

YISHUN JUNIOR COLLEGE
JC2 PRELIMINARY EXAMINATIONS 2015

ECONOMICS
Higher 2

9732/02

21 AUGUST 2015
0800h – 1015h

Additional materials:
Writing paper
Cover page



TIME 2 hours 15 minutes

INSTRUCTIONS TO CANDIDATES

Write your name, CTG and index number in the spaces provided on the cover page and on all sheets of writing paper handed in.

Write in dark blue or black pen.

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

Do not use highlighters, glue or correction fluid.

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

At the end of the examination, tie all your attempted questions to a **one** cover sheet. Indicate clearly on the cover sheet the **question number** of your attempted questions, **in the order in which you attempted them**, e.g. if you did question 4, followed by question 1, followed by question 5, write 4 in the first row, 1 in the second row, 5 in the third row.

INFORMATION FOR CANDIDATES

Including this cover page, there are **2** pages in this question booklet.

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

You are reminded of the need for good English and clear presentation in your answers.

Answer **three** questions in total.

Section A

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

- 1 (a) Explain how firms can increase their market power. [10]
(b) Discuss the problems that are likely to be faced by firms in their attempt to increase their market power. [15]
- 2 The US oil market has undergone major changes recently. The economic slowdown in the US has affected the level of consumption of products such as plastic bags and air travel that require oil as a factor input. This in turn affects firms such as plastics manufacturers and airline companies. At the same time, due to technological advancement in oil extraction the number of US oil producers has continued to increase.

Using economic analysis, discuss the impact these events are likely to have had on the US oil and related markets. [25]
- 3 Public healthcare spending in Singapore is projected to triple by 2020 as the government increases subsidies and continues to promote national health and disease prevention programmes.
(a) Explain how the presence of externalities and imperfect information in the healthcare market may lead to market failure. [10]
(b) Discuss whether there is a need to change the current policies adopted by the Singapore government to deal with the above market failure in the healthcare market. [15]

Section B

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

- 4 (a) Explain the possible impact of inflation on an economy's balance of payments. [10]
(b) Discuss whether the use of exchange rate policy alone can effectively tackle inflation in Singapore. [15]
- 5 In each of the budget announcements from 2012 to 2014, the Singapore government has emphasised on two key themes. One, the restructuring of the economy to improve domestic labour productivity while reducing the reliance on foreign workforce, and; two, the need to spread the benefits of income growth more evenly across the population.

Assess the extent to which Singapore should still continue to prioritise the goal of achieving economic growth over other economic goals. [25]
- 6 (a) Explain the determinants of a country's pattern of trade. [10]
(b) Assess the supply-side policies the Singapore government could adopt to continue benefiting from trade. [15]

- 1 (a) Explain how firms can increase their market power. [10]
 (b) Discuss the problems that are likely to be faced by firms in their attempt to increase market power. [15]

Part A

How students should approach this question

Students need to explain the different strategies that firms can use to increase their market power

- erecting/increasing the level of BTEs
- increasing market share through M&A

Mark scheme for 1(a)

L3	For a well-developed answer that explains at least three methods firms can use to increase their market power. Relevant use of examples. 3 well-developed points with brief or hypothetical examples – max 8 marks 3 well-developed points and illustrated with relevant examples – max 10 marks	7-10
L2	For an underdeveloped answer that <u>explains</u> a few methods firms can use to increase their market power. Either lacking in scope (e.g. only 1 method <u>well-explained</u> , the other 1 or 2 are insufficiently <u>explained</u>) or depth (e.g. 3 methods insufficiently <u>explained</u>) Well-explained methods with no linkage to how market power can increase – max 5 marks	5-6
L1	For an answer that merely <u>lists down</u> (low L1) and <u>describe</u> a few methods (high L1) firms can increase their market power.	1-4

Suggested answer

Introduction

1. Market power refers to a firm's ability to influence the market price without losing all of its sales. Firms can increase their market power through erecting artificial barriers to entry through strategic entry deterrence and control of raw materials. Firms can also seek to increase their market power by mergers with other firms.

Body

Increasing the level of artificial BTEs (strategic deterrence)

2. A way to achieve this is for the incumbent firms to engage in aggressive advertising campaigns to increase brand loyalty and brand awareness amongst its consumers. Through advertising campaigns, this would lead to higher demand for the product, hence increasing the consumer base for the firm. This would also make the demand for the firm's product relatively more price-inelastic due to greater brand loyalty.

This would deter potential competitors from entering the industry, as new firms would have to incur a sizeable cost for advertising (BTE) to be able to successfully penetrate the market. For example, relatively new car manufacturers in China face this problem due to the established reputation of other car manufacturers such as Ford and BMW. Therefore, this enables established firms to increase their market power as they increase / consolidate their already extensive brand recognition.

3. Other strategic deterrence methods: R&D/legal barrier, product proliferation, limit pricing, predatory pricing etc. E.g. Application of patents -- A firm can apply for patents, which grants an inventor the exclusive rights to produce/sell the product or use the production process that is patented. For example, Apple applied for patents for the multi-touch features as well as headphone jack detection for its products. As new firms do not have access to the technology, they are unable to enter the market. This enables the firm to increase its market power as it restricts competition.

Increasing the level of 'natural' BTEs (control of raw materials)

4. Firms can also increase their market power by controlling raw materials. Through controlling necessary raw materials for production, it will limit any entry of potential firms or existing rivals could face rising/higher cost of production. This will increase the market power of the incumbent firm.

For example, the De Beers Company owns most of the diamond mines in South Africa and bought diamonds from other markets. Thus, De Beers owns almost 90% of the world supply of diamonds in the mid-1980s and this prevented the entry of new firms into the market, as they are less likely able to obtain the necessary raw materials for production. Hence, this enabled De Beers to increase its market power.

5. Other methods to increase 'natural' BTEs: bribery, close ties with govt etc

Increasing market share (mergers)

6. Firms can also increase their market power through mergers with other firms. A merger refers to two or more companies or organisations combining together, resulting in a larger firm. As the merged firm controls a **bigger market share**, they will have a more price inelastic demand, giving them higher price-setting abilities. Besides, this could be done to reap greater economies of scale and to rationalise the production process to minimise wastage and to increase efficiency. Such reduction in cost will increase their cost advantage over their rivals, enabling the firm to sustain price and non-price competition better.

An example would be the merger between Exxon and Mobil in 1999 to form ExxonMobil. With a merger, this results in higher market power for the firm.

Part B

How students should approach this question

This part b question is a continuation of the earlier part a question. Students are required to either (1) discuss the possibility/feasibility of the strategies/methods explained earlier, (2) discuss how the real-world conditions may not meet or violate some of the necessary theoretical conditions or (3) how regulatory bodies or government may move in to limit/encourage such strategies.

The discussion (or 2-sides of the story) need not be restricted to 'yes, there are problems' and 'no, there are no problems'. The approach adopted can be one of 'yes, there are potential problems' (direction as explained by theory) vs 'and, the extent of the problem is large' or 'however, the extent of this problem is limited' (extent as examined in the real-world).

Mark scheme for 1(b)

L3	For a well-developed answer that explains the potential problem + their extent or potential problems + non-problems that firms may encounter when they try to increase their market power. Well-developed points with brief or hypothetical examples – max 9 marks Well-developed points and illustrated with relevant examples – max 11 marks	8-11
L2	For an underdeveloped answer that <u>explains</u> a few problems or non-problems that firms may encounter when they try to increase their market power. Either lacking in scope (e.g. largely 1-sided) or depth (e.g. 2-sided insufficiently <u>explained</u>)	5-7
L1	For an answer that merely <u>lists down</u> (low L1) and <u>describe</u> a few problems or non-problem (high L1) firms may encounter when they try to increase their market power.	1-4
E2	E1 + justification with clear contrasting examples	3-4
E1	Ability to draw from the analysis some conditions/criteria which helps to decide if the firms are likely to face the problems/non-problems	1-2

Elaboration on possible approach

Increasing the level of artificial BTEs (strategic deterrence)

Strategy	Potential problem or non-problem	Extent of problem
Aggressive advertising	<u>Potential problem for some firms</u> In order to be able to conduct aggressive advertising, there has to be both the willingness (presence of some BTEs already) and ability (presence of supernormal profits). Firms in the PC or MC industry may not have the ability to do so; PC firms do not have willingness as well.	This is where the MC firms typically engage in forms of product differentiation to grant them some market power (or price setting abilities) E.g. fashion/designers
	<u>Non-problem for some firms</u> The oligopolists or monopolist will not	However, in the real world where the

	have the problem of lack of willingness or ability to engage in aggressive advertising	oligopoly market structure tends to be keenly contested and the firms mutually interdependent hence competing mainly on non-price competition. Rivals will retaliate with similar advertising strategies and the intended impact on market power (or market share) is not observed. E.g. Chanel vs Prada vs LV
Students can tweak the above to other forms of strategic deterrence strategies		

Increasing the level of 'natural' BTEs

Strategy	Potential problem or non-problem	Extent of problem
Control of raw materials	<p><u>Potential problem for some firms</u> In order to control raw materials, the cost outlay is significant as the firm will need to offer higher than market price to buy over.</p> <p>Besides the cost, some of these raw materials are found across national boundaries and the local laws may prohibit foreign firms from taking over control</p>	<p>For example, in the case of crude oil. Although the crude oil is extracted in many countries, these countries came together to form a cartel (explicit collusion) to behave like a single monopoly. The success for this formation is because of a lack of regulation at the international level.</p> <p>For example, De Beers was highly successful in monopolising diamond supplies because diamonds are largely found in a single territory.</p> <p>In some countries where this is poor governance (i.e. corruption is high), firms may just bribe local authorities to gain control of certain goods or services.</p>

Increasing market share

Strategy	Potential problem or non-problem	Extent of problem
Merger and acquisition	<p><u>Potential problem for some firms</u> In the case of merger, there could be significant transaction costs in terms of negotiation. Some of these negotiation may break down due to disagreement between the parties involved about the split in market share, profits etc.</p> <p>The above is a lesser problem for acquisitions.</p> <p>There could also be significant barrier due to getting approval from the regulatory body for the merger or acquisition.</p>	<p>This may not be a significant problem because the high transaction cost is usually outweighed by the high potential benefits from the merger. The split of the gains could sometimes be decided by the ratio of market share or market capitalisation. (the point here is mergers are win-win situation).</p> <p>In case where higher market power could reap significant dynamic efficiency or cost savings for the society, such mergers tends to be</p>

		approved. Proposal for mergers are typically rejected if the consumers are adversely impacted.
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- 2** The US oil market has undergone major changes recently. The economic slowdown in the US has affected the level of consumption of products such as plastic bags and air travel that require oil as a factor input. This in turn affects firms such as plastics manufacturers and airline companies. At the same time, due to technological advancement in oil extraction the number of US oil producers has continued to increase.

Using economic analysis, discuss the impact these events are likely to have had on [25]
the US oil and related markets.

How students should approach this question

Candidates are expected to use demand and supply analysis coupled with relevant elasticity concepts (PED, PES, YED, XED) to illustrate how the US oil industry and related markets might be affected. A wide range of related markets can be discussed such as the spill over effects on US oil producers, firms listed above that makes use of oil as a factor of production (derived demand), market for substitutes of oil such as coal and natural gas as well as complements of oil. The impact can be on various economic agents in various markets looking at prices, quantity, revenue, welfare, etc.

Mark scheme for 2

High L3	1. Answer shows excellent knowledge of demand and supply forces and how these affect market equilibrium in a combined diagram 2. Excellent consideration of at least 2 elasticity concepts 3. At least 2 markets have been discussed thoroughly 4. Excellent rigour in economic analysis and development 5. Excellent attempts at contextualisation with a variety of relevant examples	19-21
Low L3	6. Answer shows good knowledge of demand and supply forces and how these affect market equilibrium in a combined diagram <u>AND</u> 7. Good consideration of at least 1 elasticity concepts 8. If analysis is made on 1 market, max cap at 15m 9. If analysis is made on at least 2 markets, no max cap is set 10. Good rigour in economic analysis and development 11. Some attempts at contextualisation with some relevant examples	15-18
High L2	<u>EITHER</u> 12. Answer shows good knowledge of demand and supply forces how these affect market equilibrium <u>OR</u> 13. Good consideration of at least 1 elasticity concepts 14. Only 1 market has been discussed 15. Some rigour in economic analysis and development 16. Minimal or no contextualisation	12-14
Low L2	<u>EITHER</u> 17. Answer shows adequate knowledge of demand and/or supply forces and how these affect equilibrium price <u>and/or</u> equilibrium quantity <u>OR</u> 18. Little consideration of elasticity concepts and its relevance in influencing market equilibrium 19. Lack of economic analysis and development 20. No contextualisation	9-11
High L1	21. Answer shows some knowledge of how equilibrium price and/or equilibrium quantity may be affected, without clear linkage to demand and/or supply forces 22. Errors and inconsistencies occur in the explanation, showing lack of understanding of the economic concepts 23. No contextualisation	5-8

Low L1	24. Answer is mostly irrelevant 25. Only few valid points which do not clearly address the question 26. Largely incomplete	1-4
E2	27. Well-reasoned judgements. Evaluates using various criteria	3-4
E1	28. Unsupported evaluative judgement. Lack explanation	1-2

Suggested answer

Introduction

1. Explain how market equilibrium price and quantity is achieved: via the intersection of the demand and supply curves.
2. Identify that supply of oil have increased due to increasing number of oil producers stemming from the advancement of technology that lowers cost of drilling and extracting oil.
3. Identify that the demand for various goods and services in various markets could be affected differently based on the income elasticity of the good or service.
4. The related markets (in-exhaustive) would look at the market for oil, plastics, airline services, coal and natural gas markets.

Market for oil

Case 1a: Increase in supply of oil due to advancement in technology resulting in lowered cost and increase in number of producers.

5. The price elasticity of demand measures the degree of responsiveness of the quantity demanded of a good to a change in its price, *ceteris paribus*
6. Illustrate how a rightward shift of the supply curve from S_0 to S_1 due to a fall in COP will have different effects on price and quantity, given different PED (absolute) value.
7. Explain that the demand for oil can be price inelastic for some firms (who uses it as a necessity with little substitutes) compared to others who can use other materials.
8. With reference to Figure 1, the demand curve D_1 is relatively more price inelastic than demand curve D_0 . Given a rightward shift of the supply curve from S_0 to S_1 , the more price inelastic the demand, the greater the effect on its price. As seen from Fig 1, for D_1 the rise in quantity Q_2 is less than proportionate to a rise in its price, *ceteris paribus*.

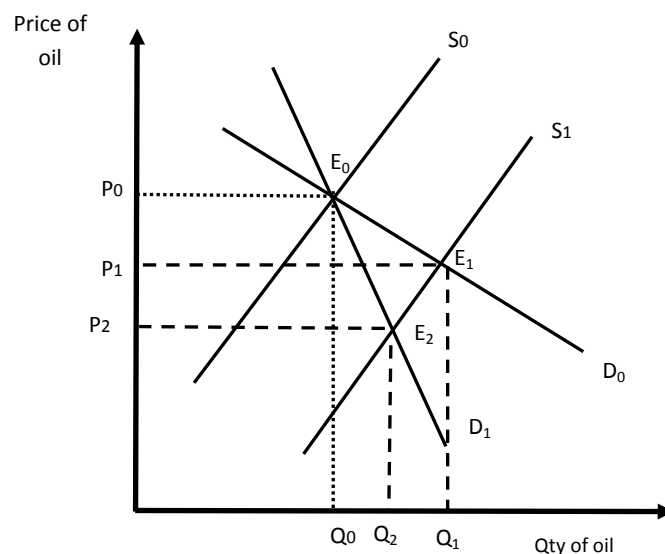


Figure 1

9. The above (if drawn) must be accompanied by a graphical explanation of shift in the supply curve for oil, that it cause a decrease in quantity supplied at every price level, reflected by a leftward shift of the supply curve from S_0 to S_1 .

Case 1b: Changes in demand for oil by producers due to economic slowdown (taken as fall in income for discussion though students can also argue for rising income at a slower rate).

10. The income elasticity of demand measures the degree of responsiveness of the quantity demanded of a good to a change in its income, *ceteris paribus*
11. Illustrate how a leftward shift of the demand curve from D_0 to D_1 due to oil being a normal good, have different effects on price and quantity, given different PES value.
12. Illustrate how a rightward shift of the demand curve from D_0 to D_2 due to oil being an inferior good, have different effects on price and quantity, given different PES value.
13. Explain that the demand for oil can be income elastic or income inelastic. Some firms such as airlines uses kerosene, produced from oil, heavily and therefore deem it a necessity as a derived demand. Hence, it is a normal good. However, for some other industries that focus on green energy in their production process, oil becomes an inferior product and thus, these firms uses natural gas as it is less pollutive, making it less income elastic in demand.
14. Assume that oil is price inelastic in supply as it takes a time for oil to be extracted for oil fields. (Note that one can also assume otherwise and provide the right analysis – that OPEC keeps a steady stockpile and hence can react to price changes)
15. With reference to Figure 2, the supply curve S_0 is relatively more price inelastic. A leftward shift of the demand curve, due to falling income, leads to a fall in price from P_0 to P_1 and Qty from Q_0 to Q_1 . Revenue gained for the producer from these consumer decreases. A rightward shift of the demand curve leads to an opposite effect with prices rising from P_0 to P_2 , Qty increasing from Q_0 to Q_2 and revenue increasing.
16. To add, it is expected that the change in prices oil will be more significant than change in Qty.
17. Note: It is possible that candidates may not discuss about income changes but in fact use economic slowdown as a mean to discuss expectation of falling prices in the future which lowers demand.

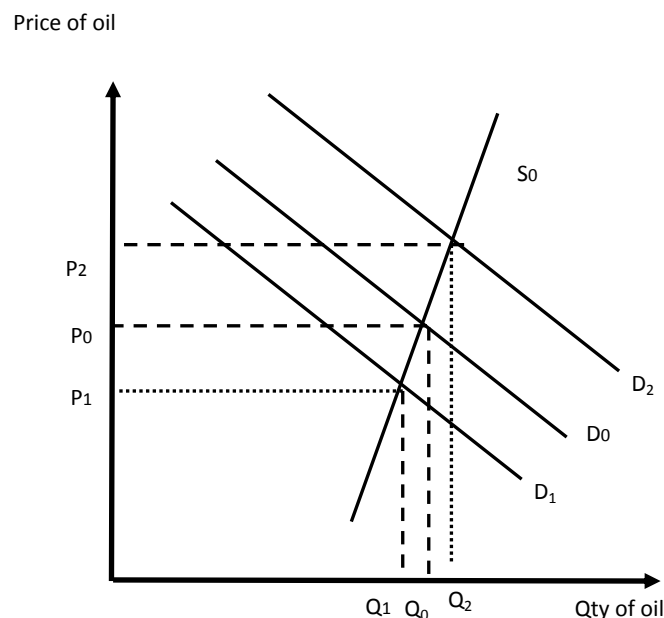


Figure 2

Case 2: Combined analysis for oil. Draw diagram to illustrate that due to the simultaneous shifts of the demand and supply curve, the resultant equilibrium price and quantity is uncertain depending on the relative magnitude of shift in the demand and supply curves. However, a likely case to be discussed is a fall in demand for oil and an increase in supply of oil.

18. It is likely that the demand for oil decreases. Oil is a derived demand as it's demand is based on demand for products that are made from oil – kerosene, bitumen, diesel etc.
19. Demand for such products in most part of US is a normal good that is used in many primary, manufacturing and service related processes. This means that demand for oil is likely to decrease.
20. Supply for oil is likely to increase as the number of producers rises due to lower cost of production.
21. Assuming that the rise in supply is greater than the fall in demand (demand for oil may not fall as much as US is oil efficient in processes these days meaning that the cutback in demand is less significant given how efficiently oil is used OR supply for oil increases more as technological processes increase the amount of oil fields available for drilling in a cost efficient manner).
22. As shown from diagram (if drawn), demand decrease and supply increases. Supply increases more than demand decreases. At original process, a surplus exists exerting a downward pressure on prices. As prices fall, Qty Dd increases while Qty Ss falls until a new equilibrium is reached. In the new equilibrium, prices fall from P_0 to P_1 while quantity transacted increases from Q_0 to Q_1 .
23. Note: It is possible that candidates use other forms of rational explanation to explain combined effects.

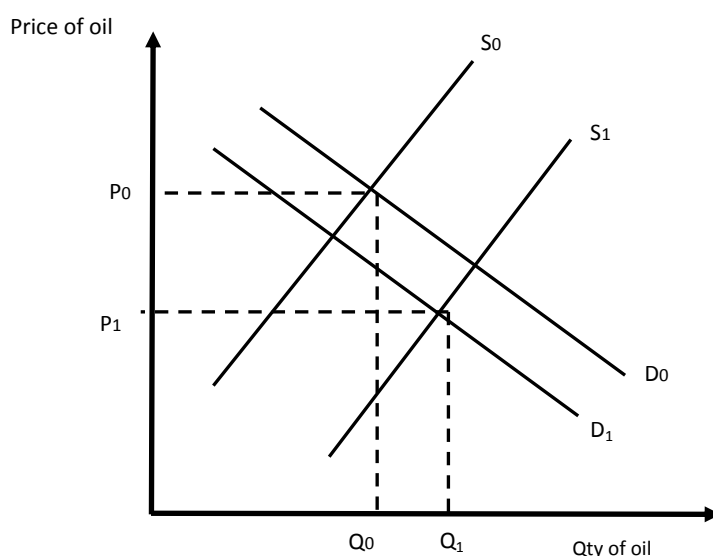


Figure 3

Case 3a: Increase in supply of kerosene due to lowered cost of production for oil (as analysed above) for airline companies.

24. Oil is a main ingredient in production of kerosene and thus a fall in price of oil lowers the cost of producing kerosene and thus lowering the cost of producing air flight services. It is also expected that supply increases significantly.
25. Demand for air flight services can be price elastic in demand and also price inelastic in demand. In general, demand for air flights by business travellers have value of $PED < 1$ while demand for air flights by holiday travellers have value of $PED > 1$. This is based on their necessity for travel disregarding the number of substitutes available for each party.
26. In this above case, the analysis is similar to **Case 1a**.
27. Note: For plastic manufacturers, the analysis is also expected to be same as above with the PED value facing some plastic manufacturers to be > 1 while others < 1 . However, it is worth noting

that supply is expected to increase less as oil is merely one of the minor constituent costs in the overall production of plastics.

Case 3b: Combined analysis for airline companies. Draw diagram to illustrate that due to the simultaneous shifts of the demand and supply curve, the resultant equilibrium price and quantity is uncertain depending on the relative magnitude of shift in the demand and supply curves.

28. Supply for air flights is expected to increase.

29. Demand for air flights however may rise or fall depending on the type of airline services. For example, for budget airlines, demand for air flights is expected to rise in an environment of economic slowdown. However, for international airlines, demand is expected to fall, especially for luxury-service based air flights.

30. The analysis should revolve around changes in prices, quantity and revenue/expenditure.

31. In this case, the analysis is similar to **Case 2**.

32. Note: The same can be done for plastic manufacturers.

Case 4: Decrease in demand for natural gas due to falling oil prices affecting natural gas markets.

33. Due to changes in demand and supply for oil in **Case 2**, some consumers of oil (can be direct such as power stations) switches to using natural gas instead.

34. Supply for natural gas is expected to remain constant.

35. Demand for natural gas increases as substitution effects take place. The demand for natural gas may increase significantly or less so based on whether natural gas and oil are strong or weak substitutes respectively. (Depends on XED values)

36. Either way, prices and quantity transacted of natural gas is expected to increase. Expenditure on natural gas as a whole is also expected to increase.

Evaluative Conclusion:

The impact on various markets in terms of prices, quantity, revenue/expenditure, welfare etc. is varied depending on different elasticity conditions and values as well as extent of shifts in demand and supply. It is important to note that many of the above discussed scenarios are highly dependent on ceteris paribus conditions together with no changing dynamics of elasticity values. Further, each market has their own sets of demand and supply drivers which are important to their own markets. The above analysis also happens mainly over a long period of time but is shorter compared to other countries as information is closer to being perfect in a widely connected country such as US.

- 3** Public healthcare spending in Singapore is projected to triple by 2020 as the government increases subsidies and continues to promote national health and disease prevention programmes.
- (a) Explain how the presence of externalities and imperfect information in the healthcare market may lead to market failure. [10]
- (b) Discuss whether there is a need to change the current policies adopted by the Singapore government to deal with the above market failure in the healthcare market. [15]

Part A

Mark scheme for 3(a)

L3	Clear explanation of the meaning of externalities and imperfect information, including developed explanation of how the presence of the above factors may lead to market failure in the context of healthcare market.	7-10
L2	Under-developed explanation of how the presence of both externalities and imperfect information may lead to market failure. OR Developed explanation of how the presence of either externalities or imperfect information may lead to market failure. Theoretical answers → cap L2-6	5-6
L1	For an answer that shows knowledge of the reasons for market failure but contains unexplained statements, containing major conceptual errors	1-4

Suggested answer

Introduction

- Briefly explain that healthcare is a merit good, deemed socially desirable by the government and often under-consumed due to the presence of positive externalities and imperfect information.
- Briefly explain that imperfect information is due to the underestimation of MPB.

Body

#1: Explain how the presence of externalities in the healthcare market may lead to market failure

- Healthcare is a merit good that are deemed socially desirable by the government but under-consumed
- The decision to seek healthcare services by an individual is made based on the individual's private efficiency by equating its MPB (provide examples) and MPC (provide examples), ignoring the MEB (healthier workforce and this generates external benefits in terms of higher productivity which will benefit employers and the economy of the country as a whole)
- As such MSB of consuming healthcare exceeds the MPB for every output level (Explain using a diagram if necessary ** EXTERNALITIES DIAGRAM)
- Explain that the socially optimal amount of healthcare is at Q_s , where the MSB is equal to MSC, is more than the private optimal amount of healthcare at Q_E
- At Q_E , $MSB > MSC \rightarrow$ society values an additional unit of healthcare more than it costs society \rightarrow society desires more of healthcare consumed but left to free market forces, there is under-consumption of healthcare and under-allocation of resources to the consumption of healthcare \rightarrow **allocative** inefficiency \rightarrow healthcare will also be too expensive

8. Between Q_e and Q_s , $MSB > MSC \rightarrow$ by summing the excess of MSB over MSC for the units $Q_e Q_s$, we arrive at a monetary measure of **welfare loss** to society as shown by the shaded area in the diagram
9. Therefore market fails.

#2: Explain how the presence of imperfect information in the healthcare market may lead to market failure

10. Due to imperfect information, there can be an **underestimation** of the **true private benefits** (better individual health in the future, less chances of falling sick) of consuming healthcare services (imperfect information diagram, if relevant) [candidates have to explain how there is imperfect information well]
11. When left to the free market, these private benefits are weighed against their private costs (cost of healthcare, consultation, time)
12. **Consumption of healthcare may be below what is socially optimal \rightarrow too little resources allocated to the consumption of healthcare \rightarrow inefficient allocation of resources, resulting in welfare loss to society** [Unstated assumption: $MSB = MPB$ & $MSC = MPC$, but MPB perceived is lower]

Conclusion:

13. Hence, due to the presence of externalities and imperfect information, the market for healthcare may fail \rightarrow there is under allocation of resources to the consumption of healthcare \rightarrow therefore, government intervenes to correct this market failure.

Part B

Mark scheme for 3(b)

L3	Developed explanation of how both the stated policies are used to correct for market failure in the healthcare market and developed explanation of the policies' limitations.	9-11
L2	Under-developed explanation of how both the stated policies are used to correct for market failure. OR Developed explanation of how one of the stated policy stated is used to correct for market failure and the policy's limitations. OR Developed explanation of the limitations of both policies to correct market failure. Theoretical answers \rightarrow cap L2-8	6-8
L1	For an answer that shows knowledge of the policies stated in the preamble to correct market failure but contains unexplained statements, containing major conceptual errors.	1-5
E2	Clear evaluation supported by sound economic analysis on whether the Singapore government needs to change the states policies.	3-4
E1	Weak attempt to provide an evaluation with little or no economic justification on whether the Singapore government needs to change the stated policies.	1-2

Elaboration on possible approach

Introduction:

14. Briefly explain that the government has currently adopted subsidies and education & campaigns to correct market failure (based on the preamble).
15. Whether there is a need to change the current policies adopted by the Singapore government to deal with market failure depends on whether the policies have been effective in alleviating the problem.

Body:

#1: (Based on the preamble) Explain how subsidies work to correct market failure in the healthcare market

16. Subsidies for regular care (at polyclinics) and hospital care (at public hospitals) / subsidies to lower costs (medical equipment, training of medical staff, operating costs, etc)
17. Subsidies on vaccination (e.g. cervical cancer, immunisation) **do take note that not many of Singapore's healthcare policies target externalities
18. Shifts MPC to the right until the MPC1 cuts MSB at the optimal level, lowering the price of healthcare and increase consumption to the socially optimal level

Possible points of evaluation:

19. A short term policy → does not tackle the root cause of the problem; does not tackle imperfect information
20. To be effective, the government needs to know the right amount of subsidy → 'wrong' amount of subsidy may lead to inefficiency
21. Subsidies for polyclinic treatment are enjoyed by every Singapore citizen who consumes such treatment regardless of their income level → does not improve income inequality
22. Government subsidies combined with ageing population will mean a rising health bill for the government to finance → not financially sustainable
23. Certain vaccinations (e.g. vaccination for poliomyelitis, diphtheria, tetanus and pertussis) may generate high level of MEB → high amount of subsidies needed to influence consumption level → not financially sustainable, hence the government might want to consider other policies like compulsory vaccination

#2: (Based on the preamble) Explain how education & campaign work to correct market failure in the healthcare market

24. Programmes conducted by HPB → increase information on private benefits on healthcare → bridge the gap between perceived MPB and true MPB → increase consumption of healthcare
25. Specific examples:
 - a. The Health Promotion Board (HPB) launched the National Myopia Prevention Programme (NMPP) → aimed at preventing and reducing myopia progression → achieved mainly through public education and vision screening for children.
 - b. HPB organises awareness programmes to the general public as well as targeted interventions with customised messages → Screen For Life → enable learning about the immunisations and health screening tests one needs, i.e. cancer screening, breast screening, pap smear etc.

Possible points of evaluation:

26. A long term policy → tackles the root cause of the problem; i.e. providing information for consumers to accurately estimate their true MPB and changing behaviours of consumers towards the consumption of healthcare
27. However, it takes a long time to take effect → behaviours are difficult to change → therefore, if the problem is severe, this policy may be ineffective in the short run → may need to be complemented with a short run policy that has quick and effective results e.g. an outbreak of disease that is highly contagious → make vaccinations compulsory
28. Costs of continuing to implement this policy is high (implementation costs)

Evaluative conclusion:

Whether there is a need to change current policies?

Use of subsidies is appropriate and should be continued but complemented with other policies:

29. Although the government does not have perfect knowledge on the exact amount MEB, the new consumption level is not likely to deviate that much from the socially optimal level as the Singapore government does not subsidise to the point of zero price.
30. The use of means testing for hospital care helps ensure that allocative efficiency is not attained at the expense of equity in distribution.
31. However, it may not be sustainable as this policy poses a financial burden for the government especially with an ageing population.
 - a. Therefore, the government complemented subsidies with Medisave and Medishield schemes, which make Singaporeans share the burden of their healthcare costs → help address sustainability of government financing

Use of education and campaign is appropriate and should be enhanced, complementing with short run policies:

32. Even though it is costly to implement, this policy is a long term policy and should continue to be pursued → helps individuals to perceive the right amount of MPB
33. Yet it takes a long time to see effects, therefore has to be complemented with short run policies, e.g. subsidies and legislation → in the long run costs (e.g. need to give out subsidies) may be reduced if this policy is successful

- 4 (a) Explain the possible impact of inflation on an economy's balance of payments. [10]
- (b) Discuss whether the use of exchange rate policy alone can effectively tackle inflation in Singapore. [15]

Overall comments

Candidates do not need to find a strong link between Parts (a) and (b) to score full credit, even though a discussion on the causes of inflation could be relevant in both parts.

Part (a) focuses narrowly on consequences on inflation on balance of payments. Part (b) focuses on the issue of whether the use of exchange rate policy alone can effectively tackle inflation in Singapore – in essence requiring content on policy mechanism and relevant limitations, as well as some references to the different possible causes of inflation in Singapore's context.

Part A

How students should approach this question

The focus is on explaining how inflation could lead to consequences pertaining to balance of payments. The possible scope of points could comprise:

- How inflation affects different parts of the balance of payments, namely the current account and the capital and financial account
- How inflation affects balance of payments positively and negatively
- How inflation affects balance of payments in the short run and in the long run
- How the cause(s) of inflation could then determine the kind of impact on balance of payments

Mark scheme for 4(a)

L3	1. A well-developed answer that comprises at least two of the scope of points outlined in the approach to the question, e.g. how inflation affects current account and capital and financial account, positively and negatively. 2. A high L3 answer should contain good exemplification, i.e. illustration of content with relevant examples.	7-10
L2	3. A well-developed answer that comprises at least one of the scope of points outlined in the approach to the question, e.g. how inflation affects current account and capital and financial account only. 4. There could be other scope of points outlined but the analysis is not well-developed. Alternatively, 5. An answer that comprises at least two of the scope of points outlined in the approach to the question, but none of the points are sufficiently developed in depth. Max L2 if no distinction between current account and capital and financial account.	5-6
L1	6. Answer that does not address the question directly, or 7. Answer lacks scope of points and depth of analysis.	1-4

Suggested answer

How inflation affects different parts of the balance of payments, namely the current account and the capital and financial account

1. **Relatively higher** inflation rate than that of trading partners', will mean that an economy's exports will become relatively dearer/more expensive and imports will become relatively

- cheaper. We can expect net exports to fall, worsening the balance of trade which is a part of the current account. The technical aspects of explaining relatively higher inflation rate, i.e. domestic inflation is 5% while trading partners are facing 3% inflation are difficult.
2. An easier way to explain the above, is to assume that the domestic economy experiences positive inflation while the trading partners are all experiencing zero inflation. Then the analysis is made easier.
 - a. As prices of domestic goods increase foreigners will reduce their quantity demanded for domestic exports; assuming that exchange rate remains unchanged and that the price elasticity of demand for exports is more than one, then there will be a fall in exports revenue. The balance of trade and subsequently the current account will worsen, *ceteris paribus*. If the analysis stops here, students are expected to at least state that the level of imports remains unchanged.
 - b. A better explanation would go on to explain what could happen to the level of imports. Since the prices of domestic goods have increased, foreign goods will be relatively cheaper. Assuming that foreign goods are considered substitutes to domestic goods, consumers will reduce their quantity demanded for domestic goods and increase their demand for foreign goods ($XED > 0$). Assuming that exchange rate remains unchanged, the total expenditure on imports will increase. The balance of trade and subsequently the current account will worsen, *ceteris paribus*. There is no need to discuss PED of imports because there is no change in prices of imports in terms of both foreign and domestic currency, so as long as the student establishes that the demand for imports increase, the total expenditure on imports will definitely increase. If the analysis only comprises #2b without #2a, then students are likewise expected to at least state that the level of exports remains unchanged.
 3. If inflation is a sign of poor business confidence, e.g. cost-push inflation which could lead to stagflation if not handled well, then the expected rate of return on investment could decline. This could reduce the inflow of foreign direct investment (FDI) and/or increase the outflow of FDI – the net effect is a net outflow of FDI which could then worsen the capital & financial account, *ceteris paribus*.

How inflation affects balance of payments positively and negatively

4. Points #1, #2 and #3 are all explanations on how inflation can affect balance of payments negatively.
5. Inflation could have a positive impact on balance of payments, especially when it is a sign of economic recovery, e.g. when the US or Japanese economies began to face signs of inflation that could be reflecting demand-pull inflation in the aftermath of the long recessions that followed from the 2008-9 global financial crisis. In essence, this would be the opposite of #3, whereby inflation is taken to be a sign of improving business confidence, e.g. demand-pull inflation, where the expected rate of return on investment could increase. This would lead to a net inflow of FDI which could improve the capital & financial account, *ceteris paribus*.

How inflation affects balance of payments in the short run and in the long run

6. Based on the flows of FDI in #3 and #5 in the short run, students can also explain the impact on the income balance in the current account in the long run.
 - a. For example, a net outflow of FDI in the short run (#3) can lead to an increased inflow of investment income in the long run. That means the income balance as part of the current account can improve in the long run, *ceteris paribus*.
 - b. Likewise a net inflow of FDI in the short run (#5) can lead to an increased outflow of investment income in the long run. That means the income balance as part of the current account can worsen in the long run, *ceteris paribus*.

How the cause(s) of inflation could then determine the kind of impact on balance of payments

7. See point #3 (cost-push inflation) vs. point #5 (demand-pull inflation).

Part B**How students should approach this question**

The main focus of the question is really on how Singapore uses exchange rate policy to tackle inflation effectively. The main content points are:

- Explaining how the use of exchange rate policy, specifically revaluation, can tackle imported inflation
- Explaining the limitations of using revaluation to tackle imported inflation effectively
- Explaining how the use of exchange rate policy, specifically revaluation, can tackle demand-pull inflation due to export demand / foreign-based investment in domestic assets such as housing
- Explaining the limitations of using revaluation to tackle demand-pull inflation effectively

As for the judgement, there is an explicit question asked, so the students need to answer whether the use of exchange rate policy alone can effectively tackle inflation in Singapore. A measured response would be no; however, it is possible to argue that accept a “yes” argument if the student presents a strong case that the most likely causes for inflation are imported inflation and/or rises in export demand.

- A basic E1 mark can be awarded when a stand is presented with at least one accompanying reason
- A higher E2 mark can be awarded when the answer explains the reason using contextual knowledge grounded with economic analysis
- Policies other than exchange rate policy can be briefly mentioned as part of the evaluation, but a lengthy discussion is not required

Mark scheme for 4(b)

L3	1. A well-developed answer that provides a balanced discussion on the use of exchange rate policy to tackle both causes of inflation, i.e. explains how exchange rate policy (revaluation) works to tackle imported and demand-pull inflation, followed by an explanation of the relevant limitations that would reduce the effectiveness of using revaluation. 2. A high L3 answer should contain good exemplification, i.e. illustration of content with relevant example(s) to the Singapore context.	9-11
L2	3. A well-developed answer that provides a balanced discussion on the use of exchange rate policy to tackle only one cause of inflation, i.e. explains how exchange rate policy (revaluation) works to tackle imported or demand-pull inflation, followed by an explanation of the relevant limitations that would reduce the effectiveness of using revaluation. 4. There could be mention of how revaluation can be used to tackle the other cause of inflation, but it is not well-developed. Alternatively, 5. An answer that provides a one-sided discussion on the use of exchange rate policy to tackle both causes of inflation, i.e. explains how exchange rate policy (revaluation) works to tackle imported and demand-pull inflation, but does not explain the relevant limitations that would reduce the effectiveness of using revaluation. 6. Similarly, the above could comprise a one-sided discussion on the limitations without explaining how revaluation could tackle inflation.	6-8
L1	7. Answer that does not address the question directly, or 8. Answer lacks scope of points and depth of analysis.	1-5
E2	9. An answer that explains the reason for #10 using contextual knowledge	3-4

	grounded with economic analysis	
E1	10. For a stand with at least one accompanying reason.	1-2

Suggested answer**Main body**Explain how revaluation can reduce imported inflation

8. Revaluation reduces the price of imports, including imported factor inputs. This will reduce the unit cost of production in Singapore, increases aggregate supply (or short-run aggregate supply, SRAS). This reduces GPL. (Note: no need to mention Marshall-Lerner condition)

Explain limitations of using revaluation to reduce imported inflation

9. We should not expect students to overdo this, because there are in fact very few valid limitations here. We could award credit to students who:
- Immediately evaluates that the use of revaluation to tackled imported inflation is very effective in Singapore due to the high proportion of imported factor inputs used in our production.
 - Or, students who highlight that the proportion of imported factors inputs could determine the impact on imported inflation, thereafter explaining that because Singapore does have a high proportion of imported factor inputs used in production, therefore revaluation is effective in reducing imported inflation in Singapore.
10. Other possible limitations could be time lag which reduces effectiveness (theoretical), or foreign reserve constraints in buying back domestic currency from the foreign exchange market (not true in Singapore's context).

Explain how revaluation can reduce demand-pull inflation

11. Revaluation raises the price of exports. Quantity demanded for exports will fall, leading to a fall in exports, leading to a fall in aggregate demand (AD). This will lead to unplanned investment...and reduce GPL. (Note: again no need to mention Marshall-Lerner condition)

Explain limitations of using revaluation to reduce imported inflation

12. The strongest argument we should expect here is Singapore's small multiplier size.
13. Other possible limitations could be time lag which reduces effectiveness (theoretical), wage stickiness (slightly beyond H2 syllabus), small proportion of X to Singapore's GDP (not valid in Singapore's context), or foreign reserve constraints in buying back domestic currency from the foreign exchange market (not true in Singapore's context).

EvaluationPossible lines of evaluation

14. No, exchange rate policy alone cannot effectively tackle inflation in Singapore.
- There are other causes of inflation in Singapore, apart from imported inflation and demand-pull inflation due to export demand. For example, government policies on wages, foreign worker levy and foreign worker ratio, COE, housing have contributed significantly to inflation over the past few years. There could also be increasing domestic demand due to continued economic growth. To tackle these other sources of inflation, policies apart from exchange rate policy would be required.
 - If the rate of imported inflation is high enough, even revaluation can do very little. Can cite the cases on rapid increase in oil and other commodity prices, e.g. 1980s, years leading up to 2008.
15. Yes.
- Imported inflation and export demand driven demand-pull inflation are the main causes of inflation. The other causes of inflation are not as significant. – this is of

course a much more difficult stand to take, and only answers that provide very strong reasons and examples should gain full credit.

From macroeconomic policy notes

Limitations (effectiveness) of using revaluation

Limitation (effectiveness): demand for export may be price inelastic – The price elasticity of demand for exports will determine the extent of decrease in quantity demanded (foreigner sector's perspective) and demand (domestic economy's perspective) for exports when price of exports rises; the more price inelastic the demand for exports is, the smaller the extent of decrease in export. This will mean a smaller decrease in AD and subsequently smaller change in real national income and general price level.

(applies to policies that alter price of exports)

Limitation (effectiveness): cross-price elasticity between imported and domestically-produced goods and services may be a low positive (weak substitutes) or even negative (complements) – We must consider the cross-price elasticity of demand between imported and domestically-produced goods; if the cross-price elasticity is a low positive (weak substitute) or even negative (complement), there will only be a small decrease in consumption on domestically-produced goods and services (or even an increase). This will also mean a smaller decrease in AD and subsequently smaller change in real national income and general price level.

(applies to policies that alter price of imports)

But revaluation may not reduce imported inflation (cost-push inflation)

Limitation (effectiveness): proportion of factor inputs that are imported is small – The impact of revaluation on unit cost of production in an economy (i.e. short-run Aggregate Supply (AS)) depends on the proportion of factor inputs that are imported. Factor inputs that are not imported will come from domestic sources, e.g. local labour, land. The smaller the proportion of factor inputs that are imported, the smaller the increase in short-run AS, i.e. smaller impact on reducing cost-push inflation.

(applies to policies that alter price of imports)

But revaluation may not reduce demand-pull inflation

Limitation (effectiveness): AD decreases may not lead to fall in inflation rate – While production may decrease, firms may not necessarily reduce the hiring of factors of production immediately, so the competition for factors of production does not ease. The wages paid to workers may also not fall if wages are “sticky downwards” as workers are reluctant to accept cuts in nominal wages and firms are reluctant to cut nominal wages for fear of leading to poor worker morale.

(applies to all contractionary policies)

Limitation (effectiveness): X and/or C_d as small components of AD therefore AD does not change significantly – If X and C_d make up a small proportion of AD, then when X and C_d decrease, AD may not decrease significantly. As a result, decrease in employment, real national income and general price level is also not significant.

(applies to exchange rate policy only)

Limitation (effectiveness): small multiplier size – The size of multiplier will also determine the extent of increase in employment and real national income with any given change in AD; the smaller the multiplier size, the smaller the extent of decrease in employment, real national income and general price level.

(applies to all demand-management policies)

Limitation (effectiveness): time lag – The time lag involved in policy making could render the policy ineffective, or even do more harm than good (pro-cyclical instead of counter-cyclical). Basically, it could further decrease AD at a time when the economy is already slowing down and may face risks of pushing the economy towards a recession.
(applies to all policies)

Limitations (feasibility) of using revaluation –

Limitation (feasibility): no monetary policy autonomy – For countries that have decided to peg their currency value to that of another country's (such as Hong Kong Dollar (HK\$) to the US Dollar (US\$)), it is not possible to change exchange rate.
(applies to all monetary policies)

Limitation (feasibility): monetary policy trilemma – Countries that wish to control interest rate and keep their economy open to capital flows are unable to control their exchange rates.
(applies to all monetary policies).

Limitation (feasibility): limited / no foreign reserves – The central bank must have sufficient foreign reserves to buy back domestic currency through the sale of foreign currencies in its foreign reserves. Alternatively, the central bank must have other non-currency assets such as gold. In short, this is a foreign reserve-depleting policy and can be very costly.
(applies to revaluation only)

- 5 In each of the budget announcements from 2012 to 2014, the Singapore government has emphasised on two key themes. One, the restructuring of the economy to improve domestic labour productivity while reducing the reliance on foreign workforce, and; two, the need to spread the benefits of income growth more evenly across the population.

Assess the extent to which Singapore should still continue to prioritise the goal of [25] achieving economic growth over other economic goals.

Overall comments

The question suggests that Singapore prioritises the goal of achieving economic growth over other economic goals. The focus of the discussion should be on- (1) what are the trade-offs in economic goals, if any, when prioritising economic growth, and (2) to what extent are these trade-offs acceptable?

The preamble in the question hints at the recent focus of the Singapore government, which is how to restructure the economy without causing too much disruption (i.e. inability to achieve economic goals), and how to spread the benefits of income growth – basically when Singapore prioritises economic growth it may lead to losers in the economy, which namely leads to structural unemployment and income inequality.

How students should approach this question

Students can first explain the possible trade-offs that may arise when the Singapore government prioritises the goal of achieving economic growth over other economic goals. Possible points are:

- Macroeconomic conflict: actual economic growth trade-off with demand-pull inflation, worsening balance of trade; actual and potential economic growth trade-off with structural unemployment
- Microeconomic conflict: economic growth trade-off with income inequality and environmental sustainability (externality)

Thereafter, the discussion can then be on the extent whereby these trade-offs are deemed acceptable.

Typically, if only one main argument is presented, there should be three parts to the argument, e.g.

- How achieving economic growth can lead to structural unemployment (how the economic trade-off arises)
- Why it is acceptable for this trade-off to occur, i.e. why economic growth may be more important than structural unemployment
- Why it is not acceptable for this trade-off to occur, i.e. why structural unemployment may be more important than economic growth

Mark scheme for 5

General guide:

- For depth, we are looking at:
 - o Well-developed for L2 or L3 answers
 - o Under-developed which typically falls in the L2 range
 - o Undeveloped which may fall in the L1 range
- For scope, we are looking at:
 - o Number of economic trade-offs that may arise when prioritising economic growth – more trade-offs presented means greater scope of argument, where answers with more trade-offs presented typically score in the higher L range
 - o Balanced discussion on whether the government should / should not prioritise economic growth over the presented trade-offs – if the answer only answers should **or** should not then it is considered one-sided, and these answers typically fall into the L2 or even L1 range

- Also, answer that only explain the consequences of achieving / not achieving goals are likely to score only L2; answers need to compare the consequences to score L3 marks

High L3	<p>8. A well-developed answer that explains how prioritising economic growth can lead to trade-offs with at least three other economic goals with top answers addressing how achieving economic growth can lead to trade-off with other macroeconomic and microeconomic goals.</p> <p>9. A balanced discussion on whether the government should / should not prioritise economic growth over the said economic goals, e.g. by comparing the consequences of achieving one goal and not the other.</p> <p>10. The answer should be well-contextualised to Singapore's economy with top answers addressing the economic trade-offs suggested in the preamble, i.e. how achieving economic growth can lead to trade-offs with structural unemployment and income inequity, and discusses the merits of these trade-offs.</p>	19-21
Low L3	<p>11. A well-developed answer that explains how prioritising economic growth can lead to a trade-off with two other economic goal, and;</p> <p>12. A well-developed and balanced answer that explains whether the government should / should not prioritise economic growth over the above economic goals, e.g. by explaining the consequences of achieving one goal and the other.</p> <p>13. There may be other relevant points raised but the explanations for these points are generally under-developed or undeveloped.</p> <p>14. There may only be little reference made to the Singapore economy</p> <p>15. If the answer only focuses on one economic trade-off, maximum 15m.</p>	15-18 (18 as mid-point)
High L2	Typically, a high L2 answer should be approaching a L3 answer, but just missing scope in points <u>or</u> depth in analysis; however, the quality of answer is better than a low L2 answer (see low L2 descriptor).	12-14
Low L2	<p>Typically, low L2 answers have generally some scope with attempts at using relevant economic analysis:</p> <p>16. An under-developed answer that explains how prioritising economic growth can lead to trade-offs with only one other economic goals, and;</p> <p>17. A under-developed one-sided or balanced answer that explains whether the government should / should not prioritise economic growth over the above economic goals, e.g. by explaining the consequences of achieving one goal and/or the other.</p> <p>In some cases, L2 answers may present strong analysis but only for one argument, with very weak analysis for any other arguments presented. While the depth for that one argument may be strong, in a 25-mark essay the student is unable to score any higher than low L2 just for one strong argument. The answer may look like this:</p> <p>18. A well-developed answer that explains how prioritising economic growth can lead to a trade-off with only one other economic goal, and;</p> <p>19. An under-developed but one-sided (the other side may be presented but not well-developed) answer that explains either the government should or should not prioritise economic growth over the above economic goals, e.g. by explaining the consequences of achieving one goal or the other.</p>	9-11

	<p>OR</p> <p>20. An under-developed answer that explains how prioritising economic growth can lead to a trade-off with only one other economic goal, and;</p> <p>21. A well-developed but one-sided (the other side may be presented but not well-developed) answer that explains either the government should or should not prioritise economic growth over the above economic goals, e.g. by explaining the consequences of achieving one goal or the other.</p> <p>22. There may be other relevant points raised but the explanations for these points are generally undeveloped.</p>	
High L1	<p>Compared to the low L2, the answer typically has less depth:</p> <p>23. An undeveloped answer that mainly states how prioritising economic growth can lead to trade-off(s) with other economic goals, and</p> <p>24. An undeveloped one-sided or balanced answer that mainly states whether the government should / should not prioritise economic growth over the above economic goal(s), e.g. by stating the consequences of achieving one goal and/or the other.</p>	5-8
Low L1	<p>25. Answer that does not address the question directly, or</p> <p>26. Contains nothing more than statements with no attempts at economic analysis</p> <p>Compared to the high L1 answer, these answers typically have poorer scope (depth is already very poor, even for high L1 scripts):</p> <p>27. An undeveloped answer that mainly states how prioritising economic growth can lead to trade-off(s) with other economic goal(s), or</p> <p>28. An undeveloped one-sided answer that mainly states whether the government should / should not prioritise economic growth over other economic goal(s) without explaining how the trade-off(s) arises, e.g. by stating the consequences of achieving one goal and/or the other.</p>	1-4
E2	29. Arriving at a clear judgement of whether the Singapore government should prioritise economic growth over other economic goals, with sound reasoning supported by economic analysis.	3-4
E1	<p>30. Any reasonable evaluative comments without a clear judgement.</p> <p>31. Or a clear judgement with a stated reason that is not explained or briefly/poorly explained.</p> <p>32. Judgement alone without a stated reason will not be awarded any marks.</p>	1-2

Suggested answer

Main body 1

Explain how prioritising / pursuing economic growth in Singapore may lead to a trade-off with structural unemployment

Knowledge, theoretical application, analysis

16. When an economy pursues economic growth through an increase in public investment (G) or private investment (I), there may be a shift in focus in the type of industries in the economy. These shifts may require different labour skills; if the existing labour force is unable to

provide these required labour skills due to occupational immobility, the workers may not be able to find employment and may face structural unemployment.

Contextual application

17. In Singapore, for example, there was an increase in G and I into newer industries such as aerospace engineering, biomedical sciences etc. These industries will require skills that the current labour force may not have in abundance. The workers who do not have these skills, may lose jobs in industries that are losing competitiveness in Singapore, and find themselves unable to transit into jobs in these newer industries. This is evidence of occupational immobility, which explains how Singapore's pursuit of economic growth may lead to structural unemployment.

Explain how prioritising / pursuing economic growth in Singapore may lead to a trade-off with equal distributions of income

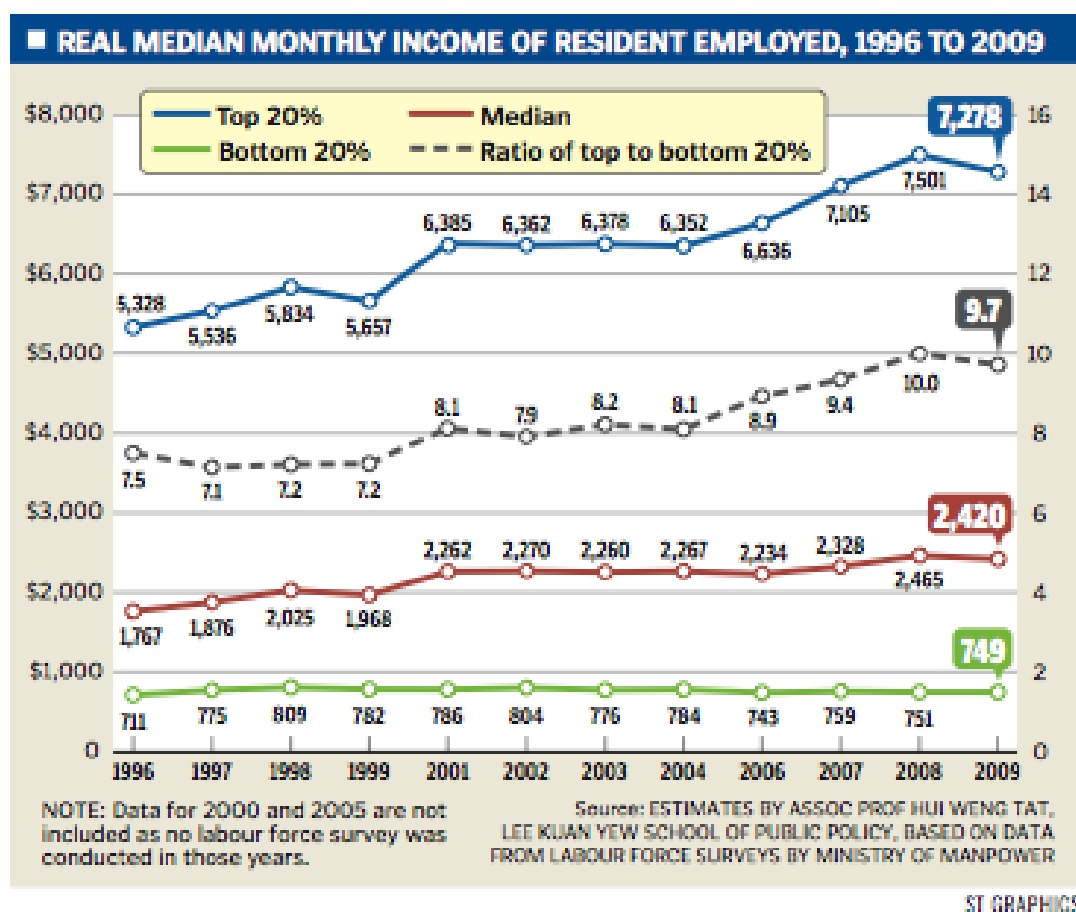
Knowledge, theoretical application, analysis

18. As an economy pursues and experiences economic growth, the overall real national income increases; and if this outpaces the growth of population, then real national income per capita will also increase. However, this increase in real national income may not be distributed equally across the population, i.e. there will be some degree of income inequality. This is because workers have different skills, and dependent on the demand and supply of labour in labour markets across industries, the equilibrium wage may differ. Also, there are business owners, whereby the profits earned by firms may vary as well. Both of these contribute to unequal distributions of income, and over time, unequal distributions of wealth.

Contextual application

19. The Singapore government has pursued economic growth and low unemployment for most of the past 10 years. Average real income growth per year has been healthy (around 5%, though not very meaningful to use average since real income growth rate could be as high as over 14% in 2010 or as low as slightly below 0% in 2009), but the real wage growth for the bottom 20% of wage earners has remained relatively stagnant. This suggests that the higher income earners have been reaping a more than proportionate portion of the overall income growth. This can be explained by skill differentials and profit differences earned by firms (see #3).

See table – this is relatively dated information from Straits Times. Probably can find a more updated version



Explain how prioritising / pursuing economic growth in Singapore may lead to a trade-off with other economic goals

20. Macroeconomic conflict: actual economic growth trade-off with demand-pull inflation, worsening balance of trade
21. Microeconomic conflict: economic growth trade-off with environmental sustainability (externality)

Main body 2

Explaining why Singapore government should still prioritise economic growth

From economic growth notes – benefits of achieving economic growth

22. Economic growth will lead to higher real income per capita, assuming no changes in population growth. With higher purchasing power, consumption of goods and services will increase. Generally, a high growth rate is also taken to indicate that more goods and services have been produced and available for consumption. Consumption of goods and services is related to the material aspect of standard of living and hence economic growth provides a gain to society.
23. As people grow richer and the standard of living reaches a certain (high enough) level, they may be less preoccupied with consumption and be more aware and concerned about environmental issues. This means that they may be more willing to adopt environmentally friendly practices or technology. This is the case for the developed countries that have the ability to do a part for the environment.

24. Also possible to discuss other benefits such as how this increases the government revenue which usually improves the budget position, or link to other complementary macroeconomic goals such as lower cyclical unemployment.

From economic growth notes – rebuttal to whether there is indeed a trade-off between economic growth and income inequality

25. *A rapidly growing economy helps the government to redistribute incomes from the rich to the poor. The rise in income brings about extra tax revenue from a given tax structure (e.g. progressive tax system), enabling the government to spend more on social welfare programmes to alleviate poverty. However, this is dependent on the nature of government policies in the country (whether it is of such redistributive nature, or not).*

Rebuttal to whether there is indeed a trade-off between economic growth and structural unemployment

26. Can focus on the idea that government revenue increases, which allows the government to spend more on retraining / reskilling / upskilling efforts to reduce occupational immobility and structural unemployment.

Explaining why Singapore government should instead prioritise the reduction in structural unemployment

From unemployment notes – negative consequences of unemployment, in particular how it could also affect the achievement of economic growth

27. *Unemployment, if prolonged, may cause a person to lose touch of existing skills and knowledge. This could lead to a decline in the quality of labour (or what is called human capital), **hampering efforts to achieve potential economic growth**. This could also trigger a vicious cycle, where this group of workers who had become deskilled would find it harder to find employment, and could add to the level of structural unemployment. The resulting persistence of high unemployment is known as hysteresis.*

Note: also from unemployment notes – negative consequences of increasing unemployment → this may be more suitable to use when explaining cyclical unemployment but if the answer explains how there is increasing structural unemployment, then also acceptable

28. *With increasing unemployment, the fear is that the macroeconomic situation may deteriorate further, and we will generally observe weakening consumer confidence where households become less inclined to spend. This could lead to **further rounds of losses in output and income**, a phenomenon that is sometimes called the Paradox of Thrift.*
29. *Business confidence can be weakened for various reasons. Apart from the weakened consumer confidence already mentioned, there could be a decreased level of security in an economy due to the increase in social problems. Increasing unemployment can sometimes lead to unhappiness and disenchantment which could result in **increased crime, more substance abuse etc.***
30. *With fewer people working, there will be fall in tax revenue since the unemployed person pays no income tax and given that the unemployed person spends less and pays less GST. In addition, a government that provides social welfare will face increased spending on unemployment benefits. Put together, **the government will have a worsening in budget balance, and may run into a budget deficit in the fiscal year**. Successive years of budget deficits could contribute to a budget debt problem.*

Explaining why Singapore government should instead prioritise achieving a more equal distribution of income

31. Answers may focus on macroeconomic and/or microeconomic impact of having unequal distribution of income.

Explaining why Singapore government should instead prioritise any other economic goal instead of economic growth

Evaluation

Possible lines of evaluation

32. Yes. Prioritising economic growth is important to ensure that the government continues to have the means to tackle structural unemployment and rising income inequality. Can elaborate (briefly) on the policies that the Singapore government has been able to implement thanks to the healthy budget balance from economic growth, to reduce structural unemployment and redistribute income more fairly.
33. Yes. The achievement of sustained economic growth (both actual and potential growth) has enabled Singapore to also achieve all other economic goals – both macroeconomic goals (low inflation, low unemployment, healthy balance of payments) and microeconomic goals (efficiency, equity) – take note that income inequality may not necessarily lead to inequity as long as the government ensures that key markets such as healthcare, education, transportation, housing remain accessible to most / all of the population regardless of income levels.
34. No. The rate of economic growth is too fast and some segments of the population clearly are unable to keep up. In addition, the foreign sector plays a heavy role in Singapore's economy, and the locals are increasingly getting displaced by foreign investors / foreign workers. The Singapore government needs to consider slowing the rate of economic growth in order to make the growth more sustainable over time.
35. Any other acceptable evaluative comment.

- 6 (a)** Explain the determinants of a country's pattern of trade. [10]
- (b)** Assess the supply-side policies the Singapore government could adopt to continue benefiting from trade. [15]

Overall comments

Candidates do not need to find a strong link between Parts (a) and (b) to score full credit, with both parts requiring different content areas from the international trade topic.

Part (a) focuses on the determinants of a country's pattern of trade, i.e. what determines what a country trades, with whom a country trades and how much a country trades. Part (b) on assessing the supply-side policies that the Singapore government could adopt to ensure that the economy continues to benefit from trade – this means recognising the negative consequences that arise from trade and how the government can use supply-side policies to mitigate these consequences, or; recognising the gains from trade and how the government can use supply-side policies to ensure the economy continues to possess the key characteristics to gain from trade.

Part A

How students should approach this question

The focus is on what determines (determinants) the pattern of trade of a country:

- What does a country trade, i.e. import and export – demand and/or supply reasons
- With whom does a country trade, i.e. import and export partners – demand and/or supply reasons
- How much does a country trade, i.e. volume of import and export – demand and/or supply reasons

Mark scheme for 6(a)

L3	1. A well-developed answer that comprises at least two of the scope of points outlined in the approach to the question, e.g. determinants that explain two of what/how much/with whom a country trades. 2. A high L3 answer should contain good exemplification, i.e. illustration of content with relevant examples.	7-10
L2	3. A well-developed answer that comprises at least one of the scope of points outlined in the approach to the question, e.g. determinants that explain one of what/how much/with whom a country trades. 4. There could be other scope of points outlined but the analysis is not well-developed. Alternatively, 5. An answer that comprises at least two of the scope of points outlined in the approach to the question, but none of the points are sufficiently developed in depth.	5-6
L1	6. Answer that does not address the question directly, or 7. Answer lacks scope of points and depth of analysis.	1-4

Suggested answer

The comparative advantage that a country enjoys can determine what and with whom it trades

1. Explain what comparative advantage is, and use an example to illustrate the comparative advantage that two countries have, e.g. Singapore enjoying lower opportunity cost in production that requires high-skilled labour (e.g. pharmaceuticals) vs. Thailand enjoying

lower opportunity cost in production that requires large plots of land (e.g. agricultural products). This helps to determine that Singapore / Thailand would import and export agricultural products and pharmaceuticals respectively as they trade with one another.

Tastes and preferences within a country can determine what and with whom it trades

2. Explain why there are differences in tastes and preferences of consumers within a country, and how this prompts demand for imported goods and services that are similarly produced by domestic firms, i.e. why a country imports a certain good or service even though it also exports that same good or service (intra-industry trade).

Government policies within a country can determine the volume of trade

3. The government's stance towards trade, i.e. whether it is pro-free trade or implements protectionist policies could be a key determinant towards the volume of trade. This is because, while a country may enjoy comparative advantage in certain types of industries and the consumers have tastes and preferences for certain imported goods and services, the government policies could then promote or deter trade which would then lead to a certain volume of trade in the country.

Any other determinants of pattern of trade are acceptable

Note: the demand/supply reasons for trade cannot be loosely explained as the determinants of trade. For example, economies depending on exports as an engine for growth can help explain why an economy trades, but it is comparative advantage a country enjoys that determines the type of goods traded and the key trading partner s(#1), or the government's pro-free trade policy approach (#3) that determines the volume of trade. Basically, **why an economy trades ≠ determinants of pattern of trade.**

From notes

Determinants of pattern of trade

The types of exports a country sells to the rest of the world and the type of imports it buy are largely determined by demand and supply reasons (as explained in Sections 2.1 and 2.2).

Reasons for trade

<i>Supply-side reasons</i>	<i>Demand-side reasons</i>
<i>Theory of comparative advantage</i>	<i>Differences in tastes and preferences</i>
<i>Gains from economies of scale</i>	<i>Increase competition for domestic firms to stimulate efficiency</i>
	<i>Export as an 'engine of growth'</i>

However, in the real world (where the strict assumptions of trade theories may not hold), the policy implementation by the governments and institutions around the world also greatly affects the pattern of trade between countries.

Determinants of pattern of trade (in the case of Singapore, for reference)

Supply-side reasons

The following explains why Singapore produces certain goods and services and exports them.

- *The openness of Singapore implies that it has a high degree of exchange in capital, particularly in FDI. Such FDI has brought about significant technological progress through the capital goods used by foreign firms.*
- *Singapore also has a highly skilled labour force (both foreign talents and an educated workforce). The congregation of highly productive capital and labour thus meant that Singapore tends to have comparative advantage in high-tech, high skilled level goods and services (e.g. financial, bio-*

medical services, and electronic goods such as data processing machines and telecommunications equipment).

On the other hand, Singapore does not have comparative advantage in producing land-intensive and labour-intensive goods.

- *Hence, she will see the need to import increasingly from developing economies like China which have an abundance of labour to specialise and produce labour-intensive, low-end manufacturing goods like toys and textiles. Singapore will also need to import agricultural goods from countries with abundant land resources such as Australia.*

Demand-side reasons

- *Intra-industry trade (trade in the same industry) may take place despite similar opportunity costs in production due to differences in taste and preferences. There are differences in taste and preferences due to different lifestyles, technological innovations and improved product design. This means that there will be trade between Singapore with other countries in goods and services in the same industry. E.g. Singapore export banking services (e.g. DBS, OCBC, UOB) to other countries but we also import banking services from other countries (e.g. HSBC, Citibank).*

Role of the Singapore government and foreign governments

- *Singapore's trend towards signing of Free Trade Agreements (FTAs) to capitalise on the opportunities presented by globalisation would contribute to the rising volume of traded goods & services with member countries.*
- *On the other hand, protectionist measures imposed by other countries in order to protect their own interests may also adversely restrict trade volume between Singapore and her trading partners*
- *Policies implemented by the government will determine the type of goods and services that Singapore will produce. For example, the government's decision in building the Integrated Resorts means not only an increase in the volume of exports but also the trade composition will shift towards that of the services sector. Also, the decision by the Singapore government to spend on a certain industry also beckons investment into a particular sector. For example, the government's aim to promote Singapore as a research hub saw the government's spending on infrastructure for this industry (Biopolis). This improves the quality of resources available in the research industry and therefore contributes to Singapore's comparative advantage in the production of services. Consequently, Singapore's trade composition and volume for the services industry is likely to increase further.*

Singapore's pattern of trade has changed over time and will continue to change. For instance, the composition of our exports has been changing to progressively higher capital and skill intensive products, reflecting our economy's level of technological sophistication and our commitment to the development of human capital. Tourism is also an important export industry that Singapore intends to develop e.g. having the Integrated Resorts to grow the MICE (Meetings, Incentive Travel, Convention and Exhibitions) tourism industry. Singapore is also developing itself into regional educational hub and health-care centre. Government policies and directions, in particular, have been an important determinant in changing our comparative advantage and hence our pattern of trade over the years.

Part B**How students should approach this question**

To continue benefiting from trade, students will need to first be able to highlight the following, though they may overlap:

- Characteristics of Singapore's economy that could benefit from trade
- Negative consequences that trade brings about to the Singapore economy

Once students have done so, they can then pick at least two different types of supply-side policies for discussion / assessment:

- For example a market-oriented / prices and income, and an interventionist supply-side policy
- Explaining how these supply-side policies work to shape characteristics of Singapore's economy that could benefit from trade and/or mitigate the negative consequences that trade brings about
- Explaining the limitations of these supply-side policies

As for the judgement, there is no explicit question asked. Therefore, students can score evaluation credit by doing any of the following:

- Highlight the importance of having both supply-side policies that improve Singapore's competitiveness such that Singapore can continue to benefit from trade, as well as mitigate the negative consequences such that groups of workers less able to keep up with trade do not get left behind – this will ensure Singapore can achieve the macroeconomic goals of actual economic growth, low unemployment while also achieving the microeconomic goals of equity
- Highlight the importance of having a mixture of market-oriented / prices and income, and interventionist supply-side policies as they tackle different aspects of Singapore's economy; also possible to mention that it may sometimes be necessary to complement supply-side policies with other fiscal / monetary policies
- Assess that some supply-side policies work very well in Singapore due to the nature of Singapore's economy, while others may work less well due to poor effectiveness / feasibility / appropriateness
- Any evaluative comment that helps to assess the supply-side policies that the Singapore government currently adopts / could implement in the future

Note: evaluation marks need not only be awarded at the end of the essay

Mark scheme for 6(b)

L3	<ol style="list-style-type: none"> 1. A well-developed answer that provides a balanced discussion on the use of at least two supply-side policies to help Singapore continue to benefit from trade, i.e. explains how supply-side policies work to help Singapore benefit from trade and/or to mitigate the negative consequences the trade brings about, as well as the limitations of the policies. 2. A high L3 answer should contain good exemplification, i.e. illustration of content with relevant example(s) to the Singapore context. 	9-11
L2	<ol style="list-style-type: none"> 3. A well-developed answer that provides a balanced discussion on the use of only one supply-side policy used. 4. There could be mention of other supply-side policies but it is not well-developed. <p>Alternatively,</p> <ol style="list-style-type: none"> 5. A well-developed, but one-sided answer e.g. explains how the supply-side policy(ies) works or the limitations of the policy(ies). 	6-8

L1	6. Answer that does not address the question directly, or 7. Answer lacks scope of points and depth of analysis.	1-5
E2	8. Any reasonable evaluative comment with sound use of economic analysis / reasoning.	3-4
E1	9. Any reasonable evaluative comment with very brief / no use of economic analysis / reasoning.	1-2

Suggested answer**Main body**Explain how supply-side policies can help to maintain / improve Singapore's competitiveness

4. To continue benefiting from trade, it is important for Singapore to maintain / improve her competitiveness. Competitiveness can be interpreted broadly:
 - a. One form of competitiveness can be export competitiveness, for example, in terms of price and/or quality of exported goods and services.
 - b. Another form of competitiveness can be desirability to foreign direct investment, which can then lead to improved export competitiveness.
5. Explain any supply-side policy that can help maintain / improve Singapore's competitiveness, in order for Singapore to continue benefiting from trade, i.e. a high level of export demand, which then leads to actual economic growth, lower cyclical unemployment, improved balance of trade.

Explain the limitations of supply-side policies used to maintain / improve Singapore's competitiveness

6. The most common limitation, but generic limitation used would be that supply-side policies suffer from long time lags. The better answers should include explanations of limitations pertaining to the specific supply-side policy chosen.

Explain how supply-side policies can mitigate the negative consequences arising from trade

7. Some of the negative consequences include increasing structural unemployment, worsening balance of trade if there is increased reliance / demand for imports, failure of infant industries to survive in the competitive global market, victims of protectionist measures such as dumping etc. The better answers should choose the negative consequences that best fit the characteristics of Singapore's economy, i.e. increasing structural unemployment and failure of infant industries to survive in the competitive global market.
8. Explain any supply-side policy that can help to mitigate these negative consequences.

Explain the limitations of supply-side policies used to mitigate these negative consequences

9. Again, better answers should avoid using just the generic limitation of long time lag, and address limitations specific to the supply-side policy chosen.

EvaluationPossible lines of evaluation

10. Need to use policies that help to maintain / improve Singapore's competitiveness, as well as mitigate the negative consequences arising from trade – discussion on why Singapore needs to achieve a broad range of macroeconomic and microeconomic goals.

11. Need to use both market-oriented / prices and income, and interventionist policies in order to shift the entire Aggregate Supply (AS) curve – discussion on why it is important to improve various aspects of Singapore's economy, i.e. SRAS (unit cost of production) and LRAS (productive capacity).
12. Make assessment on why those supply-side policies are effective / appropriate / feasible in Singapore's context – applying the relative theoretical points explained in the main body into Singapore's context.
13. Any other acceptable evaluative comment.