

# **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.

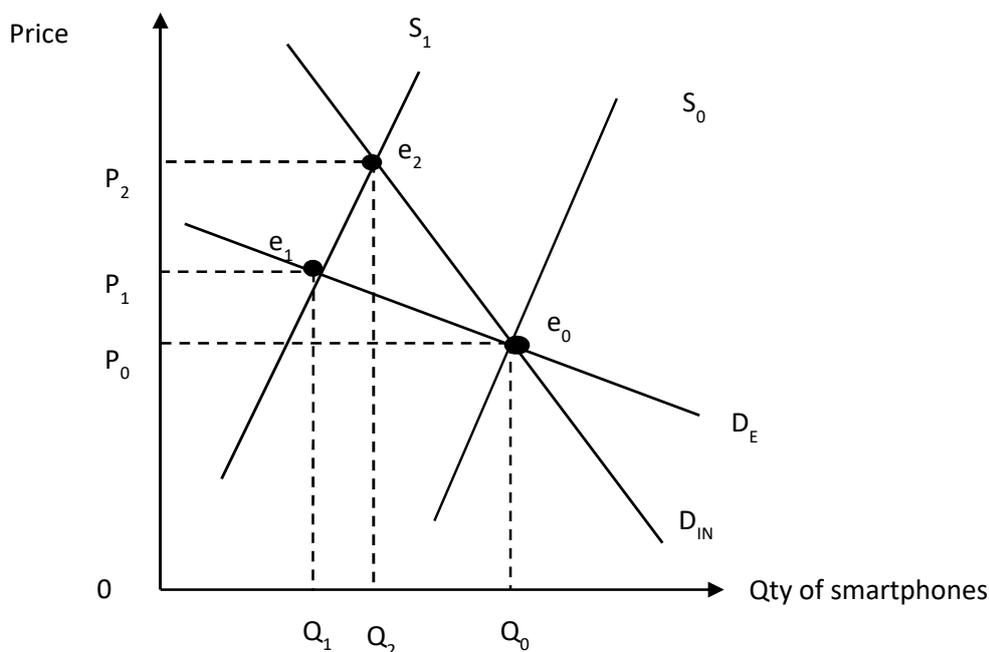


Figure 1: Market for smartphone - Impact of a decrease in Supply on smartphones of different PED values

#### 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><u>And</u></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]

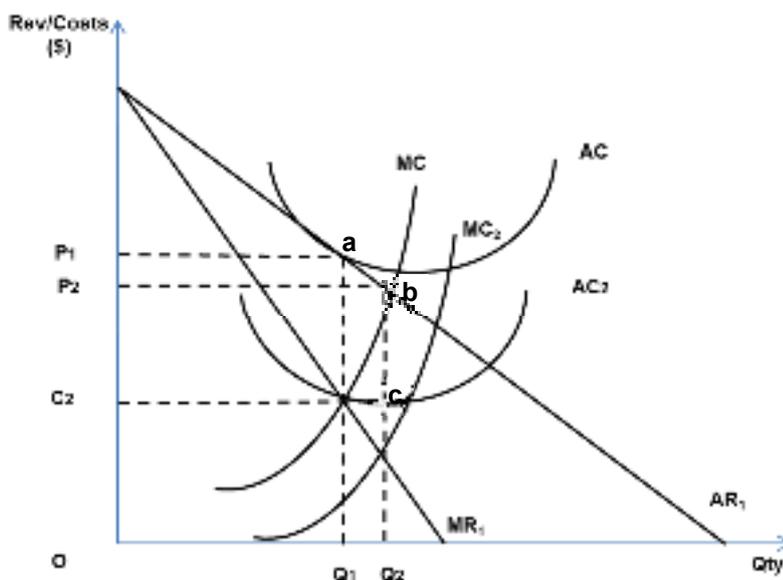
### Suggested Answer

#### 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.



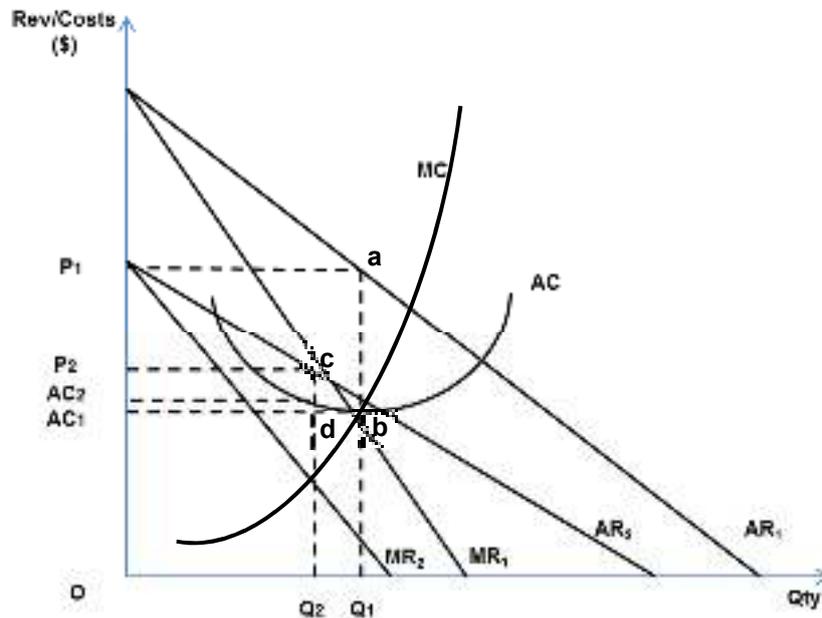
- As seen in Fig. 1 above, MC and AC curves shift downwards from MC and AC to MC<sub>2</sub> and AC<sub>2</sub> respectively
- At the original output of Q<sub>1</sub>, MR is now higher than the new MC that is illustrated by MC<sub>2</sub> leading to an increase in profits.
- Thus, a profit-maximising firm will be incentivised to increase output towards Q<sub>2</sub>, where MR = MC again, where profits are maximised.
- At the new profit-maximising output Q<sub>2</sub>, price of the firm's product has fallen to P<sub>2</sub>.
- **The profit level has now increased from normal profit to a supernormal profit of C<sub>2</sub>P<sub>2</sub>bc**

**Evaluation:**

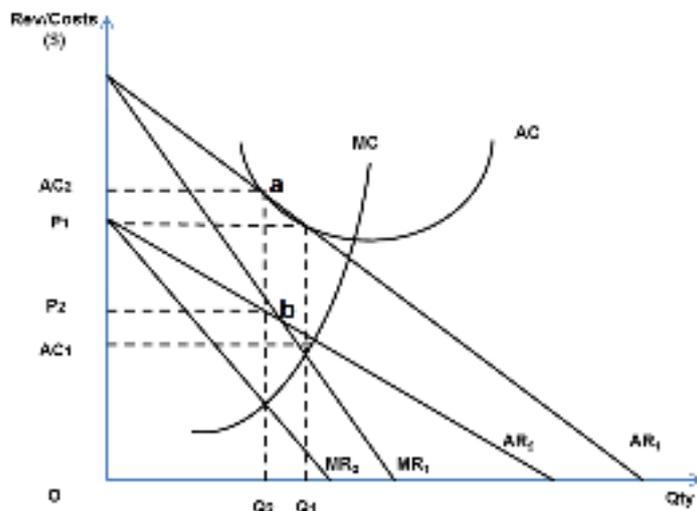
- The extent to which cost of production decreases depends on the proportion of the factor inputs sourced from overseas, and also the extent of the cost savings with the removal of barriers to trade.
- There are also limits to cost savings from the increased flow of cheaper foreign labour.
- On the other 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  $P_2 AC_2ab$ .

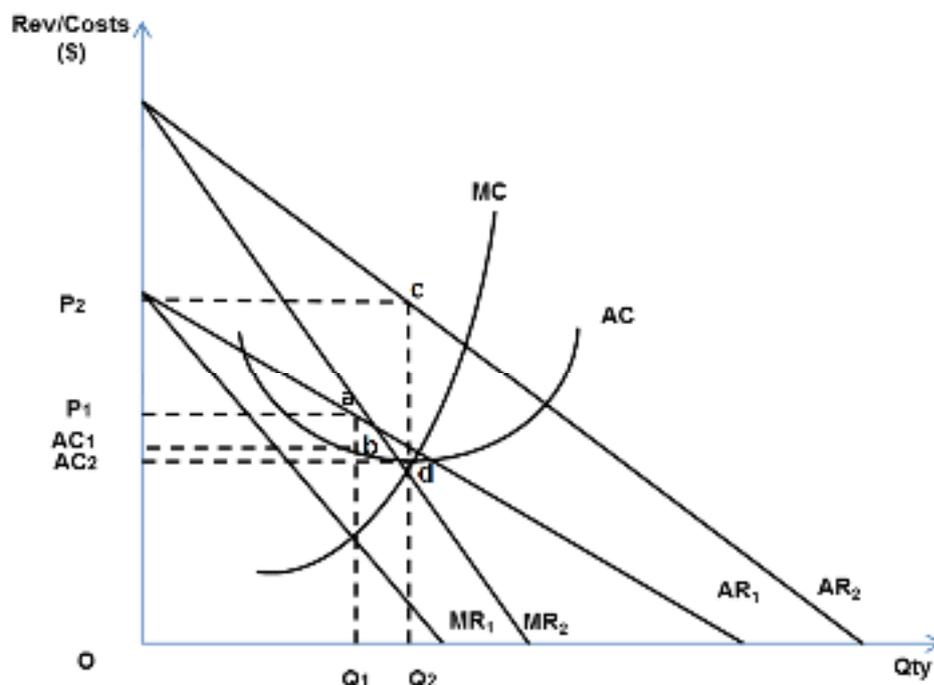


### Evaluation:

- 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

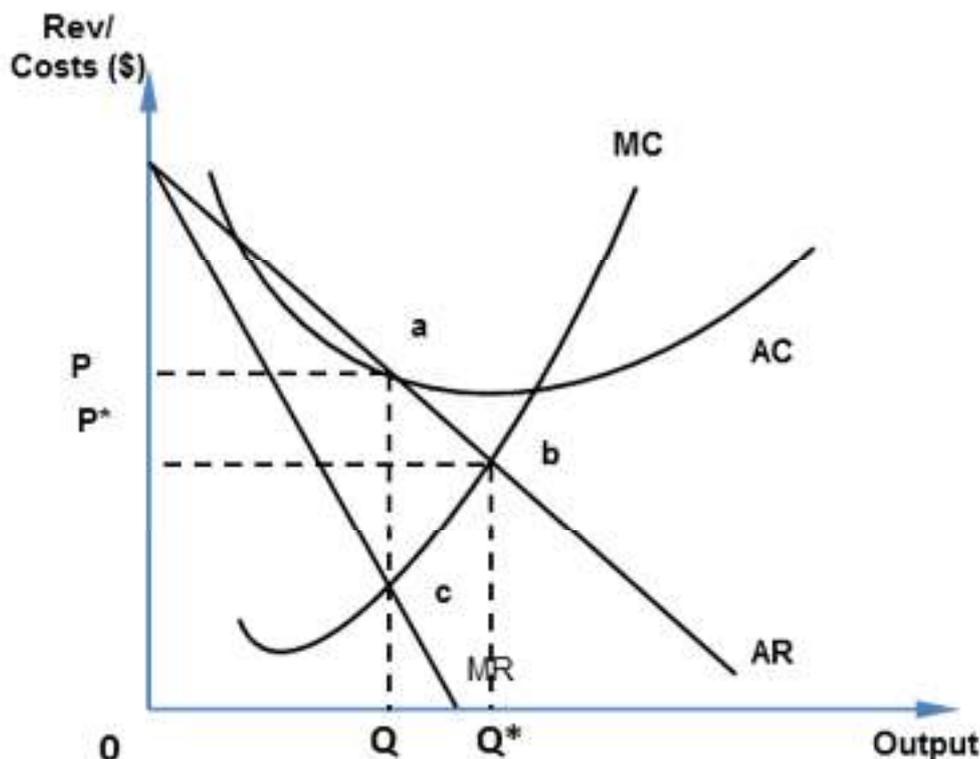
- Economies of scale from the expansion into other markets would allow firms to gain internal economies of scale. This means that the unit cost of production decreases, resulting in increased efficiency in production.
- Similarly, firms that can employ skilled foreign talent can help to increase the 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
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 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>
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 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.

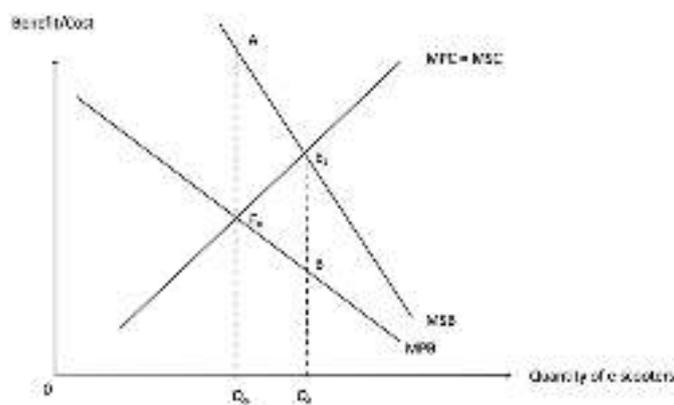


Fig 1

### 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.

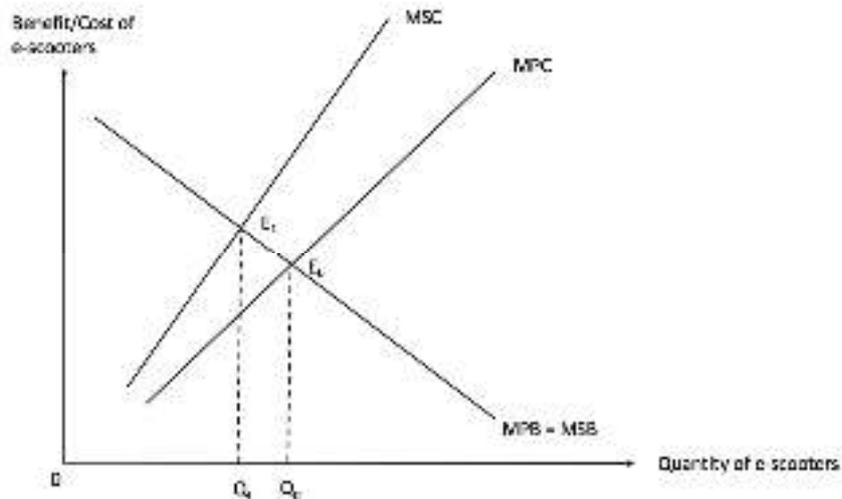


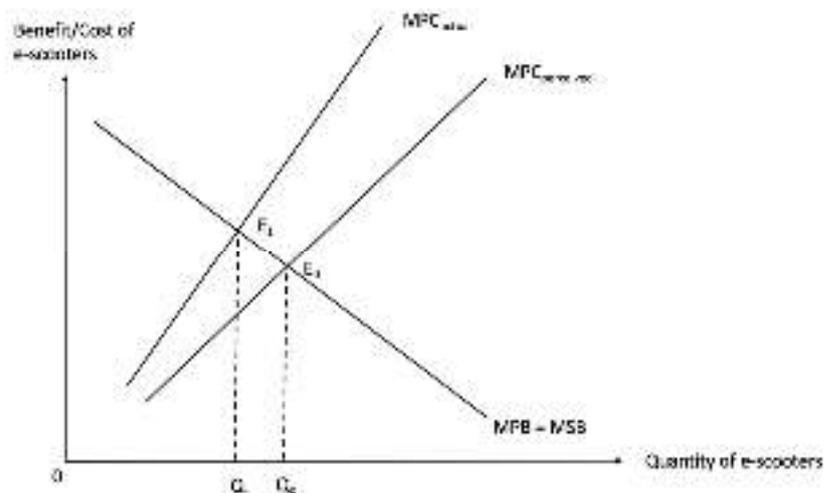
Fig 2

### 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.

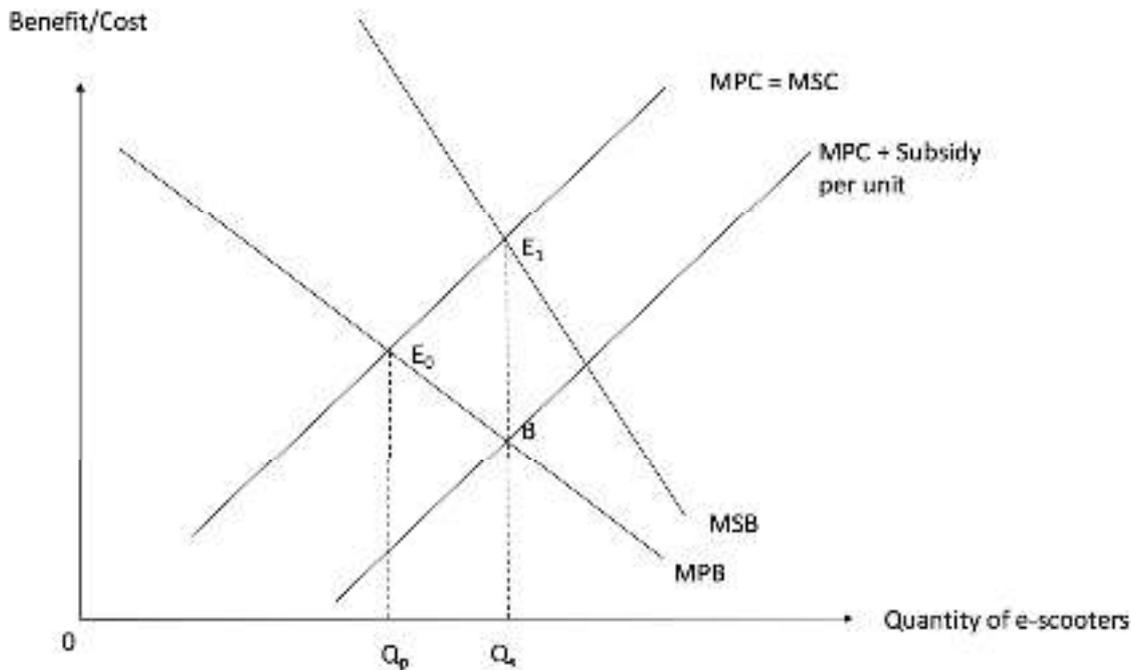
### Evaluation:

- 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>▪ 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 3 policies, covering both market-based and non-market based policies</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>○ Consideration of at least 2 policies, covering both market-based and/or non-market based policies</li> </ul> </li> <li>○</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 precision (where appropriate).</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>
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 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>
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>

E3 (4-5)	<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>
E2 (2-3)	<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>
E1 (1)	<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.

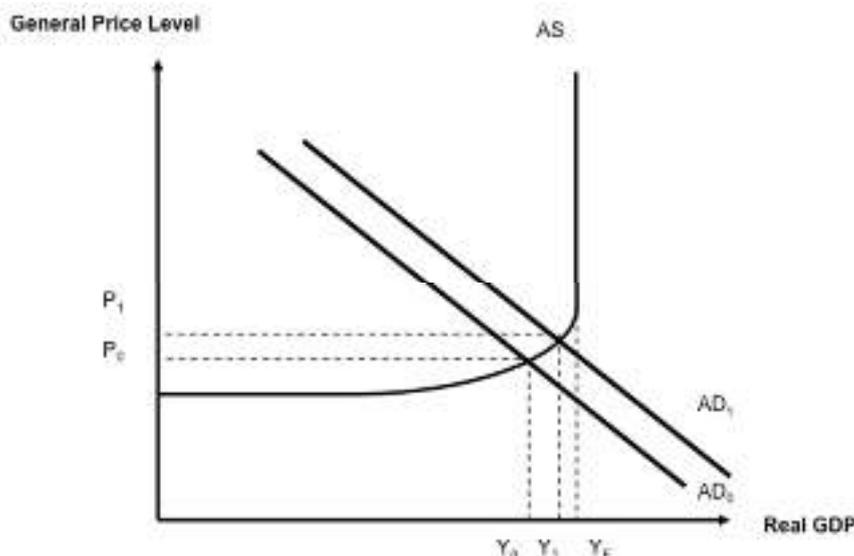


Fig. 1: Effects of an Expansionary Fiscal Policy

- 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 inequity 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.

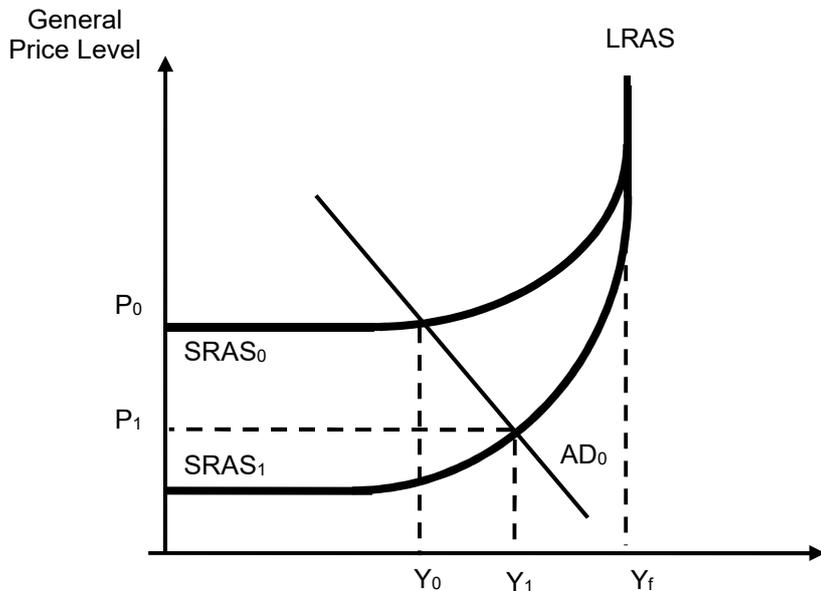


Fig. 2: Effects of SRAS policy

#### 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.

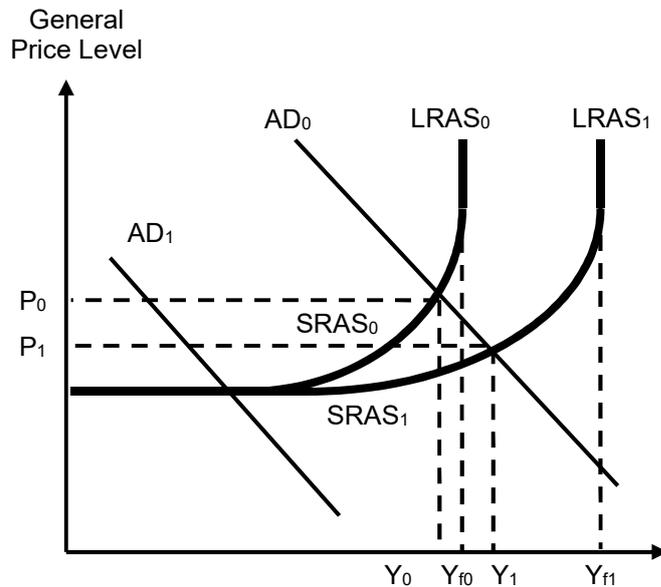


Fig. 3: Effects of LRAS policy

- 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 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 policies that are used to achieve actual <u>and</u> 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>
<b>E1 1</b>	For an evaluation that contains <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 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</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
<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>