



NATIONAL JUNIOR COLLEGE  
SH2 Preliminary Examinations for General Certificate of Education Advanced Level  
Higher 2

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## ECONOMICS

**9757/01**

Paper 1

**28 August 2017**

**2 hours 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 an HB pencil for any diagrams, graphs or rough working.  
Do not use staples, paper clips, glue or correction fluid.  
**DO NOT WRITE IN ANY OF THE MARGINS.**

Answer **all** questions.

**Start each question on a new piece of paper.**

**Start parts (e) and (f) for Question 1 on a new piece of paper.**

**Start parts (d) and (e) for Question 2 on a new piece of paper.**

Fill in the necessary information on the cover pages.

At the end of the examination, fasten all your work securely with the cover pages given.  
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 **7** printed pages and **1** blank page.

Answer **all** questions.

### Question 1

#### Challenges and Outlook of the Copper Market

##### Extract 1: Miners face challenge tapping copper opportunities

Both Rio Tinto and BHP Billiton, two of the world's top ten copper producers, believe the copper market is oversupplied now but will tighten from 2018, with growing deficits. Demand for copper is expected to be steady, given that it has a wide range of applications such as electrical wiring and pipes, and is forecast to be widely needed as China shifts towards more consumer-led growth.

But the complexity and expense of mining projects means the larger miners may not be in a position to generate a quick acceleration of copper output. Rio took a step forward in December to build Resolution, a US copper mine expected to be one of the world's largest. Rio owns 55% of the project, with BHP owning 45%. Yet obtaining all the permits for Resolution could easily take Rio another five to seven years.

Because receiving approval for mines is so laborious, Rio and others have walked away from some projects, even if the copper resources involved are substantial. Since 2013 Rio and Anglo American, another major mining company, have both given up on Pebble, a huge copper deposit in Alaska that is controversial for its potential effect on fisheries, for example.

Another challenge for miners is the expense involved in building mines. Glencore, another major copper miner, sold its Las Bambas project in 2014 to MMG, a subsidiary of China's Minmetals, for about \$7 billion. MMG said in October that the remaining 25% of construction would cost between \$2.7 billion and \$3.2 billion. BHP, which owns Olympic Dam, an Australian mine, abandoned an expansion plan in 2012 because of the likely cost.

Source: Adapted from: *The Financial Times*, James Wilson, 6 January 2015

##### Extract 2: The outlook for copper

The price of copper has fallen steadily in recent years. The sharp slowdown in industrial activity in China is disastrous for copper producers, since China consumes 45% of their output. Its attempt to shift from an investment-led economy to a consumer-led one has raised fears of a structural decline in the amount of copper it will need.

One recent disappointment has been the delay in the roll-out of electricity infrastructure in inland Chinese cities. Analysts at BHP say such infrastructure accounts for the biggest share of copper consumption in China. Yet a crackdown on corruption at state-run energy companies slowed the grid-laying projects during the first half of the year. What is more, China is increasingly using aluminium for its thick power-distribution cables, rather than copper – a cheaper option, even if aluminium is a poorer conductor and is more prone to corrosion.

Yet the outlook for China is not all pessimistic. As incomes increase, the “intensity” of copper use is likely to grow. Nascent industries such as wind and solar power and electric vehicles, all of which are copper-intensive, may also boost future demand.

Before then, supply must fall to balance the market. Some estimate that the industry will still churn out about 500,000 tonnes of excess copper this year. The oversupply will get worse: it takes several years to build a mine, so firms which had invested heavily in copper mines during the boom years now find their mines starting to come into operation. As a result big new increments of supply have hit the market in the past year or two, just at the wrong time. Glencore, one of the five largest mining companies in the world, announced last month that it would close mines in the Democratic

Republic of Congo and Zambia, cutting supply by about 400,000 tonnes over 18 months – some 2% of the world's annual output. Besides Glencore, it is reported that other mines producing a further 170,000 tonnes a year have been idled so far this year.

But only the most expensive supplies are being removed from the market. Many firms are instead slashing costs to keep production going. The industry's fragmentation makes it unlikely that producers will agree to rein in output. Investment bank, Goldman Sachs, notes that the top five copper producers have about 35% of the market. While some firms are trying to cut output to reduce costs and stem the price slide, other firms are expanding their output to increase market share. In some cases, it is cheaper over the long run to keep mines running at a loss for a while, to maintain security and retain staff, rather than to close them down.

Within a few years, however, many analysts expect natural constraints to put a floor under prices. The quality of ore in copper mines decreased during the boom. Water shortages make copper more expensive to extract. Mine depletion in Chile and Peru has driven companies towards new deposits laced with arsenic that require costly cleaning. And workers and environmentalists increasingly raise their voices against lousy pay and deteriorating environmental conditions. Higher costs make it less likely copper production will increase, which should eventually help stabilise the market. Chinese demand may also be supplemented by growth in other emerging markets, such as India, which currently consumes just 2% of the world's copper.

Source: Adapted from: *The Economist*, 1 Oct 2015

### **Extract 3: Fed move adds to pressure on commodities**

Prices of most commodities fell after the US Federal Reserve's decision to raise interest rates compounded their long term woes. Low interest rates had helped stoke the commodities boom as companies tapped cheap money to vastly expand production. Now commodities markets are suffering, with the interest rate hike adding to a multitude of industry-specific problems - a toxic combination of oversupply and weak demand from a slowing Chinese economy.

The biggest immediate effect of the Federal Reserve's decision to raise interest rates came through the strengthening US dollar. That makes internationally traded commodities from oil to copper, which are priced in US dollars, more expensive for holders of other currencies. But down the road, analysts foresee more pain from rising rates as companies struggle with increased financing costs and emerging market demand takes another hit. Investors fear that the Fed's rate increase might further sap demand from once insatiable emerging economies, such as India and China. Investors have already withdrawn a net \$500 billion from emerging markets in 2015, the first annual outflow in decades, compounding falls in their currencies as capital leaves their shores and make commodities more expensive.

Source: Adapted from *The Wall Street Journal*, 17 December 2015

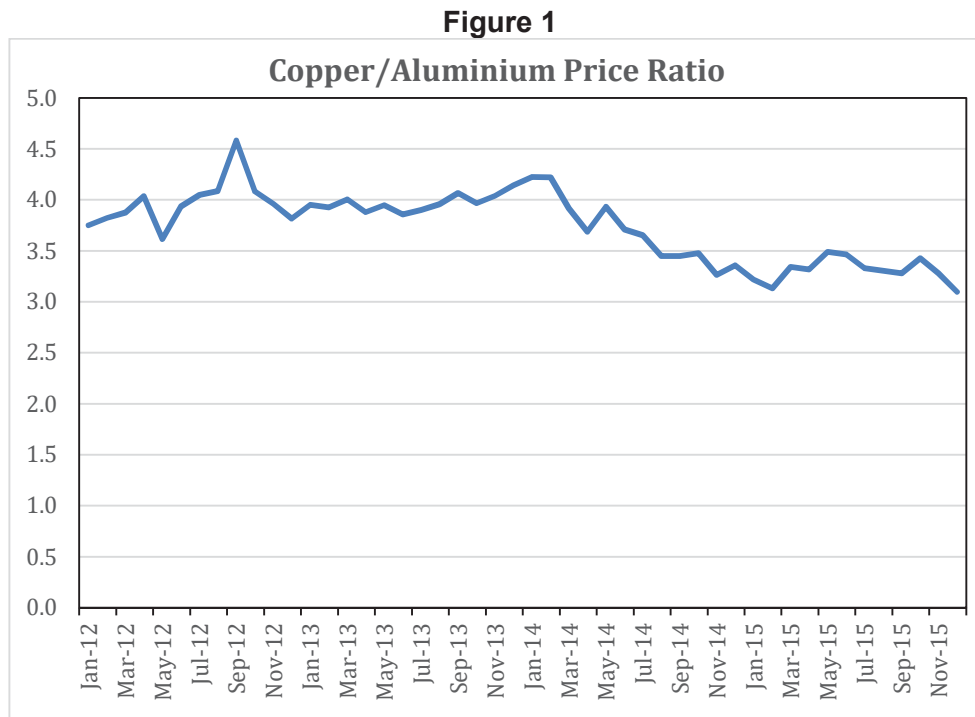
### **Extract 4: Village protest against dam built by copper miner in Chile**

Black flags hang from the doors of the one-storey red brick houses in Caimanes, a village that lies in the hills north of Santiago on the course of the Pupio stream. The banners are the sign of a bitter environmental protest against a nearby dam, which holds waste from a copper mine -- one of Chile's largest -- high up in the Andes. Last November, a group of up to 150 villagers took matters into their own hands and blocked access to the dam, which was said to pollute the village's water supply and pose an environmental threat in case of flooding or an earthquake.

The battle between the people of Caimanes and the owner of the Los Pelambres mine has become a symbol of social change in Chile, which produces 30% of the world's copper. The government of Chile is committed to tackling inequality and as part of that is demanding higher standards from mine owners. But it is happening against a backdrop of slowing growth in China,

the world's biggest copper market. Prices of the metal -- which makes up 13% of Chile's economic output and 50% of its exports -- fell to their lowest levels in five years just as the protesters kept guard outside the town. Copper mining made up 20% of the country's tax revenues in 2010 and employed some 1.1 million people in 2013. The shift in policy in Chile is being driven by a greater focus on the environment, in some cases, at the expense of economic growth and employment.

Source: Adapted from: *The Financial Times*, 27 April 2015



Source: London Metal Exchange

### Questions

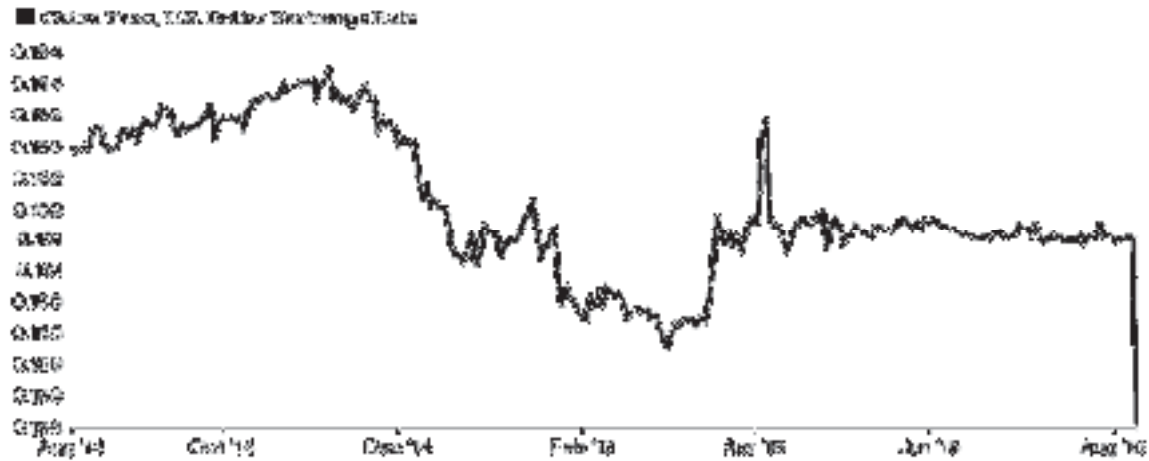
- (a) Compare the price of copper relative to the price of aluminium over the period from September 2012 to November 2015. [2]
- (b) Using a demand and supply diagram, explain why the price of copper “has fallen steadily in recent years” (Extract 2). [5]
- (c) With reference to the data, what evidence is there to suggest that the market for copper could be oligopolistic in nature? [3]
- (d) Explain how the US Federal Reserve’s decision to raise interest rates would affect the demand for copper in the world. [2]
- (e) Suppose you are an analyst with an investment bank, assess the factors that would affect the price of copper in the future and justify your forecast for the price of copper in the next 2 to 3 years. [8]
- (f) Using economic analysis, discuss whether the government of Chile should intervene to restrict mine production in order to achieve its economic objectives. [10]

[Total: 30]

## Question 2

## A volatile world

Figure 2: US dollars to 1 China Yuan



Source: Bloomberg

**Extract 5: China calls the shots in Asia's currency war**

As fears of a global currency war grow, all eyes in Asia are on China's next move. "It's no longer inconceivable that China will go for a weaker currency," said Frederic Neumann, HSBC's co-head of Asian economics research.

The urgency with which Asian central banks are cutting interest rates is an indication of not just the deflationary forces they are seeing but also recognition that if China weakens the yuan, their policy options will be severely limited. Indonesia was the latest to surprise the world with an interest rate cut, joining Singapore, India and China, all of whom have unexpectedly eased monetary policy this year. Bank Indonesia's rate cut was in some ways a reminder of how critical China's yuan is to the region's policy making. The weakening of the Chinese Yuan, coupled with the potential rise of US interest rates could cause steep falls in the Asian currencies and a flight of foreign capital. Capital outflows can be destabilising, causing property prices to collapse further and trigger a vicious cycle of bad debts and defaults in the banking sector.

Deflationary pressures in China are stoking expectations that it could follow Japan and other European nations by easing policy to put a floor under domestic prices, he said. Such moves have triggered major weakening in the Japanese yen, euro and other currencies.

With most Asian countries either selling their exports to China or competing with the Chinese for a share of declining global demand, the race to have competitive currencies could become intense.

Still, analysts reckon things would get ugly only if China makes some kind of dramatic move, such as moving away from shadowing the dollar to tracking a broader basket of currencies. That could spark currency volatility and weakness and massive capital outflows.

"China's currency has become an anchor for the region and we just hope the Chinese will not throw the anchor overboard and cut everyone loose," said Neumann.

Source: Adapted from Vidya Ranganathan, *Reuters*, 19 February 2015

### **Extract 6: BRIC's huge impact on global sustainability**

The world's four largest developing economies, Brazil, Russia, India and China (BRICs), have a huge impact on global sustainability. These four countries, with a combined population of 3 billion people and a GDP of \$16 trillion, will have a huge direct impact on global emissions.

India's air pollution is not only far worse than any of the other BRICs, it is so intense that it is reducing plants' ability to photosynthesize sunlight, cutting crop yields in half. In addition, poverty and general lack of access to basic human needs has drawn the lion's share of attention. As a result, much of the sustainable development discussion in India has focused on inclusion and bringing the population into the 21st century. In 2014, Prime Minister Narendra Modi launched the Clean India Mission, aimed at providing access to improved sanitation, and cleanup of the River Ganges, among other targets. Corporations are also committing to invest in education for girls and adopting communities for cleanup.

Building green technology as India expands is one example of the leapfrogging potential that all developing economies can benefit from. For example, information technology company Infosys pioneered an effort to raise the profile of green building technologies among Indian firms. The resulting green building, which earned Leed Platinum certification, uses 38% less energy than its counterpart, and cost 1% less to build.

Source: Adapted from Matthew Weeland, *The Guardian*, 4 May 2015

### **Extract 7: China and Russia: the world's new superpower axis**

Russia and China have lots in common apart from a 2,500-mile border- both economies are dominated by state-run firms and oligarchies.

Both countries share a desire to limit American power; they enjoy a burgeoning trade relationship in which, in essence, hydrocarbons are swapped for cheap consumer goods. Trade has increased sixfold over the past decade. Last year they trumpeted the biggest gas deal in history that was worth \$400billion. During Chinese President Xi Jinping's visit to Moscow last month, the two leaders signed a decree on cooperation in tying the development of the Eurasian Economic Union (EAEU) with the "Silk Road Economic Belt" project. Moscow and Beijing declared a goal to coordinate the two projects in order to build a "common economic space" in Eurasia, including a Free Trade Agreement between the EAEU and China. The EAEU is a Russia-led trade bloc established in 2015. It currently has four members: Armenia, Belarus, Kazakhstan, and Russia.

"We are intensively working on combining these two projects and Russia's plans to expand its transport network in the east of the country," said Russian President Vladimir Putin.

China's President, Xi Jinping, has set his sights on a "new silk road", using China's billions to help neighbours and regional allies to develop, indirectly supporting growth at home and the expansion of Chinese soft power. Moscow is also hoping Beijing will help with finance for businesses, after western funds dried up last year. Some Chinese firms have seen the Russian economic wobble as an opportunity to make capital investments in the country.

Last year, China replaced Germany as Russia's biggest buyer of crude oil. "China is the major alternative market and is easily accessible for Russia given the location of energy reserves and the geopolitical partnership, so it's an obvious fit," said Grigory Birg, an analyst at Investcafe.

However, Russia's federal migration service is especially wary of an influx of Chinese migrants across the Russia-China border. It has stated that Chinese could become the largest ethnic group in Russia's far east by the 2020s or 2030s.

Source: Adapted from *The Guardian*, 7 July 2015 and *The BRICS Post*, 12 July 2015

### Extract 8: China watches Greece

The European Union is China's largest trading partner. "China is ready to play a constructive role," said the Chinese premier when asked about Greece at a news conference. Already struggling to keep growth steady at home with enormous volatility on stock markets over recent days, China has a lot to lose from the uncertainties that surround the eurozone drama.

It is a major investor in Greek infrastructure, in euro bonds and in the EU economy as a whole. Chinese deals rose from \$2 billion (£1.2bn) in 2010 to \$18 billion in 2014, according to research by Baker & McKenzie and the Rhodium Group.

China's vision for Eurasia is its "one belt one road" strategy, a plan to wrap its own infrastructure and influence westward by land and by sea.

The land route is the most ambitious project to integrate continental Asia and Europe since Genghis Khan 800 years ago. And the sea route is a thread of Chinese ports and bases all the way from southern China through the Indian Ocean to the Horn of Africa and the Mediterranean.

Which is where Greece matters again. It is China's great southern gateway to Europe.

Source: Adapted from Carrie Gracie, *BBC News*, 30 June 2015

### Questions

- (a) What was the estimated change in the value of the US dollars in terms of China Yuan from November 2014 to August 2015. [2]
- (b) (i) With the aid of a diagram, explain the reason for the 'major weakening in the Japanese yen, euro and other currencies (Extract 5)'. [3]
- (ii) Explain how major weakening of the Japanese yen could affect its net exports. [3]
- (c) Using AD-AS analysis, explain the impact of a 'flight of foreign capital' on Asian economies. [4]
- (d) To what extent are the Indian and Russian governments' efforts likely to improve the welfare of the residents in their countries in the long term. [8]
- (e) The data provides different possible strategies by China to generate economic growth. Discuss the relative usefulness of the strategies to generate economic growth for China. [10]

[Total: 30]

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NATIONAL JUNIOR COLLEGE  
SH2 Preliminary Examinations for General Certificate of Education Advanced Level  
Higher 2

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## ECONOMICS

**9757/02**

Paper 2 Essay Questions

**22 August 2017**

**2 hours 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 an HB pencil for any diagrams, graphs or rough working.  
Do not use staples, paper clips, glue or correction fluid.  
**DO NOT WRITE IN ANY OF THE MARGINS.**

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.

At the end of the examination, fasten all your work securely with the cover pages given **one cover page for each question**.

Fill in the necessary information on the cover pages.

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 **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 Mobile devices such as smartphones are available in different models. The recovery of the global economy and the rise in labour cost are likely to affect the sales of various models of smartphones in different ways.
  - (a) Explain how elasticities of demand can assist in understanding the effect of each of these changes on the sales volume of different models of smartphones. [10]
  - (b) Assess the likely combined impact of both of these changes on the revenue earned from the sale of different models of smartphones. [15]
  
- 2 Globalisation, which includes technological flows, disrupts industries; yet it provides new opportunities for firms. The effects of globalisation depend on whether these industries are faced with high or low levels of competition.

Discuss the impact of globalisation on the performance of firms in different industries. [25]
  
- 3 Electric scooters are increasing in popularity as an alternative way to commute over short distances. This has also helped to reduce overcrowding on short-haul buses. However, e-scooters have come under the spotlight recently over the irresponsible e-scooter riders who cause injuries to road users including themselves.

Source: Adapted from The Straits Times, 23 Sept 2016

Discuss the appropriate policies that the Singapore government can adopt to correct the sources of market failure in the market for electric scooters in Singapore. [25]

## Section B

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

- 4** For the second month running the UK's headline figure for inflation – the rate of increase in the general price level – is negative. Some economists take the view that this change is essentially good, driven by low energy prices and weak wage pressure.

Source: Adapted from The Guardian, 17 Nov 2015

- (a) Explain the possible causes of the above-mentioned change in general price level in the UK. [10]
- (b) Discuss the extent to which a negative change in the general price level is more desirable than a positive change in the general price level of an economy. [15]

- 5** Over the past few years, social spending has increased significantly in the face of rising income inequality and an ageing population. Yet, no country has been able to offer free healthcare and social services without raising taxes for middle-income earners.

Source: Adapted from straitstimes.com, 25 Oct 2015

- (a) Explain the factors that limit the effectiveness of fiscal policy in reducing unemployment. [10]
- (b) In the light of rising income inequality and an ageing population, discuss whether fiscal policy is the best policy to achieve inclusive and sustained economic growth in Singapore. [15]

- 6** While some countries are increasingly engaging in establishing free trade agreements to promote trade and capital flows, others seem to view free trade agreements with scepticism.

Discuss the factors that influence the different stands governments of different countries may have towards free trade agreements. [25]

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# **National Junior College Economics Department**

## **Preliminary Examinations 2017 Paper 1 Answer Booklet**

**Senior High 2  
H2 Economics  
(Syllabus 9757)**

Examiners' Report for 2017 H2 Economics Preliminary Examinations- Paper 1

Case Study Question 1

- (a) Compare the price of copper relative to the price of aluminium over the period from September 2012 to November 2015. [2]

The price of copper has fallen relative to the price of aluminium. [1]

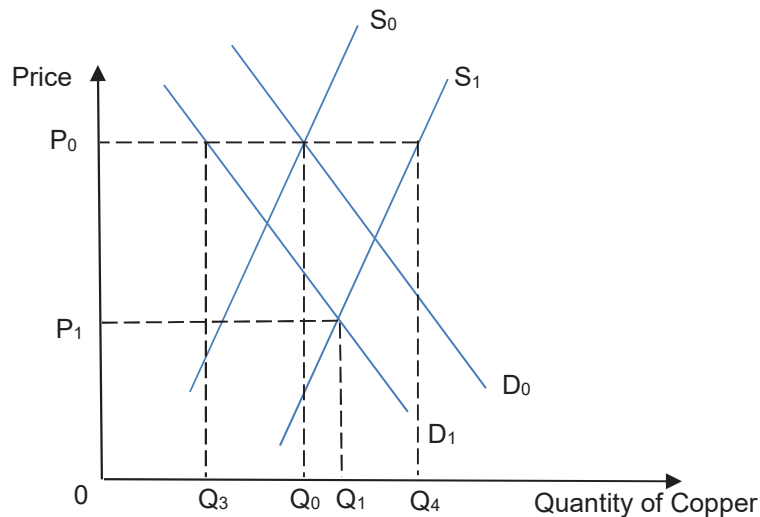
The price of copper is above that of aluminium throughout the period, [1]

- (b) Using a demand and supply diagram, explain why the price of copper “has fallen steadily in recent years” (Extract 2). [5]

Fall in Demand (2 marks)

- There is a fall in demand due to the slowdown in the Chinese economy. As mentioned in Extract 2, “sharp slowdown in industrial activity in China is disastrous for copper producers.” Copper is used in the construction of electricity infrastructure (ie. **the demand for copper is a derived demand**). As China moves from being an investment-led economy to being consumer-led, there are less investment projects requiring such infrastructure, resulting in a fall in demand for copper. As China consumes 45% of the copper output, it has a significant impact on the demand for copper in the world market.
- Other acceptable demand factors:
  - The crackdown on corruption at state-run energy companies slowed down the construction of electricity infrastructure projects (grid-laying projects) which required the use of copper. This resulted in a fall in the derived demand for copper.
  - There is increasing use of aluminium as a cheaper substitute of copper in the making of power distribution cables. As the price of aluminium is about one-quarter of that of copper, it is a more attractive option to use for making power distribution cables. This caused a fall in demand for copper.
- Increase in Supply (1 mark)
- There is an increase in supply as more mines have entered the market. As mentioned in Extract 2, it takes years to build a mine. Many firms started investing in new mines in the past during the boom years. It was only in recent years that these mines were completed, and started to come into operation. This has resulted in the increase in supply of copper in the past 1-2 years.

Figure 1



- The fall in demand and increase in supply resulted in a surplus of copper of  $Q_3Q_4$  at the original price of  $P_0$  in the market. This created downward pressure on the price of copper, as producers reduced price in order to sell their excess stocks. As prices fall, the quantity demanded for copper increased, resulting in a new equilibrium at a lower price of  $P_1$ .

(c) **With reference to the data, what evidence is there to suggest that the market for copper could be oligopolistic in nature?** [3]

- There appears to be some degree of market dominance by a few large firms as the top 5 copper producers account for 35% of the market. [1 mark]

AND/OR

- There are significant entry barriers such as the natural high cost barrier of building a mine, or the legal barrier of getting approval and permits from the government. This limits the number forms that can enter the market, thus making it oligopolistic. [1 mark]
- There is some degree of interdependence, as firms' behaviour or decisions are affected by those of their rivals. This is evident from the firms' decision whether to cut output or continue production at the same output. As mentioned in Extract 2, while some firms such as Glencore are cutting output by closing some mines, other firms are expanding their output to capture market share. This means that if a firm decides to cut its output, it faces the risk that its market share could be captured by its rivals who are increasing their output. Hence, some firms decided to continue production even though they had to incur losses for a while, rather than losing their market share to their competitors. [2 marks]

(d) **Explain how the US Federal Reserve's decision to raise interest rates would affect the demand for copper in the world.** [2]

- The increase in interest rate would attract short-term capital ('hot money') inflow into the US. This increases the demand for US dollars and results in the strengthening of the US dollar. [1 mark]
- The appreciation of the US dollar makes copper, which is priced in US dollar, more expensive to other countries buying copper using their own currencies (ie the price of copper becomes higher in terms of other currencies). This would result in a fall in demand for copper (priced in US dollar). [1 mark]

- (e) **Suppose you are an analyst with an investment bank, assess the factors that would affect the price of copper in the future and justify your forecast for the price of copper in the next 2 to 3 years.** [8]

The key factors that could affect the price of copper in the future are the demand and supply factors, elasticities of demand and supply, as well as the degree of competition or market power in the industry

#### **Demand factors**

- One key demand factor is the **economic outlook of China and other emerging economies**. The demand for copper is a derived demand based on construction of infrastructure and buildings which require copper used in electrical wiring and cables and pipes. If the China economy recovers from its slowdown, there will be an increase in industrial activity as well as demand for consumer goods. The demand for copper for electrical wiring and cables will increase. Moreover, as mentioned in Extract 2, “Chinese demand may also be supplemented by growth in other emerging markets, such as India.” If other emerging economies such as India experience higher economic growth, they will also increase their demand for copper for various infrastructure projects.

##### Assessment:

- The slowdown in China is part of the normal economic cycle and is unlikely to persist in the long term. In the next 2 to 3 years, it is expected that the Chinese economy will recover and industrial activity will likely increase again. Moreover, as the global economy recovers from the 2008 financial crisis, emerging economies will likely experience higher economic growth in the next 2-3 years as well. Hence the derived demand for copper will likely increase in the future.
- Another demand factor is the **uses of copper**. (This may be linked to technology advancement and innovation). With changes in technology and new products being developed, there could be more uses for copper. For example, it is mentioned that new industries such as wind and solar power and electric cars are copper-intensive. Such new industries and products would increase the demand for copper.

##### Assessment:

- With the expected recovery of the global economy, incomes will rise, which will lead to increased demand for such new products as electric cars. With the world becoming more environment conscious, the demand for electric cars will likely increase in future. The “intensity” of copper use is thus likely to grow and hence demand for copper will increase.
- The availability or development of substitutes of copper is another factor. (This is also linked to technology). As mentioned in Extract 2, aluminium has increasingly been used as a cheaper substitute of copper. However, it is not a close substitute as it is a poorer conductor and is more prone to corrosion. With technological progress, there may be ways to enhance the suitability of aluminium as a substitute such as combining it with other materials to improve its conductivity or make it more resistant to corrosion. Alternatively, new substitutes may be developed from other materials as a result of technological advancement.

##### Assessment:

- This factor is more uncertain, as R&D and innovation are by nature uncertain it is difficult to determine whether new substitutes for copper will be developed. Whether the technology to make aluminium a closer substitute to copper will



materialise is also uncertain. As R&D tends to take time to produce results, it is unlikely that substitutes to copper will be easily available in the next 2-3 years.

- Another demand factor is government policies. For example, the US raising interest rates will cause the US dollar to strengthen against other currencies. Since copper is priced in US dollars, changes in the exchange rate of the US dollar will affect its price when converted to other currencies. This in turn will affect the other countries' quantity demanded of copper in their own currency.

Assessment:

- While the US may continue to raise their interest rates, other countries may also begin to follow suit as their economies have also recovered from the recession and are growing more healthily. The strengthening of the US dollar may be moderated or even reversed as other countries may also increase their interest rates in the next 2-3 years, thus stemming their capital outflow into the US. Hence this is unlikely to cause the demand for copper to fall significantly.

### Supply factors

- A key supply factor is the cost of production. As mentioned in Extract 2, water shortages are making copper more expensive to extract, and depletion of mines have driven companies to new copper deposits laced with arsenic which require costly cleaning. In addition, workers are also demanding higher wage increases. The increase in the various costs of producing copper could lead to a fall in supply in future.

Assessment:

- The impact of the higher costs of production is likely to be more in the longer term. However, given the current oversupply of copper, there is likely to be a significant build-up of excess stocks and inventories by copper producers. Moreover, as mentioned in Extract 2, many new mines have recently entered the market, and some mines have been laid idle in view of the current oversupply. This means that the supply of copper can still be increased by drawing from the excess stocks and reopening the mines that have been temporarily closed. As such, the higher costs of production are unlikely to cause a significant fall in supply in the next 2-3 years. They are more likely to affect the building of new mines which will impact on the supply several years later

- Another factor affecting the supply of copper is the concern for the environment. As mentioned in Extract 2, people are becoming more vocal about their environmental concerns as copper production is seen to cause deteriorating environmental conditions. In Extract 3, it is also reported that villagers in Chile protested against a dam used to hold waste from a copper mine, which was said to cause pollution of their water supply. Such environmental concerns could result in more restrictions being imposed on copper production or governments withholding approval or permits for mines to be built, leading to a fall in supply.

Assessment:

- As the world becomes increasingly environment-conscious, it is likely that environmental concerns will feature more prominently in government policies. As the approval process for mines is already "laborious" as mentioned in Extract 1, the environmental concerns could make it even more difficult for mines to get the necessary approval from the government. This will have a significant impact on supply in future.

- Rising interest rates and financing costs are another supply factor for consideration. As

mentioned in Extract 3, increase in interest rate raises the financing costs of building a mine. The high cost of building a mine means that mining companies depend on obtaining loans to finance their expansion. With rising interest rates, it is more costly for them to borrow the funds needed to build new mines. Hence this could discourage mining companies from expanding their production.

Assessment:

- The extent to which the rise in interest rates would affect the firms' investment in new mines depends on the availability of alternative sources of financing and the firms' expected returns from the new mines. While higher interest rates may raise the financing cost of firms, mining companies can also raise funds through other means such as issuing share capital or selling other assets eg. mines of other commodities which are less profitable. This will mean that the marginal efficiency of investment (MEI) of the mining companies may be more interest-inelastic. Moreover, if there is positive outlook such as the recovery of China's economy, then firms may expect their profits to increase and are willing to bear the higher financing costs to build new mines.
- Increase in market concentration or market power is another possible factor affecting supply. As there is some degree of market dominance by the top 5 firms in the industry, it is possible that the existing firms may try to merge with or acquire other firms in order to gain market power. The increase in market power means that the dominant firms could decide to restrict output and raise prices. For example, Glencore, one of the five largest mining companies, decided to close its mines in Congo and Zambia, cutting its supply by 400,000 tonnes in an attempt to stem the fall in copper price. If the industry becomes more concentrated among fewer firms, then the likelihood of firms restricting output to increase prices will be greater.

Assessment:

- As firms are facing increasing cost pressures (due to rising costs of mine production), they may be more inclined to merge with or buy over other firms to gain greater economies of scale and increase their efficiency. This will help to reduce their average costs and enable them to cope with the higher costs of mine production. Moreover, the current market conditions with oversupply and falling prices could mean that some mines are incurring losses, and may force some firms to sell their mines to other companies, thus increasing the market share of the more profitable firms.

**Consideration of PED/PES:**

**Assessment of price elasticity of demand**

- The price-elasticity of demand for copper is likely to be low, as it is a raw material required in many products such as electrical wiring, cables and pipes, electric cars and wind and solar power generation, and thus has high degree of necessity. There is also a lack of close substitutes as copper has high electrical conductivity, ductility and resistance to corrosion. While aluminium is used as a substitute in some cases, it is not a close substitute and may not be preferred in certain uses.
- The low price-elasticity of demand for copper means that changes in supply will lead to larger changes in price. A fall in supply of copper could thus mean that the price of copper will increase by a larger extent.

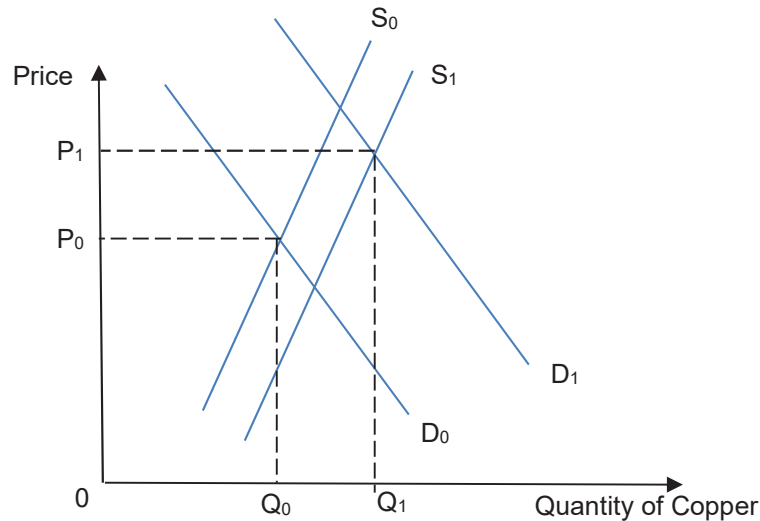
**Assessment of price elasticity of supply**

- The supply of copper is likely to be relative price inelastic. This is because of the fact that it takes several years to build a mine, as mentioned in Extract 2. Moreover, the laborious

approval process for new mines and the high costs of building mines are significant barriers to entry which make it more difficult for new mines to be set up to increase output. Hence, it takes a relatively long time to increase the supply of copper.

- The low price elasticity of supply means that any increase in demand eg, due to higher economic growth in China and emerging economies, will result in a sharper rise in the price of copper.

Figure 2



#### Forecast of copper price (Conclusion)

- As discussed above, the demand for copper can be expected to increase in the next 2-3 years as the Chinese economy recovers and emerging economies continue to grow at a faster pace. More use of copper is also likely to intensify, as new products such as electric cars requiring the use of copper are developed and gain in popularity.
- Factors that had caused demand to fall such as the economic slowdown of China and the rise in US interest rate are unlikely to persist or to have significant impact in future, as these are mainly short term changes. The lack of close substitutes also means that the demand for copper is not likely to fall further, barring any new technologies that could increase its substitutability.
- Supply, on the other hand, is expected to stabilise as cost pressures prevent firms from expanding output excessively. While the supply may not fall, as new mines that were built during the boom years have started their operations, it is likely that the growth in supply will be subdued in view of the increased cost of production, as well as environmental concerns of people and governments.
- Overall, the expected increase in demand is likely to outstrip the growth in supply, as shown in Fig 2, causing the price of copper to rise in the next 2-3 years.

Coupled with the low price elasticity of supply, the increase in demand could lead to a sharper increase in price of copper. Hence the price of copper can be expected to increase at a fairly high rate in the next 2-3 years.

#### Mark Scheme

Level	Descriptors
<b>Level 2</b> 4-6	<p>For an answer that demonstrates knowledge, understanding, application and analysis:</p> <ul style="list-style-type: none"> <li>EXCELLENT <b>breadth</b> that considers the following economic concepts in explaining multiple and balanced perspectives, viewpoints, relationships and factors. ALL points chosen should be of <b>relevance</b> and <b>significance</b> in answering the question. <ul style="list-style-type: none"> <li><i>At least 3 demand and supply factors explained (2 DD + 1 SS factors OR 1 DD + 2 SS factors)</i></li> </ul> </li> <li>EXCELLENT <b>depth</b> in economic analysis that reflects the following in ALL explanations. <ul style="list-style-type: none"> <li>✓ <b>Accurate</b> use of economic concepts, <b>clear</b> elaboration, and <b>precise</b> use of economic terminologies, language and phrasing. <ul style="list-style-type: none"> <li><i>Well-reasoned assessment of at least 2 of the dd and/or supply factors AND/OR</i></li> <li><i>Well-reasoned assessment of the likely PED/PES value</i></li> </ul> </li> </ul> </li> </ul> <p>The answer should also be supported by:</p> <ul style="list-style-type: none"> <li>Well-labelled and well-referred to diagram(s) drawn with <b>precision</b> (where appropriate).</li> <li><b>Relevant</b> examples and <b>accurate</b> use of facts.</li> <li><b>Logical</b> structure.</li> </ul>
<b>Level 1</b> 1-3	<p>For an answer that demonstrates knowledge, understanding, application and analysis:</p> <ul style="list-style-type: none"> <li>GOOD <b>breadth</b> that considers the following economic concepts in explaining multiple and balanced perspectives, viewpoints, relationships and factors. ALL points chosen should be of <b>relevance</b> and <b>significance</b> in answering the question. <ul style="list-style-type: none"> <li><i>At least 2 DD and/or SS factors considered</i></li> </ul> </li> <li>GOOD <b>depth</b> in economic analysis that reflects the following in ALL explanations. <ul style="list-style-type: none"> <li><i>Some attempt at assessing the DD or SS factors in the future</i></li> <li></li> </ul> </li> </ul> <p>The answer should also be supported by:</p> <ul style="list-style-type: none"> <li>Example(s).</li> <li><b>Logical</b> structure.</li> </ul>

Level	Descriptors
<b>E2</b> 2	<p>For an evaluation that contains</p> <ul style="list-style-type: none"> <li>A <b>clear judgement</b> on the price forecast for the next 2-3 years</li> <li><b>Good justification</b> of the price forecast <b>supported by analysis</b></li> </ul>
<b>E1</b> 1	<p>For an evaluation that contains</p> <ul style="list-style-type: none"> <li>Relevant <b>judgement</b> on the price forecast for the next 2-3 years.</li> <li>Justification of the forecast may lack <b>depth, clarity, and logic</b>.</li> </ul>

- (f) Using economic analysis, discuss whether the government of Chile should intervene to restrict mine production in order to achieve its economic objectives. [10]

**Introduction:**

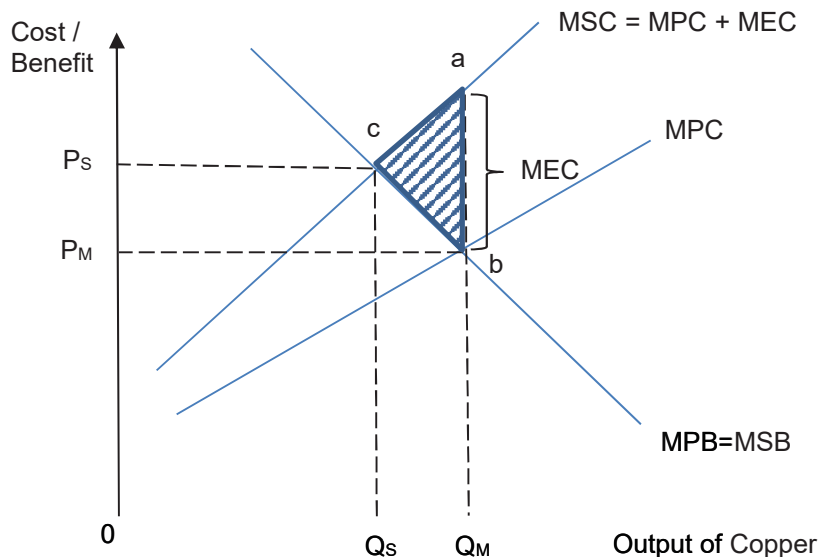
- A government's economic objectives include the 4 macroeconomic objectives of sustained economic growth, low inflation, low unemployment and healthy balance of payments, as well as the microeconomic objectives of efficiency and social welfare.

**Body:**

Thesis: The government of Chile should intervene to restrict mine production

1. Explain the need for government intervention to correct market failure of negative externalities and achieve the economic objectives of allocative efficiency and welfare
  - Mine production results in deterioration of environmental conditions which affect third parties such as villagers in the nearby community. For example, the building of a dam to hold the waste from a copper mine in Chile led to pollution of the water supply of a nearby village, and led to protest by the villagers. Such third party effects known as negative externalities impose an external cost to society (such as healthcare cost of villagers affected by water pollution, or cost of cleaning up the water supply), resulting in a divergence between the marginal private cost (MPC) and the marginal social cost (MSC) of producing copper.
  - Referring to Figure 3, the free market equilibrium output is  $Q_M$  where the marginal private cost is equal to marginal private benefit ( $MPC=MPB$ ). Assuming no positive externality, the marginal private benefit is also the marginal social benefit ( $MPB=MSB$ ). Due to the divergence between MSC and MPC, the social optimal output is  $Q_S$  where  $MSB=MSC$ . Hence, there is an overproduction of  $Q_SQ_M$  of copper.
  - The additional cost to society of producing  $Q_SQ_M$  is  $Q_ScaQ_M$  while the additional benefit of producing  $Q_SQ_M$  is  $Q_ScbQ_M$ . This results in a deadweight loss of  $abc$ , representing a net welfare loss to society.
  - The government should therefore intervene to restrict output to  $Q_S$  in order to **achieve allocative efficiency** and **maximise the welfare** to society.

Figure 3



2. Explain that the government should restrict mine production to prevent mine depletion, thus achieving sustainable economic growth in the long term
  - Mineral deposits are a non-renewable resource. Excessive mine production could lead to rapid depletion of the natural resource, which would cause a decline in the productive capacity of the economy. This would result in a fall in LRAS and potential growth, eventually causing a decline in the domestic economy. As mentioned in Extract 2, mine

depletion in Chile has driven companies towards new deposits laced with arsenic that require costly cleaning.

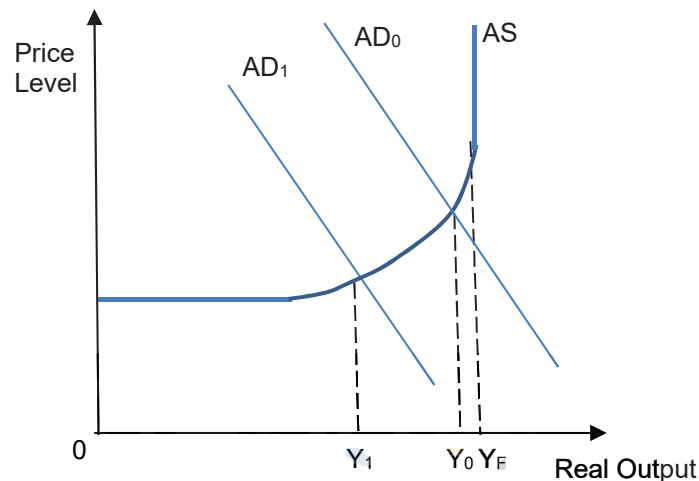
- For more sustainable growth, the government should restrict mine production to slow down the depletion of the non-renewable mineral resources, while restructuring its economy to diversify into other industries so as to reduce its reliance on mining.

Anti-thesis: The government of Chile should not intervene to restrict mine production

3. Explain that restricting mine production could conflict with the macroeconomic objectives of economic growth and low unemployment

- Chile is highly dependent on copper production, which accounts for 13% of Chile's economic output and 50% of its exports.
- Restricting mine production could mean a significant reduction of Chile's GDP as its export of its copper will be reduced. This means a fall in Chile's export revenue, which will lead to a fall in AD and a worsening of the balance of trade, *ceteris paribus*.
- The fall in AD will cause a more than proportionate fall in real output and national income via the reverse multiplier effect, thus conflicting with the macroeconomic objective of sustained economic growth. As shown in Fig 4, the fall in AD due to a decrease in (X-M) would result in a fall in real output from  $Y_0$  to  $Y_1$ .
- (It is also acceptable if students explain the restriction in production in terms of an indirect tax on the producers, causing a rise in cost of production and a fall in SRAS. This would then lead to a fall in real output and thus fall in employment. At the same time, there is a rise in general price level, which reduces export competitiveness and leads to a fall in exports, *ceteris paribus*.)

Figure 4



- The fall in real output means a fall in demand for labour, as labour is a derived demand. Less workers are required by the mining companies as they reduce output of the mines. This is significant as copper mining employed over 1 million people in Chile. This would result in a significant rise in unemployment, which is in conflict with the macroeconomic objective of low unemployment.

4. Explain that restricting mine production could result in a fall in tax revenue, which could reduce government transfer payments, thus conflicting with the objectives of equity and

social welfare

- Copper mining made up 20% of the country's tax revenues. Restricting mine production could thus mean a fall in the tax revenues to the government. The reduction in tax revenues means that the government would have less funds available to spend on transfer payments such as giving subsidies on health and education and welfare aid to help the poor. This would reduce the well-being of the lower income groups in the society, thus conflicting with the objectives of equity and social welfare.
- Moreover, the fall in tax revenues may result in a government budget deficit. This could mean that the government would have to raise tax rates of other taxes such as income tax or consumption taxes. This increases the tax burden of the population and may not achieve the objective of economic welfare. In addition, raising taxes have a contractionary effect on the economy, as it reduces the disposable income of households, resulting in a fall in consumption expenditure and hence AD. This would conflict with the macroeconomic objective of economic growth.

### **Synthesis and Conclusion:**

- It can be seen from the above discussion that there is a conflict between different economic objectives if the government of Chile were to restrict mine production.
- From the microeconomic perspective of allocative efficiency, equity and welfare, the government should intervene to restrict mine production in order to correct the market failure caused by the negative externalities of environmental degradation.
- However, this would conflict with the macroeconomic objectives of low unemployment and economic growth, as jobs would be lost and workers retrenched as a result of the fall in mine production.
- In the context of Chile, the importance of mine production to the Chilean economy means that the negative consequences of unemployment and economic decline may outweigh the benefits of allocative efficiency. It could be argued that priority should first be given to the material well-being of the population by ensuring they are employed and earning an income (in view of the inequality and poverty that exists in Chile), before the government takes into consideration the non-material aspect of standard of living such as the environment.
- Moreover, the negative externalities could also be controlled by other means such as regulation or providing assistance such as subsidies or grants to the mining companies to adopt more environment-friendly methods of production. (It can also be argued that the negative externalities affect only the surrounding villages and can be tackled by relocating the villages, whereas the restriction of mine production could have more extensive impact on the economy through its linkages to other industries.)
- Hence, in view of the macroeconomic consequences, it may be better that the government does not restrict mine production, but try to manage the negative externalities through other measures such as promoting environmental-friendly practices.

### **Mark Scheme**

<b>Level</b>	<b>Descriptors</b>
<b>Level 2 5-7</b>	<i>For an answer that demonstrates knowledge, understanding, application and analysis:</i>



	<ul style="list-style-type: none"> <li>• <b>GOOD breadth</b> that considers the following economic concepts in explaining multiple and balanced perspectives, viewpoints, relationships and factors. ALL points chosen should be of <b>relevance</b> and <b>significance</b> in answering the question.             <ul style="list-style-type: none"> <li>• Explanation of at least 3 reasons/objectives why the government should restrict mine production AND why it should not restrict mine production (2 reasons for thesis + 1 reason for antithesis or vice versa)</li> <li>• Reason for government intervention includes the correction of negative externalities</li> </ul> </li> <li>• <b>GOOD depth</b> in economic analysis that reflects the following in ALL explanations.             <ul style="list-style-type: none"> <li>✓ <b>Accurate</b> use of economic concepts, <b>clear</b> elaboration, and <b>precise</b> use of economic terminologies, language and phrasing.</li> <li>• Includes the use of AD-AS analysis for economic growth and unemployment</li> <li>• Includes the use of MSC, MSB, MPC and MPB for explanation of market failure due to negative externalities</li> </ul> </li> </ul> <p>The answer should also be supported by:</p> <ul style="list-style-type: none"> <li>• Well-labelled and well-referred to diagram(s) drawn with <b>precision</b> (where appropriate).</li> <li>• <b>Relevant</b> examples in context and <b>accurate</b> use of facts.</li> <li>• <b>Logical</b> structure.</li> </ul>
<p><b>Level 1</b> <b>1 – 4</b></p>	<p>For an answer that demonstrates some knowledge but lacks understanding, application and analysis:</p> <ul style="list-style-type: none"> <li>• <b>INSUFFICIENT breadth</b> that considers the following economic concept(s). Point(s) chosen may be of relevance but may not be of significance in answering the question.             <ul style="list-style-type: none"> <li>• Explanation of at least 1 reason for why the government should restrict mine production OR why it should not restrict mine production (ie answer may be one-sided)</li> </ul> </li> <li>• <b>INSUFFICIENT depth</b> in economic analysis that may reflect the following:             <ul style="list-style-type: none"> <li>✓ May lack <b>accurate</b> use of economic concepts, clear elaboration, and precise use of economic terminologies, language and phrasing.</li> <li>• May lack the use of AD-AS analysis for economic growth and unemployment</li> <li>• May not include the use of MSC, MSB, MPB and MPC to explain market failure due to negative externalities.</li> </ul> </li> </ul>

<b>Level</b>	<b>Descriptors</b>
<p><b>E2</b> <b>2-3</b></p>	<p>For an evaluation that contains</p> <ul style="list-style-type: none"> <li>• A synthesis of earlier economic arguments to arrive at <b>relevant judgements/decisions</b> (i.e. answer the question).</li> <li>• Evaluative comments supported by <b>accurate, logical and clear</b> analysis</li> <li>• The use of context to arrive at the conclusion is evident.</li> </ul>
<p><b>E1</b> <b>1</b></p>	<p>For an evaluation that contains</p> <ul style="list-style-type: none"> <li>• <b>Relevant</b> judgement(s)/decision(s) (i.e. answer the question) that may not follow from earlier economic arguments.</li> <li>• Comment (s) may lack <b>depth, clarity, and logic</b>.</li> </ul>



**Case Study Question 2**

- (a) What was the estimated change in the value of the US dollars in terms of China Yuan from November 2014 to August 2015. [2]

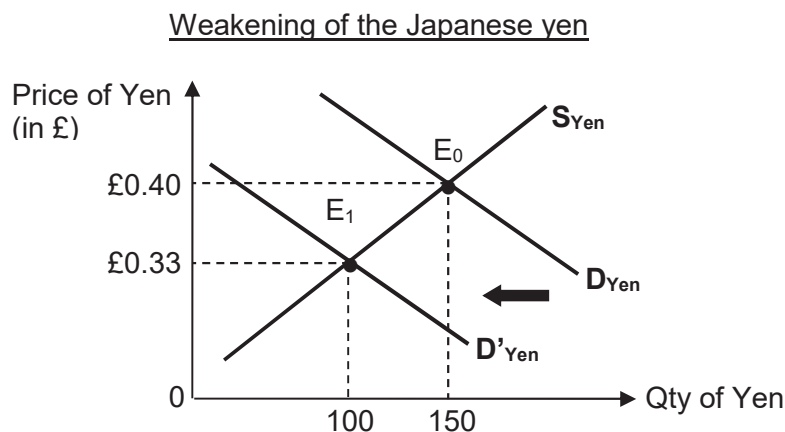
The US dollar generally appreciated against the Yuan (1m), by approximately 3.6% (1m).

- (b) (i) With the aid of a diagram, explain the reason for the 'major weakening in the Japanese yen, euro and other currencies (Extract 1)'. [3]

- Easing of Monetary policy in extract 1 implies that there is a fall in interest rates of the country (1m).
- This leads to short-term capital outflow or "hot money" outflow (1m), leading to an increase in supply for the country's currency, which will result in depreciation of the currency.

OR

- It will lead to fall in short term capital inflow (1m) → Fall in demand for the country's currency



1m for a well labelled diagram according to above analysis (either the SS increase or DD fall depending on their analysis)

- (c) Explain how major weakening of the Japanese yen could affect its net exports. [3]

- Exports: Depreciation of Japanese yen means that exports in foreign currency becomes cheaper and hence demand for exports will increase, resulting in increase in export revenue (1m).
- Imports: Imports in domestic currency will become expensive. Since Japan's  $IPED_{m1} > 1$  and import expenditure falls (1m) as they are not import reliant since they do have some resources in the country
- Marshall Learner Condition: Since  $M-L$  condition of  $IPED_x + PED_{m1} > 1$ , net exports increases for Japan (1m) OR Any clear explanation that export revenue increases and import expenditure falls and hence net exports increase

- (c) Using AD-AS analysis, explain the impact of a 'flight of foreign capital' on Asian economies. [4]

- Capital outflows are destabilizing as 'it could lead to bad defaults in the banking sector',

hence there is less liquidity in the banking sector and hence less funds to lend out by banks → Money Supply falls and interest rates rise → Leading to fall in investments

**OR**

- Capital outflows are ‘destabilizing as it could lead to further fall of property prices’, Hence, this could lead to a fall in the wealth where consumers see the value of housing as decreasing more than their income → Fall in their net worth → Reducing consumers’ confidence

*(2 marks for using evidence and explaining impact on C or I)*

- Hence, there will be a decrease in AD (1m).
- National income falls, hurting economic growth and decreasing employment (1m).

**(d) To what extent are the Indian and Russian governments’ efforts likely to improve the welfare of the residents in their countries in the long term. [8]**

**Introduction**

- The Indian and Russian governments have certain efforts to improve the standard of living of their residents. The efforts could lead to improvements in both the material and non-material standard of living in the long term but there could be certain drawbacks of their efforts.
- 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 i.e. life expectancy, infant mortality rates, quantity of leisure, etc.

There are several ways of presenting the answer. Below is a suggested approach.

**Body**

**Thesis: Indian and Russian governments’ efforts are likely to improve the welfare of the residents in the long term**

**India:**

- India is facing severe air pollution to the extent that crops are affected by the lack of sunlight. Since India is likely to be dependent on agriculture to drive the economy, this is detrimental to the livelihood the farmers/producers in India which could mean a loss of income and employment opportunities for them. This will lead to a decline in both the material due to **loss of income and non-material standard of living** as they lose the jobs and may resort to crimes.
- Hence, the governments’ efforts of raising the profile of green building technologies among Indian firms to **lessen air pollution will allow crops to survive**, allowing farmers/producers to **earn and be employed**, thus improving their material and non-material SOL in the long term. In addition, reducing air pollution allows residents to breathe in cleaner air, which reduces lung cancer or sicknesses related to air pollution, hence improving the non-material aspect of SOL in the long term.

*(Students could also bring in the Clean India Mission, aimed at providing access to improved sanitation, and clean up the River Ganges and link to non-material aspect of SOL).*

- In addition, the Indian government is also embarking on inclusive growth strategy of

advocating education for girls in India. The government also aims to address poverty issues in India. This allows for more girls to have access to education, giving them the opportunity to have more knowledge and secure jobs in the future. This allows them to earn an income and be employed in future, improving both their material and non-material aspect of SOL in the long run.

- Thus, having a more educated workforce will attract Investors in the long run into India. The influx of Foreign Direct Investments (FDI) will increase the Aggregate Demand (AD) and increase the national income and employment. If the national income outstrips population growth, the GDP per capita will increase, improving the material SOL of Indians. In addition, in the long run, the increase in FDI will lead to improvements in quality of resources or technology which will allow an outward shift of India's Production Possibility Frontier (PPF), improving the long term standard of living of the residents.

#### **Russia:**

- China and Russia have signed a decree on cooperation in tying the development of the Eurasian Economic Union (EAEU) with the "Silk Road Economic Belt" project. Moscow and Beijing declared a goal to coordinate the two projects in order to build a "common economic space" in Eurasia, including a Free Trade Agreement between the EAEU and China.
- With more opportunities for trade for Russia, this will allow them to export more of the Russian goods to China and EAEU. In addition, it will allow for more investments to flow into Russia through this FTA. Hence, with the increase in net exports (X-M) and investments (I), it will lead to AD increasing and national income increasing via the multiplier effect. As labour is a derived demand, cyclical unemployment falls. This will improve the SOL of Russians in the long term. Influx of technology due to the sharing of information and increase of Investments will enable Russia to consume/produce beyond what it can currently produce down, hence improving the long term SOL. (Draw AD-AS diagram)
- The Russian government also plans to expand its transport network in the east of the country allowing for better roads and infrastructure for the Russians. This will improve the non-material SOL as it allows them to have more convenience to travel from one place to another. In addition, better infrastructure attracts long term investments which are beneficial to Russia in the long run.

#### **Anti-thesis: There could be certain drawbacks to the Indian and Russian governments' efforts to improve the welfare of the residents in the long term**

- India: Government spending will have to increase for the various efforts by the government such as education, reducing poverty and improving sanitation. This could cause a strain on the government's budget and it may affect spending for future generations to come if the government has not practiced prudent fiscal spending. This may affect the SOL of Indian residents in the long term as less could be spent on them in future.
- Russia: Being open to trade and investments makes Russia more vulnerable to external conditions. For instance, if Russia's trading partners' faces recession, it will affect Russia's export. In addition, overreliance on FDI will cause Russia to be vulnerable in the event these foreign firms decide to pull out, it will cause residents to have a fall in income or become unemployed, affecting the SOL.
- Russia: It was also mentioned in the Extract that Russia's federal migration service is especially wary of an influx of Chinese migrants across the Russia-China border. It was

stated that the Chinese could become the largest ethnic group in Russia's far east by the 2020s or 2030s. This could cause overcrowding for Russia and lead to social problems, affecting the SOL of Russians in the long run.

### Evaluative Conclusion

- While there are shortcomings of the governments' efforts, both Indian and Russians will benefit in the long term due to the far-reaching effects of education, technology transfers, investments and trade on the SOL of their residents.
- To address the shortcomings, the governments could come up with certain policies to mitigate the negative effects of their efforts. For instance, while the Russian government is more open to trade and investments, they could still have supply side policies to support more local industries to allow for Russia to be more self-reliant. In this way, there is a balance of relying externally as well as locally to have a long term sustainable improvement in the SOL.

### Mark Scheme

Level	Descriptors
<b>Level 2</b> 4-6	<p>For an answer that demonstrates knowledge, understanding, application and analysis:</p> <ul style="list-style-type: none"> <li>• EXCELLENT <b>breadth</b> that considers the following economic concepts in explaining multiple and balanced perspectives, viewpoints, relationships and factors. ALL points chosen should be of <b>relevance</b> and <b>significance</b> in answering the question. <ul style="list-style-type: none"> <li>✓ <i>Material and/or non-material long term SOL of both India and Russia must be analysed</i></li> <li>✓ <i>At least 3 points (1 Thesis and 1 Antithesis, Indian and Russia can be covered in either the thesis or antithesis)</i></li> </ul> </li> <li>• EXCELLENT <b>depth</b> in economic analysis that reflects the following in ALL explanations. <b>Accurate</b> use of economic concepts, <b>clear</b> elaboration, and <b>precise</b> use of economic terminologies, language and phrasing. <ul style="list-style-type: none"> <li>✓ <i>Includes the use of AD-AS analysis</i></li> </ul> </li> </ul> <p>The answer should also be supported by:</p> <ul style="list-style-type: none"> <li>• Well-labelled and well-referred to diagram(s) drawn with <b>precision</b> (where appropriate).</li> <li>• <b>Relevant</b> examples and <b>accurate</b> use of facts.</li> <li>• <b>Logical</b> structure.</li> </ul>
<b>Level 1</b> 1-3	<p>For an answer that demonstrates knowledge, understanding, application and analysis:</p> <ul style="list-style-type: none"> <li>• GOOD <b>breadth</b> that considers the following economic concepts in explaining multiple and balanced perspectives, viewpoints, relationships and factors. ALL points chosen should be of <b>relevance</b> and <b>significance</b> in answering the question. <ul style="list-style-type: none"> <li>✓ <i>Material or non-material long term SOL of India or Russia</i></li> </ul> </li> <li>• GOOD <b>depth</b> in economic analysis that reflects the following in ALL explanations. <ul style="list-style-type: none"> <li>✓ <i>May lack the use of AD-AS analysis</i></li> </ul> </li> </ul> <p>The answer should also be supported by:</p> <ul style="list-style-type: none"> <li>• Diagram(s) that may not be well-labelled, may not be well-referred to and may not be drawn with precision (where appropriate).</li> <li>• Example(s).</li> <li>• <b>Logical</b> structure.</li> </ul>

Level	Descriptors
<b>E2</b> <b>2</b>	For an evaluation that contains <ul style="list-style-type: none"> <li>• Evaluative comments supported by <b>accurate, logical</b> and <b>clear</b> analysis</li> <li>• The use of context to arrive at the conclusion is evident.</li> </ul>
<b>E1</b> <b>1</b>	For an evaluation that contains <ul style="list-style-type: none"> <li>• <b>Relevant</b> judgement(s)/decision(s) (i.e. answer the question) that may not follow from earlier economic arguments.</li> <li>• Comment (s) may lack <b>depth, clarity, and logic</b>.</li> </ul>

- (e) **The data provides different possible strategies by China to generate economic growth. Discuss the relative usefulness of the strategies to generate economic growth for China.** [10]

### Introduction

Economic growth refers to both actual and potential economic growth. China embarked on different strategies such as weakening of the exchange rate, trade policies and supply side policies to generate economic growth. The policies have its usefulness, but some may be more useful given the context and nature of China's economy.

### Body

#### 1a) Devaluation of the Chinese Yuan

- Allowing the Yuan to weaken will make the exports cheaper in terms of foreign currency. This makes Chinese exports more competitive, hence increasing the demand for exports. Thus, export revenue in Yuan to increase.
- Imports become more expensive in home currency. Given that  $IPED_{ml} > 1$ , the import expenditure decreases.
- Since China fulfils the Marshall Lerner condition where sum of price elasticities of exports and imports is greater than 1 (i.e:  $IPED_x + PED_{ml} > 1$ ), net exports increases.
- Hence a depreciation of the Yuan will lead to  $(X-M)$  increasing  $\rightarrow$  AD increases  $\rightarrow$  National Income increases by more than proportionately via the multiplier effect. The multiplier effect is based on the proposition that expenditure generates income, and income generates expenditure. This allows China to experience actual economic growth. (Illustration with AD-AS diagram to show AD increasing).
  - Devaluation of Yuan makes it cheaper to invest in the country as the prices of assets in foreign currency become lower. This will encourage foreign investors into China as it could mean higher profitability for them due to the lower cost of investing in the country. This inflow of investments will cause national income to increase, resulting in actual economic growth.
  - However, devaluation of the Yuan may also deter investments due to the negative expectations or it may signal a negative outlook in the economy. A fall in investments will result in a fall in national income and hence a fall in actual economic growth and employment.

#### 1b) Evaluation on the limitations of Devaluation of Yuan

- While devaluation of Yuan benefits China in terms of net exports increasing, it will hurt China's trading partners as most Asian countries are either selling their exports to China

or competing with the Chinese for a share of declining global demand (Extract 5). Other Asian countries may retaliate by either devaluing their currencies which may spark a currency war in the long run. China's action of devaluing their Yuan could result in other nations' central banks raising the interest rates to stem currency weakness which could hurt their own economies (Extract 5). Hence, it may not be useful for China to devalue its currency as in the long term, it causes retaliatory actions from the trading partners or hurt their partners economies and it may hurt China's economy in the long term

- However, Extract 5 mentions that there are deflationary pressures in China. Hence, devaluing the Yuan causes prices of imports to increase which could result in cost push inflation. With the threat of deflation, having some inflationary pressures may be better for the Chinese economy. Hence, with the context of the current state of China's economy, it may be useful to devalue the Yuan.

*Note: Expansionary Monetary Policy is also acceptable (Extract 5, para 3)*

### **2a) Trade and Globalisation policies**

- China and Russia has declared a goal to coordinate the two projects in order to build a "common economic space" in Eurasia, including a Free Trade Agreement between the EAEU and China. Trade has increased sixfold over the past decade between China and Russia. This will allow China to specialize in goods and services that they have comparative advantage in and export such goods. The demand for China's exports increases, increasing the export revenue. In addition, FTA allows for lowered tariffs. Thus, this may result in a fall in the price of China's exports and assuming China's goods are  $PED_x > 1$ , there will be a more than proportionate increase in the quantity demanded for China's goods, leading to an increase in export revenue for China.
- Hence, assuming import expenditure is constant, China's net exports increases, leading to an increase in AD and National Income, hence actual economic growth for China
- China is also actively investing overseas. Some Chinese firms have seen the Russian economic wobble as an opportunity to make capital investments in the country. China is also a major investor in Greek infrastructure, in euro bonds and in the EU economy as a whole. Chinese deals rose from \$2 billion (£1.2bn) in 2010 to \$18 billion in 2014. This allows for diversification of markets for China as they invest overseas. As mentioned in Extract, investing abroad has 'indirectly supported growth' for China. In the long term, international investing allows for China to take advantage of potential for growth in foreign countries. **Having a wider market allows for substantial economies of scale to be enjoyed and the cost savings can be passed down in terms of lowered prices of Chinese goods, boosting exports for China, ceteris paribus.**

### **2b) Evaluation on the limitations of Trade and Globalisation policies**

- However, being more open and promoting investments overseas make China vulnerable to external conditions. For instance, the investments overseas could fail and this will hurt the internationalization growth strategy that China is gearing towards. Also, if there is a recession in the trading partners, this could lead to a fall in export earnings for China.

**3a) Supply side policies**

- Chinese government is actively and directly intervening to development China's infrastructure with other nations. China's vision for Eurasia is its "one belt one road" strategy, a plan to wrap its own infrastructure and influence westward by land and by sea. The land route is the most ambitious project to integrate continental Asia and Europe. The sea route allows for Chinese ports and bases to facilitate trade through the Indian Ocean to the Horn of Africa and the Mediterranean.
- This will allow for greater flow of trade, increasing China's export revenue and actual economic growth.
- The cost of obtaining raw materials may also be lowered due to cheaper imports coming into China, hence reducing imported inflation and cost push inflation, leading to increase of SRAS and hence NY increases (actual economic growth) and general price level falls (Diagram to show SRAS increasing right).
- In addition, better infrastructure allows for productive capacity to increase for China as it attracts more investments in the long term. This increases the LRAS, hence allowing for potential economic growth (Diagram to show LRAS increasing right).

**3b) Evaluation on the limitations of Supply side policies**

- Building of such massive infrastructure such as roads and sea ports will require huge government spending from the Chinese government. If the government is not prudent with its spending, it could potentially lead to high government debt. Furthermore, these infrastructures require long term maintenance from the Chinese government which requires more fiscal spending from them in the long run.

**Evaluative Conclusion**

- In conclusion, the above 3 strategies has its usefulness and its shortcomings. In the short term, devaluation of the Yuan may bring about short run benefits for China but it will have long term negative reactions from the neighbouring countries which could be retaliatory and it will lead to currency war. Hence, in comparison, devaluation may not be useful for China in the long run.
- Due to the nature of China's economy being large and having an impact on the world's economies, China strategy of venturing overseas for trade and infrastructure will reap much benefits on its own economy in the long run. The increase exports earnings from trade, variety of goods and services and the inflow of profits from overseas investments will be beneficial for China's economy in the long term.

**Mark Scheme**

Level	Descriptors
<b>Level 2</b> <b>5-7</b>	<p>For an answer that demonstrates knowledge, understanding, application and analysis:</p> <ul style="list-style-type: none"> <li>• GOOD <b>breadth</b> that considers the following economic concepts in explaining multiple and balanced perspectives, viewpoints, relationships and factors. ALL points chosen should be of <b>relevance</b> and <b>significance</b> in answering the question. ✓ <i>Explanation of at least 2 policies</i></li> </ul>



	<ul style="list-style-type: none"> <li>• <b>GOOD depth</b> in economic analysis that reflects the following in ALL explanations. <b>Accurate</b> use of economic concepts, <b>clear</b> elaboration, and <b>precise</b> use of economic terminologies, language and phrasing. <ul style="list-style-type: none"> <li>✓ <i>Include the use of AD-AS analysis for policies</i></li> <li>✓ <i>Include actual and potential economic growth</i></li> <li>✓ <i>Include the explanation of limitations of policies</i></li> </ul> </li> </ul> <p>The answer should also be supported by:</p> <ul style="list-style-type: none"> <li>• Well-labelled and well-referred to diagram(s) drawn with <b>precision</b> (where appropriate).</li> <li>• <b>Relevant</b> examples and <b>accurate</b> use of facts.</li> <li>• <b>Logical</b> structure.</li> </ul>
<b>Level 1 1-4</b>	<p>For an answer that demonstrates knowledge, understanding, application and analysis:</p> <ul style="list-style-type: none"> <li>• <b>INSUFFICIENT breadth</b> that considers the following economic concepts in explaining multiple and balanced perspectives, viewpoints, relationships and factors. ALL points chosen should be of <b>relevance</b> and <b>significance</b> in answering the question. <ul style="list-style-type: none"> <li>✓ <i>Explanation of at least 1 policy</i></li> </ul> </li> <li>• <b>INSUFFICIENT depth</b> in economic analysis that reflects the following in ALL explanations. <b>May lack accurate</b> use of economic concepts, <b>clear</b> elaboration, and <b>precise</b> use of economic terminologies, language and phrasing. <ul style="list-style-type: none"> <li>✓ <i>May include the use of AD-AS analysis for policies</i></li> <li>✓ <i>May include either actual or potential economic growth</i></li> <li>✓ <i>May include the explanation of limitations of policies</i></li> </ul> </li> </ul> <p>The answer should also be supported by:</p> <ul style="list-style-type: none"> <li>✓ Diagram(s) that may not be well-labelled, may not be well-referred to and may not be drawn with precision (where appropriate).</li> <li>✓ Example(s).</li> <li>✓ <b>Logical</b> structure.</li> </ul>

<b>Level</b>	<b>Descriptors</b>
<b>E2 2-3</b>	<p>For an evaluation that contains</p> <ul style="list-style-type: none"> <li>• A synthesis of earlier economic arguments to arrive at <b>relevant</b> judgements/decisions (i.e. answer the question).</li> <li>• Evaluative comments supported by <b>accurate, logical</b> and <b>clear</b> analysis</li> <li>• The use of context to arrive at the conclusion is evident.</li> </ul>
<b>E1 1</b>	<p>For an evaluation that contains</p> <ul style="list-style-type: none"> <li>• <b>Relevant</b> judgement(s)/decision(s) (i.e. answer the question) that may not follow from earlier economic arguments.</li> <li>• Comment (s) may lack <b>depth, clarity, and logic</b>.</li> </ul>



# **National Junior College Economics Department**

## **Preliminary Examinations 2017 Paper 2 Answer Booklet**

**Senior High 2  
H2 Economics  
(Syllabus 9757)**

## Examiners' Report for 2017 H2 Economics Preliminary Examinations- Paper 2

- 1 Mobile devices such as smartphones are available in different models. The recovery of the global economy and the rise in labour cost are likely to affect the sales of various models of smartphones in different ways.
- (a) Explain how elasticities of demand can assist in understanding the effect of each of these changes on the sales volume of different models of smartphones. [10]
- (b) Assess the likely combined impact of both of these changes on the revenue earned from the sale of different models of smartphones. [15]

**Suggested Answer:****Introduction**

- Define sales volume.
- The recovery of the global economy and rise in labour would cause changes in the market equilibrium, affecting both equilibrium price and quantity.
- The use of price elasticity of demand (PED) and income elasticity of demand (YED) can be used to illustrate the extent of change in the market for smartphones.

**Body 1: Use of PED concept**

Identify and explain the supply factor that would cause the change in quantity of smartphones

- Supply Factor: Rise in labour cost → increase in cost of production → fall in quantity supplied at every price levels → supply decreases → equilibrium quantity decreases (movement along the demand curve), hence fall in sales volume
- However, the extent of the fall in sales volume depends on price elasticity of demand for different models of smartphones
- Define PED
- The magnitude of the PED value tells us the type of demand the good has, i.e.: demand is price elastic ( $PED > 1$ ) or price inelastic ( $PED < 1$ )
- Different models of smartphone have different PED value.
- Smartphone models such as iPhone 7 Plus, Samsung Galaxy S7 are more luxurious.
- Demand for these smartphones are relatively price elastic with  $|PED| > 1$ .
- Hence given a rise in price quantity demanded for luxury smartphone models will decrease more than proportionately.
- Sales volume thus decreases by a larger extent, from  $Q_0$  to  $Q_1$ .
- Smartphone models includes basic specifications.
- Demand for these smartphones are relatively price inelastic with  $|PED| < 1$ .
- Hence given a rise in price, quantity demanded for smartphones decreases less than proportionately sales volume thus decreases.

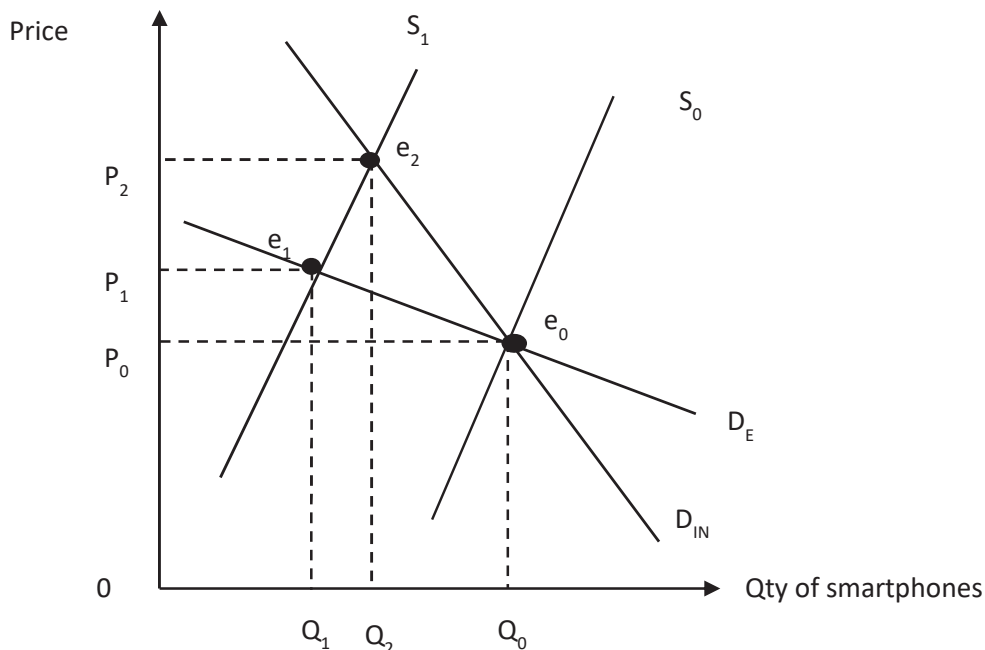


Figure 1: Market for smartphone - Impact of a decrease in Supply on smartphones of different PED values

#### Body 2: Use of YED concept

Identify and explain the demand factor that would cause the change in quantity of smartphones

- Rise in income, demand can increase or decrease depending on the sign of YED
- For normal smartphones demand will increase given an increase in income level
- Smartphones that are seen as necessities (income-inelastic),  $YED < 1$ , demand will increase less than proportionately relative to the change in income resulting in a smaller increase in sales volume.
- Luxury smartphones (income-elastic),  $YED > 1$ , demand will increase by a larger extent, resulting in a significant increase in sales volume.
- Insert diagram.
- Whereas for inferior smartphones (negative income-elastic),  $YED < 0$ , demand will decrease given a rise in income, leading to a fall in sales volume.

#### Conclusion:

- Rise in the labour cost of smartphone manufacture will cause supply of smartphones to fall and equilibrium quantity to fall, however the extent of the fall in sales volume will depend on the PED value of the different smartphone models
- Rise in income can cause demand of smartphones to increase or decrease depending on the magnitude of YED and hence sales volume can increase or decrease

#### Mark Scheme:

Levels	Description
L3 (8-10)	<ul style="list-style-type: none"> <li>• EXCELLENT <u>breadth</u> that considers the following economic concepts in explaining multiple and balanced perspectives, viewpoints, relationships and factors. ALL points chosen should be of <u>relevance</u> and <u>significance</u> in answering the question. <ul style="list-style-type: none"> <li>• Consider both kinds of PED values (less and more than 1) and two out of three kinds of YED values (<math>YED &lt; 0</math>, <math>0 &lt; YED &lt; 1</math> and <math>YED &gt; 1</math>)</li> </ul> </li> <li>• EXCELLENT <u>depth</u> in economic analysis that reflects the following in ALL explanations. There was an accurate use of economic concepts, clear elaboration, and precise use of economic terminologies, language and phrasing in ALL explanations. <ul style="list-style-type: none"> <li>• <i>Explanation the factors determining the PED and YED values of different model of smartphones</i></li> <li>• <i>Include the definition, sign and magnitude of PED and YED concepts in the explanation</i></li> </ul> </li> </ul>

	<p>The answer should also be supported by:</p> <ul style="list-style-type: none"> <li>• Well-labelled and well-referred to diagram(s) / tool(s) of analysis drawn with precision (where appropriate).</li> <li>• Relevant examples and accurate use of facts.</li> <li>• Logical structure.</li> </ul>
L2 (5-7)	<ul style="list-style-type: none"> <li>• GOOD breadth that considers the following economic concepts in explaining multiple and balanced perspectives, viewpoints, relationships and factors. MOST points chosen should be of relevance and significance in answering the question. <ul style="list-style-type: none"> <li>• At least 3 out of the following explained: <ul style="list-style-type: none"> <li>▫ <math>PED &lt; 1</math></li> <li>▫ <math>PED &gt; 1</math></li> <li>▫ <math>YED &lt; 0</math></li> <li>▫ <math>0 &lt; YED &lt; 1</math></li> <li>▫ <math>YED &gt; 1</math></li> </ul> </li> </ul> </li> <li>• GOOD depth in economic analysis that reflects the following in MOST explanations. There an accurate use of economic concepts, clear elaboration, and precise use of economic terminologies, language and phrasing in most explanations. <ul style="list-style-type: none"> <li>• <i>Some explanation of the factors determining the PED and YED values of different model of smartphones</i></li> <li>• <i>May not include the definition, sign and magnitude of PED and YED concepts in the explanation</i></li> </ul> </li> </ul> <p>The answer should also be supported by:</p> <ul style="list-style-type: none"> <li>• Diagram(s) / Tool(s) of analysis that may not be well-labelled, may not be well-referred to and may not be drawn with precision (where appropriate).</li> <li>• Example(s).</li> <li>• Logical structure.</li> </ul>
L1 (1-4)	<ul style="list-style-type: none"> <li>• INSUFFICIENT breadth that considers the following economic concept(s). Point(s) chosen may be of relevance but may not be of significance in answering the question.</li> <li>• INSUFFICIENT depth in economic analysis that may reflect the following: <ul style="list-style-type: none"> <li>• Lack of accuracy in the use of economic concepts, lack of clarity in elaboration, and lack of precision in the use of economic terminologies, language and phrasing.</li> </ul> </li> </ul>

**Suggested Answer for part (b)****Introduction:**

- Define sales revenue to be the product of price and quantity
- The combined impact of a rise in labour cost and a rise in income may increase or decrease the sales revenue, depending on the PED and YED of the smartphone models

**Body:**

All possible scenarios as below:

		PED	Change in TR given an increase in labour cost and the PED value in the previous column	YED	Change in TR given an increase in income and the YED value in the previous column	Combined impact on TR
Economical Smartphone Models	CASE 1	< 1	increase	$0 < YED < 1$	increase	increase
Luxury Smartphone Models	CASE 2	> 1	decrease	> 1	increase	indeterminate
Inferior Smartphone Models	CASE 3a	< 1	increase	< 0	decrease	indeterminate
	CASE 3b	> 1	decrease	< 0	decrease	decrease

**Evaluation:**

- The sales revenue for the economical smartphone models will increase while the sales revenue for inferior smartphone models will decrease. For the luxurious smartphone models, the outcome on sales revenue is uncertain. However, as the demand for such models is income elastic, it is likely that the increase in demand is more significant than the decrease in supply therefore sales revenue increases.
- The assumption of ceteris paribus doesn't hold in real world, other factors such as changes in taste and preference may also affect the demand for different smartphone models.

**Mark Scheme:**

Levels	Description
L3 (8-10)	<ul style="list-style-type: none"> <li>• EXCELLENT <u>breadth</u> that considers the following economic concepts in explaining multiple and balanced perspectives, viewpoints, relationships and factors. ALL points chosen should be of <u>relevance</u> and <u>significance</u> in answering the question. <ul style="list-style-type: none"> <li>• Consider impact on all three types of products: <ul style="list-style-type: none"> <li>▪ Necessity</li> <li>▪ Luxury</li> <li>▪ Inferior</li> </ul> </li> </ul> </li> </ul> <p>And</p> <ul style="list-style-type: none"> <li>• Include both PED and YED in the analysis</li> </ul> <ul style="list-style-type: none"> <li>• EXCELLENT <u>depth</u> in economic analysis that reflects the following in ALL explanations. There was an accurate use of economic concepts, clear elaboration, and precise use of economic terminologies, language and phrasing in ALL explanations.</li> </ul> <p>The answer should also be supported by:</p>

	<ul style="list-style-type: none"> <li>Well-labelled and well-referred to diagram(s) / tool(s) of analysis drawn with precision (where appropriate).</li> <li>Relevant examples and accurate use of facts.</li> <li>Logical structure.</li> </ul>
<b>L2 (5-7)</b>	<ul style="list-style-type: none"> <li>GOOD breadth that considers the following economic concepts in explaining multiple and balanced perspectives, viewpoints, relationships and factors. MOST points chosen should be of relevance and significance in answering the question. <ul style="list-style-type: none"> <li>Consider impact on two out of three types of products:: <ul style="list-style-type: none"> <li>Necessity</li> <li>Luxury</li> <li>Inferior</li> </ul> </li> </ul> </li> </ul> <p><u>And</u></p> <ul style="list-style-type: none"> <li>either an unambiguous rise OR fall in revenue</li> </ul> <ul style="list-style-type: none"> <li>GOOD depth in economic analysis that reflects the following in MOST explanations. There an accurate use of economic concepts, clear elaboration, and precise use of economic terminologies, language and phrasing in most explanations.</li> </ul> <p>The answer should also be supported by:</p> <ul style="list-style-type: none"> <li>Diagram(s) / Tool(s) of analysis that may not be well-labelled, may not be well-referred to and may not be drawn with precision (where appropriate).</li> <li>Example(s).</li> <li>Logical structure.</li> </ul>
<b>L1 (1-4)</b>	<ul style="list-style-type: none"> <li>INSUFFICIENT breadth that considers the following economic concept(s). Point(s) chosen may be of relevance but may not be of significance in answering the question.</li> <li>INSUFFICIENT depth in economic analysis that may reflect the following: <ul style="list-style-type: none"> <li>Lack of accuracy in the use of economic concepts, lack of clarity in elaboration, and lack of precision in the use of economic terminologies, language and phrasing.</li> </ul> </li> </ul>

<b>E3 (4-5)</b>	<ul style="list-style-type: none"> <li>There is a good summative conclusion.</li> <li>There is a synthesis of earlier economic arguments to arrive at relevant judgements/decisions (i.e. answer the question).</li> <li>Use of well-explained criteria-based evaluative comments supported by accurate and clear analysis to provide fairness in views to form a judgement.</li> </ul>
<b>E2 (2-3)</b>	<ul style="list-style-type: none"> <li>Relevant judgement(s)/decision(s) (i.e. answer the question) but they may not follow from earlier economic arguments made in your essay.</li> <li>Criteria-based evaluative comment(s) supported by analysis to provide fairness in views but the comment(s) may not be well-explained, may be unclear and/or may be inaccurate at times.</li> </ul>
<b>E1 (1)</b>	<ul style="list-style-type: none"> <li>Unexplained evaluative judgement(s)/statement(s) i.e. evaluative judgement(s)/statement(s) not supported by analysis.</li> </ul>

- 2 Globalisation, which includes technological flows, disrupts industries; yet it provides new opportunities for firms. The effects of globalisation depend on whether these industries are faced with high or low levels of competition.

Discuss the impact of globalisation on the performance of firms in different industries.

[25]

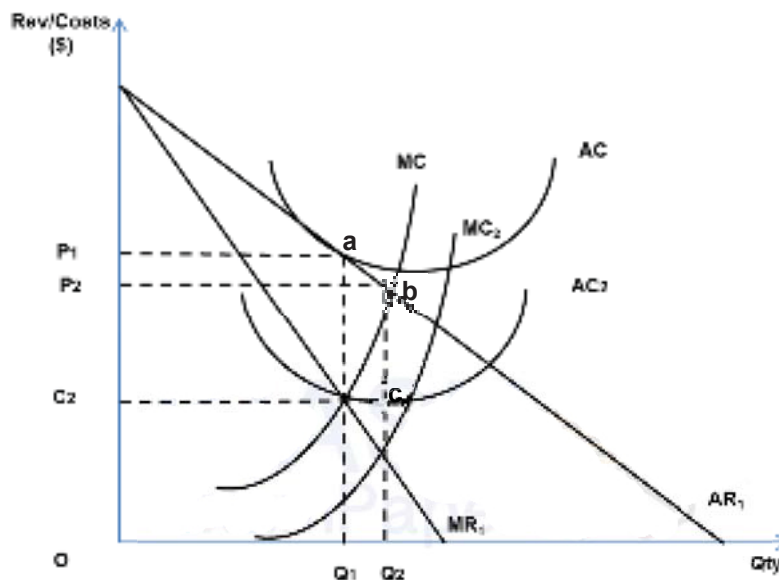
### Suggested Answer

#### Introduction:

- Define globalisation
- Facilitated by improvements in technology and breaking down of artificial barriers, there is an
  - increase in international trade of goods and services
  - increase in international flow of foreign direct investment/technology
  - increase in international movement of labour
- Types of industries
  - Industries with different market structures
- Define performance of firms
  - Profit level
  - Innovation
  - Consumer welfare
  - Allocative and productive efficiency

#### Body 1: Explain the impact of increased trade, capital and labour flow on the cost curves of firms

- Globalisation allows firms to have increased access to cheaper imported raw materials, intermediate inputs and labour.
- Firms may also enjoy external economies of scale allowing firms to reduce average costs.
- Similarly, the free flow of capital allows firms to offshore their operations, from high-cost countries to countries with a lower cost of production.



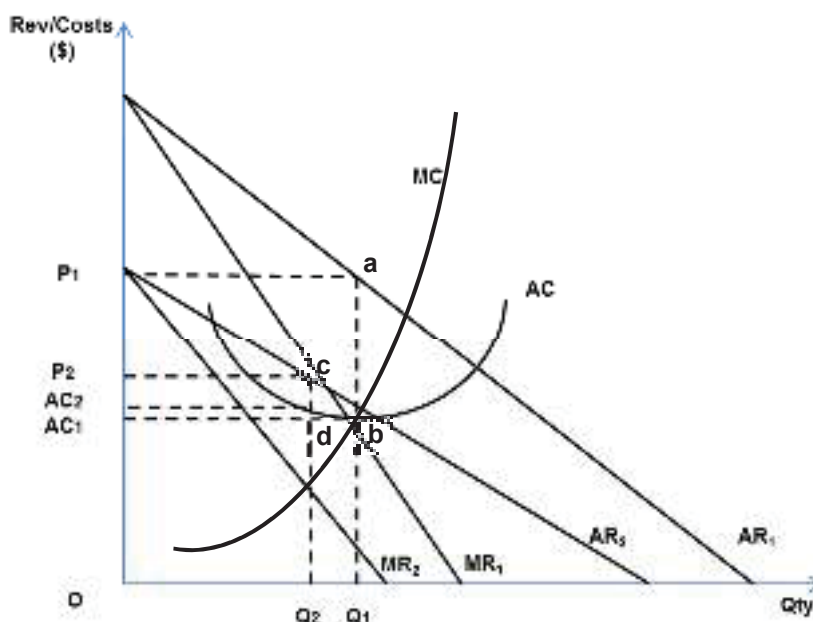
- As seen in Fig. 1 above, MC and AC curves shift downwards from MC and AC to  $MC_2$  and  $AC_2$  respectively
- At the original output of  $Q_1$ , MR is now higher than the new MC that is illustrated by  $MC_2$  leading to an increase in profits.
- Thus, a profit-maximising firm will be incentivised to increase output towards  $Q_2$ , where  $MR = MC$  again, where profits are maximised.
- At the new profit-maximising output  $Q_2$ , price of the firm's product has fallen to  $P_2$ .
- **The profit level has now increased from normal profit to a supernormal profit of  $C_2P_2bc$**

**Evaluation:**

- The extent to which cost of production decreases depends on the proportion of the factor inputs sourced from overseas, and also the extent of the cost savings with the removal of barriers to trade.
- There are also limits to cost savings from the increased flow of cheaper foreign labour.
- On the other hand, the ease of outsourcing has allowed cost to decrease significantly for firms who are able to outsource certain processes to other countries at a lower cost.

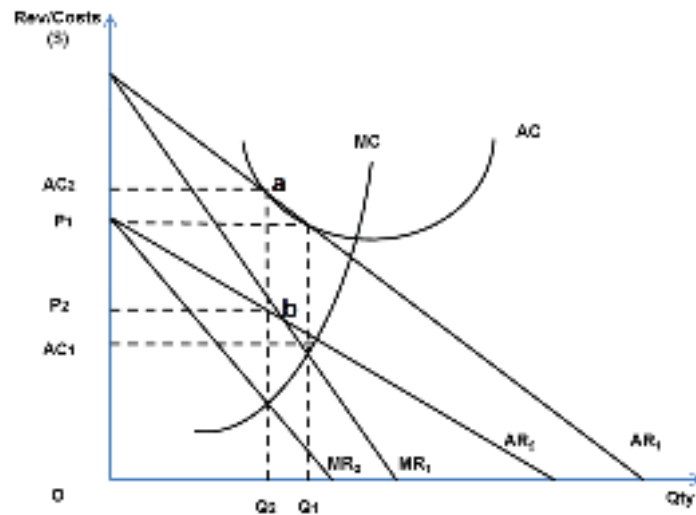
**Body 2: Explain the impact of increased trade flow on the profit level of firms in oligopolistic vs monopolistic competitive firm**

- In the long run, oligopolistic firms are able to retain supernormal profits due to the high barriers to entry into their industry.
- Existing firms now face increased competition from foreign firms as tariffs are lowered, resulting in a relatively lower price of foreign imports.
- Rival foreign firms that enter the market will compete away the market share of the oligopolistic/monopolistic firm, thus leading to a fall in both AR and MR curves.



- As seen in Fig. 2 above, globalisation has led to the fall in AR and MR curves from  $AR_1$  and  $MR_1$  to  $AR_2$  and  $MR_2$  respectively.
- At the original output of  $Q_1$ , MC is now higher than the new MR that is illustrated by the new  $MR_2$  curve. There is a fall in profits. Hence, a profit-maximising firm will be incentivised to reduce output towards  $Q_2$ , where  $MR = MC$  again, where profits are maximised.
- Given the fall in AR curve, at the new profit-maximising output  $Q_2$ , price of the firm's product has fallen to  $P_2$ , and profit has fallen from  $AC_1P_1ab$  to  $AC_2P_2cd$ .
- For a monopolistic competitive firm as shown below, they are likely to be earning normal profit at its original equilibrium. A fall in their demand causes such firms to earn subnormal profits as shown by  $P_2 AC_2ab$ .



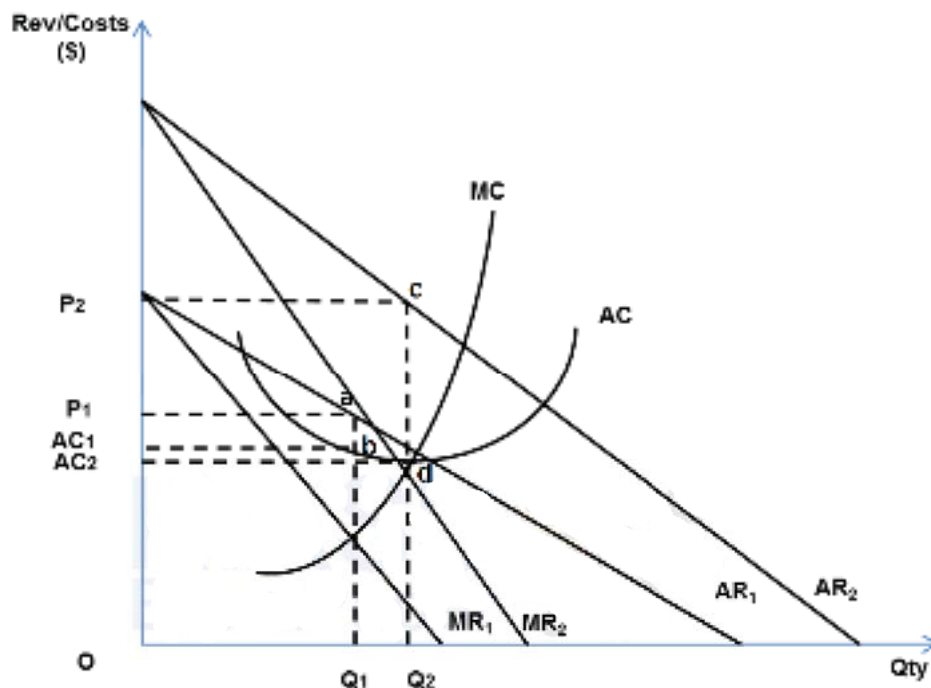


### Evaluation:

- The extent of which demand falls depends on whether oligopolistic firms have sufficient alternative barriers to entry.
- Similarly, some monopolistic competitive firms such as a unique clothing brand may have a strong following from loyal fans and may have some ability to retain some supernormal profits.

### Body 3: Explain the impact of increased access to more markets on the demand curves of firms

- With an increased access to world markets and more competitive prices with the lowering of trade barriers, firms will face an increase in their demand, as shown from the shift from  $AR_1$  to  $AR_2$ , and  $MR_1$  to  $MR_2$ . As such, the profit maximising quantity increases from  $Q_1$  to  $Q_2$ , and price increases from  $P_1$  to  $P_2$ . Profit earned by the firm increases, from  $AC_1P_1ab$  to  $AC_2P_2cd$ .



### Overall Evaluation for Profit:

- Whether or not profit increases depends on whether there is a net increase in demand, and the extent of cost savings brought about by globalisation.

**Body 4: Explain how globalization affects productive efficiency**

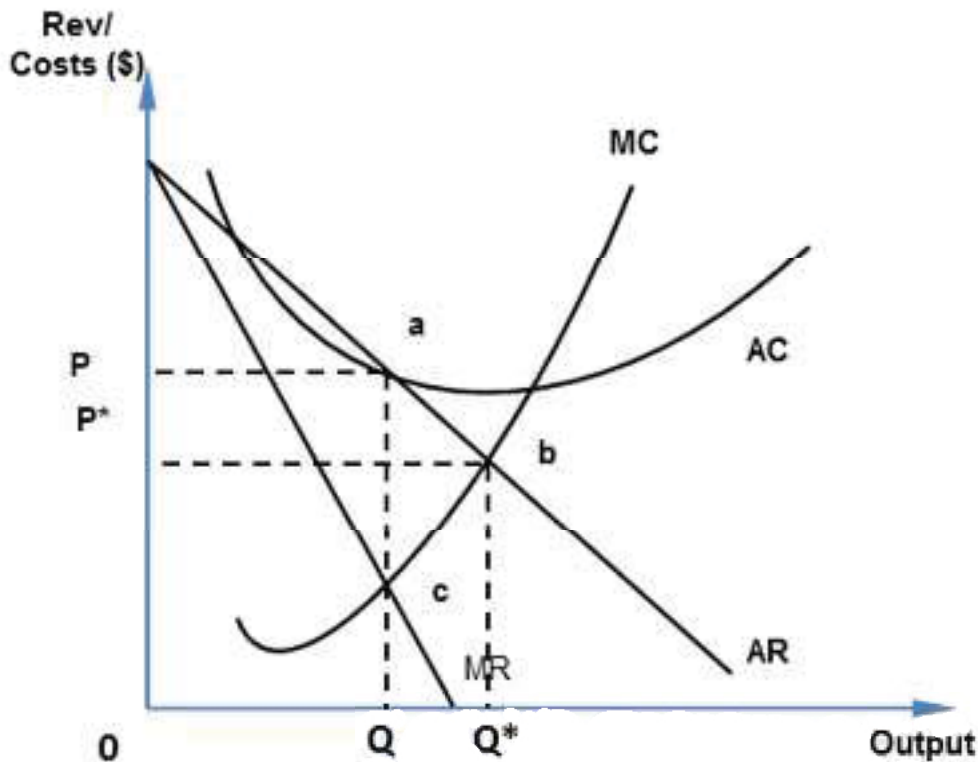
- Economies of scale from the expansion into other markets would allow firms to gain internal economies of scale. This means that the unit cost of production decreases, resulting in increased efficiency in production.
- Similarly, firms that can employ skilled foreign talent can help to increase the productivity of the firm and hence leads to a lowered unit cost as the LRAC shifts down.
- At the same time, with the increase in competition, firms have a greater incentive and need to improve on efficiency.
- With increased competition, firms would reduce on these inefficiencies due to the possible decrease in the demand faced by these firms and reduced profits.

**Evaluation:**

- The ability to enjoy internal economies of scale depends on whether there is a global demand for their products.
- Firms that are able to increase their scale of production may also face internal diseconomies of scale. This leads to inefficiency and higher average cost of production.

**Body 5: Explain the impact on allocative efficiency**

- In industries where a small number of firms have significant market power, it results in some allocative inefficiency. At the profit-maximizing output where  $MC=MR$ , firms will produce at output  $Q$  (below), while setting the price at  $P$ . However, there is an underproduction of the good as the allocative efficient level of output is where  $P=MC$  at output  $Q^*$ . Hence there is a deadweight loss of the area  $abc$  in the diagram below.



- The more market power the firms possess, the greater the deadweight loss.
- With the entrant of new firms, the lowered price will decrease the amount of deadweight loss.

**Evaluation:**

- The extent to which allocative inefficiency is reduced depends on whether there are significant barriers to entry beyond trade barriers.

**Body 6: Explain the impact on existing firms' innovation and consumer welfare**

- With the increase in competition firms may try to differentiate their products further, and invest in product innovation in order to increase their demand.

- These may improve the quality and variety of goods and services available for consumers, and may even lead to lowered prices, increasing consumer welfare.
- From the government's perspective, this increases the dynamic efficiency of the economy.

**Evaluation:**

- The likelihood of meaningful innovation depends on how firms weigh their expected benefit from innovation versus the cost of doing so.

**Synthesis/Conclusion:**

- The performance of firms depends largely on the market features. With globalization, firms may not be able to improve their performance due to limitations that exist across different industries.
- If the conditions are ripe for an increase in competition, consumer welfare will undoubtedly improve significantly. However, the weaker, less efficient, less innovative and less responsive firms will suffer and exit

**Mark Scheme:**

Levels	Descriptors
<p><b>High L3</b> <b>18 - 20</b></p>	<p>For an answer that demonstrates knowledge, understanding, application and analysis:</p> <ul style="list-style-type: none"> <li>• EXCELLENT <b>breadth</b> that considers the following economic concepts in explaining multiple and balanced perspectives, viewpoints, relationships and factors. ALL points chosen should be of <b>relevance</b> and <b>significance</b> in answering the question. <ul style="list-style-type: none"> <li>• Consideration of increased trade flow, labour flow and capital flow</li> <li>• Consideration of at least 3 performance indicators, which include profit level and at least 2 efficiency concepts Comparison of impact across firms in a competitive and a less competitive structure.</li> </ul> </li> <li>• EXCELLENT <b>depth</b> in economic analysis that reflects the following in ALL explanations. <ul style="list-style-type: none"> <li>• <b>Accurate</b> use of economic concepts, <b>clear</b> elaboration and <b>precise</b> use of economic terminologies, language and phrasing.</li> <li>• Profit analysis should include both revenue and cost analysis</li> </ul> </li> </ul> <p>The answer should also be supported by:</p> <ul style="list-style-type: none"> <li>• Well-labelled and well-referred to diagram(s) / tool(s) of analysis drawn with <b>precision</b> (where appropriate).</li> <li>• <b>Relevant</b> examples and <b>accurate</b> use of facts.</li> <li>• <b>Logical</b> structure.</li> </ul>
<p><b>Low L3</b> <b>15 - 17</b></p>	<p>For an answer that demonstrates knowledge, understanding, application and analysis:</p> <ul style="list-style-type: none"> <li>• At least VERY GOOD <b>breadth</b> that considers the following economic concepts in explaining multiple and balanced perspectives, viewpoints, relationships and factors. MOST points chosen should be of <b>relevance</b> and <b>significance</b> in answering the question. <ul style="list-style-type: none"> <li>• Consideration of at least 2 of the following - increased trade flow, labour flow and capital flow</li> <li>• Consideration of at least 3 performance indicators, which include profit level and efficiency</li> <li>• Comparison of impact across firms in a competitive and a less competitive structure.</li> </ul> </li> <li>• At least VERY GOOD <b>depth</b> in economic analysis that reflects the following in MOST explanations. <ul style="list-style-type: none"> <li>• <b>Accurate</b> use of economic concepts, <b>clear</b> elaboration, and <b>precise</b> use of economic terminologies, language and phrasing.</li> <li>• Profit analysis should include both revenue and cost analysis</li> </ul> </li> </ul>

	<p>The answer should also be supported by:</p> <ul style="list-style-type: none"> <li>• Well-labelled and well-referred to diagram(s) / tool(s) of analysis drawn with <b>precision</b> (where appropriate).</li> <li>• <b>Relevant</b> example(s) and <b>accurate</b> use of facts.</li> <li>• <b>Logical</b> structure.</li> </ul>
<p><b>High L2</b> <b>12 - 14</b></p>	<p>For an answer that demonstrates knowledge and understanding but lacks application and analysis:</p> <ul style="list-style-type: none"> <li>➤ At least GOOD <b>breadth</b> that considers the following economic concepts in explaining multiple and balanced perspectives, viewpoints, relationships and factors. MOST points chosen should be of <b>relevance</b> and <b>significance</b> in answering the question. <ul style="list-style-type: none"> <li>• Consideration of at least 2 of the following - increased trade flow, labour flow and capital flow.</li> <li>• Consideration of at cost, revenue and 1 more performance indicator</li> <li>• There may not have been a clear comparison between different firms in different market structures.</li> </ul> </li> <li>➤ At least GOOD <b>depth</b> in economic analysis that reflects the following in MOST explanations. <ul style="list-style-type: none"> <li>• <b>Accurate</b> use of economic concepts, <b>clear</b> elaboration, and <b>precise</b> use of economic terminologies, language and phrasing.</li> <li>• <b>Profit analysis should include both revenue or cost analysis.</b></li> </ul> </li> </ul> <p>The answer should also be supported by:</p> <ul style="list-style-type: none"> <li>➤ Diagram(s) / Tool(s) of analysis that may not be well-labelled, may not be well-referred to and may not be drawn with precision (where appropriate).</li> <li>➤ Some example(s).</li> <li>➤ <b>Logical</b> structure.</li> </ul>
<p><b>Low L2</b> <b>9 - 11</b></p>	<p>For an answer that demonstrates knowledge and understanding but lacks application and analysis:</p> <ul style="list-style-type: none"> <li>• At least SUFFICIENT <b>breadth</b> that considers the following economic concepts in explaining multiple and balanced perspectives, viewpoints, relationships and factors. SOME points chosen should be of <b>relevance</b> and <b>significance</b> in answering the question. <ul style="list-style-type: none"> <li>• Consideration of at least 1 of the following - increased trade flow, labour flow and capital flow.</li> <li>• Consideration of at least 2 of the performance indicators.</li> <li>• There may not have been a clear comparison between different firms in different market structures.</li> </ul> </li> <li>• At least SUFFICIENT <b>depth</b> in economic analysis that reflects the following in SOME explanations. <ul style="list-style-type: none"> <li>• <b>Accurate</b> use of economic concepts, <b>clear</b> elaboration, and <b>precise</b> use of economic terminologies, language and phrasing.</li> </ul> </li> </ul> <p>The answer should also be supported by:</p> <ul style="list-style-type: none"> <li>• Diagram(s) / Tool(s) of analysis that may not be well-labelled, may not be well-referred to and may not be drawn with precision (where appropriate).</li> <li>• Example(s).</li> <li>• <b>Logical</b> structure.</li> </ul>
<p><b>High L1</b> <b>5 - 8</b></p>	<p>For an answer that demonstrates knowledge but lacks understanding, application and analysis:</p> <ul style="list-style-type: none"> <li>• INSUFFICIENT breadth that considers the following economic concept(s). Point(s) chosen may be of relevance but may not be of significance in answering the question.</li> </ul>

	<ul style="list-style-type: none"> <li>• Consideration of at least 1 of the following - increased trade flow, labour flow and capital flow.</li> <li>• Consideration of at least 1 of the performance indicators.</li> <li>• A comparison between different firms in different market structures is absent.</li> <li>• INSUFFICIENT <b>depth</b> in economic analysis that may reflect the following: <ul style="list-style-type: none"> <li>• Lack of accuracy in the use of economic concepts, lack of clarity in elaboration, and lack of precision in the use of economic terminologies, language and phrasing.</li> </ul> </li> </ul>
<b>Low L1</b> <b>1 - 4</b>	<p>For an answer that:</p> <ul style="list-style-type: none"> <li>• Demonstrates POOR breadth and POOR economic analysis.</li> <li>• Is irrelevant in analysis but may contain an introduction that addresses the question or contains no economic analysis but may contain a few statements that are relevant to the concepts required to answer the question.</li> <li>• Contains fundamental conceptual errors in analysis.</li> </ul>

<b>Levels</b>	<b>Descriptors</b>
<b>E3</b> <b>4 - 5</b>	<p>For an evaluation that contains</p> <ul style="list-style-type: none"> <li>➤ A synthesis of earlier economic arguments to arrive at <b>relevant</b> judgements/decisions (i.e. answer the question).</li> <li>➤ Well-explained criteria-based evaluative comments supported by <b>accurate</b> and <b>clear</b> analysis to provide <b>fairness</b> in views.</li> <li>➤ A good summative conclusion.</li> </ul>
<b>E2</b> <b>2 - 3</b>	<p>For an evaluation that contains</p> <ul style="list-style-type: none"> <li>➤ <b>Relevant</b> judgement(s)/decision(s) (i.e. answer the question) that may not follow from earlier economic arguments.</li> <li>➤ Criteria-based evaluative comment(s) supported by analysis to provide <b>fairness</b> in views but the comment(s) may not be well-explained, may be unclear and/or may be inaccurate at times.</li> </ul>
<b>E1</b> <b>1</b>	<p>For an evaluation that contains</p> <ul style="list-style-type: none"> <li>➤ <b>Relevant</b> but unexplained evaluative judgement(s)/statement(s) i.e. evaluative judgement(s)/statement(s) not supported by analysis or</li> <li>➤ A <b>relevant</b> conclusion.</li> </ul>

- 2 Electric scooters are increasing in popularity as an alternative way to commute over short distances. This has also helped to reduce overcrowding on short-haul buses. However, e-scooters have come under the spotlight recently over irresponsible e-scooter riders who cause injuries to road users including themselves.

Adapted from The Straits Times, 23 Sept 2016

Discuss the appropriate policies that the Singapore government can adopt to correct the market failure in the market for electric scooters in Singapore. [25]

### Suggested Answers:

#### Introduction

- Market failure occurs when there is a misallocation of resources, leading to allocative inefficiency under free market.
- In order to identify the appropriate policies that the government can adopt to correct the market failure, the government will have to identify the various sources of market failure in the market for electric scooters (e-scooters).
- Both market-based policies and non-market based policies will be necessary to effectively correct the market failure identified.

#### Body 1: Presence of positive externality in consumption

- The marginal private benefit in the consumption of e-scooters is the additional satisfaction brought about by the convenience to commute over short distances.
- The marginal private cost of producing the e-scooters is the additional costs that the producers incurred from the additional unit of e-scooters produced.
- However, the consumption of these e-scooters by the consumers have reduced the overcrowding situation on short-haul buses, bringing a better commuting experience to the commuters on these buses. This means that there is marginal external benefits enjoyed from the consumption of these e-scooters.
- The utility-maximising consumers will maximise their utility by consuming e-scooters up to the output level  $Q_p$ , where the MPB cuts MPC as illustrated in Figure 1.
- However, the presence of the marginal external benefits will mean that there is a divergence between the MPB and MSB curve, with the MSB being higher than the MPB at all quantity level since the MEB is positive and that  $MSB = MPB + MEB$ .
- Assuming that there is no negative externality in the consumption of e-scooters such that  $MPC = MSC$ , the socially optimal level of output that the firm should be consuming will be at  $Q_s$ , where MSB cuts MSC.
- Under free market condition, the private optimal level of output will be less than the socially optimal level of output level.
- The reduction in the social benefit due to the under-consumption, represented by area  $AE_1Q_sQ_p$  is more than the reduction in the social costs saved due to the under-consumption, represented by area  $E_0E_1Q_sQ_p$ , leading to a net welfare loss due to the under-consumption of the e-scooters. This will result in a deadweight loss, as illustrated by the area  $AE_0E_1$  as shown in Figure 1. This means that there is allocative inefficiency under the free market.

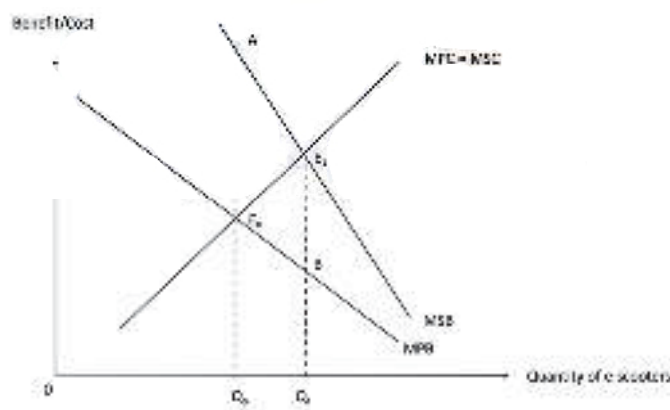


Fig 1

### Body 2: Presence of negative externality in consumption

- The consumption of e-scooters can have negative externality as it can bring about possible safety issues to the other road users.
- Therefore, the presence of the negative externality in consumption, meaning that  $MEC > 0$ , causes a divergence between the MSC and MPC, such that MSC is greater than the MPC at all output levels.
- Assuming that the  $MSB = MPB$ , the social optimal output level will be at  $Q_s$  where MSB cuts MSC, while the market equilibrium is at  $Q_p$  where  $MPC = MPB$ .
- This means that the social optimal level will be lower than the private optimal output level, leading to an overconsumption of e-scooters under free market condition.

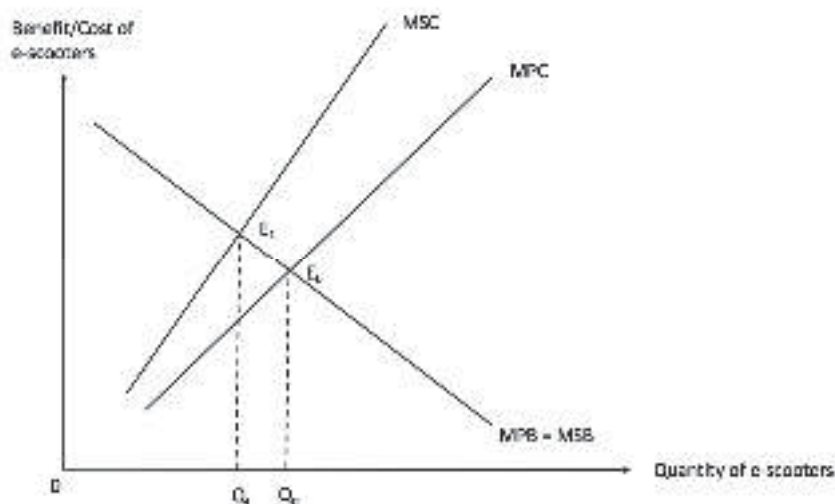


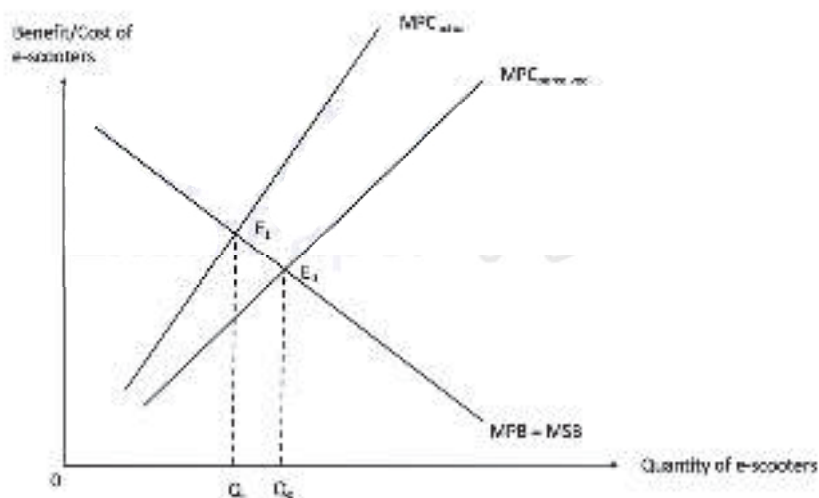
Fig 2

### Body 3: Imperfect information from the consumption of e-scooters

- There may be a divergence between the perceived marginal cost and the actual perceived marginal cost as the consumers due to imperfect information.
- Assuming that there are no externalities in the consumption of e-scooters. The imperfect information will mean that the social optimal level will be lower than the private optimal output level, leading to an overconsumption of the e-scooters under free market conditions.

### Evaluation:

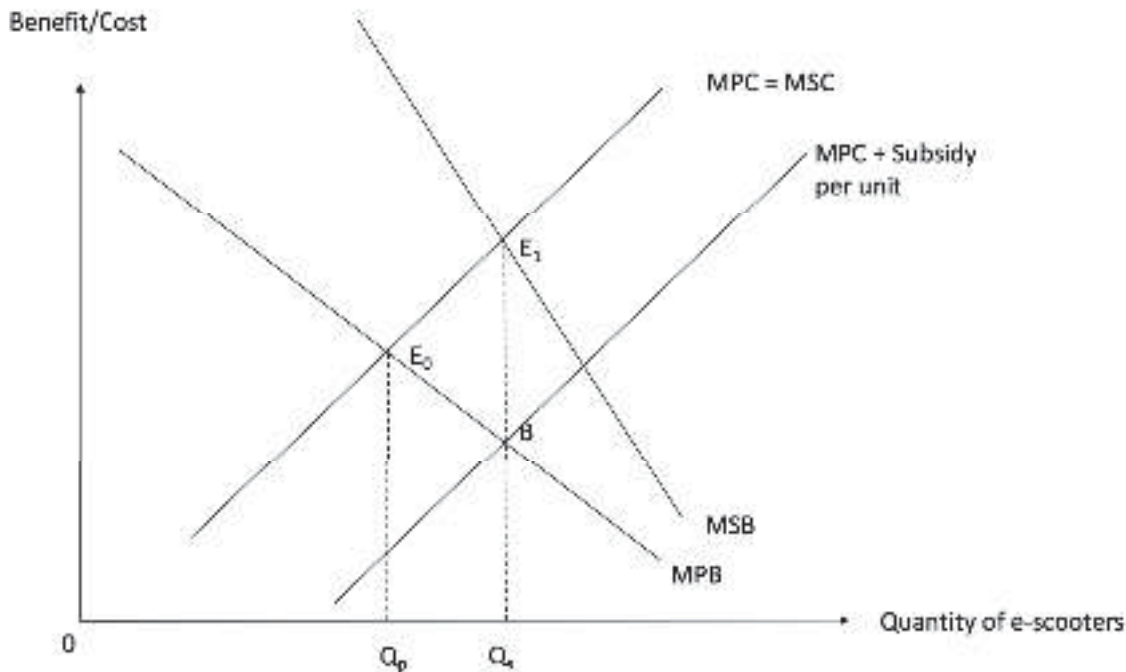
- It is likely that the positive externality in consumption is higher than the negative externality in consumption.
- Therefore, there is a net positive externality from the consumption of e-scooters.





#### Body 4: Subsidies can help to address the under-consumption resulting from the presence of positive externality in consumption

- As argued earlier that there is a net positive externality in consumption for e-scooters.
- The subsidies, assuming an indirect subsidy, will lower the cost of producing the e-scooters. This will reduce the MPC, shifting the MPC curve from MPC to MPC + Subsidy per unit.
- Assuming that the per unit subsidies is equal to the monetary value of the MEB at the output level,  $Q_s$ , allocative efficiency will be achieved.



#### • Limitations of using subsidies to correct the market failure

- In order for the subsidies to be effective in addressing the market failure, the subsidies per unit ( $BE_1$ ) must be equivalent to the monetary value of the MEB at  $Q_s$ .
- In the event that there is an overestimation of the MEB at  $Q_s$ , too much subsidies will be given, leading to an overconsumption of e-scooters. This can lead to over-allocation of resources.

#### Body 5: Legislation can be an appropriate policy to address the market failure in the market for e-scooters

- Legislation can also be an appropriate policy to reduce the probability of incurring the marginal external cost.
- The government can implement rules and regulations to allow the use of e-scooters on specific areas or roads and to impose a speed limit.
- In addition, compulsory trainings such as safety course, can be conducted for e-scooters to obtain license to ride an e-scooters upon the completion of the course.
- **Limitations of using legislation to reduce the negative externality in consumption**
  - It will be difficult to ensure the adherence to this regulation in reality. Additional costs to ensure commuters' compliance will also drain resources that could otherwise be better utilised in other areas.

#### Body 6: Education campaign can be an appropriate policy to address the market failure in the market for e-scooters

- In order to address the imperfect information in the market for e-scooters, an education campaign to increase awareness about the responsible use of e-scooters is required.
- The education campaign can aim to educate riders on the possible danger areas that accidents are prone to happen and the precautionary measures that one can take while riding on the e-scooters.
- The awareness of the areas where accidents are prone to happen will allow e-scooters riders to avoid unnecessary accidents and are aware of the actual costs to riding e-scooters on sidewalks.



- **Limitations of using education campaign**

- The impact of the education campaign cannot be observed in the short run as it takes time for people to change the way they ride on the e-scooters.
- Similarly, the effectiveness of the education campaign cannot be guaranteed and has to be constantly updated over time for e-scooter riders to be aware of new risks and dangers when riding on an e-scooter.

#### Evaluation/Conclusion:

Overall, the appropriateness of the policies will depend on:

- The extent of the MEB relative to the MEC of consuming e-scooters.
- The information available to determine the monetary value of the marginal external benefit.
- In general, the use of market-based policies should be accompanied with the use of non-market based policies.

#### Mark Scheme:

Levels	Descriptors
High L3 18 - 20	<p>For an answer that demonstrates knowledge, understanding, application and analysis:</p> <ul style="list-style-type: none"> <li>• EXCELLENT <b>breadth</b> that considers the following economic concepts in explaining multiple and balanced perspectives, viewpoints, relationships and factors. ALL points chosen should be of <b>relevance</b> and <b>significance</b> in answering the question. <ul style="list-style-type: none"> <li>• Consideration of positive externality in consumption, negative externality AND imperfect information in the market for e-scooters</li> <li>• Consideration of at least <b>3 policies</b>, covering both market-based and non-market based policies</li> </ul> </li> <li>• EXCELLENT <b>depth</b> in economic analysis that reflects the following in ALL explanations. <ul style="list-style-type: none"> <li>✓ <b>Accurate</b> use of economic concepts, <b>clear</b> elaboration and <b>precise</b> use of economic terminologies, language and phrasing. <ul style="list-style-type: none"> <li>○ Explanation of limitations of policies</li> </ul> </li> </ul> </li> </ul> <p>The answer should also be supported by:</p> <ul style="list-style-type: none"> <li>• Well-labelled and well-referred to diagram(s) / tool(s) of analysis drawn with <b>precision</b> (where appropriate).</li> <li>• <b>Relevant</b> examples and <b>accurate</b> use of facts.</li> <li>• <b>Logical</b> structure.</li> </ul>
Low L3 15 - 17	<p>For an answer that demonstrates knowledge, understanding, application and analysis:</p> <ul style="list-style-type: none"> <li>• At least VERY GOOD <b>breadth</b> that considers the following economic concepts in explaining multiple and balanced perspectives, viewpoints, relationships and factors. MOST points chosen should be of <b>relevance</b> and <b>significance</b> in answering the question. <ul style="list-style-type: none"> <li>○ Consideration of 2 out of the 3 following sources of market failure: <ul style="list-style-type: none"> <li>▪ <b>positive externality in consumption</b></li> <li>▪ <b>negative externality in consumption</b></li> <li>▪ <b>imperfect information in the market for e-scooters</b></li> </ul> </li> <li>○ <b>Consideration of at least 3 policies, covering both market-based and non-market based policies</b></li> </ul> </li> <li>• At least VERY GOOD <b>depth</b> in economic analysis that reflects the following in MOST explanations.</li> <li>• <b>Accurate</b> use of economic concepts, <b>clear</b> elaboration, and <b>precise</b> use of economic terminologies, language and phrasing. <ul style="list-style-type: none"> <li>○ Explanation of limitations of policies</li> </ul> </li> </ul> <p>The answer should also be supported by:</p> <ul style="list-style-type: none"> <li>• Well-labelled and well-referred to diagram(s) / tool(s) of analysis drawn with <b>precision</b> (where appropriate).</li> </ul>

	<ul style="list-style-type: none"> <li>• <b>Relevant</b> example(s) and <b>accurate</b> use of facts.</li> <li>• <b>Logical</b> structure.</li> </ul>
<p><b>High L2</b> <b>12 - 14</b></p>	<p>For an answer that demonstrates knowledge and understanding but lacks application and analysis:</p> <ul style="list-style-type: none"> <li>• At least <b>GOOD breadth</b> that considers the following economic concepts in explaining multiple and balanced perspectives, viewpoints, relationships and factors. <b>MOST</b> points chosen should be of <b>relevance</b> and <b>significance</b> in answering the question. <ul style="list-style-type: none"> <li>○ Consideration of 2 out of the 3 following sources of market failure: <ul style="list-style-type: none"> <li>▪ positive externality in consumption</li> <li>▪ negative externality in consumption</li> <li>▪ imperfect information in the market for e-scooters</li> </ul> </li> <li>○ Consideration of at least 2 policies, covering both market-based and non-market based policies</li> </ul> </li> </ul> <p>OR</p> <ul style="list-style-type: none"> <li>○ Consideration of 1 out of the 2 following sources of market failure: <ul style="list-style-type: none"> <li>▪ positive externality in consumption</li> <li>▪ negative externality in consumption</li> </ul> </li> <li>○ Consideration of at least 3 policies, covering both market-based and non-market based policies</li> </ul> <ul style="list-style-type: none"> <li>• At least <b>GOOD depth</b> in economic analysis that reflects the following in <b>MOST</b> explanations.</li> <li>• <b>Accurate</b> use of economic concepts, <b>clear</b> elaboration, and <b>precise</b> use of economic terminologies, language and phrasing. <ul style="list-style-type: none"> <li>○ Some recognition of limitations of policies</li> </ul> </li> </ul> <p>The answer should also be supported by:</p> <ul style="list-style-type: none"> <li>• Diagram(s) / Tool(s) of analysis that may not be well-labelled, may not be well-referred to and may not be drawn with precision (where appropriate).</li> <li>• Some example(s).</li> <li>• <b>Logical</b> structure.</li> </ul>
<p><b>Low L2</b> <b>9 - 11</b></p>	<p>For an answer that demonstrates knowledge and understanding but lacks application and analysis:</p> <ul style="list-style-type: none"> <li>• At least <b>SUFFICIENT breadth</b> that considers the following economic concepts in explaining multiple and balanced perspectives, viewpoints, relationships and factors. <b>SOME</b> points chosen should be of <b>relevance</b> and <b>significance</b> in answering the question. <ul style="list-style-type: none"> <li>○ Consideration of 1 out of the 3 following sources of market failure: <ul style="list-style-type: none"> <li>▪ positive externality in consumption</li> <li>▪ negative externality in consumption</li> <li>▪ imperfect information in the market for e-scooters</li> </ul> </li> <li>○ <b>Consideration of at least 2 policies, covering both market-based and/or non-market based policies</b></li> <li>○</li> </ul> </li> <li>• At least <b>SUFFICIENT depth</b> in economic analysis that reflects the following in <b>SOME</b> explanations. <ul style="list-style-type: none"> <li>✓ <b>Accurate</b> use of economic concepts, <b>clear</b> elaboration, and <b>precise</b> use of economic terminologies, language and phrasing. <ul style="list-style-type: none"> <li>○ No recognition of limitations</li> </ul> </li> </ul> </li> </ul> <p>The answer should also be supported by:</p>

	<ul style="list-style-type: none"> <li>• Diagram(s) / Tool(s) of analysis that may not be well-labelled, may not be well-referred to and may not be drawn with precision (where appropriate).</li> <li>• Example(s).</li> <li>• <b>Logical</b> structure.</li> </ul>
<b>High L1</b> 5 - 8	<p>For an answer that demonstrates knowledge but lacks understanding, application and analysis:</p> <ul style="list-style-type: none"> <li>• <b>INSUFFICIENT</b> breadth that considers the following economic concept(s). Point(s) chosen may be of relevance but may not be of significance in answering the question. <ul style="list-style-type: none"> <li>○ Consideration of 1 out of the 3 following sources of market failure: <ul style="list-style-type: none"> <li>▪ positive externality in consumption</li> <li>▪ negative externality in consumption</li> <li>▪ imperfect information in the market for e-scooters</li> </ul> </li> <li>○ Consideration of only 1 policy</li> </ul> </li> <li>• <b>INSUFFICIENT depth</b> in economic analysis that may reflect the following:</li> <li>• Lack of accuracy in the use of economic concepts, lack of clarity in elaboration, and lack of precision in the use of economic terminologies, language and phrasing.</li> </ul>
<b>Low L1</b> 1 - 4	<p>For an answer that:</p> <ul style="list-style-type: none"> <li>• Demonstrates <b>POOR</b> breadth and <b>POOR</b> economic analysis.</li> <li>• Is irrelevant in analysis but may contain an introduction that addresses the question or contains no economic analysis but may contain a few statements that are relevant to the concepts required to answer the question.</li> <li>• Contains fundamental conceptual errors in analysis.</li> </ul>

Levels	Descriptors
<b>E3</b> 4 - 5	<p>For an evaluation that contains</p> <ul style="list-style-type: none"> <li>➤ A synthesis of earlier economic arguments to arrive at <b>relevant</b> judgements/decisions (i.e. answer the question).</li> <li>➤ Well-explained criteria-based evaluative comments supported by <b>accurate</b> and <b>clear</b> analysis to provide <b>fairness</b> in views.</li> <li>➤ A good summative conclusion.</li> </ul>
<b>E2</b> 2 - 3	<p>For an evaluation that contains</p> <ul style="list-style-type: none"> <li>➤ <b>Relevant</b> judgement(s)/decision(s) (i.e. answer the question) that may not follow from earlier economic arguments.</li> <li>➤ Criteria-based evaluative comment(s) supported by analysis to provide <b>fairness</b> in views but the comment(s) may not be well-explained, may be unclear and/or may be inaccurate at times.</li> </ul>
<b>E1</b> 1	<p>For an evaluation that contains</p> <ul style="list-style-type: none"> <li>➤ <b>Relevant</b> but unexplained evaluative judgement(s)/statement(s) i.e. evaluative judgement(s)/statement(s) not supported by analysis or</li> <li>➤ A <b>relevant</b> conclusion.</li> </ul>

- 4 For the second month running the UK's headline figure for inflation – the rate of increase in the general price level – is negative. Some economists take the view that this change is essentially good, driven by low energy prices and weak wage pressure.

*Adapted from The Guardian, 17 Nov 2015*

- (a) Explain the possible causes of the above-mentioned change in general price level in the UK. [10]
- (b) Discuss the extent to which a negative change in the general price level is more desirable than a positive change in the general price level of any economy. [15]

### Suggested Answer for Part (a):

#### Introduction

- The negative change in the general price level represents a case of deflation.
- Define deflation
- Deflation could be caused by either an increase in aggregate supply or a decrease in aggregate demand

#### Body

#### 1. Factors affecting AS: decrease in costs of production resulting in an increase in AS and hence fall in price level.

Factors that may cause an increase (downward/rightward shift) in AS

- The low energy prices in the economy is a result of low oil prices in 2015.
- Given that oil is a key input in energy production required for most manufacturing processes → costs of production decreases → SRAS increase
- Weak wage pressure could be a result of either a fall in AD in the economy or an expectation of a falling in production. Due to this expectation, workers are afraid of retrenchment and hence they work harder (i.e.: increase in productivity) despite the constant wage → fall in per unit cost of production → SRAS increase
- Government policies such as subsidising the wages of the workers to prevent retrenchment during weak economy helps to lower the cost of production in the economy

#### 2. Explain why the increase in AS leads to fall in price level

- The increase in SRAS puts a downward pressure on general price level.
- Referring to Fig 2, as firms face a fall in costs, they respond partly by lowering prices and pass the cost saving to the consumers and partly by increasing production, as shown by the shift from  $SRAS_0$  to  $SRAS_1$ . GPL decreases from  $P_0$  to  $P_1$ .
- Illustrate with an appropriate AD-AS diagram.

#### 3. Factors affecting AD: decrease in AD when economy is at or near full employment

Factors that may cause decrease (leftward shift) in AD (any autonomous decrease in the components of AD).

For example:

- Negative outlook of the economy → unfavourable consumer expectations (eg. consumers expect incomes to fall or prices to decrease further) / or (wealth effect) a fall in wealth as the prices of the assets like properties are now expected to decrease → consumption decreases (e.g. demand for cars, consumer goods decrease) → AD decreases
- Due to poor business expectations (lower expected returns, expect the demand for goods and services to decrease in future) or weak global economy limiting the foreign investments → investment decreases → AD decreases
- Decrease in income of foreign countries → demand for the country's exports decreases → AD decreases

#### 4. Explain why the decrease in AD leads to fall in price level when economy is at or near full employment

- The decrease in AD causes producers to decrease production. If the economy is at a full capacity, the fall in production causes a downward pressure on the prices of inputs as more resources are released to increase output in other sectors that would have required them. Producers faced with falling input prices will also decrease the prices of their products, resulting in a decrease in general price level with no change in output.
- **OR** With a fall in AD, there is an unplanned rise in stocks which cause the firms to lower the prices to clear the excess stocks, thus leading to the fall in the general price level.
- Illustrate with an appropriate AD-AS diagram

### Conclusion

- Changes in price levels can be caused by demand or supply factors.
- While a negative change in general price level means a fall in cost of living, it may not be desirable to all economies/everyone in an economy.

### Mark Scheme:

Levels	Description
L3 (8-10)	<ul style="list-style-type: none"> <li>• EXCELLENT <b>breadth</b> that considers the following economic concepts in explaining multiple and balanced perspectives, viewpoints, relationships and factors. ALL points chosen should be of <b>relevance</b> and <b>significance</b> in answering the question.               <ul style="list-style-type: none"> <li>• <i>At least 3 factors covering both shift in AD and AS</i></li> </ul> </li> <li>• EXCELLENT <b>depth</b> in economic analysis that reflects the following in <b>ALL</b> explanations. There was an accurate use of economic concepts, <b>clear</b> elaboration, and <b>precise</b> use of economic terminologies, language and phrasing in <b>ALL</b> explanations.               <ul style="list-style-type: none"> <li>• <i>For AD factors, there is explanation of how the decrease in AD will lead to fall in GPL.</i></li> <li>• <i>For AS factors, there is clear linkage of the factors to cost of production and hence increase in SRAS.</i></li> </ul> </li> </ul> <p>The answer should also be supported by:</p> <ul style="list-style-type: none"> <li>• Well-labelled and well-referred to diagram(s) / tool(s) of analysis drawn with <b>precision</b> (where appropriate).</li> <li>• <b>Relevant</b> examples and <b>accurate</b> use of facts.</li> <li>• <b>Logical</b> structure.</li> </ul>
L2 (5-7)	<ul style="list-style-type: none"> <li>• GOOD <b>breadth</b> that considers the following economic concepts in explaining multiple and balanced perspectives, viewpoints, relationships and factors. MOST points chosen should be of <b>relevance</b> and <b>significance</b> in answering the question.               <ul style="list-style-type: none"> <li>• <i>At least 2 factors covering changes due to AD and/or AS, but explanation may not be well-developed</i></li> </ul> </li> <li>• GOOD <b>depth</b> in economic analysis that reflects the following in <b>MOST</b> explanations. There an <b>accurate</b> use of economic concepts, <b>clear</b> elaboration, and <b>precise</b> use of economic terminologies, language and phrasing in <b>most</b> explanations.               <ul style="list-style-type: none"> <li>• <i>For AD factors, there may not be an explanation of how the fall in AD leads to the fall in GPL.</i></li> <li>• <i>For AS factors, there may not be clear linkage of the factors to cost of production and hence increase in SRAS.</i></li> </ul> </li> </ul> <p>The answer should also be supported by:</p> <ul style="list-style-type: none"> <li>• Diagram(s) / Tool(s) of analysis that may not be well-labelled, may not be well-referred to and may not be drawn with <b>precision (where appropriate)</b>.</li> <li>• Example(s).</li> <li>• <b>Logical</b> structure.</li> </ul>
L1 (1-4)	<ul style="list-style-type: none"> <li>• INSUFFICIENT <b>breadth</b> that considers the following economic concept(s). Point(s) chosen may be of relevance but may not be of significance in answering the question.</li> <li>• INSUFFICIENT depth in economic analysis that may reflect the following:               <ul style="list-style-type: none"> <li>• Lack of accuracy in the use of economic concepts, lack of clarity in elaboration, and lack of precision in the use of economic terminologies, language and phrasing.</li> </ul> </li> </ul>

**Suggested Answer for Part (b):****Introduction:**

- A negative change in the general price level (i.e.: deflation) reflects a decrease in cost of living in the economy while a positive change in the general price level (i.e.: inflation) reflects an increase in cost of living.
- However, it is not necessary that a decrease in cost of living is more desirable than an increase in cost of living.

**Body:**

**Thesis: A negative change in the general price level is more desirable than a positive change in the general price level in an economy if the inflation is severe**

Impact on internal stability:

- If the negative change in the general price level is a result of a decrease in cost of inputs (as mentioned in (a)), this will lead to an increase in real output and a decrease in cyclical unemployment.

However, a positive change in general price level may signal the beginning of an inflationary spiral, causing greater uncertainties on the internal stability of the economy.

- The inflation may rise further, causing greater uncertainty and I to fall
- Firms may choose to hoard their products and speculate in prices of assets, leading to a diversion from investment in long term productive projects to short-term speculative and unproductive activities
- A fall in I causes AD to fall and hence NY and employment levels to fall.
- Both actual and potential growth may decrease.

Impact on external stability:

Net exports may increase during periods of deflation.

- As the prices of exports fall due to deflation and become relatively more competitive compared to other countries, the quantity demanded for exports increases.
- Assuming PED of exports is larger than 1, X increases.
- As the price of domestic goods decrease and the price of imports become relatively expensive, the demand for imports decreases, assuming that imports are substitutes for domestic goods, M falls
- If XED of imports with respect to domestic goods is larger than 1, M falls more than proportionately to the increase in price of domestic goods.
- (X-M) increases, BOT improves, BOP improves.

Impact on equity:

Inflation, on the other hand, has income redistributive effects which may be a cause for concern and hence not desirable.

- For example, fixed nominal income receivers/ pensioners/ savers may find that the real value of their income falls much more than flexible income receivers/profit receivers who find that their profits/incomes rise with or faster than the rate of inflation
- The income gap may widen if the lower-income groups are more affected by the rising inflation (if their nominal incomes do not rise with inflation)
- Overall decline in welfare and average standard of living

**Anti-thesis: A negative change in the general price level is less desirable than a positive change in the general price level in an economy if the inflation is low and mild**

Impact on real burden of debt:

- Deflation makes it more difficult for debtors to pay off their debts.

Impact on internal stability:

- If the negative change in the general price level is a result of a fall in AD, there will be a fall in real output and increase in cyclical unemployment. (as explained in (a))
- The falling prices may lead to negative expectations. C and I fall, AD falls, NY falls via k effect, rise in cyclical unemployment

- Thus, low inflation may hinder a long-awaited economic recovery. This was the case in Japan which experienced deflation for 2 decades.

**If the inflation rate is low, it has more positive impacts on the economy than deflation has on the economy.**

Impact on internal stability

- Low inflation can be seen as an indication of healthy growth in the economy.
- This helps to stimulate investment as the expected rate of return on investment increases.
- Consumers may become more optimistic as they expect the healthy growth to lead to rising income in future.
- C and I increases, AD increases, NY increases via k effect, fall in cyclical unemployment
- All the above resulting in higher C and I, AD and RNY, and a fall in unemployment. Increase in I also increases potential growth of the economy.

Impact on external stability

- If the inflation rate of other countries is also rising, then the relative inflation rate may be falling. This can have a positive effect on the economy.
- (X-M) increases, BOT improves, BOP improves

**Synthesis/Conclusion:**

Whether a negative change in the general price level is more desirable than a positive change in the general price level of any economy depends on:

- The cause of deflation:
  - If the fall in general price level is mainly due to the fall in energy prices and weak wage pressure, this would suggest that SRAS could have also shifted to the right, resulting in a fall in GPL and a rise in national income and employment.
  - However, if the fall in general price level is largely due to general weakness in aggregate demand in the economy or disappointingly weak performance of the global economy which may signal that economic recovery would not be due anytime soon then perhaps deflation would worsen economic recovery.
- Extent and trend of the deflation or inflation which affects consumer and business expectations
  - A low inflation is more desirable than a high inflation or a deflation situation in an economy.
  - However, if prices continue to rise at a slower rate, there could be negative expectations and pessimism among firms, causing a fall in investments and hence AD, such that inflation rates turn negative.
- The changes in general price levels in other economies
  - If the decrease in general price level may be favourable if other countries experience an increase or a more severe decrease in general price levels

**Mark Scheme:**

Levels	Description
L3 (8-10)	<ul style="list-style-type: none"> <li>• EXCELLENT <b>breadth</b> that considers the following economic concepts in explaining multiple and balanced perspectives, viewpoints, relationships and factors. ALL points chosen should be of <b>relevance</b> and <b>significance</b> in answering the question.               <ul style="list-style-type: none"> <li>• <i>Includes both thesis and anti-thesis</i></li> <li>• <i>Balance in terms of internal and external effects considered</i></li> <li>• <i>Balance in terms of macro and/or micro effects considered</i></li> </ul> </li> <li>• EXCELLENT <b>depth</b> in economic analysis that reflects the following in <b>ALL</b> explanations. There was an accurate use of economic concepts, <b>clear</b> elaboration, and <b>precise</b> use of economic terminologies, language and phrasing in <b>ALL</b> explanations.               <ul style="list-style-type: none"> <li>• <i>Depth in analysis supported by linking to AD /AS and relevant macro and micro aims.</i></li> </ul> </li> </ul> <p>The answer should also be supported by:</p> <ul style="list-style-type: none"> <li>• Well-labelled and well-referred to diagram(s) / tool(s) of analysis drawn with <b>precision</b> (where appropriate).</li> </ul>



	<ul style="list-style-type: none"> <li>• <b>Relevant</b> examples and <b>accurate</b> use of facts.</li> <li>• <b>Logical</b> structure.</li> </ul>
<b>L2 (5-7)</b>	<ul style="list-style-type: none"> <li>• GOOD <b>breadth</b> that considers the following economic concepts in explaining multiple and balanced perspectives, viewpoints, relationships and factors. MOST points chosen should be of <b>relevance</b> and <b>significance</b> in answering the question. <ul style="list-style-type: none"> <li>• <i>At least 2 comparisons of the effects of deflation and inflation covering thesis and/or anti-thesis (ie answer may not be balanced)</i></li> <li>• <i>There may be consideration of only internal or external effects</i></li> </ul> </li> <li>• GOOD <b>depth</b> in economic analysis that reflects the following in <b>MOST</b> explanations. There an <b>accurate</b> use of economic concepts, <b>clear</b> elaboration, and <b>precise</b> use of economic terminologies, language and phrasing in <b>most</b> explanations.</li> </ul> <p>The answer should also be supported by:</p> <ul style="list-style-type: none"> <li>• Diagram(s) / Tool(s) of analysis that may not be well-labelled, may not be well-referred to and may not be drawn with precision (where appropriate).</li> <li>• Example(s).</li> <li>• <b>Logical</b> structure.</li> </ul>
<b>L1 (1-4)</b>	<ul style="list-style-type: none"> <li>• INSUFFICIENT <b>breadth</b> that considers the following economic concept(s). Point(s) chosen may be of relevance but may not be of significance in answering the question.</li> <li>• INSUFFICIENT depth in economic analysis that may reflect the following:</li> <li>• Lack of accuracy in the use of economic concepts, lack of clarity in elaboration, and lack of precision in the use of economic terminologies, language and phrasing.</li> </ul>

<b>E3 (4-5)</b>	<ul style="list-style-type: none"> <li>• There is a good summative conclusion.</li> <li>• There is a synthesis of earlier economic arguments to arrive at <b>relevant</b> judgements/decisions (i.e. answer the question).</li> <li>• Use of well-explained criteria-based evaluative comments supported by <b>accurate</b> and <b>clear</b> analysis to provide <b>fairness</b> in views to form a judgement.</li> </ul>
<b>E2 (2-3)</b>	<ul style="list-style-type: none"> <li>• <b>Relevant</b> judgement(s)/decision(s) (i.e. answer the question) but they may not follow from earlier economic arguments made in your essay.</li> <li>• Criteria-based evaluative comment(s) supported by analysis to provide <b>fairness</b> in views but the comment(s) may not be well-explained, may be unclear and/or may be inaccurate at times.</li> </ul>
<b>E1 (1)</b>	<ul style="list-style-type: none"> <li>• Unexplained evaluative judgement(s)/statement(s) i.e. evaluative judgement(s)/statement(s) not supported by analysis.</li> </ul>



- 5 Over the past few years, social spending has increased significantly in the face of rising income inequality and an ageing population. Yet, no country has been able to offer free healthcare and social services without raising taxes for middle-income earners.

*Adapted from straitstimes.com, 25 Oct 2015*

- (a) Explain the factors that limit the effectiveness of fiscal policy in reducing unemployment. [10]
- (b) In the light of income inequality and an ageing population, discuss whether fiscal policy is the best policy to achieve inclusive and sustained economic growth in Singapore. [15]

**Suggested Answer for Part (a):**

**Introduction:**

- Fiscal policy is the discretionary management of government spending or taxation or both designed to influence the level of aggregate demand and hence economic activity.
- Unemployment refers to the number of people of the legal age who are willing to and are able to work but are unable to find suitable employment. There are various causes of unemployment in the economy that leads to differing
- The effectiveness of fiscal policy is limited by factors that such as multiplier size, whether the policy addresses the root cause of unemployment problem.

**Body:**

**1. Explain briefly how fiscal policy may help reduce cyclical unemployment**

- The implementation of expansionary fiscal policy, which can be brought about by increase in fiscal spending or cut in taxes or both, can help to address cyclical unemployment.

**2. Explain the factors that limit the effectiveness of fiscal policy in solving cyclical unemployment**

Multiplier Size

- The impact of an increase in injection on the increase in induced AD, which leads to an increase in domestic production, depends on the multiplier size. The rationale of the multiplier is based on the proposition that expenditure creates income and income generates expenditure.
- The smaller the size of the multiplier, the less effective fiscal policy would be in increasing domestic production and thus the less effective it would be in solving cyclical unemployment. Thus, factors that limit the size of multiplier will limit the effectiveness of fiscal policy in solving unemployment.
- Given the formula of multiplier,  $k = 1/1-mpc$ , the size of k depends on the size of mpc which in turn depends on the size of mps, mpt, mpm since  $1-mpc = mps + mpm + mpt$ . Thus the factors that affect multiplier size includes:
  - The marginal propensity to save refers to a change in savings when there is a change in income. The mps value is affected by a country's attitudes towards savings.
  - The marginal propensity to import refers to a change in imports when there is a change in income. This is affected by whether the country is reliant on imports or not.
  - The marginal propensity to tax refers to a change in tax when there is a change in income. The mpt value is determined by the tax rates in a country.

Crowding out Effect

- If pure fiscal policy is undertaken (i.e. the government does not finance an increase in the budget deficit by increasing the money supply but borrows from individuals and firms), there will be crowding out effect.
- Thus factors that result in higher likelihood of crowding out effect thus limits the effectiveness of fiscal policy in solving cyclical unemployment.

**3. Explain that the effectiveness of fiscal policy is limited in addressing other types of unemployment**

- There are various causes of unemployment in an economy, other than a lack of AD, hence limiting the effectiveness of fiscal policy in addressing unemployment in the economy.
- For example, a common cause of unemployment may be structural unemployment, where structural unemployment refers to unemployment that arises from a mismatch of skills and jobs due to a change in the structure of the economy. Fiscal policy is limited in its ability to address structural unemployment.

- Frictional unemployment which occurs either when people leave their jobs either voluntarily or because they are sacked or made redundant, or when new entrants (e.g. graduates and school leavers) join the labour market, and these people are unemployed for a period of time while they are looking for a new job. The main cause of frictional unemployment is that information is imperfect. Since fiscal policy cannot address this information gap, it is thus limited in effectiveness in addressing frictional unemployment.

#### Conclusion:

- The effectiveness of fiscal policy is limited by various factors including factors that limit the effectiveness of fiscal policy as an AD-driven policy such as multiplier size and crowding out effect. The effectiveness of fiscal policy to address unemployment is also dependent on the causes of unemployment in the economy. If the cause of unemployment is not cyclical unemployment, then fiscal policy is limited in effectiveness in addressing unemployment in that economy.

#### Mark Scheme:

Levels	Description
<p><b>L3</b> (8-10)</p>	<ul style="list-style-type: none"> <li>• EXCELLENT <b>breadth</b> that considers the following economic concepts in explaining multiple and balanced perspectives, viewpoints, relationships and factors. ALL points chosen should be of <b>relevance</b> and <b>significance</b> in answering the question.               <ul style="list-style-type: none"> <li>• <i>At least 3 factors that limit the effectiveness of fiscal policy explained.</i></li> <li>• <i>Consideration of factors that limit the effectiveness of fiscal policy in addressing cyclical unemployment and other types of unemployment.</i></li> </ul> </li> <li>• EXCELLENT <b>depth</b> in economic analysis that reflects the following in <b>ALL</b> explanations. There was an accurate use of economic concepts, <b>clear</b> elaboration, and <b>precise</b> use of economic terminologies, language and phrasing in <b>ALL</b> explanations.               <ul style="list-style-type: none"> <li>• <i>Recognition that fiscal policy may address (cyclical) unemployment by influencing an increase in AD.</i></li> </ul> </li> </ul> <p>The answer should also be supported by:</p> <ul style="list-style-type: none"> <li>• Well-labelled and well-referred to diagram(s) / tool(s) of analysis drawn with <b>precision</b> (where appropriate).</li> <li>• <b>Relevant</b> examples and <b>accurate</b> use of facts.</li> <li>• <b>Logical</b> structure.</li> </ul>
<p><b>L2</b> (5-7)</p>	<ul style="list-style-type: none"> <li>• GOOD <b>breadth</b> that considers the following economic concepts in explaining multiple and balanced perspectives, viewpoints, relationships and factors. MOST points chosen should be of <b>relevance</b> and <b>significance</b> in answering the question.               <ul style="list-style-type: none"> <li>• <i>At least 2 factors that limit the effectiveness of fiscal policy explained.</i></li> <li>• <i>Consideration of factors that limit the effectiveness of fiscal policy in addressing cyclical unemployment and/or other types of unemployment.</i></li> </ul> </li> <li>• GOOD <b>depth</b> in economic analysis that reflects the following in <b>MOST</b> explanations. There an <b>accurate</b> use of economic concepts, <b>clear</b> elaboration, and <b>precise</b> use of economic terminologies, language and phrasing in <b>most</b> explanations.</li> </ul> <p>The answer should also be supported by:</p> <ul style="list-style-type: none"> <li>• Diagram(s) / Tool(s) of analysis that may not be well-labelled, may not be well-referred to and may not be drawn with precision (where appropriate).</li> <li>• Example(s).</li> <li>• <b>Logical</b> structure.</li> </ul>

<b>L1 (1-4)</b>	<ul style="list-style-type: none"> <li>INSUFFICIENT <b>breadth</b> that considers the following economic concept(s). Point(s) chosen may be of relevance but may not be of significance in answering the question.</li> <li>INSUFFICIENT depth in economic analysis that may reflect the following: <ul style="list-style-type: none"> <li>Lack of accuracy in the use of economic concepts, lack of clarity in elaboration, and lack of precision in the use of economic terminologies, language and phrasing.</li> </ul> </li> </ul>
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### Suggested Answer for Part (b)

#### Introduction:

- Sustained economic growth is defined as non-inflationary growth where a country is able to achieve an increase in national output, yet able to keep the inflation rate low.
- Inclusive economic growth takes into consideration income equity and ensures that members of society are able to gain similarly from economic growth.
- State that fiscal policy is an AD-driven policy and can be implemented to help the economy achieve actual economic growth. However, fiscal policy is limited in its ability to achieve potential economic growth. Moreover, unintended consequences of fiscal policy may also affect the inclusiveness of economic growth.

#### Body:

##### 1. Explain how fiscal policy achieves actual economic growth

- Expansionary fiscal policy, when the economy is operating below full employment, can be applied to stimulate AD to bring about actual economic growth. This can be implemented via increase in government expenditure or reduction in taxation.
- These may result in AD increasing from  $AD_0$  to  $AD_1$  as seen in Figure 1. National income increases more than proportionately via the multiplier effect from  $Y_0$  to  $Y_1$  resulting in actual economic growth.

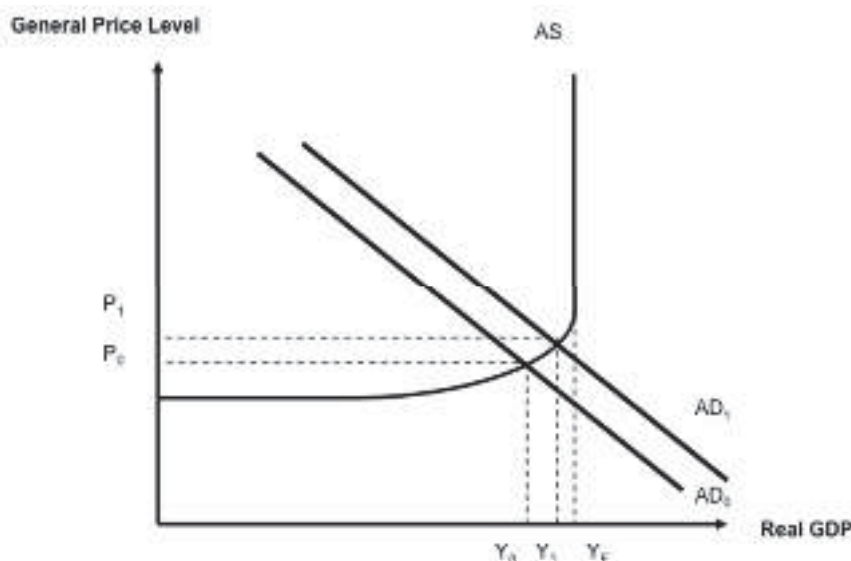


Fig. 1: Effects of an Expansionary Fiscal Policy

- However, fiscal policy is limited in its effectiveness in achieving actual economic growth due to the factors such as small multiplier size and crowding out effect as explained in part (a).
- In addition, fiscal policy is limited in its ability to achieve potential economic growth as a change in an economy's productive capacity is required instead.
- The impact on inclusiveness of the economic growth depends on how the fiscal tools are manipulated.

#### Evaluation:

- In Singapore, given that most fiscal policy measures are implemented with a supply-side consideration, it is likely bulk of tax cuts are on corporate taxation as it also encourages private firms to increase their investment expenditure. Thus, it is likely that income inequality may worsen as an unintended consequence of expansionary fiscal policy implemented.

- Whether or not economic growth is inclusive depends on whether increase in fiscal spending is spent on physical or social infrastructure

#### Evaluation:

- In Singapore, especially during times of economic recession, the government often implements an increase in GST vouchers, which is tiered towards greater funding for lower-income households to enhance spending and thus actual economic growth in the economy. Thus, the implementation of expansionary fiscal policy in this manner tends to be inclusive in Singapore.

## 2. Elaborate on alternative macroeconomic policies to achieve inclusive and sustainable economic growth.

#### Exchange Rate Policy

- Unlike expansionary fiscal policy, expansionary exchange rate policy will not result in unintended consequence of rising income inequity nor increase in government budget deficit.
- Moreover, given that the nature of Singapore's economy is heavily dependent on trade as the net exports take up 400% of our GDP, the government may rather use exchange rate policy to achieve its actual economic growth. This is especially so since the domestic consumer market may in fact be shrinking in size and significance due to the ageing population in Singapore.
- Depreciation of the exchange rate results in net exports increasing (assuming Marshall-Lerner condition holds), hence causing an increase in AD and thus achieving actual economic growth.
- However, the depreciation stance on exchange rate may lead to import price-push inflation.
- As Singapore is a small economy with few natural resources and imported items make up a fairly large proportion production costs or consumer spending, a depreciation of the Singapore's exchange rate increases the price of imports in domestic currency. This increases cost of production, hence decreases the SRAS which results in a rise in general price level. The fall in SRAS also causes a compromise in actual economic growth.
- In addition, in the long run, a weak currency may discourage influx of foreign direct investment (FDI) to a possible signalling of weaknesses in economic prospects. Returns from FDI are also lower due to the weak currency.

#### Supply-side policies

- Supply-side policies are policies that attempts to achieve macroeconomic goals by influencing the aggregate supply (AS) of an economy. There are various types of supply-side policies, those that target the short-run aggregate supply (SRAS) and those that target the long-run aggregate supply (LRAS). There are also market-oriented versus interventionist AS policies.

#### SRAS Policies

- To achieve actual economic growth, policies focused on enhancing SRAS may be implemented. One such example in Singapore would be the wage credit scheme, an interventionist policy where the government co-funds 40% of wage increases given to Singapore Citizen employees earning a gross monthly salary wage of \$4,000 and below.
- This helps to reduce wage costs for firms and help prevents them from closure, especially for small and medium-size enterprises (SMEs). The reductions in unit cost of production would increase the SRAS; hence SRAS increases from  $SRAS_0$  to  $SRAS_1$  as seen in Fig 2. This will help to dampen cost push inflation since General Price Level decreases from  $P_0$  to  $P_1$  as well as leading to actual economic growth since national income from  $Y_0$  to  $Y_1$ .
- In addition, wage credit scheme is intended to supplement the income of lower-income groups in Singapore, and thus helps to ensure that economic growth achieved is inclusive.
- One consideration of this scheme would be the huge government spending required, which may result in an opportunity cost, where government may have to forgo spending in other areas of merit, such as healthcare and education.

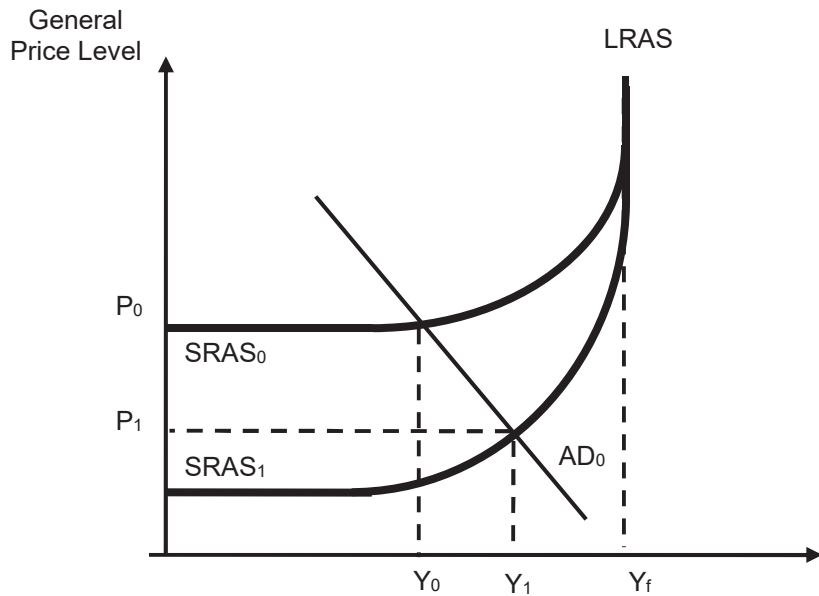


Fig. 2: Effects of SRAS policy

#### LRAS Policies

- To achieve potential economic growth, the Singapore government should implement policies targeted at enhancing LRAS. LRAS policies achieve economic growth by enhancing the productive capacity of the economy by increasing the quantity or improving the quality of factors of production in the economy. An improvement in technology implemented will also enhance the productive capacity and hence LRAS of an economy.
- In the light of the ageing population in Singapore and the concerns of the impact of shrinking the labour force in the economy, the focus of such policies may likely be in areas such as skills-upgrading of labour force or to increase in size of labour force, such as foreign labour policies or procreation policies. To address the declining productive capacity of the economy due to the shrinking labour force, AS policies can also be focused on enhancing innovation adoption in the economy.
- These LRAS policies results in an increase in full employment output level from  $Y_{F0}$  to  $Y_{F1}$ , thereby helping to achieve potential growth as shown by LRAS increasing from  $LRAS_0$  to  $LRAS_1$ . This dampens demand pull inflation in the long run. Thus it is clearly evident that LRAS policies are integral to be implemented in order for an economy to achieve sustained economic growth.

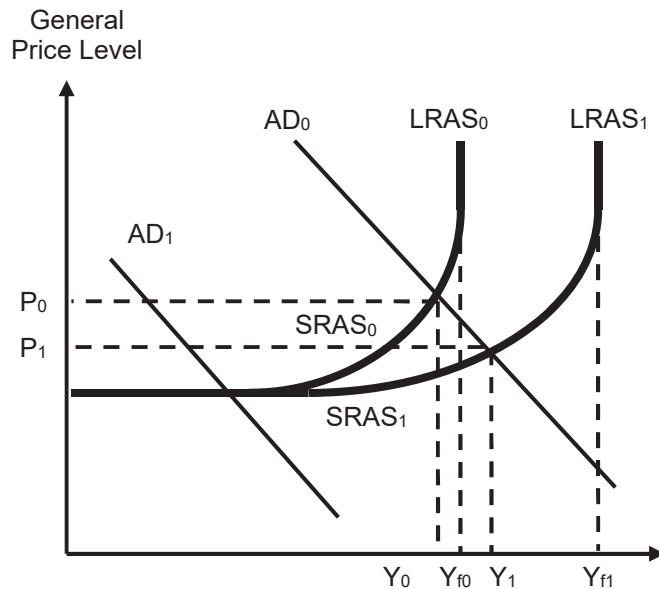


Fig. 3: Effects of LRAS policy

- Whether or not the policies result in inclusive growth depends on specific policy being implemented.
- Provide examples of policies used in Singapore such as SkillsFuture Credit and SMEs Go Digital.
- As compared to fiscal policy, it seems that LRAS policies may be better able to ensure inclusiveness in the economic growth achieved in the economy.

#### Evaluative Conclusion:

- Implementation of fiscal policy alone is unlikely to achieve inclusive and sustainable economic growth. Instead, a combination of AD and AS policies is required.
- AS policies, especially LRAS policies are necessary in order to ensure that potential economic growth is achieved.
- Moreover, even in achievement of actual economic growth, other policies such as depreciation of exchange rate of SRAS policies are preferred in consideration of Singapore's context, where Singapore is both export-led and import reliant.
- Whether the implementation of fiscal policy is inclusive is dependent on what the government spends on in terms of increase in fiscal spending.

#### Mark Scheme:

Levels	Descriptors
L3 8 - 10	<p>For an answer that demonstrates knowledge, understanding, application and analysis:</p> <ul style="list-style-type: none"> <li>➤ EXCELLENT <b>breadth</b> that considers the following economic concepts in explaining multiple and <b>balanced perspectives, viewpoints, relationships and factors</b>. ALL points chosen should be of <b>relevance and significance</b> in answering the question. <ul style="list-style-type: none"> <li>• <i>At least 3 policies that are used to achieve actual and potential economic growth.</i></li> <li>• <i>Policies address inclusiveness of economic growth <u>and/or</u> concerns of ageing population.</i></li> </ul> </li> <li>➤ EXCELLENT <b>depth</b> in economic analysis that reflects the following in ALL explanations. <ul style="list-style-type: none"> <li>✓ <b>Accurate</b> use of economic concepts, <b>clear</b> elaboration, and <b>precise</b> use of economic terminologies, language and phrasing. <ul style="list-style-type: none"> <li>• <i>Depth in analysis supported by relevant economic concepts such as Marshall-Lerner condition (for exchange rate policy), AD/AS analysis (for fiscal and SS-side policy).</i></li> <li>• <i>Recognition of limitation of fiscal policy and explanation of limitation of other policies discussed.</i></li> </ul> </li> </ul> </li> </ul>

	<p>The answer should also be supported by:</p> <ul style="list-style-type: none"> <li>➤ Well-labelled and well-referred to diagram(s) drawn with <b>precision</b> (where appropriate).</li> <li>➤ <b>Relevant and contextualised</b> examples and <b>accurate</b> use of facts.</li> <li>➤ <b>Logical</b> structure.</li> </ul>
<b>L2</b> <b>5 - 7</b>	<p>For an answer that demonstrates knowledge and understanding but lacks application and analysis:</p> <ul style="list-style-type: none"> <li>• At least GOOD <b>breadth</b> that considers the following economic concepts in explaining multiple and balanced perspectives, viewpoints, relationships and factors. MOST points chosen should be of <b>relevance</b> and <b>significance</b> in answering the question. <ul style="list-style-type: none"> <li>• <i>At least 2 policies that are used to achieve actual <u>and/or</u> potential economic growth.</i></li> </ul> </li> <li>• At least GOOD <b>depth</b> in economic analysis that reflects the following in MOST explanations. <ul style="list-style-type: none"> <li>✓ <b>Accurate</b> use of economic concepts, <b>clear</b> elaboration, and <b>precise</b> use of economic terminologies, language and phrasing.</li> <li>• <i>Some attempt at economic analysis using concepts such as Marshall-Lerner condition, AD/AS but may not be well explained.</i></li> </ul> </li> </ul> <p>The answer should also be supported by:</p> <ul style="list-style-type: none"> <li>• Diagram(s) that may not be well-labelled, may not be well-referred to and may not be drawn with precision (where appropriate).</li> <li>• Example(s).</li> <li>• <b>Logical</b> structure.</li> </ul>
<b>High L1</b> <b>3 - 4</b>	<p>For an answer that demonstrates knowledge but lacks understanding, application and analysis:</p> <ul style="list-style-type: none"> <li>• INSUFFICIENT breadth that considers the following economic concept(s). Point(s) chosen may be of relevance but may not be of significance in answering the question. <ul style="list-style-type: none"> <li>• <i>May only have 1 policy explained.</i></li> </ul> </li> <li>• INSUFFICIENT <b>depth</b> in economic analysis that may reflect the following: <ul style="list-style-type: none"> <li>• Lack of accuracy in the use of economic concepts, lack of clarity in elaboration, and lack of precision in the use of economic terminologies, language and phrasing.</li> </ul> </li> </ul>
<b>Low L1</b> <b>1 - 2</b>	<p>For an answer that:</p> <ul style="list-style-type: none"> <li>• Largely irrelevant in analysis but may contain an introduction that addresses the question, OR contains no economic analysis but may contain a few statements that are relevant in answering the question.</li> <li>• Contains fundamental conceptual errors in analysis.</li> </ul>

Levels	Descriptors
<b>E3</b> <b>4 - 5</b>	<p>For an evaluation that contains</p> <ul style="list-style-type: none"> <li>➤ A synthesis of earlier economic arguments to arrive at <b>relevant</b> judgements/decisions (i.e. answer the question).</li> <li>➤ Well-explained criteria-based evaluative comments supported by <b>accurate</b> and <b>clear</b> analysis to provide <b>fairness</b> in views.</li> <li>➤ A good summative conclusion.</li> </ul>
<b>E2</b> <b>2 - 3</b>	<p>For an evaluation that contains</p> <ul style="list-style-type: none"> <li>➤ <b>Relevant</b> judgement(s)/decision(s) (i.e. answer the question) that may not follow from earlier economic arguments.</li> </ul>

	<ul style="list-style-type: none"> <li>➤ Criteria-based evaluative comment(s) supported by analysis to provide <b>fairness</b> in views but the comment(s) may not be well-explained, may be unclear and/or may be inaccurate at times.</li> </ul>
<p style="text-align: center;"><b>E1</b> <b>1</b></p>	<p>For an evaluation that contains</p> <ul style="list-style-type: none"> <li>➤ <b>Relevant</b> but unexplained evaluative judgement(s)/statement(s) i.e. evaluative judgement(s)/statement(s) not supported by analysis OR</li> <li>➤ A <b>relevant</b> conclusion not properly explained</li> </ul>



- 6 While some countries are increasingly engaging in establishing free trade agreements to promote trade and capital flow, others seem to view free trade agreements with scepticism.

Discuss the factors that influence the different stands governments of different countries may have towards free trade agreements. [25]

**Suggested Answer:**

**Introduction:**

- A free trade agreement seeks to lower both non-tariff and tariff barriers to trade.
- The different stands made by different governments will depend on the relative benefits and costs of signing FTA to the two countries due to changes in trade, capital and labour flow.
- The changing trade pattern and whether it is beneficial for a country to promote free trade will depend on the possible constraints faced by individual economies such as:
  - Nature of the economy (i.e. size of the economy)
  - Openness of the economy
  - Current stage of development of the country
  - Current state of the economy
  - The available measures to address the unintended consequences brought about by the FTA

**Impact of trade flow on:**

**Actual and potential economic growth**

- By signing FTA, there will be lower non-tariff trade barrier to allow a country to export their products to the member countries, increasing their export market size.
- The increase in the size of the export market will increase the demand for a country's exports. This will lead to an increase in price and quantity of exported goods resulting in an increase in export revenue.
- Assuming that import expenditure remained constant, the increase in export revenue will lead to an increase in net export revenue.
- The increase in net export revenue will lead to an increase in AD and hence an increase in real national income.

**Unemployment**

- With increasing competition from firms in member countries, firms in the economy may suffer a fall in market share. This will lead to a fall in AR and MR of the firms in the domestic economy.
- With a fall in the production by firms in the economy, there will be a decrease in the demand for labour in the economy, resulting in higher levels of unemployment.
- For workers who are not able to transit from one job to another due to the lack of skills, there will be an increase in structural unemployment.

**Price Stability**

- If the economy is near the full employment level, the firms will not be able to increase the production due to the limited resources available in the economy. Therefore, firms will have to bid up the prices in order to clear the shortage in the economy. This may also lead to an increase in demand pull inflation.
- However, with greater access to cheaper imports, the economy may be able to enjoy a lower cost of production if the imported goods are raw material.
- This decrease in cost of production will lead to an increase in SRAS, leading to a fall in cost-push inflation.

**Standard of living**

- If there is an increase in real national income, consumers will be able to purchase more goods and services and enjoy a greater variety of goods.
- Therefore, there will be an increase in the material standard of living.

## Equity

- As firms in the expanding industries increase in size, there will be an increase in the demand for labour. The increase in the demand for labour in the expanding industries will lead to an upward pressure on the wage level of the worker in the industries.
- However, the industries that suffer a loss in comparative advantage will begin to decline and hence the demand for labour in these declining or sunset industries will fall. This will lead to a fall in the wage of the workers in these industries.

## Factors affecting the benefit and costs of increased trade flow:

### 1. Size of economy

- The size of the economy may influence the country's dependency on trade for actual economic growth. A small country like Singapore will most likely benefit more from the signing of FTA due to size of the economy.
- The signing of FTA will also benefit a small country like Singapore more because the firms will be able to reap higher internal economies of scale as a compared to a large country. Therefore, large countries such as USA may view FTA with scepticism.

### 2. Openness of the economy

- The openness of the economy will also determine whether there will be a net increase or decrease in net export due to the increase in trade flow.
- Countries such as United States are highly dependent on imported products. The increase in trade flow will allow more Americans to purchase more imports. The increase in demand for imports will cause the net export to fall, resulting in a decrease in AD and a worsening of the balance of trade.
- At the same time, economies that require the import of raw material from trading partners will stand to gain more. Countries such as Singapore will have to remain open due to the lack of natural resources. Singapore needs the import of raw material in order to produce the exported goods. Therefore, Singapore will find the free trade agreement beneficial.

### 3. Current state of the economy

- The current unemployment level and economic growth will determine the likelihood of demand-pull inflation.

### 4. Current stage of development of the economy

- If the economy has trade barriers to maintain an artificial comparative advantage, the signing of the FTA will cause the economy to lose its comparative advantage to other countries.
- The loss of the comparative advantage will mean that the economy will stop or reduce the specialisation and export of the product, leading to a fall in export demand of the economy. This will result in a fall in AD and hence a fall in the actual economic growth.
- At the same time, a developing country will also have a weaker bargaining power in their terms of trade. While the terms of trade will lie in between the opportunity costs between the two trading countries, there may only be an insignificant gain from trade when the terms of trade is agreed at a level where it is too close to the opportunity cost of producing the exported goods in the developing country. Therefore, developing countries may view trade agreements with scepticism.

### 5. Policies available to mitigate the negative impact

- One of the factors affecting governments' stand towards FTA is the availability of policies to mitigate the negative impact

### 6. Possible dumping by other countries

- If there is possible dumping currently happening, the signing of the FTA will make it worse.

## Evaluation:

- The size and openness of the economy are more important than the current state of the economy and possible dumping by other countries.
- The size and openness of the economy are key constraints that the economy will continue to face despite the current state of the economy. For example, Singapore must continue to promote free trade to have access to the much-needed raw material regardless of the the current state of the economy. On the other hand, countries such

as United States will not need to depend on trade for their survival due to their large domestic market base. Therefore, the size of the economy and openness of the economy is a significant factor in influencing their stands towards FTA.

- Lastly, external factors such as dumping can hardly be controlled by the economy. Furthermore, it is difficult for a country to prove that dumping is occurring. Therefore, to use argument to reject free trade agreement does not hold much ground.

### **Impact of capital flow on:**

#### **Actual and potential Economic growth**

- The signing of the FTA can have significant impacts on capital flows.
- When there is an increase in the level of foreign direct investment, there will be higher level of investment.
- Since investment is part of AD, there will be an increase in AD. The firms will see an unplanned increase in inventories at the current general price level and caused firms to step up on the production.
- The increase in production will lead to a more than proportionate increase in real national income via the multiplier process. This may also lead to a possible increase in demand pull inflation as well.
- At the same time, the increase in FDI may also bring along transfer of technology and ideas.
- The transfer of technology may increase the quality of labour in the country. This will lead to an increase in the long run aggregate supply of the economy, leading to an increase in full employment level of the economy. This will result in possible potential economic growth.

#### **Unemployment**

- As more FDI enter the recipient countries, there will also creation of more jobs for the locals, generating a higher level of employment. However, there can be more outsourcing taking place as a country is open to capital flow. When there is greater outsourcing, firms will relocate a particular stage of production process overseas, causing an increase in unemployment in the home country.

#### **Price stability**

- The increase in production will lead to a more than proportionate increase in real national income via the multiplier process. If the economy is near the full employment level, the firms will not be able increase the production due to the limited resources available in the economy. Therefore, firms will have to bid up the prices in order to clear the shortage in the economy. This may also lead to an increase in demand pull inflation.
- However, the increase in outsourcing will also lead to a fall in cost of production due to the cheaper labour costs in other countries. This will cause the SRAS to increase, resulting in a fall in cost-push inflation.

#### **BOP position**

- If there is a net capital inflow, the economy will enjoy an improvement in the capital and financial account.
- Assuming that there is no change to the current account, there will be an improvement in the balance of payment.
- Similarly, if there is net capital outflow, the economy will suffer a worsening of the balance of payment.

### **Factors affecting the benefit and cost of increased capital flow:**

#### **1. Current stage of development and the current state of the economy**

- Two factors affecting governments' stand towards FTA are the current stage of development of the country and the current state of the economy.
- It is more commonly observed that FDI tends to move from developed countries to the developing countries as multinational firms outsource labour-intensive production to the developing countries, which has relatively higher labour endowment.

#### **2. Current state of the economy (Current BOP position)**

- This is especially worse for countries that are currently suffer from a negative economic growth, high unemployment and balance of trade deficit.
- The outflow of capital from the developed countries to the developing countries will mean that the developed countries will most likely suffer from a worsening of the balance of payment and an increase in the level of unemployment.

### 3. Policies available to mitigate the negative impact

- One of the factors affecting governments' stand towards FTA is the availability of policies to mitigate the negative impact
- For example, Singapore has various supply side policies to ensure that workers are unskilled, reskilled and upskilled in order to prevent structural unemployment. Therefore, in the event that there is outsourcing of production processes to other countries, the impact on structural unemployment will not be severe as these workers may be reallocated to other industries.

#### Evaluation:

- The current stage of development of the economy and the policies available to mitigate the negative impact are likely to be the more important factors.
- The current stage of development will determine the likely flow of the capital given the way how MNCs designed their supply chain management processes.
- In the case of United States, labour-intensive production will be outsourced to other countries such as Mexico. If there is a high degree of occupational immobility within the United States, then the probability of suffering from structural unemployment will be very high.

#### Mark Scheme:

Levels	Descriptors
High L3 18 - 20	<p>For an answer that demonstrates knowledge, understanding, application and analysis:</p> <ul style="list-style-type: none"> <li>• EXCELLENT <b>breadth</b> that considers the following economic concepts in explaining multiple and balanced perspectives, viewpoints, relationships and factors. ALL points chosen should be of <b>relevance</b> and <b>significance</b> in answering the question. <ul style="list-style-type: none"> <li>• Analysis of the FTA covers the increased ease of trade flow AND capital flow</li> <li>• Analysis include the impact on external and internal stability and at least 1 microeconomic goal</li> <li>• Analysis of at least 3 factors affecting the extent of the impact of trade flow and capital flow.</li> </ul> </li> <li>• EXCELLENT <b>depth</b> in economic analysis that reflects the following in ALL explanations. <ul style="list-style-type: none"> <li>✓ <b>Accurate</b> use of economic concepts, <b>clear</b> elaboration and <b>precise</b> use of economic terminologies, language and phrasing.</li> <li>• Use of AD/AS analysis to examine impact on macroeconomic goals</li> </ul> </li> </ul> <p>The answer should also be supported by:</p> <ul style="list-style-type: none"> <li>• Well-labelled and well-referred to diagram(s) / tool(s) of analysis drawn with <b>precision</b> (where appropriate).</li> <li>• <b>Relevant</b> examples and <b>accurate</b> use of facts.</li> <li>• <b>Logical</b> structure.</li> </ul>
Low L3 15 - 17	<p>For an answer that demonstrates knowledge, understanding, application and analysis:</p> <ul style="list-style-type: none"> <li>• At least VERY GOOD <b>breadth</b> that considers the following economic concepts in explaining multiple and balanced perspectives, viewpoints, relationships and factors. MOST points chosen should be of <b>relevance</b> and <b>significance</b> in answering the question. <ul style="list-style-type: none"> <li>• Analysis of the FTA covers the increased ease of trade flow and capital flow</li> <li>• Analysis include the impact on internal stability and (external stability or a microeconomic goal)</li> <li>• Analysis of at least 2 factors affecting the extent of the impact of trade flow and capital flow</li> </ul> </li> <li>• At least VERY GOOD <b>depth</b> in economic analysis that reflects the following in MOST explanations.</li> </ul>

	<ul style="list-style-type: none"> <li>• <b>Accurate</b> use of economic concepts, <b>clear</b> elaboration, and <b>precise</b> use of economic terminologies, language and phrasing. <ul style="list-style-type: none"> <li>• Use of AD/AS analysis to examine impact on macroeconomic goals</li> </ul> </li> </ul> <p>The answer should also be supported by:</p> <ul style="list-style-type: none"> <li>• Well-labelled and well-referred to diagram(s) / tool(s) of analysis drawn with <b>precision</b> (where appropriate).</li> <li>• <b>Relevant</b> example(s) and <b>accurate</b> use of facts.</li> <li>• <b>Logical</b> structure.</li> </ul>
<p><b>High L2 12 - 14</b></p>	<p>For an answer that demonstrates knowledge and understanding but lacks application and analysis:</p> <ul style="list-style-type: none"> <li>• At least GOOD <b>breadth</b> that considers the following economic concepts in explaining multiple and balanced perspectives, viewpoints, relationships and factors. MOST points chosen should be of <b>relevance</b> and <b>significance</b> in answering the question. <ul style="list-style-type: none"> <li>• Analysis of the FTA covers the increased ease of trade flow OR capital flow</li> <li>• Analysis include the impact on internal stability and (external stability or a microeconomic goal)</li> <li>• Analysis of at least 2 factors affecting the extent of the impact of trade flow and capital flow</li> </ul> </li> </ul> <p>OR</p> <ul style="list-style-type: none"> <li>• Analysis of the FTA covers the increased ease of trade flow AND capital flow</li> <li>• Analysis include the impact on any one of the following: <ul style="list-style-type: none"> <li>○ Internal stability</li> <li>○ External stability</li> <li>○ Microeconomic goal</li> </ul> </li> <li>• Good Analysis of at least 2 factors affecting the extent of the impact of trade flow and capital flow</li> </ul> <ul style="list-style-type: none"> <li>• At least GOOD <b>depth</b> in economic analysis that reflects the following in MOST explanations.</li> <li>• <b>Accurate</b> use of economic concepts, <b>clear</b> elaboration, and <b>precise</b> use of economic terminologies, language and phrasing. <ul style="list-style-type: none"> <li>• Use of AD/AS analysis to examine impact on economic goals</li> <li>• Clear linkage between factor to extent of impact on economic goals</li> </ul> </li> </ul> <p>The answer should also be supported by:</p> <ul style="list-style-type: none"> <li>• Diagram(s) / Tool(s) of analysis that may not be well-labelled, may not be well-referred to and may not be drawn with precision (where appropriate).</li> <li>• Some example(s).</li> <li>• <b>Logical</b> structure.</li> </ul>

<p><b>Low L2</b> 9 - 11</p>	<p>For an answer that demonstrates knowledge and understanding but lacks application and analysis:</p> <ul style="list-style-type: none"> <li>• At least <b>SUFFICIENT breadth</b> that considers the following economic concepts in explaining multiple and balanced perspectives, viewpoints, relationships and factors. <b>SOME</b> points chosen should be of <b>relevance</b> and <b>significance</b> in answering the question. <ul style="list-style-type: none"> <li>• Analysis of the FTA covers the increased ease of trade flow <b>AND/OR</b> capital flow</li> <li>• Analysis include the impact on any <b>ONE</b> of the following: <ul style="list-style-type: none"> <li>○ Internal stability</li> <li>○ External stability</li> <li>○ Microeconomic goal</li> </ul> </li> <li>• Analysis of at least 2 factors affecting the extent of the impact of trade flow <b>OR</b> capital flow</li> </ul> </li> <li>• At least <b>SUFFICIENT depth</b> in economic analysis that reflects the following in <b>SOME</b> explanations. <ul style="list-style-type: none"> <li>✓ <b>Accurate</b> use of economic concepts, <b>clear</b> elaboration, and <b>precise</b> use of economic terminologies, language and phrasing.</li> <li>• Recognition of the factors affecting the extent of the impact of trade flow <b>OR</b> capital flow</li> </ul> </li> </ul> <p>The answer should also be supported by:</p> <ul style="list-style-type: none"> <li>• Diagram(s) / Tool(s) of analysis that may not be well-labelled, may not be well-referred to and may not be drawn with precision (where appropriate).</li> <li>• Example(s).</li> <li>• <b>Logical</b> structure.</li> </ul>
<p><b>High L1</b> 5 - 8</p>	<p>For an answer that demonstrates knowledge but lacks understanding, application and analysis:</p> <ul style="list-style-type: none"> <li>• <b>INSUFFICIENT breadth</b> that considers the following economic concept(s). Point(s) chosen may be of relevance but may not be of significance in answering the question. <ul style="list-style-type: none"> <li>• Analysis of the FTA covers the increased ease of trade flow <b>OR</b> capital flow</li> <li>• Analysis include the impact on any <b>ONE</b> of the following: <ul style="list-style-type: none"> <li>○ Internal stability</li> <li>○ External stability</li> <li>○ Microeconomic goal</li> </ul> </li> <li>• Analysis of at least 1 factor affecting the extent of the impact of trade flow <b>OR</b> capital flow</li> </ul> </li> <li>• <b>INSUFFICIENT depth</b> in economic analysis that may reflect the following:</li> <li>• Lack of accuracy in the use of economic concepts, lack of clarity in elaboration, and lack of precision in the use of economic terminologies, language and phrasing.</li> </ul>
<p><b>Low L1</b> 1 - 4</p>	<p>For an answer that:</p> <ul style="list-style-type: none"> <li>• Demonstrates <b>POOR breadth and POOR economic analysis</b>.</li> <li>• Is irrelevant in analysis but may contain an introduction that addresses the question or contains <b>no economic analysis but may contain a few statements</b> that are relevant to the concepts <b>required to answer the question</b>.</li> <li>• Contains fundamental conceptual errors in analysis.</li> </ul>

Levels	Descriptors
<p><b>E3</b> 4 - 5</p>	<p>For an evaluation that contains</p> <ul style="list-style-type: none"> <li>➤ A synthesis of earlier economic arguments to arrive at <b>relevant</b> judgements/decisions (i.e. answer the question).</li> <li>➤ Well-explained criteria-based evaluative comments supported by <b>accurate</b> and <b>clear</b> analysis to provide <b>fairness</b> in views.</li> </ul>

	<ul style="list-style-type: none"> <li>➤ A good summative conclusion.</li> </ul>
<b>E2</b> <b>2 - 3</b>	<p>For an evaluation that contains</p> <ul style="list-style-type: none"> <li>➤ <b>Relevant</b> judgement(s)/decision(s) (i.e. answer the question) that may not follow from earlier economic arguments.</li> <li>➤ Criteria-based evaluative comment(s) supported by analysis to provide <b>fairness</b> in views but the comment(s) may not be well-explained, may be unclear and/or may be inaccurate at times.</li> </ul>
<b>E1</b> <b>1</b>	<p>For an evaluation that contains</p> <ul style="list-style-type: none"> <li>➤ <b>Relevant</b> but unexplained evaluative judgement(s)/statement(s) i.e. evaluative judgement(s)/statement(s) not supported by analysis OR</li> <li>➤ A <b>relevant</b> conclusion not properly explained</li> </ul>

