer expenditure refers to equilibrium price multiplied by quantity, or mistook demand to be synonymous with consumer expenditure.
- e) 20% of the answers (about 15 candidates) exhibited some degree of uncertainty over the YED concept. Examples are wrong definitions for YED, claiming that expensive goods must be luxury goods etc, or just the absence of YED concepts when stating that rising income leads to a rise in demand.
- f) 10% of the answers (about 8 candidates) exhibited some degree of uncertainty over the PES and/or PED concept. Please revise.

Content errors (common misconception - must know, and may require some thinking through / check with tutors if unsure)

- g) The rising income levels should not be used as a catalyst for change in tastes and preferences, i.e. willingness to consume. Changes in income levels only affect the ability to consume. The varying direction and extent of change in demand due to rising income levels should be analysed using the YED concept instead. For example, several answers tried to explain how rising income levels means consumers are now more able to afford to buy e-books (they assumed e-books are more expensive) and hence the tastes and preferences have shifted towards e-books. However, acceptable answers could <<<see tastes and preferences point # below>>>
- h) Analysis using different YED values by segmenting the market by consumers of different income levels, rather than consider a single, overall YED value for the entire market, should be avoided. For example, instead of justifying why print books can be considered a necessity good ( $0 < YED < 1$ ), some answers tried to explain that the high income group may consider print books to be necessity goods while low income group would consider them to be luxury goods ( $YED > 1$ ). This was, on a few occasions, accompanied by diagrams labelled as "market for print books for high income group" and "market for print books for low income group".
- i) Using XED concept to analyse the switch from print books to e-books should be avoided in this question. This was unnecessary especially when the reasoning used is that tastes and preferences have changed; if anything, the changing tastes and preferences explains changes in the XED value (i.e. becoming a larger positive number since the two goods are seen increasingly as close substitutes), and hence the focus should be explaining the changing tastes and preferences rather than the changes in the XED value. In addition, because of the concurrent changes in demand and supply in both markets, it is technically not possible to analyse the change in demand in one market (e.g. e-book) due to change in price in the other market (e.g. print book). For example, given the rising income levels, let's assume both print and e-books are normal goods and demand rises. As a result, the prices in both markets will rise at the same time - the switch in demand in both markets will then likely cancel out.
- j) The analysis that rising income levels means that the expenditure on print and e-books as a proportion of income falls, and hence demand becomes more price inelastic, is a bit of a stretch. First, if both goods are considered normal goods, then we can expect demand to increase and possibly prices to rise as well; if both income and prices are rising, then the expenditure on the goods as a proportion of income may not necessarily fall. Second, this implies that the price elasticity of demand for both goods is mainly determined by the expenditure as a proportion of income.

Poor analysis

- k) 60% of the answers (about 40 candidates) did not analyse the changes in demand and supply concurrently. As a result, the impact analysis on the new market equilibrium lacked precision.

- l) 30% of the answers (about 20 candidates) analysed that cost of production falls, leading to a fall in price in the market. Some of these answers tried to add that producers will pass on cost savings to consumers in the form of lower prices. However, there was no mention of supply increasing, the resulting surplus or the price adjustment process.
- m) 40% of the answers (about 30 candidates) did not explain the price adjustment process, or could not explain it well.
- n) 20% of the answers (about 15 candidates) drew diagrams but did not refer to them / did not explain them.
- o) 15% of the answer (about 10 candidates) wrote vague analysis. For example, after justifying that demand is price inelastic, a few answers wrote that as price increases, the quantity demanded more or less decreased. Another example is when answers categorised e-books as "relatively luxury" goods.

#### Wasting time

- p) 30% of the answers (about 20 candidates) did not structure their answers properly, and as a result repeated significant portions of their analysis because they were trying to explain the same point. For example, the reasoning behind how advancement in technology and lower labour costs affect supply can be quite similar, so it makes more sense to write explain the reasoning once rather than write them in two separate paragraphs and repeat a significant portion.
- q) 20% of the answers (about 15 candidates) wrote introductions that served little purpose.
- r) About half the answers contained cancellations in their answers. Two things to note: (1) excessive cancellation is a sign of poor planning, so plan before writing to prevent wasting time, (2) cancel out with a straight line using a ruler, because it looks neater and examiners can give you credit even for segments that have been cancelled out, provided that it is still legible.

#### Where is the evaluation?

- s) Since the direction and extent of change in consumer expenditure is dependent on the (1) relative shift in demand and supply in some cases, and (2) includes PED and PES analysis in other cases, the evaluation comes from the ability to justify using sound reasoning for both (1) and (2), where appropriate.

#### Misguided ideas

- t) supply of e-books is infinite
- u) e-book production does not require labour
- v) e-books cost more than print books
- w) print books are definitely less environmentally-friendly as compared to e-books
- x) assumed that electronic devices on which e-books can be read is the same market as e-books

### **Q2 Suggested Answer**

#### **1. Introduction**

- a. *The shift from print to electronic books (e-books) is gaining momentum, with major book publishers' sales increasingly coming from the e-book market. This means that consumer expenditure is shifting from print to e-books.*
- b. *In the coming decades, we could possibly observe how print books may become obsolete as e-books becoming cheaper and better.*

#### **Development (for 1<sup>st</sup> market, e.g. e-book market)**

- 2. *For the e-book market, the advancement in technology, lower labour costs and rising income levels will lead to increases in both supply and demand. The overall increase in demand is likely to be greater than the increase in supply, and coupled with both price*

elastic demand and supply, we will observe **a rise in consumer expenditure in the e-book market.**

3. Explain why demand for e-book increases, i.e. consumers are willing and able to purchase more quantities of e-books at all price levels, *ceteris paribus*:
  - a. **Improving tastes and preferences:** the advancement in technology has shifted tastes and preferences towards the use of e-books, as it is becoming an increasingly close substitute to print books.
  - b. **Lowering of price of complementary good:** the advancement in technology and lower labour costs has also led to the significant lowering of prices of a key complementary good to e-books, i.e. e-book readers and other electronic devices on which e-books can be read.
  - c. **Rising income levels:** assuming that an e-book is considered a normal good.
4. Explain why supply of e-books increases, i.e. producers are willing and able to produce more quantities of e-books at all price levels, *ceteris paribus*:
  - a. **Lower cost of production:** both the advancement in technology and lower labour costs will lower the cost of production for the production of e-books.
5. Justify why the increase in demand is greater than the increase in supply, through any reasonable analysis:
  - a. The supply change is likely to be small as the actual cost of production for e-books is low to begin with.
  - b. Because this is a growth industry, the potential for demand to increase is still significant.
6. Justify why both demand and supply are price elastic (note that this only affects the extent of increase in consumer expenditure, but does not change the analysis that consumer expenditure **will** increase as a result of increase in demand being greater than increase in supply).
7. Explain the price adjustment process and the eventual increase in consumer expenditure:
  - a. As demand increases more than supply, a shortage ensues at the original equilibrium price, hence prices will be bid up in the e-book market.
  - b. As price increases, consumers will reduce their quantity demanded (Law of Demand) while producers will raise their quantity supplied (Law of Supply).
  - c. Eventually, the new market equilibrium where the market clears (i.e. quantity demanded equals quantity supplied) will lead to increases in both price and quantity.
  - d. Therefore consumer expenditure (which is price multiplied by quantity in the market) increases.
  - e. [This should be accompanied by a diagram that shows (1) concurrent shifts in demand and supply, (2) demand increases more than the increase in supply, (3) price elastic demand and supply, (4) clear labels for diagram, axes, graphs, original and new equilibrium, shortage at original equilibrium price.]

**Development (for 2<sup>nd</sup> market, e.g. print book market)**

8. For the print book market, the advancement in technology, lower labour costs and rising income levels will lead to an increase in supply but a fall in demand. The overall increase in supply is likely to be greater than the fall in demand, and coupled also with a price elastic demand and supply, we will observe **a fall in consumer expenditure in the print book market.**

9. Explain why demand for print book falls, i.e. consumers are willing and able to purchase less quantities of e-books at all price levels, *ceteris paribus*:
  - a. **(Demand falls) Falling tastes and preferences:** the advancement in technology has shifted tastes and preferences towards the use of e-books, as it is becoming an increasingly close substitute to print books.
  - b. **(Demand rises) Rising income levels:** assuming that a print book is considered a normal good.
  - c. A **judgement** is required on why the falling tastes and preferences will likely outweigh the rising income levels. A reasonable explanation will be that print books are considered necessity goods (i.e.  $0 < YED < 1$ ), and therefore the rising income levels only lead to a less than proportionate increase in demand, while the fall in demand due to changing consumer tastes and preferences has a larger negative impact on demand.
  
10. Explain why supply of print books increases, i.e. producers are willing and able to produce more quantities of print books at all price levels, *ceteris paribus*:
  - a. **Lower cost of production:** both the advancement in technology and lower labour costs will lower the cost of production for the production of print books.
  
11. Justify why the increase in supply is greater than the fall in demand, through any reasonable analysis:
  - a. The fall in demand is likely to be small, due to conflicting impact on demand.
  - b. The increase in supply may be significant, as labour could be a more significant part of the production process for print books, while advancement in technology has brought down fixed costs of printing significantly.
  
12. Justify why both demand and supply are price elastic (**because prices are likely to fall** in the print book market, the **price elasticity of demand and supply become crucial in analysing the direction and extent of change in the quantity transacted** in the print book market).
  
13. Explain the price adjustment process and the eventual fall in consumer expenditure:
  - a. As supply increases and demand falls, a surplus ensues at the original equilibrium price, hence prices will be bid down in the print book market.
  - b. As price decreases, consumers will increase their quantity demanded (Law of Demand) while producers will reduce their quantity supplied (Law of Supply).
  - c. Eventually, the new market equilibrium where the market clears (i.e. quantity demanded equals quantity supplied) will lead to a fall in price.
  - d. However, the new equilibrium quantity is indeterminate as it depends on (i) the relative shift in demand and supply as well as (ii) PED and PES.
  - e. Use a clear diagram to support the analysis that consumer expenditure eventually falls.
  - f. [This should be accompanied by a diagram that shows (1) concurrent shifts in demand and supply, (2) supply increases more than the fall in demand, (3) price elastic demand and supply, (4) clear labels for diagram, axes, graphs, original and new equilibrium, surplus at original equilibrium price.]

**MARK SCHEME 2**

Level	Descriptor
<b>L3</b> 15-21	1. Candidates should <b>analyse clearly</b> , with the <b>aid of diagrams</b> , the impact of <b>concurrent changes</b> in demand and supply on consumer expenditure <b>in at least two different markets</b> , e.g. electronic and print books.

	<p>2. Candidates are also <b>expected to use relevant elasticity concepts</b> to aid analysis on consumer expenditure changes in these markets, to achieve top marks.</p> <p>3. There are few or no conceptual errors.</p>
<p><b>L2</b> 10-14</p>	<p>4. Candidates were able to <b>analyse clearly</b>, with the <b>aid of diagrams</b>, the impact of <b>concurrent changes</b> in demand and supply on consumer expenditure <b>in only one market</b>. There may be few conceptual errors.</p> <p><u>OR</u></p> <p>5. Candidates attempted to analyse the impact of changes in demand and supply on consumer expenditure in one or two different markets, however, may have one or more of the following that did not warrant a L3 grade:</p> <ol style="list-style-type: none"> <li>Did not analyse the changes in demand and supply concurrently</li> <li>Lacked clear price adjustment process analysis</li> <li>Did not clearly extend impact analysis to changes in consumer expenditure, e.g. stopped at changes in market equilibrium price and quantity</li> <li>Made some conceptual errors</li> </ol>
<p><b>L1</b> 1-9</p>	<p>6. Candidates were only able to show a superficial understanding of the question requirement, for example:</p> <ol style="list-style-type: none"> <li>Explained changes in demand and/or supply factors with no explicit link to changes in equilibrium price and quantity</li> <li>Did not identify even one market for analysis</li> <li>Only stated, but did not / could not explain changes in demand and/or supply factors and its subsequent impact on the market equilibrium</li> </ol> <p>7. Candidates who made a few major conceptual errors also could not score beyond the L1 grade.</p>
<p><b>E2</b> 3-4</p>	<p>A. A reasoned judgement on the likely impact on consumer expenditure (direction and extent), which depends on relative shifts in demand and supply, as well as the PED / PES of the market .</p>
<p><b>E1</b> 1-2</p>	<p>B. Unsubstantiated judgement.</p>

**Articles**

*On broad print and e-book market trends*

<http://www.economist.com/node/21528628>

<http://www.statista.com/statistics/304243/global-print-and-e-book-revenue-by-type-consumer-educational-professional/>

*On e-book market*

<http://www.economist.com/news/business/21603036-amazon-plays-tough-publishers-over-e-book-prices-burying-hachette>

<http://dearauthor.com/ebooks/has-everyone-conceded-the-us-ebook-market-to-amazon/>

Essay Q3 Review

3	(a)	<b>Explain the key differences between oligopolistic competition and monopolistic competition.</b>	[10]
	(b)	Discuss the view that oligopolists will definitely exploit consumers given that they have market power.	[15]

Approach

The question requires a comparison of the key differences between oligopolistic competition and monopolistic competition. Therefore, any **key differences** in terms of **structure** (BTEs, number of firms, nature of product, degree of price setting abilities), **conduct** (price and non-price strategies) or **performance** (productive efficiency, allocative efficiency, variety and quality of goods and services and impact on equity) of the market structure can be accepted. However, if you consider 3b), you will identify that the conduct and performance of oligopoly would be discussed. Therefore, it may be advisable to focus on the structure for this part **to avoid unnecessary overlaps**.

As the command word is one of 'explain', candidates must take note that a mere listing, stating or description of the differences is insufficient to score good marks. Candidates should 'explain why the differences are as such' or 'explain the implication of those differences'. For examples, it is insufficient to just state that the level of BTE is high in oligopoly but low in monopolistic competition. Candidates should explain 'why the BTE is high in oligopoly and why the BTE is low in monopolistic competition'; candidates should also extend the explanation to how the level of BTE has impact on the number of firms which in turn has impact on price setting abilities.

Examiners' Comments for Q3a

The study of market structure is centred more on the market power (i.e. price-setting abilities) instead of production and cost (i.e. scale of firms, EOS). Therefore, we should focus on **a few dominant firms** instead of **a few large firms**. **Many firms with some market power** instead of **many small firms**. The reason why this is important is because we know that agricultural industry belongs closer to the perfect competition spectrum of market power but these farms can be very large in size. Therefore, large firms don't mean anything because large firms can have high market power (e.g. SingTel) or low market power (e.g. farms). Put simply firm with **high market power tends to be large** but **large firm doesn't necessarily mean market power is high**.

Candidates should note that the understanding of market structure is **intuitive** as there is a certain way we see the world. For instance, we should always start the discussion with (1) the level of BTEs as there is implication on (2) the number of firms in the industry. Next we should consider (3) the nature of product which together with (1)+(2)+(3) has implications on the (4) degree of price setting ability (which then has implications on the way the firms strategies and compete with one another).

For example:

In the case of oligopoly, there are (1) high BTE because of natural BTEs (EOS, start-up cost, control of resources etc.) or artificial BTEs (brand loyalty, product complexity, product proliferation etc.). These high BTEs restrict (2) the number of firms in the industry. Also, since the industry sells (3) either homogenous or differentiated products, (1)+(2)+(3)= (4) strong rivalry or mutual interdependency amongst the firms.

In the case of monopolistic competition, there is (1) low BTE (because of lower start-up cost, complexity of products). Therefore, low BTEs allows firms to entry and exit relatively easier, leading to (2) large number of firms. Besides, there is (3) slight product differentiation in

monopolistic competition. This product differentiation gives the monopolistic competition firms (4) some degree of price setting abilities.

Other points to note:

a) **Size of firm  $\neq$  market share**

Market share is decided by a firm's output divided by total output. Therefore a firm may be large (characterised by high output) but have low market share (because its output share is small). E.g. agricultural firms

b) **Small firms also get to enjoy internal EOS** (to a small extent)

Internal EOS is defined to be the downward sloping portion of the LRAC and all firms/industries have a U-shaped LRAC. Therefore, all firms get to enjoy internal EOS. The issue here is the internal EOS is fully exploited at a very low level of output (i.e. MES is attained at low output level).

It will be incorrect to say that MC firms do not enjoy EOS but oligopoly firms do. The correct way is to explain that MC firms exhaust any internal EOS more quickly as compared to oligopoly firms or the MES for MC firms is at low level of output but the MES for oligopoly firms exist at higher level of output.

c) **Imperfect information??**

Many candidates listed the degree of imperfect information as a key difference between the 2 market structures and the way it has been explained is usually in terms of imperfect information about production techniques or technology. Although this fact is probably not wrong, the key issue behind this difference is really that of legal BTEs (e.g. patents and copyrights). In the real world, when firms file for patents and copyrights, they actually have to disclose every single details/information about their new methods. Therefore, other firms actually have a high degree of information with regards to their rivals' and competitors' production methods but they just cannot adopt them due to patents and copyrights protection.

**Q3a Suggested Answer**

1. *Introduction: Define oligopolistic competition and monopolistic competition.*

a. *Presence of BTEs, no. of firms, nature of product, price setting abilities*

*Body:*

2. *Explain oligopolistic competition and MC differ in terms of the BTE and the no. of firms*

a. *In oligopolistic competition, there are few large firms due to high BTE while many small firms in MC market due to relative low BTE.*

b. *The difference of BTE can be both natural or artificial. E.g. due to high start-up cost for oligopolistic competition while low for MC.*

c. *For e.g.: telecommunication companies and restaurants market in Singapore*

3. *Explain oligopolistic competition and MC differ in terms of nature of the product sold by firms and hence price elasticity of demand.*

a. *In oligopolistic competition, the firms sell similar but differentiated product. Due to the nature of the product and the existence of a few dominant firms, the firms in the industry will be very conscious with the price changes. If the firm increases its price, other firms do not follow so demand is price elastic but if the firm decreases the price, other firms will follow so demand is price inelastic. This explains the price rigidity in oligopolistic competition.*

b. *In contrast, in a MC market, there are many firms selling differentiated products that are close substitutes for one another. Therefore, the demand for the product*

*produced by the firms in a MC market is more price elastic than the demand for the product produced by the firm in an oligopoly market.*

4. Explain oligopolistic competition differ in terms of BTE and hence long-run profitability
  - a. In a oligopolistic market, the firm can make supernormal profit in the long run due to high BTE. Firms will collude with other firms to maximise profit. Firms in oligopolistic competition work together and act like monopoly where they fix a profit maximising price and output. This allows the industry firms earn supernormal profit in the long run.
  - b. In contrast, the firms in MC market can only make normal profit in the long run due to absence of BTE. If the firms in a MC market are making supernormal profit, potential firms will enter the market in the long run. Due to the increase in the number of firms in the market, each firm will have a smaller market share – lead to a fall in its profit. Potential will stop entering when the firms are making normal profit.
5. Answer **may** also include key differences in terms of behaviour.
6. Conclusion: relate back to the question.

**MARK SCHEME 3(a)**

Level	Descriptor
<b>L3</b> 7-10	1. Able to explain clearly how the key differences of oligopolistic competition and MC lead to different implications. 2. Top credit to be awarded to answers that include good use of examples and relevant diagrams where appropriate.
<b>L2</b> 5-6	3. Able to explain the key differences but undeveloped explanations.
<b>L1</b> 1-4	4. Merely listing of characteristics with little explanations.

3	(a)	Explain the key differences between oligopolistic competition and monopolistic competition.	[10]
	(b)	<b>Discuss the view that oligopolists will definitely exploit consumers given that they have market power.</b>	<b>[15]</b>

**Approach**

The question requires a discussion on whether oligopolists will definitely exploit consumers given that they have market power. Therefore, candidates should bear in mind that the focus here is the **oligopolists have market power** and the focus is how they **may or may not impact consumers** given the market power they possess. Candidates should not regurgitate everything they have learnt about oligopoly but strategically relate relevant arguments to address the question.

For example, the focus of the discussion should be on:

- Oligopolists' ability to exploit market power rather than their ability to exploit internal EOS
- Oligopolists charging at  $P > MC$  rather than how the oligopolists' outcome is allocatively inefficient or under-production
- The impact to be examined are the effects on consumers (e.g. consumer surplus, consumers paying more than they should, variety and quality of the goods and services) rather than effects on welfare (e.g. deadweight loss, under-production)
- Oligopolists may or may not exploit consumers rather than how government intervention to regulate oligopolists may prevent exploitation of consumers (the reason why government is stepping in is because oligopolists have probably exploited the consumers)

**Examiners' Comments for Q3b**

Most candidates formulated a **thesis-antithesis-synthesis approach** to address the question. However, the **scope of analysis** is either not **broad** enough (i.e. only 1 way how oligopolists may exploit consumers and 1 way how they may not exploit consumer) or not so **relevant** (i.e. focusing on EOS, welfare loss, going into the details of what they know about oligopoly which are not addressing the question). Candidates must ensure that they have at least 3 relevant issues to discuss (i.e. 1) how  $P > MC$ , 2) how LR supernormal profits  $\rightarrow$  consumers to benefit from R&D and 3) how 3<sup>rd</sup> degree price discrimination could lead to the provision of essential services to certain consumers)

There were also many issues with the **depth of analysis** (in terms of **clarity** and **accurateness**). See below for a list of problems/issues.

Points to note:

a) **Price discrimination**

Candidates should recognise that there are **4 conditions for price discrimination** to take place (price setting abilities, ability to segment markets, difference in PED in different market segments, ability to prevent resale. Many candidates assumed that all oligopolists can price discriminate because of their high level of market power and conveniently/forgetfully ignore the other 3 conditions. This is a major problem because not all oligopolists can price discriminate.

Also, firms in other market structures can price discriminate too (as long as they satisfy the 4 conditions for price discrimination). Therefore, candidates have to be very clear about the **exact types and nature of price discrimination** that an oligopoly can conduct. [clarity of explanation is very important for the analysis to hold, e.g. SMRT and SBSTransit conducts 3<sup>rd</sup> degree PD]

b) **Price stickiness/rigidity and Kinked demand curve**

Many candidates were able to explain why **prices are rigid in a non-collusive oligopolist** market. The soundness of the analysis is excellent and very theoretical.

However, kinked demand curve explains how firms in a **non-collusive oligopolist markets** are unwilling to increase or decrease prices. Many candidates mistook the inability to increase price to mean that consumers are not exploited. However, despite their inability/unwillingness to increase prices, such firms are still charging at  $P > MC$  and making supernormal profits. Consumers are exploited to some extent definitely. [**not increasing prices doesn't mean that prices are not high**]

Another problem with this lack of clarity is that candidates forgot the **implications of the kinked demand curve** [which is firms are **unwilling to raise or reduce prices**]. Many of them conveniently explained how firms will pass on the cost-savings from innovation to consumers or explained how firms will charge higher prices due to their market power in other paragraphs within their essay. This makes the essay read very incoherently and hints that the analysis is regurgitated.

Having said the above, we do not mean that the cost-savings point of the charging a higher price point cannot be used in this essay, they need to be handled with more care. For example, charging a higher price can be explained in the context of a collusive oligopoly model where consumers are being exploited more or firms may not pass on the cost-savings to consumers due to kinked demand curve, therefore the consumers are exploited as the R&D (due to LR supernormal profits) leads to more profits for the firms instead of reducing the prices.

The key learning here is that there are **many different models of oligopoly**, e.g. collusion cartel, price leadership, price stickiness. Each of them has a certain explanation that is specific to that model. Candidates cannot treat them interchangeably. The kinked demand curve model you have learnt is a non-collusive model which explains why the firms engage in non-price competition. The cartel model is one of collusive model. [**price leadership model  $\neq$  kinked demand model  $\neq$  cartel model**]

c) **R&D**

There are a few types of R&D, namely **process innovation** (e.g. more efficient production methods) and **product innovation** (e.g. new and better quality products and services). While it was explained above that cost-savings from process innovation may not benefit consumers (in a kinked demand curve type of oligopoly), product innovation is definitely going to benefit the consumers.

[again, it's the preciseness of the explanation which gets around to addressing the question]

Candidates should take note that for R&D to take place, there needs to be the **willingness** (due to BTE and need to compete with rivals) and **ability** (from supernormal profits in the LR). Therefore, analysis from Part a) can be borrowed into here.

d) **Complacency/X-inefficiency**

Candidate must note that there is **no room for complacency or X-inefficient in a non-collusive oligopoly** as the firms face stiff competition from the rival firms. Oligopoly is probably the market structure where the incentive to engage in R&D is the highest.

Process innovation will allow the firms to lower their marginal cost or average cost of production so that they can withstand competition better (imagine if their MC is too high and they are forced to raise prices, nobody else will follow) and maximise their profits even more (since they cannot raise prices, lowering their cost is the best way to increase profits).

Product innovation will reduce the PED of their goods and services to increase their price setting abilities which is good for profit-maximisation. Should their products be sufficiently different from their rivals, the firms will not need to abide by the kinked demand curve model as much (i.e. more freedom to raise prices since they are selling an almost 'unique' or different product).

e) **Internal EOS**

Internal EOS is a concept relating to the **size of firms (not market power)**. Therefore, oligopolist firms are not the only firms who may reap internal EOS. Similar to the comment on process innovation above, oligopolists in a non-collusive model **may not be able to pass on the cost-savings** to consumers. Similarly for cartel, they probably enjoy the most EOS amongst all firms. However, it is not in their profit-interest to pass on the cost-savings to consumers. [internal EOS may not benefit consumers]

One of the ways candidates can weave internal EOS into this essay is through a very theoretical comparison between how an oligopolist (with market power) will be able to produce more and charge at a lower price than say a PC firm. Note that this is not possible in the real world. The costs condition of any industry will never permit 2 different types of market structures to co-exist (read this carefully: I'm not saying small and large firms cannot co-exist!!)

f) **Difference in explanation of why firms earn supernormal profits vs why firms can sustain supernormal profits**

To explain supernormal profits, we have to explain how  
BTE → price setting abilities →  $AR > MR \rightarrow P \text{ (or } AR) > AC$  when firms profit maximise

To explain sustaining supernormal profits in LR, we have to explain how  
BTE → prevent new firms from entering the industry → supernormal profits not eroded

**Q3b Suggested Answer**

1. *Introduction: Explain the meaning of market power*

- a. *Firms' ability to influence the price or output in the market as they are price setter. The degree of market power depends on factors such as the number of firms in the industry, the nature of product (homogeneous or differentiated), the level of barriers to entry.*

*Body:*

2. *Explain with the aid of diagrams showing oligopolists in long run equilibrium where  $P > MC$ .*

- a. *Oligopoly market generally has greater market power and thus higher degree of consumer exploitation (i.e. greater mark-up in price above marginal cost) - few firms in the market, less level of competition and so large firms in oligopoly market generally are faced with more price inelastic demand curve and thus have greater market power.*

3. *Explain how market power leads to consumer exploitation*

- a. *oligopoly firms has the power to set price or quantity of sales of their goods - with downward sloping demand curve. To sell an additional unit, firms must reduce the price of all units. Thus, Marginal Revenue is less than Average Revenue / Demand curve.*
- b. *Profit maximising firms in the market structures will produce till the quantity where Marginal Cost equals Marginal Revenue. At the equilibrium output, price is greater than marginal cost for the last unit produced.*

- c. *Since oligopolists charge higher prices and under production of goods and consumers' welfare are not maximised and consumer exploitation (i.e. the mark-up in price above marginal cost).*
4. *Explain how LR profit can benefit consumers / exploit consumers*
- a. *Oligopolistic firms enjoy higher level of barriers and can retain supernormal profits in the long run. Thus, oligopolistic firms have the ability and the incentives (due to the greater degree of competition within industry) to innovate.*
  - b. *This helps to improve consumer welfare through better quality products, new range of products etc.*
  - c. *However, in a collusive / non-competitive oligopolistic industry, firms may behave more like monopolies such that any cost-savings from R&D in production will not be passed onto the consumers.*
5. *Explain how oligopolists can practice price discrimination to benefit the consumers / exploit consumers.*
- a. *Large firms in oligopolistic market structure can benefit consumers through price discrimination. Large firms in transportation and telecommunication industries provide essential services and they may price discriminate to benefit certain sectors in the economy such as students and senior citizens.*
  - b. *Price discrimination may also allow firms to continue to produce goods despite low market demand. Eg. Public transport operators may continue to ply certain routes and thus benefits consumers despite low demand and less profit made.*
  - c. *However, price discrimination will result in certain consumer segments being charged more, and a reduction of their consumer surplus.*

*Conclusion:*

- 6. *Generally firms may exploit consumers by charging higher prices and producing lower quantity of output compared to a perfectly competitive market. On the other hand, oligopolists provide better quality of goods and services which improve consumer welfare. In reality, government's checks and regulations in the market (e.g. anti-competition law) will ensure that despite having market power, especially for large firms, they do not have the incentive to exploit consumers. In fact, market power provides the incentives and the ability to improve the quality and price of the products in the long run through research and development.*

**MARK SCHEME 3(b)**

<b>Level</b>	<b>Descriptor</b>
<b>L3</b> 9-11	1. Answer provided is thorough and well-balanced on how market power arising from the oligopolists market structure may lead to exploitation of consumers.
<b>L2</b> 5-8	2. Answer is able to provide a balanced view on how consumers in oligopoly market may or may not be exploited but lacking in depth analysis.
<b>L1</b> 1-4	3. Answer is mainly under- developed with some ideas of market power and consumer exploitation.
<b>E2</b> 3-4	A. Answer is able to arrive at a reasoned evaluation.
<b>E1</b> 1-2	B. Judgement on whether consumers are exploited when oligopolists have market power but without elaboration.

Essay Q4 Review

4	<b>In a country such as Singapore which has no natural resources and therefore depends much on its people, the assertion that is often made is it is important for Singapore to improve her labour productivity</b>	
	<b>(a) Explain the macroeconomic goals of a government.</b>	<b>[10]</b>
	(b) Discuss the extent to which an improvement in labour productivity can help Singapore achieve sustained economic growth.	[15]

**Examiners' Comments for Q4a**

Overall, students who were able to identify and explain the importance of achieving the macroeconomic goals were able to gain good credit for this question. In general, students were able to state and define the 4 macroeconomic goals of the government. They were also able to explain the different types of unemployment, inflation etc. Although the students showed that they have the content knowledge, they did not understand the requirement of the question, which is to explain the importance of achieving these macroeconomic goals.

**Common errors include:**

- Many students explained how each macroeconomic goal can be achieved with implementation of different policies and what the types of inflation, unemployment and economic growth are. However, they failed to explain the importance of achieving such goals for the government.
- For those students who managed to state the importance of each macroeconomic goal, they were not able to explain clearly why the goal is important. For example, students only listed/ stated that there are social costs when there is high unemployment rate and that inflation will lead to a fall in investment. However, they did not go on to explain why it is so.
- When explaining the importance of inflation as a macroeconomic goal, majority of the students were not able to relate it to the 'real' concept, i.e. the interaction between change in nominal national income and general price level. An example of an incomplete explanation will be: with inflation, the purchasing power of consumers falls and thus they are now buying less goods and services, reducing the standard of living. A more complete explanation should include the assumption that nominal national income remains unchanged, and hence with a positive inflation rate, i.e. an increase in general price level, the real national income falls, and as such the real purchasing power falls etc.
- A handful of weaker students actually stated that low (high) inflation rate causes general price level to fall (rise).
- When explaining economic growth, many students explained that with higher economic growth, there is more income, leading to higher purchasing power, thus, increasing their consumption. When more goods and services can be bought, it improves the material standard of living. Students were not able to see that higher economic growth means that there are more goods and services produced in the economy for consumption (though there must be the assumption that the consumption is domestic, and not foreign). As such, they gave such an explanation to explain the improvement in standard of living.
- When explaining unemployment, some students only gave the social costs to unemployment. They neglected the economic costs (such as worsening of fiscal balance with increase in unemployment benefits paid out and/or fall in tax revenues collected, prolonged unemployment leading to loss of human capital etc.) which are more important than explaining the social costs in detail.
- Majority of the students were not able to explain the importance of balance of payment as a macroeconomic goal.
- A handful of students actually misinterpreted the question and explained the conflicts between the goals. An explanation on how the goals complement one another would have been acceptable.

**Q4a Suggested Answer**

1. **Introduction** – The main macroeconomic goals of a government are namely, low inflation, sustained economic growth, full employment and healthy BOP. These macroeconomic goals are important to a government as it helps to improve the standard of living for the citizens in a country.

**Development**

2. **Low inflation** – Explain what inflation is
- a. Explain the reasons why low inflation is a macroeconomic goal for the government
    - i. Real income would increase when output/income increases if inflation rate is low relative to growth rate → consumers will be able to purchase more goods and services → improves the SOL in material aspect
    - ii. Uncertainty reduced when inflation rate is kept low as the rate of returns from investment is stable. This promotes business confidence and hence long term investment increases.
    - iii. With low inflation rate relative to those in other countries, exports can remain price competitive, promoting economic growth in the country. BOP account will also improve since current account improves, assuming capital and financial account remaining unchanged.
3. **Sustained economic growth** – Explain what is meant by sustained economic growth → refers to the increase in real output in the economy over time and this increase can be maintained. This is only achieved with both actual and potential growth.
- a. Explain the importance of sustained economic growth in a country
    - i. Can raise the SOL of the citizens in material aspects as there are more goods and services in the economy available for consumption
    - ii. With growth people are less concerned about being able to afford the material necessities of life and can foster qualitative attributes. Economy can now focus on the improving the environment and other aspects of life like sanitation, better amenities and ability to raise the quality of education in the country and as such improve the well-being of the people.
    - iii. With stable growth, it is likely to make the poor better off without having to make the rich worse off → helps to narrow income inequality gap
    - iv. This also results in more revenue for the government and as such countries can have more reserves kept, ready to meet any future crises
4. **Full employment**
- a. Explain the importance of achieving full employment in a country
    - i. Country's resources are utilized efficiently → amount of resources left idle is reduced and hence little wastage of scarce resources; resources are channelled to produced goods and services that are desired and hence society's welfare is increased as output is raised; the objective of low unemployment is linked to economic growth as low employment promotes growth as more goods and services are produced in an economy
    - ii. Less welfare payments or unemployment benefits to be paid by the government → funds can therefore be directed to develop the country further to bring about greater increase in output/income; and tax burden on those working can possibly be reduced
    - iii. Social problems are reduced. Lower crime rates and less social unrest---time and resources can then be better directed to other more productive activities in the country

5. *Healthy Balance of Payment – Explain what BOP is → The BOP is a record of international transactions between a country's residents and the rest of the world.*
- a. *Explain the importance of a healthy BOP*
- i. *It is important to maintain a healthy BOP because it has a direct impact on economic growth. With a healthy BOP, it may be caused by a rise in export earnings or a rise in FDIs, this will increase AD which will promote economic growth*
  - ii. *With a healthy BOP, the external value of currency will not depreciate and this will boost the confidence of the investors, leading to more investment in the country*
  - iii. *Also a healthy BOP means that the country is accumulating foreign exchange reserves. In times of need, these reserves can be used to finance purchase of imports as well as maintaining the strength of the Singapore dollar.*

**Conclusion**

6. *Achieving the 4 macroeconomic goals is important as these aims bring about higher SOL for her citizens.*

**MARK SCHEME 4(a)**

Level	Descriptor
<b>L3</b> 7-10	1. Clear explanation of the 4 macroeconomic goals on how they are important to the government and how achieving these goals can lead to a rise in SOL among the citizens. 2. A well-explained answer of 3 or more goals can be awarded full credit.
<b>L2</b> 5-6	3. Adequate explanation of the goals on how the goals are important to the government. <u>OR</u> 4. Too few goals are explained / well-explained.
<b>L1</b> 1-4	5. Brief explanation of the goals. Major conceptual errors made. 6. Answer does not address question, e.g. explaining the causes of macroeconomic problems, policies used to achieve macroeconomic goals.

4	<b>In a country such as Singapore which has no natural resources and therefore depends much on its people, the assertion that is often made is it is important for Singapore to improve her labour productivity</b>		
	(a)	Explain the macroeconomic goals of a government.	[10]
	(b)	<b>Discuss the extent to which an improvement in labour productivity can help Singapore achieve sustained economic growth.</b>	[15]

**Examiners' Comments for Q4b**

In general, this question showed that majority of the students was able to draw the relevant content knowledge. However, due to the weak interpretation of the question, they were unable to use the relevant content knowledge to answer to the question directly, i.e. they have poor interpretation skills. Students also have poor level of evaluation.

**Common errors include:***On labour productivity*

- Majority of the students explained labour productivity inaccurately. They said that improved labour productivity will lead to an increase in the quality and quantity of resources. Quantity of labour may not increase because labour productivity is the increased in output due to increased efficiency of each worker. It is the quality of labour that has improved, not the quantity.
- Many students also could not explain that labour productivity will increase both AD and AS. Majority only mentioned how AS can be improved.
- Some students did not bring in AD/AS analysis when explaining labour productivity. They simply said that with improved labour productivity, productive capacity is increased and thus growth is achieved. They should bring the AD/AS economic framework to answer the question.

*On sustained economic growth*

- Even as they explained how labour productivity can increase AS, many students were not able to elaborate it clearly. They simply stated that increased AS will lead to sustained economic growth. This also goes to show that students did not fully comprehend what sustained economic growth is.

*On AD/AS analysis*

- Some better students were able to bring in the fall in unit cost of production and increased productive capacity due to improved labour productivity. However, they drew 2 diagrams separately, one showing the shift in SRAS and the other the shift of LRAS. This shows that they did not understand that when shifting the LRAS, the unit cost of production also falls.
- A significant number of students drew AD/AS diagrams without explanations.
- Many students also made the mistake that when AS increases, national income increases by multiples. They clearly do not understand the concept of multiplier process.
- Some students also explained that with improved labour productivity, there is a more skilful workforce, this increases their income level, thus this leads to a rise in consumption level, leading to actual growth. Students should just directly explain how labour productivity can increase investment and increase export competitiveness to promote growth.
- One policy which they commonly brought up is the expansionary fiscal policy. However, they only explained how the policy can increase AD. They failed to link it to how growth can be promoted with increase in AD.

*On question interpretation*

- A handful of students explained different measures taken by the government to improve labour productivity. Some even went on to explain that these measures will solve structural unemployment. However, this is not the focus of the question.

- k) As mentioned, the students did not know that the focus of the question is whether improved labour productivity can promote sustained growth or not. They only briefly explained how labour productivity can promote growth and then went on to explain other policies in detail on how growth can be achieved. By doing this, they are not answering to the question directly. They did not even explain why they need to bring in other policies to promote growth.

*On evaluation*

- l) Lastly, majority of the students were not able to do evaluation. Majority only mentioned that labour productivity can/cannot achieve growth, but did not explain why based on the context of Singapore.

*Others*

- m) In addition, some students explained that when using fiscal policy to increase government expenditure, it will lead to a budget deficit. This shows that they do not have a clear understanding about worsening budget balance vs. budget deficit.

**Q4b Suggested Answer**

1. **Introduction** – Explain what is meant by labour productivity and reiterate sustained economic growth
  - a. Labour productivity measures the output per worker in a period of time. Labour productivity is an important factor in determining the productive potential of the economy. Countries with improvement in labour productivity growth tend to benefit from high and sustainable economic growth.
  - b. Reiterate sustainable economic growth (as mentioned in part a)
  - c. Factors that help to improve labour productivity include better skills and qualifications of workers, promoting innovation and technological progress.
  - d. In the case of Singapore, an improvement in labour productivity is one of the crucial factors in achieving sustained economic growth. However, there are also other policies that will also help sustain growth in the economy.

**Development**

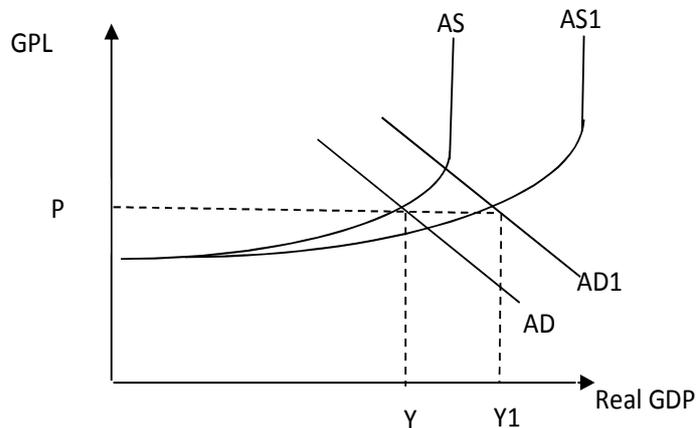
2. Explain how an improvement in labour productivity can help Singapore achieve sustained economic growth (increase in AD and AS). As long as the increase in AD is matched by the increase in AS due to improvement in labour productivity, Singapore is able to achieve sustained economic growth. Students should draw and explain diagram to show how both increases in AD and AS can lead to a rise in non-inflationary sustainable growth.

Increase AD

- a. With improvement in labour productivity, investors will be more willing to invest in our country as they are able to produce more output with a given amount of resources. This increases the expected rates of returns from investment → increase I.
- b. In addition, because of a more skilled workforce, it lowers the cost of production as the workers are able to increase production with a given amount of resources. This will reduce the price of exports, assuming producers pass on the cost savings. This increases the export competitiveness of the goods in Singapore → increase X
- c. The increase in AD due to I and X will lead to a rise in national income by multiples, promoting actual growth of the economy. The increase in AD is substantial in the case of Singapore as we rely heavily on I and X for growth.

Increase AS

- d. Singapore has focused on many supply-side measures to shift LRAS to the right so as to bring about sustained economic growth. For example, workers' training and retraining programmes like SPUR, improvement in education system to ensure that relevant skills are taught in schools.
- e. All these investments in human capital cause labour productivity to rise. As a result, the short-run AS curve shifts to the right, because a more skilled workforce lowers the cost of production. The long-run AS curve also shifts to the right because greater output is achieved on a permanent or sustainable basis, *ceteris paribus*.
- f. Furthermore, with the increase in investment due to improvement in labour productivity, it will also improve the AS in the long run as there are more spending on capital goods.
- g. This increase in AS will help to promote potential growth in the economy.



3. Explain how labour productivity may not be able to achieve sustained economic growth
  - a. If the improvement in labour productivity is focusing on low-skilled jobs, then the extent to which FDI inflow may not be substantial as Singapore mainly attracts high-value added FDIs.
  - b. Moreover, if the increase in labour productivity to increase AS is slower than the increase in AD, it will lead to inflationary pressures which will not be desirable for the economy. The slower increase in AS may be due to factors such as the difficulty to change the mind-set of the individuals to improve their skills and knowledge, the time taken to train the workers and the high costs involved in training the workers. With these limitations, economic growth may not be sustainable as inflationary pressures set in.
  - c. More importantly, if there are external factors, such as a global recession, causing our  $X$  to fall, then an improvement in labour productivity will not help to achieve sustained economic growth. As such, to achieve sustained growth, Singapore must look at the root of the problem before implementing the appropriate policy.
4. Explain that there are other factors which are needed to help Singapore achieve sustained economic growth, given the limitations of labour productivity
  - a. Besides improvement in labour productivity, other government policies must also be set in place to promote both actual and potential growth so as to ensure sustained growth in the economy.
  - b. For example, expansionary fiscal policy, with a supply-side intent, should be implemented. This includes building of infrastructure and spending on healthcare. This will not only increase AD through the rise in  $G$ , it will also be able to increase the AS in the long run due to the higher productivity of the resources.

- c. Other supply-side policies can also be implemented, such as signing of free trade agreements with other countries so that we have larger export markets to increase  $X$  to promote actual growth and attracting more FDIs to enter to Singapore to promote potential growth.

**Conclusion**

5. It is definitely very important for Singapore government to improve our labour productivity. As a small economy with no natural resources, there is a need to rely on human labour so as to achieve sustained economic growth.
6. In addition, such improvement in labour productivity will help Singapore to be better prepared with future demands of the economy and to cope with any short term problems of a recession. This will ensure continuous growth in Singapore.
7. However, raising labour productivity alone is not sufficient. It has to be complemented with other policies to manage both increases (and fluctuations) in AD and AS so that growth can be sustained in Singapore.

**MARK SCHEME 4(b)**

Level	Descriptor
<b>L3</b> 9-11	<ol style="list-style-type: none"> <li>1. Answer shows excellent knowledge of how sustained economic growth can be achieved by improvement in labour productivity in Singapore</li> <li>2. Candidates are able to explain clearly that improving labour productivity may not be effective in helping Singapore to achieve these aims due to certain limitations.</li> <li>3. Candidates are able to bring in other macroeconomic policies to complement policies to achieve sustainable growth in Singapore. (Optional. This is one alternative to answering the question). However, students should be able to draw links that there are limitations to labour productivity and thus there is a need to bring in other policies.</li> <li>4. Good use of examples.</li> </ol>
<b>L2</b> 5-8	<p><u>7-8m</u></p> <ol style="list-style-type: none"> <li>5. Answer shows some knowledge of how sustained economic growth can be achieved by increasing labour productivity in Singapore. (there is no need to mention both increases in AD and AS)</li> <li>6. Candidate did consider that improving labour productivity is may not effective in helping Singapore to achieve these aims.</li> <li>7. Briefly explained the use of other policies. (Optional. This is one alternative to answering the question)</li> </ol> <p><u>5-6m</u></p> <ol style="list-style-type: none"> <li>8. Answer shows some knowledge of how sustained economic growth can be achieved by increasing labour productivity in Singapore.</li> <li>9. Students are able to point out that sustained economic growth is due to increases in both AD and AS</li> <li>10. Underdeveloped explanation in some areas.</li> <li>11. Explanation has some reference to the AD-AS model and the Singapore economy.</li> <li>12. One-sided answer on how improvement in labour productivity can lead to sustained growth: max 6m</li> </ol>
<b>L1</b> 1-4	<p><u>3-4m</u></p> <ol style="list-style-type: none"> <li>13. Briefly explain how a rise in labour productivity affects economic growth</li> <li>14. Several errors and inconsistencies occur in the explanation.</li> <li>15. Little or no reference to the Singapore economy.</li> </ol> <p><u>1-2m</u></p>

	16. Stating of a few valid points and briefly mentioned how a rise in labour productivity affects an economy, but did not explain how.
<b>E2</b> <b>3-4</b>	A. Explained judgement on the importance of improvement in labour productivity in Singapore to help achieve sustained growth in Singapore. This includes the state of our economy (recession or boom), the nature of our economy (which factor of production are we more dependent on) etc.
<b>E1</b> <b>1-2</b>	B. Unexplained judgement on whether improvement in labour productivity will help to achieve sustained growth in Singapore

Essay Q5 Review

5	<p><b>In the years after the Global Financial Crisis, large economies like the US and UK have faced slow recoveries, with the threat of re-entering recession always looming. Analysts suggested that these governments need to reverse their current contractionary fiscal policy, and implement further expansionary monetary policy to help boost growth.</b></p>	
	<p><b>Discuss the appropriateness of these suggested policies in helping governments prevent recession.</b></p>	
		[25]

Background to question

Students should be able to show an appreciation of the macroeconomic conditions resulting from the Subprime mortgage crisis and European Sovereign Debt Crisis. A detailed understanding and analysis is not required.

- a) The U.S. **subprime mortgage crisis** was a major cause of the 2008 financial crisis, which spilt over to the real economy, leading many countries to enter into their worst recessions since the Great Depression.
- b) In late 2008, the Federal Reserve lowered its target policy rate effectively to zero. Given a deteriorating outlook for economic growth, the Fed began **quantitative easing**, an unconventional monetary policy in which the central bank purchases government securities or other securities from the market in order to **lower interest rates and increase the money supply** by flooding financial institutions with capital in an effort to promote increased lending and liquidity.
- c) On the fiscal front, **aggressive fiscal expansion** was pursued in the US. This includes lump sum payments made to US taxpayers, tax cuts for businesses and payments to veterans and pensioners (The Economic Stimulus Act of 2008), further tax cuts and subsidies, public investments for health, education and social security payments (The American Recovery and Reinvestment Act of 2009).
- d) In early 2009, the Bank of England, which had lowered its policy interest rate to its effective zero lower bound, also announced plans to purchase government bonds in order to increase nominal economic activity. In the same year, the UK government also pursued expansionary fiscal policy in response to the deep recession (GDP fell about 6%) that ensued, cutting the VAT in a bid to boost consumer spending. This caused a big rise in government borrowing. The increased government borrowing also arise because of the recession leading to lower tax revenue.
- e) From late 2009, concerns about rising government deficits and debt levels across the globe together with a wave of downgrading of European government debt created alarm in financial markets. Austerity cuts have been central to Europe's efforts to emerge from the **European sovereign-debt crisis**. In a number of countries, **austerity measures** were a condition of sovereign bailouts.
- f) In UK, when the new coalition government came into power in May 2010, they argued the deficit was too high and hence also announced plans to reduce government borrowing, and a series of sustained reductions in public spending, intended to reduce the budget deficit. The US, however, began to tighten fiscal policy only in 2010, after the economy showed some improvement, such as having a stronger banking and financial sector. The austerity measures were believed by many to be a factor in causing low economic growth in UK and US in 2011 and 2012.

**Examiner's Comments for Q5**

Majority of the candidates are able to explain fiscal and monetary policies, and how AD is increased as a result of the expansionary demand management policies. However, some candidates failed to identify the 'reverse' of current contractionary fiscal policy (i.e. EFP), and went on to explain how contractionary fiscal policy can help to address the problem of inflation instead.

In addressing the appropriateness of the two policies, most candidates simply listed one or two common limitations (e.g. poor business outlook) for EFP and repeated the points again for EMP without attempting to discuss, and hence earning only level 2 marks for development. Most candidates did not discuss advantages of the policies beyond how the policies are supposed to work, such as the relatively large multiplier size of UK and US (in view of the low MPS and MPM) in enhancing the effectiveness of demand management policies. Most candidates also did not discuss the limitations of the policies in the full context of the question, i.e. early recovery phase of the financial crisis (economies far from full employment and hence the avoidance of demand-pull inflation), high fiscal debt of the two countries and its implications on the implementation of EFP. Only a few candidates are able to point out how the crowding out effect (effects of rising interest rate and decrease in loanable funds) can be avoided through complementary EMP.

Many candidates also gave unsupported conclusions (blanket statement) on the need for supply-side policies to complement the two demand management policies without explaining why and how. Discussions on appropriateness is also lacking in the development of their essays. These candidates therefore received only level 1 mark for evaluation.

**Q5 Suggested Answer****1. Introduction**

- a. *The U.S. subprime mortgage crisis was a major cause of the 2008 financial crisis, which spilt over to affecting the real economy, leading many countries to enter into their worst recessions since the Great Depression.*
- b. *US and UK undertook aggressive expansionary fiscal and monetary policies to steer their economies out of recession. However recovery has been slow, and with added challenges due to the European sovereign-debt crisis, these economies may easily fall back into recession.*
- c. *On the backdrop of high budget deficits, both the UK and US governments have subsequently tightened fiscal spending. This, together with the tapering of Quantitative Easing in the US, has made many analysts worry that the two countries may slip back into recession due to the combined contractionary effects. Hence the call has been to reverse their current contractionary fiscal policy, and implement further expansionary monetary policy to help boost economic growth.*

**Development**

2. *Demand management policies refer to the use of monetary and fiscal policies to influence the aggregate demand for goods or services in an economy. During periods of recession and high unemployment, governments attempt to stimulate demand (and, hence, production and employment).*
3. *Explain expansionary fiscal policy → refers to an increase in government spending (G) and/or a lowering of direct taxes to boost AD.*
  - a. *Lower personal income taxes will increase consumer spending (C) because they have more disposable income. Lower corporate taxes will enable firms to retain more profits for investments (I)*

4. Explain expansionary monetary policy → Lower interest rates stimulate  $I$  and  $C$  as cost of borrowing decreases.
- With lower cost of borrowing, given an expected rate of return,  $I$  will be more profitable and thus the level of  $I$  will increase. Furthermore, lower interest rates also lower the opportunity cost of current consumption thus increasing consumption. As  $I$  and  $C$  are part of  $AD$ , this leads to an increase in  $AD$ .
  - Devaluation can also be considered as a theoretical possibility, though students will not score high L3 (max 16m, see mark scheme) as it is not a discussion centred around the context of the question, i.e. all large economies use interest rate as their main monetary tool.
5. Explain multiplier process → Higher  $AD$  will cause national income to rise through the multiplier process.
- If the multiplier for public expenditure is 2, an increase in public expenditure of USD100b would increase GDP by USD200b in total. As the purpose of changes in the fiscal stance is to affect the real economy, it will therefore be preferable for the multiplier effect to be greater than 1. A change in fiscal policy will then contribute to GDP by more than the actual increase in public expenditure, and thus have a significant effect on the real economy.
6. Discussion on **appropriateness** of demand management policies in the aftermath of the financial crisis:
- Higher government spending financed by borrowing from the private sector may result in crowding out effect. **(1- Antithesis) Crowding out effect** is the tendency of expansionary fiscal policy to cause a decrease in investments in the private sector which is normally resulted from the rise in interest rates. The government competes with the private firms for borrowing of funds. This leads to upward pressure on interest rates as more parties are interested in the same pool of funds. Thus, due to higher cost of borrowing,  $C$  and  $I$  might fall. In the extreme case, the fall in consumption and investment may completely offset the rise in government expenditure and thus having no impact on  $AD$ . Thus the impact on national income and employment is significantly reduced.

Crowding out effect may happen as both the US and UK economies are at the recovery phase. However, when coupled with an accommodating monetary policy, i.e. the Fed and BOE keeps the key interest rate close to zero and flooding financial institutions with capital in an effort to promote increased lending, the effects of fiscal policy may be strengthened because the crowding-out effect is avoided.

In contrast to crowding out, as the government spends money, private industry must be prepared to provide the output demanded by the government. In order to do this, firms must invest in capital to increase their productivity. Hence government spending actually stimulates ("crowding-in") investment.

- Expansionary fiscal policy (cutting taxes and increasing  $G$ ) have caused an **(2- Antithesis) increase in budget deficit** in the US and UK that have led to both governments tightening fiscal spending. Higher budget deficits will require higher taxes in the future. High income taxes cause disincentives to work. If this occurs there will be a fall in productivity and  $AS$  could fall. High corporate tax rates will discourage investments.

When the government runs a budget deficit, it is spending more than it is taking in. In this way, national savings decreases. When national savings decreases, investment also decreases. Lower investment leads to lower long-term

economic growth. A large national debt today will result in less physical capital, being passed on to future generations. In this way, future generations are burdened by a lower capacity for productivity as a result of decreased investment created by the national debt.

When US and UK already have high debt, additional government spending may even have a negative fiscal multiplier, because the financial markets do not accept additional government borrowing as they fear a sovereign default. In the longer term, rising interest rates will render the government insolvent.

With the real dangers to running high budget deficits, the UK and US governments should ensure spending increases are concentrated in areas where the expenditures are either reversible (such as workfare programs with a below-market wage offer will attract participants during downturns but will not be appealing once the economy recovers, i.e. spending will then fall), or likely to increase growth in the future (such as funding for training or R&D projects).

- c. Expansionary monetary responses (3- Thesis) **cause downward pressures on the exchange rates** of UK and US. Although a weakened currency causes import prices to become more expensive in the domestic currencies, the depreciation may come timely as export prices become lower in terms of foreign currencies. The added export price competitiveness is welcomed during the period of early recovery.
- d. Expansionary monetary policies carry the possibility of central banks losing anti-inflationary credibility, and the (4- Antithesis) **risk of accompanying high inflation** in US and UK. Although the Fed and BOE may eventually need to tighten monetary policy to prevent a run-up on inflation in future, persistently low inflation may pose a more immediate threat than rising prices during the early recovery period, as both economies are still far from the full employment level.
- e. Being large and less open economies, the UK and US would have relatively (5- Thesis) **large multiplier size** compared to small, open economies like Singapore.

The size of the multiplier also varies according to economic conditions. For an economy operating at full capacity, the fiscal multiplier should be zero. Since there are no spare resources, any increase in government demand would just replace spending elsewhere. But when the UK and US economies were just coming out of a recession, when workers and factories lie idle, a fiscal boost can increase overall demand. Additionally, if the initial stimulus triggers a cascade of expenditure among consumers and businesses (barring crowding-out effect, which is less likely to occur as discussed), the multiplier can be well above one and demand management policies should be effective in stimulating higher income.

Multiplier size is also likely to vary according to the type of spending. Government spending on infrastructure development projects should have a bigger multiplier than a tax cut if consumers save a portion of their tax windfall, which may occur due to the increased uncertainty with the European sovereign debt crisis. A tax cut targeted at poorer people may have a bigger impact on spending than one for the affluent, since poorer folk tend to spend a higher share of their income (The Economic Stimulus Act of 2008 makes payments to veterans and pensioners).

**Conclusion**

7. *Fiscal interventions need to be timely in order to be effective, and that mistimed interventions can be counter-productive. This has been a challenge for many countries though less so for UK and US where data quality (to identify downturns and recoveries in real time) and fiscal institutions (to design and implement any proposed spending increases) were well established.*
8. *Policymakers need to consider the scope for coordinated monetary and fiscal interventions.*
9. *While the threats from the accumulation of high budget deficit and long term inflation may be real, expansionary fiscal and monetary policies may be necessary to ensure the continued recovery of UK and US. However, short-term policy orientation can have adverse effects in the long-term with huge price to pay. Deficit spending belongs to this category.*

**MARK SCHEME 5**

<b>Level</b>	<b>Descriptor</b>
<b>L3</b> 15-21	<ol style="list-style-type: none"> <li>1. For a <b>developed answer</b> that <b>thoroughly analyses</b> the limitations and advantages of the policies in the <b>context of UK and US</b> in the early recovery phase following the financial crisis.</li> <li>2. Up to 16 marks for a developed answer that analyses the pros and cons of expansionary fiscal and monetary policy in a slow growth / early recovery environment even though answer is strictly theoretical, not focused on the context of UK and US.</li> </ol>
<b>L2</b> 10-14	<ol style="list-style-type: none"> <li>3. For an answer that <b>adequately explains</b> with analysis how the <u>two policies</u> work to prevent recession and state some general limitations and advantages of the policies.</li> <li>4. Up to 12marks only if answer contains a well-developed and balanced explanation of <u>either</u> expansionary fiscal or monetary policy.</li> </ol>
<b>L1</b> 1-9	<ol style="list-style-type: none"> <li>5. For an answer that shows some <u>superficial knowledge</u> of expansionary fiscal and monetary policy. Discussions on limitations are weak and some conceptual errors are evident.</li> <li>6. Up to 5marks only if answer only <u>correctly explains</u> either expansionary fiscal or monetary policy.</li> </ol>
<b>E2</b> 3-4	A. For a clear response to question requirements to discuss and with <b>reasoned conclusion</b> on the appropriateness of the policies for UK and US.
<b>E1</b> 1-2	B. Pros and cons were discussed but <b>conclusions on appropriateness despite each limitation were vague</b> or made <b>without justifications</b> .

Essay Q6 Review

<b>6</b>	<b>(a)</b>	<b>Explain the theory of Comparative Advantage.</b>	<b>[8]</b>
	<b>(b)</b>	Globalisation benefits small and open economies such as Singapore most; hence these governments should continue to embrace globalisation. Discuss.	<b>[17]</b>

**Examiners' Comments for Q6a**

- a) Students had difficulty answering the question due to the lack of familiarity hence they either left it blank or just wrote a statement attempting to define comparative advantage.
- b) At times, the examples used by students illustrated absolute advantage rather than comparative advantage. Absolute advantage is illustrated when in a two-country, two-good trade example, one country can produce more of one good, while the other country can produce more of the other good; it makes the choice for specialisation straightforward, i.e. just specialise in the good you are better at producing. However, better at producing is not the same as incur lower opportunity cost, which is comparative advantage.
- c) Students who thoroughly explained the basis of trade, using a table consisting of 2 country and 2 good in a simplified world economy, scored a max of 6 marks if they failed to explain how then trade takes place based on a mutually beneficial terms of trade thereby allowing the countries to consume beyond the production possibility curve (PPC).
- d) A common misconception was that students stated that trade shifts the PPC outwards. Trade in final goods and services does not shift the PPC outwards but only allows the countries to consume beyond the PPC.

**Q6a Suggested Answer**

1. *Introduction: **State the theory of Comparative Advantage:***

- a. *Theory of Comparative Advantage asserts that trade at a mutually beneficial terms of trade can benefit economies if they specialise in producing and exporting goods in which they incur a lower opportunity cost in production relative to other economies, and importing goods in which they incur a higher opportunity cost in production relative to other economies.*

Body:

2. **Stating the assumptions:** *2 countries, 2 commodities, each country uses the same amount of resources that is equally divided between the productions of 2 goods, there are constant returns to scale in production and transport cost is negligible.*
3. *Explain the theory either using a relevant table that shows the increase in output after specialising based on the theory of comparative advantage.*
4. *Explain that by specialising (based on theory of comparative advantage) and trading (using a mutually beneficially terms of trade), countries are better off with an increase in output for consumption that is beyond what both countries can initially produce.*

Conclusion

5. *Conclude that the theory of comparative advantage forms the basis of trade between countries.*

**MARK SCHEME 6(a)**

<b>Level</b>	<b>Descriptor</b>
<b>L3</b> 6-8	1. For an answer that thoroughly explains how the theory of comparative advantage forms the basis of trade and makes country better off in terms of the amount of goods and services available for consumption.
<b>L2</b> 4-5	2. For an under-developed explanation that has limited economic analysis, i.e. for answers that attempt to explain the following key terms: (1) Comparative

		Advantage, (2) specialisation and trade, (3) outcome such as increasing world output and/or individual economy consuming beyond production possibility curve.	
<b>L1</b> 1-3		3. For a weak, superficial and descriptive answers which contain inaccuracies.	
<b>6</b>	(a)	Explain the theory of Comparative Advantage.	[8]
	(b)	<b>Globalisation benefits small and open economies such as Singapore most; hence these governments should continue to embrace globalisation. Discuss.</b>	[17]

**Examiners' Comments for Q6b**

- Answers merely explained the benefits and costs of globalisation on economies without linking the question well to the context of small and open economies. For instance, students merely explained that economies benefit from trade instead of linking to the limited domestic demand and enlarged export markets that globalization gives access to these small and open economies.
- Answers also lacked economic analysis. For example, students just explained that economy benefits from the inflow of labour but failed to explain how the inflow of labour would improve productive capacity and assist potential growth.
- Due to time constraint, some of the answers didn't have a judgment. Hence no evaluation marks were awarded.
- Some answers explained that inflow of foreign labour would increase the employment rate in Singapore. However employment and unemployment rates are usually related to residents.
- Some answers brought in the need for protectionism due to the costs of globalisation. However the arguments applies to large economies as well and hence may not be well-suited to the context of small and open economies. *[Small and open economies are trade dependent for their economic growth so they wouldn't practise protectionism.]*

**Q6b Suggested Answer**

- Introduction – Define globalisation as characterised by greater movement of goods, capital and labour.**

Body

- Explain that globalisation benefits small and open economies, such as Singapore, the most.**
  - Small economies have limited domestic demand. Since they are open economies, globalisation increases access to export markets and therefore allows small and open economies to experience economic growth.*
  - Since they are open economies, globalisation allows for greater flow of FDI and therefore allows small and open economies to experience actual growth in the SR and potential growth in the LR.*
  - Small economies often have a limited labour pool. Globalisation increases the flow of labour increasing the productive capacity thereby allowing the small and open economies to achieve potential growth.*
- Explain that the globalisation harms these small and open economies.**
  - Increases the vulnerability of small and open economies to fluctuations in external demand; small economies like Singapore also face resource constraints, which make them vulnerable to imported inflation.*
  - Large amount of financial capital in- or out-flow may lead to exchange rate / interest rate fluctuations, or asset price inflation*
  - Globalisation may cause small and open economies to face brain drain and income inequality may worsen in these small and open economies.*

4. **Explain that these above problems can be mitigated with the use of appropriate policies by small and open economies.**

- a. *Small and open economies should diversify their trade links to reduce over-reliance on any particular trading partners' economies.*
- b. *Small and open economies like Singapore use mild and gradual appreciation to reduce imported inflation.*
- c. *Small and open economies attract foreign talent by offering attractive scholarships.*
- d. *Small and open economies like Singapore offer transfer payments to the lowest income group to reduce the income inequality. Furthermore, the government also provides training support to allow the low skills to improve their skill levels and be employed in higher skilled and better paying job. In this way, the income inequality is reduced as well.*

Conclusion

- **Explain that globalisation benefits small and open economies most as long as appropriate policies are undertaken by the government to mitigate the effects of globalisation.**
  - *With the appropriate policies in place, the small and open economies are more equipped to embrace globalisation.*
  - *Hence the small and open economies should continue to embrace globalisation.*

Descriptors	Marks
<b>L1: 1-5</b>	For a weak, superficial and descriptive answers which contain inaccuracies.
<b>L2: 6-9</b>	For an under-developed explanation that has limited economic analysis and justifications.  Max of 7 marks if the answer is one-sided but well-explained.
<b>L3: 10-13</b>	For an answer that discusses both the benefits and harms that globalisation can bring to small and open economies and thus if these economies should embrace globalisation.
<b>E1: 1-2</b>	For an answer that takes a stand to say if these small and open economies should continue to embrace globalisation and makes a weak attempt to justify the stand.
<b>E2: 3-4</b>	For an answer that takes a stand to say if these small and open economies should continue to embrace globalisation and the judgement supported by analysis.