

In 2022, the domestic price of rice in India increased drastically due to poor monsoon rains and a rise in demand. In response, India, the world's largest rice exporter, has periodically imposed export bans.

(a) Explain the reasons for the significant increase in the price of rice in India. [10]

Suggested answer:

Question Analysis:

Command word: Explain – elaboration of reasons with relevant examples

Content: Significant increase (magnitude of change in price) → suggesting use of elasticities / Use of demand/supply analysis or diagram

Context: Market for rice in India

R1: Explain demand and supply reasons for the increase in price

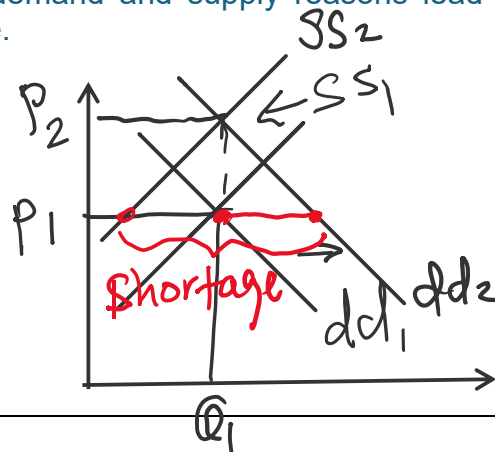
R2: Explain how the demand and supply reasons lead to the significant increase in price of rice.

The significant increase in the price of rice in India can be attributed to several demand and supply reasons. It can also be attributed to the price inelasticity of its demand and supply.

R1: Explain demand and supply reasons for the increase in price

- **DD:** In 2022, there is post-pandemic economic recovery in most countries. As countries open their borders, travel restrictions eased and improvement in trade → economic activities resumed, especially in food and beverage industry → see a rise in demand for rice globally as well as in India, since rice is a staple and essential input in the food and beverage market
- **SS:** Due to poor monsoon rains (extreme weather conditions) → lack of rainfall, an important factor input to rice crops → this damaged crops, reduced yields, and led to lower rice output → reducing supply of rice in India.

R2: Explain how the demand and supply reasons lead to the significant increase in price of rice.



1. Reinforced effect:

- The increase in the demand and fall in supply of rice will lead to a significant shortage of rice at the original price level. With a huge shortage, this will lead to significant increase in prices of rice in India to clear the shortage.
- As seen from the diagram, the increase in demand and fall in supply creates a significant shortage.
- As a result of a huge shortage of rice in the market, prices will have to increase significantly from P1 to P2 to clear the shortage in the market.

2. Elasticity

- The demand for rice is price inelastic as it is a staple food in India and therefore a necessity.
- The supply of rice is price inelastic as well as rice has a long gestation period.
- The fall in supply and rise in demand has led to a shortage at the original price level. Given that both PED and PES of rice are likely to be low, quantity demanded and quantity supplied will not be responsive to price changes. Hence to eliminate the shortage of rice caused by the rise in demand and fall in supply of rice, price must increase significantly.

In conclusion, the significant increase in the price of rice in India is the result of an interplay of factors.

Markers' Comment:

- Question requirement:
 - Majority of answers understood the need to explain both demand and supply factors but only a handful recognised that the 2nd requirement which required them to explain the extent of increase in price.
- Tools of analysis:
 - Majority were able to apply price mechanism (dd/ss analysis).
 - A few answers used AD/AS analysis to analyse the impact on prices. This is inaccurate as the question focuses on the market for rice and hence not acceptable.
- Content:
 - All answers were able to identify the direction of change in demand and supply accurately, i.e. supply fell and demand rose.
 - However, a handful of answers were not able to elaborate on the reasons for the rise in demand (i.e. answers merely stated

that demand has increased based on the pre-ambles) → This has resulted to most answers attaining a cursory grade.

- Most answers were able to recognise that poor monsoon rainfall will result in lower crop yield, reducing supply of rice.
- Some attributed the increased in demand to changes in the consumers' taste and preferences. However, this is a weak reason as rice has always been part of the people's diet in India. It is unlikely that taste and preferences have changed, resulting in an increase in the demand for rice.
- Also, some explained the rise in demand is due to rice being a staple. However, this would explain the PED value (i.e. demand is price inelastic) and not the reason for an increase in demand.
- Most answers were not able to explain clearly why prices of rice has increased significantly. Even when elasticity concepts were applied, these concepts were explained without any application (i.e. answers accurately explained that demand for rice is price inelastic as it is a necessity or a staple, without showing how this concept can be used to explain the significant increase in price). A well-elaborated answer would explain that because quantity demand is not responsive to the price increase, prices would need to increase significantly to clear the shortage in the market.
- Besides, students tend to apply the wrong elasticity concept. I.e. applying PED when demand increased / applying PES when supply decreased.
- Very few answers explained the significant rise in price of rice using the reinforced effect.
- Quite a handful of students did not explain that the fall in supply and rise in demand will result in a "shortage" in the market, resulting in price to rise. Rather, answers described the rise in price via the diagram, lacking analysis.

Mark Scheme:

Knowledge, Understanding, Application, Analysis		
L3	Analysis & Application For an analytical answer that addresses the question thoroughly with clear explanation well supported by tools of analysis, such as demand supply analysis and diagram. The demand and supply reasons as well as how prices rise significantly is clearly explained. There is good ability to organise ideas or discriminate between relevant and irrelevant factors. Answer is well-focused on question.	8-10

	Knowledge & Understanding For an answer that demonstrates an accurate knowledge and understanding of economic concepts, theories related to question, e.g. demand and supply analysis Marks within L3:														
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(b))	Discuss the measures that the Indian government may adopt to stabilise the domestic price of rice in India. <u>Suggested answer:</u> <u>Question Analysis:</u> Command word: Discuss – appropriateness of at least 2 measures that the Indian government may adopt to reduce price of rice Content: - demand/supply analysis / analysis on export ban / measures to stabilise supply to prevent prices from rising significantly - Stabilise prices → ensure prices do not fluctuate or rise too significantly - Measures to stabilise prices aims to prevent supply from falling too much or demand from rising too much or to increase the values of PED/PES Context: rice market in India Possible policies: 1. Export ban 2. Subsidies (on FOP) to increase production 3. Subsidies (on methods of production) to prevent supply fluctuations 4. Grant / subsidies for R&D and innovation to ensure resilience in the rice crops to prevent supply fluctuations 5. Price Ceiling R1: Explain export ban + limitations (<i>for markers to note: to accept any policy</i>) R2: Explain any 1 alternative policies + limitations R1: Explain how export ban works to stabilise prices and its limitations - Export ban involves the government putting a ban on the export of rice, reducing global supply of rice → to increase domestic supply of rice in India - The increase in supply of domestic supply of rice will create a surplus at the original price level → resulting in a downward pressure on prices - Demand for rice in India is likely to be price inelastic as it is a staple food and essential input in the food and beverage industry → any change in price will lead a less than proportionate change in qty demanded → hence, prices of rice in India will fall significantly to clear the surplus → effective in preventing a significant rise in price of rice in India - Limitations: ○ Export ban may result in a fall in revenue for rice producers due the price decrease ▪ decrease in price will lead to a less than proportionate increase in qty demand → reducing total revenue	[15]]
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	○ For firms that rely heavily on export market will also experience a greater fall in revenue due to the export ban ○ Given the above, firms may find loopholes to continue selling rice illegally overseas, smuggling through illegal trade route → rendering this policy ineffective to raise domestic supply of rice. ○ India may face a fall in export revenue → fall in (X-M) → causing a decrease in AD → fall in RNY / rise in cyclical unN. BOT also worsens. - EV: ○ Export ban temporarily increase domestic supply to stabilise prices but is not a long-term solution. An export ban addresses symptoms rather than underlying causes of price increases, such as poor infrastructure, inefficient supply chains, or climate-related production shortfalls. Without addressing these root causes, prices may remain volatile or rise again after the ban is lifted. ○ Export ban may create more problems for India as it leads to global supply of rice to fall, raising global price of rice, which may lead to retaliation from trading partners → harming future export opportunities. ○ Hence, though export ban to some degree is effective to stabilise prices, it is at best only a short-term measure. R2: Explain how an alternative policy works to reduce prices and its limitations (investing in R&D and infrastructure) - India can stabilise the price of rice by reducing the impact of climate change on the supply of rice ○ The government could invest in improving crop resilience through investing in agricultural technology and improving agricultural infrastructure. ○ i.e. Indian government could give grants for firms to innovate to create improved seed variety that are high-yielding, drought resistant, or even pest resistant. ○ I.e. Indian government could also invest in climate-resilient infrastructure such as flood control system, improved drainage system, better irrigation system and water management system to ensure reliable water supply for the crops. ○ This could ensure stable supply of rice despite changes to weather conditions → supply may not vary too significantly in times of adverse weather conditions → resulting in price stability - Such precision farming as well as expanding storage facilities, improving capacity could also ensure that quantity supplied of rice is more responsive to a price increase → increasing the value of PES	
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(supply more price elastic) → this would prevent huge changes to prices when demand changes.

- Limitations:

- This policy could potentially drain the government's budget, worsening deficit and may result in rising debt for the government. The high cost could mean this policy may not be sustainable in the long run if the government may not have enough funds to support these efforts.
- In addition, R&D requires a long timeframe to develop results. The process of developing, testing, and commercialising new seed varieties or irrigation technologies can take several years, if not decades. This long timeline means that the benefits may not be realised in the short term, delaying the impact on rice production → unable to stabilise prices in the short run.
- Many farmers may be unaware of new technologies or resistant to adopting them due to a lack of understanding or mistrust in unproven methods. This can slow the spread of innovations, limiting their impact.
- Even when new seeds or irrigation systems are developed, they may be too expensive for small and marginal farmers to afford, leading to low adoption rates. The benefits of R&D might primarily reach larger, wealthier farms, exacerbating inequalities in the rice market.
- In many rural areas, the lack of proper infrastructure, such as roads and distribution networks, hampers the availability and accessibility of new seeds and irrigation technologies. This limits the reach of R&D innovations to remote and underdeveloped regions.
- Advanced irrigation infrastructure requires regular maintenance and skilled labor for operation. Without proper maintenance, these systems can quickly deteriorate, leading to inefficiencies and reduced effectiveness.

- EV:

- The above measures address critical issues in rice production and food security. However, its effectiveness depends on addressing the challenges associated with R&D, ensuring equitable access to new technologies, and providing the necessary support for widespread adoption. To enhance the policy's impact, it would be beneficial to include complementary measures such as **subsidies or financial support** for small and marginal farmers to access new technologies, **farmer education** to promote the adoption of innovations, **monitoring and evaluation mechanisms** to

track the effectiveness of implemented technologies and adjust as needed.

- By addressing these aspects, the policy can be more inclusive, effective, and sustainable, making it a strong component of India's agricultural strategy.

In conclusion, the Indian government can adopt a multifaceted approach to stabilise domestic rice prices, combining immediate interventions with long-term strategies. While short-term measures such as export ban can provide quick relief, structural improvements in agricultural practices and infrastructure are crucial for sustainable price stability. The success of these measures depends on effective implementation, coordination among stakeholders, and continuous monitoring of market conditions.

Markers' Comment:

- Question requirement:
 - Majority of answers understood the need to explain at least 2 policies with limitations.
 - Answers also understood the need to have an evaluative comment on the appropriateness of the policies.
 - All answers did not show understanding of what it meant to stabilise prices. I.e. students analysed how the policies will lead to a fall in prices instead of how prices will be stabilised. Fall in prices was accepted as an accurate analysis but students should be aware that stabilising of prices is different from reducing prices.
- Content:
 - Common policies mentioned: 1) Subsidies, 2) Price Ceiling, 3) Innovation to increase supply, 4) Export Ban
 - Though most answers were able to provide relevant policies, the depth of elaboration varies.
 - **Price Ceiling** was better explained, showing how government could set a price below the equilibrium price to stabilise prices. Diagrams were mostly accurately drawn as well. Limitations were also well explained. Common limitation included the emergence of black markets (due to the shortage created) where rice may be sold at an even higher price.
 - Only a few explained price floor instead of ceiling.
 - **Subsidies** was commonly brought up as a policy, explaining, how government may provide rice producers with subsidies to reduce COP to increase supply, to reduce the price of rice. However, it is not well-elaborated with relevant examples that are applicable to the context.

	▪ Answers should provide an example of what can be subsidised, i.e. government could subsidise irrigation methods to reduce cost of adopting irrigation to ensure supply of rice is resilient to weather changes, preventing a fall in supply due to poor monsoon rainfall, stabilising prices or ▪ subsidies on factor inputs such as seeds, fertilisers etc. can reduce COP, increasing supply. ▪ Answers generally lack such examples, earning only a cursory grade. ○ <u>Limitations of subsidies</u> were also very generic, explaining how subsidies may drain the government's budget, and incurring opportunity costs. Examples and elaboration were often lacking, i.e. what are the opportunity costs and what is the impact of a drain in budget. ○ <u>Export Ban</u> was more uncommonly used. Some answers were able to explain how export ban will lead to an increase in supply of rice in India, while some inaccurately explained how export ban will lead to decrease in demand instead as external demand for rice has fallen. This led to inaccurate analysis of the policies. Limitations centred around how export revenue will fall for India and countries may retaliate, which are acceptable. ○ Very few answers were able to provide a long-term solution such as <u>investing in R&D</u> to develop weather resilient rice crops to prevent supply from fluctuating due to changes in weather conditions. Even if some did, they were not able to provide sound and well develop analysis and mostly descriptive. Limitations are also mostly generic, i.e. time-lag as well as drain on government's budget. ○ Some irrelevant policies were brought up such as 1) taxes on rice, 2) subsidies on the consumption of rice, 3) public education on alternatives. These policies were not accepted. ▪ Taxes on rice will only further increase the price of rice instead of stabilising the prices ▪ Subsidies on the consumption of rice will lead to increase demand, fuelling price increase ▪ Public education / subsidies on alternatives to rice, though logical, may not be too feasible as rice is a staple in India. If explained logically, these answers may be awarded a "k". - Evaluative comment: ○ Most answers scored around 1-2 marks for evaluations. Evaluation lack elaboration to justify their conclusion	
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- i.e. answers may state that both policies should be implemented as they complement each other, without elaborating or justifying).
- i.e. answers are descriptive in justifying why one policy is better than the other by just merely stating that one policy is only effective in the long run etc.

Knowledge, Understanding, Application, Analysis

L3	Analysis & Application For an analytical answer that addresses the question thoroughly with clear explanation well supported by tools of analysis, such as demand and supply analysis and diagram. There is good ability to organise ideas or discriminate between relevant and irrelevant factors. Answer is well-focused on question with the good use of relevant economic concepts, theories or principles. Good application to the context of the question. Knowledge & Understanding For an answer that demonstrates an accurate knowledge and understanding of economic concepts, theories related to question. Marks within L3: <table border="1"> <thead> <tr> <th>Annotation</th><th>Description</th><th>Mark</th></tr> </thead> <tbody> <tr> <td>A + A</td><td>Analytical explanations for 2 question requirements</td><td>10</td></tr> <tr> <td>A + C + K</td><td>1 analytical and 1 cursory explanation for 2 question requirements and an explanation of additional factor that is relevant</td><td>9</td></tr> <tr> <td>A + C</td><td>1 analytical and 1 cursory explanation for 2 question requirements</td><td>8</td></tr> </tbody> </table>	Annotation	Description	Mark	A + A	Analytical explanations for 2 question requirements	10	A + C + K	1 analytical and 1 cursory explanation for 2 question requirements and an explanation of additional factor that is relevant	9	A + C	1 analytical and 1 cursory explanation for 2 question requirements	8	8-10
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L2	Analysis & Application For an under-developed answer that attempts to address the question and explain the potential strategies Indian government could adopt. Answers may be descriptive, lack an analytical approach (e.g. not supported with tools of analysis, incomplete use of graph) or is incompletely explained with gaps in analysis, e.g. missing links in the impact of the strategies on price stability. Or For a one-sided analytical answer that addresses only 1 measure. For an answer that is supported with some application to the context of the question. There is limited ability to organise ideas or discriminate between relevant and irrelevant materials. Answer has	5-7												

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Annotation	Description	Mark
C + 0	One cursory explanation for 1 question requirement	4
K + K	Knowledge and understanding of 2 question requirements	4
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K + K	Knowledge of 2 question requirements	2
K + 0	Knowledge and understanding of 1 question requirement	2
K + 0	Knowledge of one question requirement	1
0	Nothing of relevance in the answer	0

Evaluation detailed marking guide

Note:

A **well-explained evaluative judgement** should be supported by arguments presented in the answer and is linked to the context of the question.

An evaluative statement is a judgement that is not supported by arguments presented in the answer or not linked to the context of the question, e.g. pre-learnt evaluative statement.

Level		Mark
E3	Well-explained evaluative judgements about 2 requirements PLUS a summative conclusion	5
E2	Well-explained evaluative judgements about 2 requirements	4
E2	A well-explained evaluative judgement about 1 requirement + an evaluative statement for the second requirement PLUS a summative conclusion	4
E2	A well-explained evaluative judgement about 1 requirement + an evaluative statement for the second requirement	3
E1	A well-explained evaluative judgement about 1 requirement OR evaluative statements for 2 requirements	2
E1	An evaluative statement for 1 requirement	1
E0	No attempt at Evaluation	0

Suggested Answer for Q2

- 2 Strides Taxi and Premier Taxis have merged to form Strides Premier, now Singapore's second-largest taxi operator with 2,500 taxis, behind ComfortDelGro's 8,700 taxis. Unlike the 2018 Grab-Uber merger, which led to a S\$13 million fine, the Strides Premier merger raised no concerns from the Competition and Consumer Commission of Singapore (CCCS).
- (a) Explain two reasons why Strides Taxi and Premier Taxis decided to merge . [10]
- (b) Discuss the factors that governments should consider in its decision to intervene in a merger. [15]

Suggested answer for (a)

1st Requirement: Candidates are to explain how merger between the 2 firms can lead to a rise in TR

2nd Requirement: Candidates are to explain how merger between the 2 firms can lead to a fall in TC

Introduction

Firms can pursue 2 types of growth- internal expansion and external expansion. An external expansion may occur in the form of a merger which is the result of a mutual agreement of two firms to come together. With a primary objective to raise profits, Strides Taxi and Premier Taxis decided to merge to raise the TR or reduce the TC for both firms to achieve this aim.

R1: Explain how merger between the 2 firms can lead to a rise in TR

A merger between Strides Taxi and premier Taxis can lead to a rise in total revenue. With the merger, the firms now become one firm and faces a larger demand due to an increase in market share. This rise in demand brings about an increase in both the price and quantity for the firm. At the same time, gaining market share also means fewer competitors in the market so the firm will then face a more price inelastic demand. This allows the firm to raise prices or to engage in some form of price discrimination. The quantity demanded will decrease less than proportionate to the price increase and total revenue will increase.

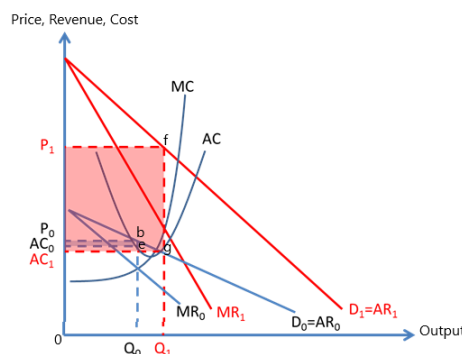


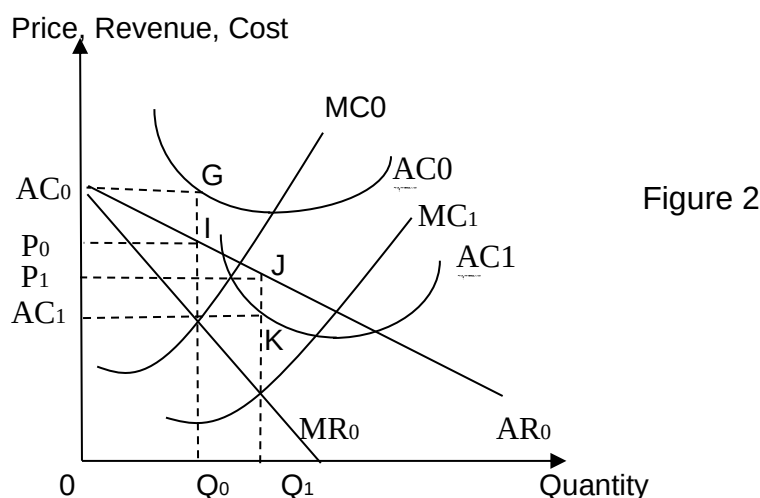
Figure 1

With reference to Figure 1 above, the merger increases the AR from AR₀ to AR₁ and at the same time making it less price elastic. Assuming MC and AC to be constant, the increase in AR from AR₀ to AR₁ leads to an increase in total revenue from 0P₀bQ₀ to 0P₁fQ₁. As a result, total profits increases from P₀AC₀cb to P₁fgAC₁.

R2: Explain how merger between the 2 firms can lead to a fall in TC

A merger between Strides Taxi and premier Taxis can lead to a fall in total cost. This is due to the fact that the firm can increase its scale of production, which could allow it to **reap more internal economies of scale** and lower average cost of production.

In the taxi industry, with an increase in output, the merged firm would be able to enjoy the various economies of scale such as financial economies of scale where the merged firm will be able to get bank loans at lower rate of interest compared to when they were smaller in scale. This is because banks and finance companies generally consider larger firms to be less risky as they can provide more assets as collateral and have higher creditworthiness. Larger firms can hence negotiate loans more easily and at more favourable rates. These leads to lower cost of borrowing. When this happens, the firm's average cost of production falls.



With reference to Figure 2 above, lower average cost of production will lead to a fall in MC and AC from MC₀ and AC₀ to MC₁ and AC₁. The firm originally earns a subnormal profit of AC₀GIP₀ as TR 0P₀IQ₀ is lesser than AC₀GQ₀. Assuming constant AR and MR, the fall in TC will lead to a rise in total profits from subnormal profit of AC₀GIP₀ to supernormal profits of P₁JKAC₁.

Level of Response Mark Scheme (LORMS)

Level	Descriptor	Mark
L3	Analysis & Application For an analytical answer that addresses the question thoroughly with clear explanation well supported by tools of analysis using the firm's diagram. There's clear and thorough explanation of how merger leads to a rise in total revenue and fall in total cost, leading to a rise in total profits.	[8 – 10] [A+A: 10] [A+C: 8-9]

	There is good ability to organise ideas or discriminate between relevant and irrelevant factors. Answer is well-focused on question, (e.g., the taxi industry) with the good use of economic concepts, theories or principles. Knowledge & Understanding For an answer that demonstrates an accurate knowledge and understanding of economic concepts, theories related to question, e.g., firms and decision concepts	
L2	Analysis & Application For an under-developed answer that attempts to address the question and explain how the merger will lead to a rise in total revenue and fall in total cost resulting in a rise in profits. Answers may be descriptive, lack an analytical approach (e.g., not supported with tools of analysis, incomplete use of graph) or is incompletely explained with gaps in analysis. [Or For a one-sided analytical answer that address only one of the two question requirements, i.e., explanation of either a rise in TR or fall in TC only] For an answer that is supported with some application to the context of the question (e.g., the taxi industry). There is limited ability to organise ideas or discriminate between relevant and irrelevant materials. Answer has some relevance to the question context but is generic (e.g., pre-learnt answer that is not focused on addressing the question specifically). Knowledge & Understanding For an answer that demonstrates largely accurate knowledge and understanding of economic concepts, theories related to question, e.g., market failure analysis (i.e., no major conceptual errors).	[5 – 7] [A+K: 7] [C+C: 6-7] [A+0: 6] [K+C: 5-6]
L1	Knowledge & Understanding For an answer that shows limited knowledge and understanding of relevant economic concepts and theories (e.g., basic description or definitions). Few valid points made which are scant and inadequately explained. Answers are mostly irrelevant and inaccurate. Answer demonstrates that the meaning of question is not properly grasped or may contain basic errors of theory.	[1 – 4] [C+0: 4] [K+K: 2-4] [K+0: 1-2]

Marker's Comments

This question is reasonably performed by the students who attempted the question. Most students understood the concepts the requirements of the question and are able to link the impact of merger on TR and TC of the merged firm. However, most analysis presented are cursory and did not present clear explanation that is well supported by tools of analysis using a firm's diagram

Suggested answer for (b)

1st Requirement: Candidates are to explain one factor e.g. benefit that the government consider in its decision to intervene in a merger.

2nd Requirement: Candidates are to explain one factor e.g. cost that the government consider in its decision to intervene in a merger.

To enter L3, candidates should discuss at least 2 factors of consideration.

Evaluation marks: Well-argued judgements about the two factors and a summative conclusion about which is the more important factor.

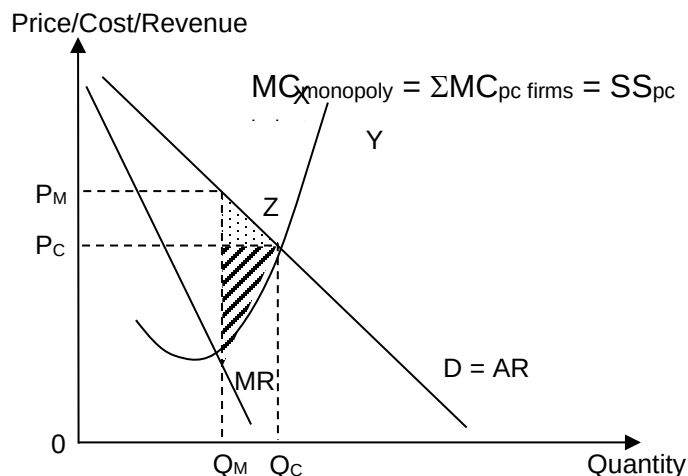
Introduction

The reasons why government intervene in markets is to achieve higher social welfare. It is necessary to intervene in mergers as mergers can lead to monopolies with huge market power which will reduce the allocative, productive and dynamic efficiency in the market, as well as consumers' welfare.

R1: Explain how the government considers the benefit to the society on the intervention in a merger.

Governments may choose to intervene in a merger for several reasons, primarily to ensure that the merger aligns with public interest and economic policy objectives. Here are some of the key benefits to government intervention in a merger. Some examples include promotion of fair competition and protecting consumers.

In the case of taxi industry, a monopoly firm can result in very high taxi price and low quantity as well as incur allocative inefficiency. This is because a profit maximising monopolist will restrict output to raise price, producing at $MR = \text{Rising } MC$. By doing so, allocative inefficiency results as price rises above marginal cost of production (i.e. $P > MC$). There is an under-allocation of resources in producing a product which society values. Consumers are clearly prepared to pay for additional units at an amount that is more than the opportunity cost incurred in producing these units. Society would be much better off if more resources are channelled into the production of this good.



Welfare loss/ Deadweight loss

-  = loss of potential consumer surplus (A)
-  = loss of potential producer surplus (B)

Deadweight loss = A + B

With reference to the Figure above, the monopolist produces at Q_m (where $MR = MC$). At this output Q_m , the price charged by it is higher than its marginal cost of production ($P > MC$). The pricing means that consumers are charged a price higher than the cost of the last unit of good produced. This represents a misallocation of resources or allocative inefficiency as societal welfare is not maximised. For the amount of goods Q_m , the incremental welfare gain is represented by the area Q_mCYX while the incremental cost is Q_mCZ . Since benefits foregone outweigh costs not incurred, the society suffers from a welfare loss of XYZ for Q_m of goods not produced. Hence, the government intervenes in the market to promote fair competition and to maintain a competitive environment that encourages innovation, efficiency, and fair pricing for consumers. Having a competitive market environment encourages healthy competition among the producers and promotes innovation and efficiency by ensuring a level playing field.

Also, intervention can promote dynamic efficiency where there is higher incentive to engage in dynamic efficiency e.g. the use of EV taxi car fleet or development of booking applications that eases the booking process. At the same time, it prevents the merged firm from exploiting the consumers by charging a higher price knowing that the consumers will have little alternatives to turn to and with the aim to raise profits. Overall, these improvements will lead can prevent companies from gaining excessive market power, which might lead to higher prices, lower quality, or reduced choices for consumers. By scrutinizing mergers, governments can ensure that consumer welfare is not negatively impacted.

With competition, firms are more likely to be productive efficient. A firm is productive efficient when it is producing on AC curve. Strong competition can reduce X inefficiency such as reduce slack management and unnecessary spending on cost where the firm can prevent ending up incurring a level of cost that is higher than the lowest possible cost of producing any given output.

R2: Explain how the government considers the cost to the society on the intervention in a merger.

The cost to the society on intervention in a merger is the benefits of mergers to society. An example of the benefits of a merger is that the merged firm will increase in size and have receive benefits such as the reaping of internal economies of scale which can be passed down to the consumers and translate to cheaper prices and higher output.

As explained in part a) of the essay above, in the taxi industry, with an increase in output, the merged firm would be able to enjoy the various economies of scale such as financial economies of scale where the merged firm will be able to get bank loans at lower rate of interest compared to when they were smaller in scale. This is because banks and finance companies generally consider larger firms to be less risky as they can provide more assets as collateral and have higher creditworthiness. Larger firms can hence negotiate loans more easily and at more favourable rates. These leads to lower cost of borrowing. When this happens, the firm's average cost of production falls.

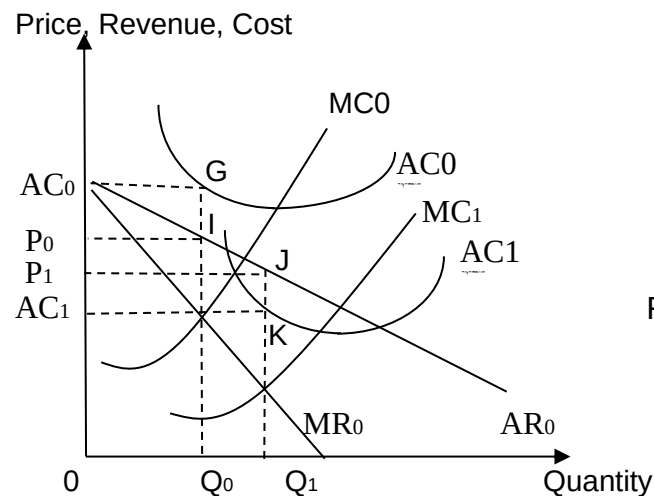


Figure 2

With reference to Figure 2 above, lower average cost of production will lead to a fall in MC and AC from MC_0 and AC_0 to MC_1 and AC_1 . Before the merger, consumers will pay price of P_0 and equilibrium output will be at Q_0 . Assuming that producers pass on the cost savings of the IEOS to the consumers, the price falls to P_1 and output increases to Q_1 upon the merger. This essentially translates to lower price and higher output for the consumers. Should the government intervene in a merger, it will not allow the firm to grow in size and reap internal economies of scale which then will not translate to cheaper prices and higher output.

Additionally, firms without the merger will not be able to earn higher profits. This reduces its ability to engage in dynamic efficiency such as investing in better vehicles and development of booking applications for better services rendered.

Other cost that the government should consider is the intervention cost. To intervene in a merger, the government need to review and decide on the approval. This requires them to analyse the competitive effects of the merger for a prolonged period of time to ensure it does not lead to a concentration of market power that could result in market abuse.

Additionally, it may impose conditions requiring the merging companies to sell off certain assets, license technology, or meet other conditions to prevent anti-competitive outcomes and prohibiting mergers that are likely to create or strengthen a dominant position in a way that would enable

market abuse. All these require costs on the government for the study and the money could be used in other areas such as healthcare or housing development.

In deciding to intervene in a merger, the government should first consider the importance of the good or market to the society. It can be worth to intervene in a merger if the good in consideration is a basic necessity or one that impacts the lives of the people. The higher impact of the good, the more reasons for intervention. Other criteria to determine which factor is more important in the decision to intervene includes contestability of the market. If the market is contestable, a merged firm though large in size, may deviate from the theoretical prediction of their behaviour. In fact, just the threat of entry by potential competitors is enough to keep the merged firm on its toes to the extent that it behaves as if it is operating in a highly competitive market. In this case, there is motivation for the merged firm to produce at the lowest possible cost and might even charge a lower price to deter potential entrants. In this case, intervention will not be required.

Level of Response Mark Scheme (LORMS)

Level	Descriptor	Mark
L3	Analysis & Application For an analytical answer that addresses the question thoroughly with clear explanation well supported by tools of analysis, such as market failure analysis and diagram. There's thorough explanation of how at least 2 factors in the DM framework are considered in the decision for the government to intervene in a merger. There is good ability to organise ideas or discriminate between relevant and irrelevant factors. Answer is well-focused on question, with the good use of relevant economic concepts, theories or principles. Knowledge & Understanding For an answer that demonstrates an accurate knowledge and understanding of economic concepts, theories related to question and well supported with examples	[8 – 10] [A+A: 10] [A+C: 8-9]
L2	Analysis & Application For an under-developed answer that attempts to address the question and explain how at 2 factors in the DM framework are considered in the decision for the government to intervene in a merger. Answers may be descriptive, lack an analytical approach (e.g., not supported with tools of analysis, incomplete use of graph) or is incompletely explained with gaps in analysis. [Or For a one-sided analytical answer that address only one of the two question requirements, i.e., explanation of one factor only] For an answer that is supported with some relevant examples (e.g., the taxi industry). There is limited ability to organise ideas or discriminate between	[5 – 7] [A+K: 7] [C+C: 6-7] [A+0: 6] [K+C: 5-6]

	relevant and irrelevant materials. Answer has some relevance to the question context but is generic (e.g., pre-learnt answer that is not focused on addressing the question specifically). Knowledge & Understanding For an answer that demonstrates largely accurate knowledge and understanding of economic concepts, theories related to question, e.g., market failure analysis (i.e., no major conceptual errors).	
L1	Knowledge & Understanding For an answer that shows limited knowledge and understanding of relevant economic concepts and theories (e.g., basic description or definitions). Few valid points made which are scant and inadequately explained. Answers are mostly irrelevant and inaccurate. Answer demonstrates that the meaning of question is not properly grasped or may contain basic errors of theory.	[1 – 4] [C+0: 4] [K+K: 2-4] [K+0: 1-2]
Evaluation		
E3	Well-explained evaluative judgements about 2 requirements + a summative conclusion.	5
E2	Well-explained evaluative judgements about 2 requirements. OR A well-explained evaluative judgement about 1 requirement + an evaluative statement for the second + a summative conclusion.	4
	A well-explained evaluative judgement about 1 requirement + an evaluative statement for the second.	3
E1	A well-explained evaluative judgement about 1 requirement. OR evaluative statements for 2 requirements.	2
	An evaluative statement for 1 requirement.	1
E0	No attempt at evaluation.	0

Marker's Comments

This question tests on the performance of firms where students are to weigh the benefits and costs of intervention by the government by comparing the impact of the decision on social welfare and efficiencies. Essentially, students are required to write on the costs and benefits of large firms. While most students have some idea on the concepts, the explanations are not fully developed, often without the use of diagrams and clear tools of analysis. The explanations are also brief, descriptive and not supported by examples to illustrate the impact. Almost no students demonstrated evaluation by bringing in criteria to decide which is the more important factor. This resulted in most students to not achieve any evaluation marks.

Health screening is crucial for early disease detection, thereby increasing treatment effectiveness and reducing costs.

(a)	Explain why the market for health screening might fail in the case of positive externality and where information is imperfect. [10]
(b)	Discuss whether the most appropriate way to ensure efficient allocation of resources in the market for health screening is to provide it for free.

1st Requirement: positive externalities in consumption – Candidates are expected to explain and illustrate with diagram how positive externalities in consumption leads to underconsumption of health screening.

2nd Requirement: imperfect information – Candidates are expected to explain and illustrate with diagram how imperfect information leads to underconsumption of health screening

Introduction

This essay will explore why the free market for health screening fails in the case of positive externalities and imperfect information.

Explain why the market for health screening might fail in the case of positive externality

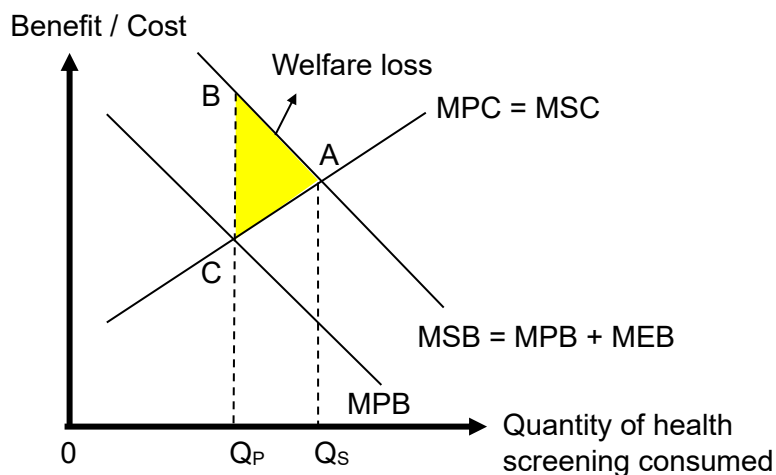


Figure 1: Positive Externalities resulting in Market failure

The marginal private benefit (MPB) to a consumer of health screening could be the early detection of critical illness and hence higher probability of recovery, therefore saving on medical expenses, while the marginal private costs (MPC) to the consumer is the associated cost of doing the health screening.

In a free market without government intervention, the consumer maximises his/her own welfare by consuming $0Q_P$ amount of vaccination where his/her $MPB = MPC$. Therefore, the private optimum output for him/her is at $0Q_P$.

Assuming that there are no negative externalities, MPC equals to marginal social costs (MSC).

Consumption of health screening however generates positive externalities in consumption (MEB).

Health screening can actually help to keep the entire nation healthier and fitter, since any early detection of illness is likely to lead to more successful treatment and recovery, which will result in a more productive workforce. The economy benefits since less man-hours is lost due to workers being ill (e.g. No loss in productivity), the economy also benefits with a larger workforce since workers who remains healthy can also continue to work for a longer period of time before they retire.

The presence of MEB causes a divergence between the marginal social benefit (MSB) and MPB, where MSB is higher than MPB. This is illustrated in Figure 3 where the MSB lies above the MPB, with the vertical distance between MPB and MSB representing the MEB

At $0Q_P$, $MSB > MSC$. This means that at output $0Q_P$, society benefits more from consuming an additional unit of health screening than the cost it would incur. Hence, net benefit to society/social welfare can be increased with greater level consumption of health screening.

The socially optimum level of output, $0Q_S$, occurs where $MSC = MSB$. Hence, when left to the market forces, there is under-consumption of health screening by $Q_P Q_S$ amount.

By summing the excess of MSB over MSC for the units $Q_P Q_S$, we arrive at a monetary measure of welfare loss (also known as deadweight loss) of area ABC to the society.

As a result, the underconsumption of health screening leads to market failure.

Explain why the market for health screening might fail in the case where information is imperfect

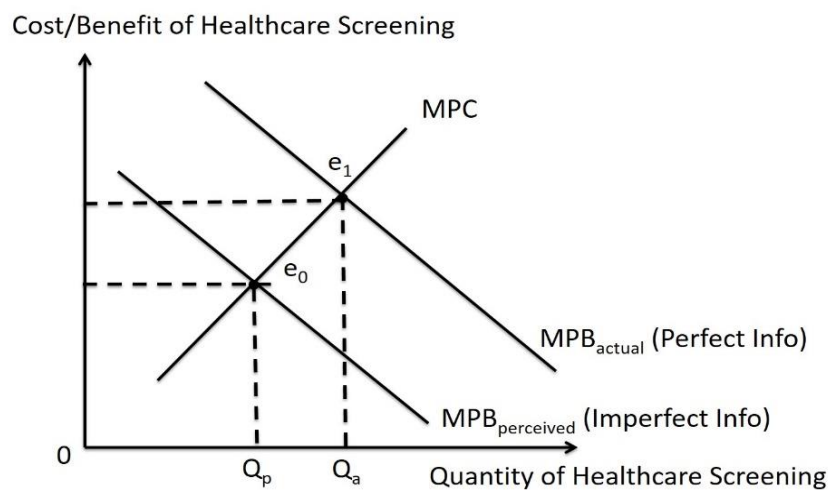


Figure 2: Market failure due to imperfect information

The perceived marginal private benefit ($MPB_{\text{perceived}}$) of a consumer in getting health screening is the knowledge of his/her health status while his/her marginal private costs are the associated cost in getting the health screening.

In a free market, without government intervention, the consumer maximises his/her welfare by consuming the amount of health screening $0Q_P$ where his/her **perceived** marginal private

benefit ($MPB_{\text{perceived}}$) = marginal private costs (MPC). His/her perceived private optimal output is therefore OQ_p .

The consumers are not fully aware of the benefits (to themselves) of regular health screenings, which is the early detection of potentially chronic diseases such as cancer and cost savings from avoiding treatment of the illness for the long term (early treatment is more effective). In actual fact, most individuals only get screened when serious symptoms are present.

Due to the imperfect information, consumers under-estimate their actual marginal private benefit (MPB_{actual}) of going for medical screenings, resulting in a perceived marginal private benefit ($MPB_{\text{perceived}}$) that is lower than MPB_{actual} as seen in Fig 11.

Therefore his/her perceived private optimal output is at OQ_p , where $MPB_{\text{perceived}} = MPC$.

But because the benefits of early medical screening is undervalued, their actual marginal private benefit (MPB_{actual}) is higher than their perceived marginal private benefit ($MPB_{\text{perceived}}$). This means that with perfect information, private optimum consumption will be at OQ_a .

As a result, with the information being imperfect, the consumer has underconsumed health screenings. The quantity of medical screening consumed by the consumer is sub-optimal and does not maximise his/her welfare, leading to market failure.

Level	Knowledge, Application/Understanding and Analysis	Marks
L3	Analysis & Application For an analytical answer that addresses the question thoroughly with clear explanation well supported by tools of analysis, such as market failure analysis and diagram. There's clear and thorough explanation of how positive externalities in consumption and imperfect information leads to market failure in the health screening market. There is good ability to organise ideas or discriminate between relevant and irrelevant factors. Answer is well-focused on question, (e.g., the health screening market) with the good use of economic concepts, theories or principles. Knowledge & Understanding For an answer that demonstrates an accurate knowledge and understanding of economic concepts, theories related to question, e.g., market failure analysis.	8 – 10 [A+A: 10] [A+C: 8-9]
L2	Analysis & Application For an under-developed answer that attempts to address the question and explain how positive externalities in consumption and imperfect information leads to market failure in the health screening market. Answers may be descriptive, lack an analytical approach (e.g., not supported with tools of	5 – 7 [A+K: 7] [C+C: 6-7] [A+0: 6]

	analysis, incomplete use of graph) or is incompletely explained with gaps in analysis. [Or For a one-sided analytical answer that address only one of the two question requirements, i.e., explanation of one source of market failure only] For an answer that is supported with some application to the context of the question (e.g., the SSBs market). There is limited ability to organise ideas or discriminate between relevant and irrelevant materials. Answer has some relevance to the question context but is generic (e.g., pre-learnt answer that is not focused on addressing the question specifically). Knowledge & Understanding For an answer that demonstrates largely accurate knowledge and understanding of economic concepts, theories related to question, e.g., market failure analysis (i.e., no major conceptual errors).	[K+C: 5-6]
L1	Knowledge & Understanding For an answer that shows limited knowledge and understanding of relevant economic concepts and theories (e.g., basic description or definitions). Few valid points made which are scant and inadequately explained. Answers are mostly irrelevant and inaccurate. Answer demonstrates that the meaning of question is not properly grasped or may contain basic errors of theory.	1 – 4 [C+0: 4] [K+K: 2-4] [K+0: 1-2]

Markers' Comments

In general, students were able to explain the two sources of market failure as required by the question. The better responses clearly explained what the positive externality from the consumption of health screening was, as well as the imperfect information. The weaker responses did not manage to explain the sources of market failure clearly and tend to mix up between positive externality and imperfect information. For example, they wrongly explained that the positive externality was due to consumers being unaware of the benefits of health screening, and wrongly explained that the imperfect information was that consumers were not aware of the positive externality in the consumption of health screening.

b) Discuss whether the most appropriate way to ensure efficient allocation of resources in the market for health screening is to provide it for free.

First requirement: Government policy 1 (Provide health screening for free) – Candidates should discuss how free provision can increase consumption of health screening and achieve efficient allocation of resources..

Second requirement: Government policy 2 (e.g. public campaign) – Candidates should discuss at least one other policy (e.g. public campaign) how it works to increase consumption of health screening and achieve efficient allocation of resources.

To enter L3 candidates should discuss at least two government policies.

Evaluation marks: Well-argued judgements about two government policies with a summative conclusion about which is the most appropriate policy to achieve efficient allocation of resources in the market for health screening.

Introduction

Given that there will be underconsumption of health screening in the free market, by providing health screening for free, it can possibly to increase consumption and address the market failure. However, depending on the extend of marginal external benefit and imperfect information in the market for health screening, free health screening may not always necessarily result in efficient allocation of resources for the market of health screening.

Provide health screening for free can ensure efficient allocation of resources

Providing health screening for free is equivalent to subsidizing substantially to the producers of health screening, such that they are able to provide the health screening service to consumers at the price of zero. This policy will work to achieve efficient allocation of resources only when the MEB of health screening is significant. Providing health screening for free will shift the consumers's MPC vertically downwards such that it intersects with MPB at the price of zero. The new private optimal output level where MPC' equates to MPB at price of zero is now at $0Q_{P'}$, which coincides with $0Q_S$. This means that consumers will now increase consumption to the socially optimal level $0Q_S$. Thus, allocative efficiency is attained in the market of health screening.

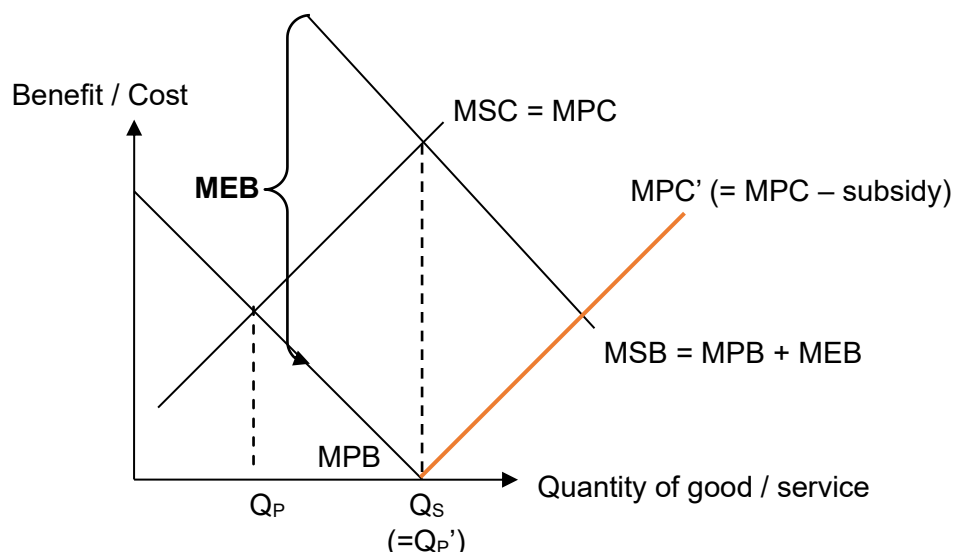


Figure 3: Effect of free provision

However, in the case where the MEB of health screening is not so substantial, providing free health screening will most likely result in overconsumption instead, which means that the allocation of resources for health screening market will not be efficient. In the case where the MEB is not huge at all, free provision of health screening increases consumption to $Q_{p'}$ might end up result in a more inefficient allocation of resources instead of non-intervention, as seen in Figure 4, where the original dead weight loss was Area abc, but with free providing of health screening, the deadweight loss is now Area adf.

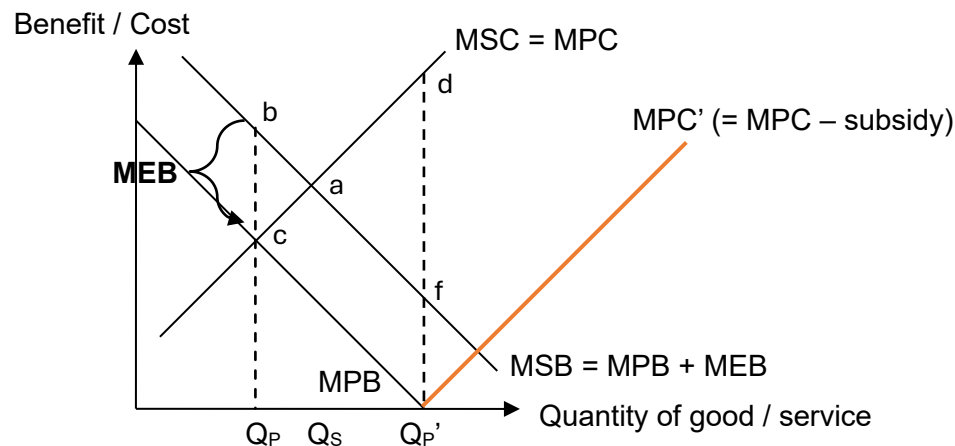


Figure 4: Effect of free provision

Public campaigns to encourage health screening can lead to efficient allocation of resources

The health promotion board can public campaigns to encourage health to educate the people about various critical illnesses and the benefit of health screening for early detection. Public campaigns are aimed at making consumers more aware of the full benefits of consuming health screening to themselves (towards more informed decision-making). With public campaigns, consumers perceive the benefits of the medical screening to be much higher. With reference to Figure 5, if such public education campaigns are successful, the private benefit for health screening would increase from $MPB_{\text{perceived}}$ to MPB_{actual} . This, in turn, will cause consumption to increase from Q_p to Q_a , eliminating the extent of under-consumption due to imperfect information and lead to efficient allocation of resources in the market for health screening.

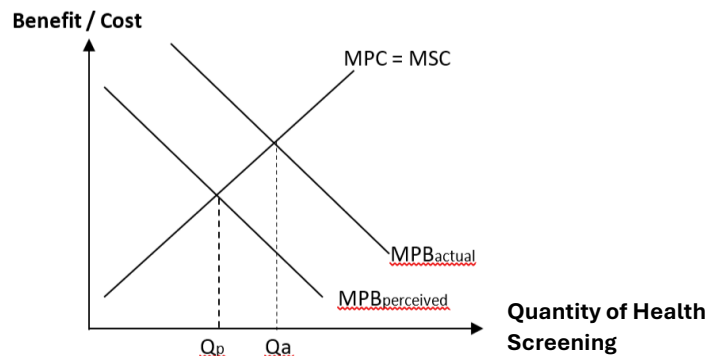


Figure 5: Public Education Campaigns to resolve underestimation of benefit

Dependent on the receptiveness of the public towards this policy. If individuals are not receptive to the campaigns, it reduces the effectiveness of the policy, i.e. the older population may be less receptive to public campaigns. For example, elderly may be less receptive to the campaigns about the benefit of the health screening as they might have a stronger belief in traditional medicine and remedies to be the better way for prevention than health screening. Also, usually the effectiveness of the policy would only be felt in the long-run, as mind-set of people take time to change, such that the consumption of health screening may not be able to increase much in the short term. On top of that, people may be generally occupied with their daily lives such as work, and may not be able to find time to do the necessary health screening.

Conclusion

While health screening does generate positive externalities in consumption, the extent of the external benefit might not be so significant, such that free provision of health screening will only lead to overconsumption and wastage. Even to provide health screening for free, it should be more targeted towards specific group of consumers, for example, adults age 40 years and older as they will be more at risk to undetected early critical illness. Perhaps, a per unit subsidy = MEC can be implemented instead, so as to increase the consumption of health screening to optimal instead of overconsuming. Given that there is also imperfect information in the market of health screening, it actually make senses to implement both subsidy and public campaigns together. Subsidy lowers the MPC and can encourage more consumption in the short term, while public campaign with sufficient amount of time, can slowly change consumers' mindset and increase their MPB perceived, and to encourage them to take do health screening. When mindset change has eventually taken place, the government can also progressively reduce the amount of subsidy given, so as to reduce the strain on the government's budget.

Level	Knowledge, Application/Understanding and Analysis	Marks
L3	Analysis & Application For an analytical answer that addresses the question thoroughly with clear explanation well supported by tools of analysis, such as market failure analysis and diagram. There's thorough explanation of how at least two policies work to achieve an efficient allocation of resources as well as the strengths and/or limitations of policies. There is good ability to organise ideas or discriminate between relevant and irrelevant factors. Answer is well-focused on question, (e.g., the health screening market) with the good use of relevant economic concepts, theories or principles. Knowledge & Understanding For an answer that demonstrates an accurate knowledge and understanding of economic concepts, theories related to question, e.g., market failure analysis.	8 – 10 [A+A: 10] [A+C: 8-9]
L2	Analysis & Application For an under-developed answer that attempts to address the question and explain how at least two policies work to achieve an efficient allocation of resources as well as the strengths and/or limitations of policies. Answers may be descriptive, lack an analytical approach (e.g., not supported with tools of analysis, incomplete use of graph) or is incompletely explained with gaps in analysis. [Or For a one-sided analytical answer that address only one of the two question requirements, i.e., explanation of one policy only] For an answer that is supported with some application to the context of the question (e.g., the health screening market). There is limited ability to organise ideas or discriminate between relevant and irrelevant materials. Answer has some relevance to the question context but is generic (e.g., pre-learnt answer that is not focused on addressing the question specifically). Knowledge & Understanding	5 – 7 [A+K: 7] [C+C: 6-7] [A+0: 6] [K+C: 5-6]

	For an answer that demonstrates largely accurate knowledge and understanding of economic concepts, theories related to question, e.g., market failure analysis (i.e., no major conceptual errors).	
L1	Knowledge & Understanding For an answer that shows limited knowledge and understanding of relevant economic concepts and theories (e.g., basic description or definitions). Few valid points made which are scant and inadequately explained. Answers are mostly irrelevant and inaccurate . Answer demonstrates that the meaning of question is not properly grasped or may contain basic errors of theory.	1 – 4 [C+0: 4] [K+K: 2-4] [K+0: 1-2]
Level	Evaluation Synthesis	Marks
E3	Well-explained evaluative judgements about 2 requirements + a summative conclusion.	5
E2	Well-explained evaluative judgements about 2 requirements. OR A well-explained evaluative judgement about 1 requirement + an evaluative statement for the second + a summative conclusion.	4
	A well-explained evaluative judgement about 1 requirement + an evaluative statement for the second.	3
E1	A well-explained evaluative judgement about 1 requirement. OR evaluative statements for 2 requirements.	2
	An evaluative statement for 1 requirement.	1
E0	No attempt at evaluation.	0

Markers' Comments

Many students managed to discuss how free provision of health screening and another policy as per of the question requirement. The stronger responses were able to recognized that free provision was equivalent to substantial subsidy given in order to lead to the price of health screening being zero, with sound economic analysis to explain how efficient allocation of resources could be achieved. The weaker responses were superficial and were not supported with tools of economic analysis. Some students even wrongly explained that free provision of health screening would turn it into a public good.

Q4 Governments frequently strive to improve standard of living for their citizens. This is often done through policies designed to stimulate economic growth.	
a) Explain how an increase in real GDP per capita can indicate an improvement in standard of living.	[10]
b) Discuss the extent to which supply-side policies will lead to an improvement in standard of living.	[15]

Question Analysis:

a) Explain how an increase in real GDP per capita can indicate an improvement in standard of living. [10]

Command	Explain how (Process)
Content	Increase in real GDP per capita can indicate an improvement in standard of living.
Context	Generic
Trigger	Increase in real GDP per capita
End	can indicate an improvement in standard of living.
Requirements	1) an increase in real GDP per capita can indicate an improvement in material standard of living. 2) an increase in real GDP per capita can indicate an improvement in non- material standard of living.

Paragraph Development:

Point	An increase in real GDP per capita can often indicate an improvement in material standard of living in an economy.
Example	In 2000, China has an estimation of around 1000USD of real GDP per capita (2017) and by 2022, it has increased to around 13000 USD real GDP per capita (2017). In 2022, Chinese consumers contributed around 17 percent of the global personal luxury goods market. It was estimated that the figure would reach 21 percent to 23 percent in 2023. Back in 2000, Chinese consumers' spending on personal luxury goods accounted for merely one percent of the global expenditure. https://www.statista.com/statistics/1087872/china-consumer-spending-share-in-global-luxury-market/
Economic Analysis	The increase in real GDP per capita indicates: - Increase in national income after consideration of inflation rate and population size

	- Offers an average value of the national income of the population (Total national income can be adequately divided by the entire population to have a clearer indication of the average value of the national income for each individual) - Indicates the purchasing power of the average population given considerations of the inflation rate of the economy (Inflation which shows an increase in general price level of goods and services will affect the ability to consume with the given income, when using real GDP per capita, provides clarity in the real value of the amount of goods and services that one can purchase) - Higher purchasing power - Higher consumption of goods and services (Including the rise in consumption of luxurious goods and services) - Higher satisfaction and utility - Higher material SOL
Link to ATQ	Generally, an economy experiencing an increase in real GDP per capita will see an improvement in material standards of living (SOL). This is particularly evident in developing economies, where the marginal propensity to consume (MPC) is relatively higher. As real GDP per capita rises, these economies tend to experience a more significant increase in consumption of goods and services, leading to a corresponding enhancement in material SOL.

Point	An increase in real GDP per capita can often indicate an improvement in non- material standard of living in an economy.
Example	Since 2000, Singapore has enjoyed a real GDP per capita at 24000 USD of real GDP per capita (2017) and till 2022 it has increased to around 83000 USD of real GDP per capita (2017) Singapore's life expectancy in 2000: 78 years old Singapore's life expectancy in 2024: 84 years old Singapore's literacy rate in 2000: 93% Singapore's literacy rate in 2024: 97% Singapore's HDI in 2000: 0.831 Singapore's HDI in 2000: 0.949
Economic Analysis	A higher real GDP per capita often indicates: - Higher income level - Higher income tax collection - Higher budget by the government to spend on healthcare and education - Higher literacy rate - Higher life expectancy - Higher quality of life in accordance to HDI that considers life expectancy, literacy rate and national income as a measurement of quality of life

	- Higher non- material SOL OR - Higher income level - Higher purchasing power - Higher budget by individual to spend on healthcare and education - Higher literacy rate - Higher life expectancy - Higher quality of life in accordance to HDI that considers life expectancy, literacy rate and national income as a measurement of quality of life
Link to ATQ	An increase in real GDP per capita often signals an improvement in non-material standards of living. This is particularly significant in economies where the government prioritizes societal welfare. Substantial investments in healthcare and education, coupled with effective regulation, can lead to marked improvements in non-material standards of living, such as better public health, higher educational attainment, and overall well-being.

Markers' comments:

Most students demonstrated the ability to explain the impact of an increase in real GDP per capita on improvements in the standard of living (SOL), effectively addressing both the material and non-material dimensions of SOL. However, many students were unable to achieve the full range of marks for two key reasons: insufficient analysis of the significance of "real" and "per capita" in the implications for SOL, and a lack of examples or contextualization to support their explanations. Essentially, there was a gap in effectively linking their answers to the question.

Level	Descriptors	Marks
3	Expect a good knowledge of the facts and theory of the impact of increase in real GDP per capita on SOL, clear evidence of the ability to use the economic analysis to explain the impact on SOL with accurate reference to the question. Provision of a well-balanced discussion where the impact is on both material and non- material SOL.	[8 – 10] [A+A: 10] [A+C: 8-9]
2	Expect an accurate although undeveloped explanation of the facts relating to the impact of an increase in real GDP per capita on SOL together with an explanation of the theory, and evidence of some ability to discriminate and form elementary judgements. BUT do not expect a clear logical presentation. There will not be much evidence of the ability to recognise unstated assumptions, nor to examine the implications of a hypothesis, nor the ability to organise ideas into a new unity. Max 5: For one set of analysis	[5 – 7] [A+K: 7] [C+C: 6-7] [A+0: 6] [K+C: 5-6]
1	Answer shows some knowledge but does not indicate that the meaning of the question has been properly grasped, Basic errors of theory or an inadequate development of analysis may be evident.	[1 – 4] [C+0: 4] [K+K: 2-4] [K+0: 1-2]

Governments frequently strive to improve standard of living for their citizens. This is often done through policies designed to stimulate economic growth.	
a) Explain how an increase in real GDP per capita can indicate an improvement in standard of living.	[10]
b) Discuss the extent to which supply-side policies will lead to an improvement in standard of living.	[15]

Question Analysis:

Command	Discuss (Considerations of both sides of the analysis)
Content	Extent to which supply-side policies will lead to an improvement in standard of living.
Context	Generic
Trigger	supply-side policies.
End	will lead to an improvement in standard of living
Requirements	1. supply-side policies will lead to an improvement in standard of living to a large extent 2. supply-side policies will lead to an improvement in standard of living to a small extent

Paragraph Development:

Point	Supply-side policies will lead to an improvement in standard of living to a large extent
Example	Skills Future Credit ✓ For all Singaporeans aged 25 years and above ✓ S\$500 opening SkillsFuture Credit does not expire ✓ A one-time top-up of \$500 was provided to those aged 25 and above in 2020. This top-up will expire at the end of 2025 ✓ Can be used for a wide range of SkillsFuture Credit-eligible courses Or (EA should be adjusted based on examples) • The German school system is unique in Europe because it sorts students into different educational paths early on. • Compulsory education requires all children aged six to 15 to attend school full-time at the primary and secondary levels. • Germany places a great emphasis on vocational education and training (VET). Over 15% of 25-34-year-olds in the country hold a vocational post-secondary education as their highest qualification, far surpassing the 6% average of OECD states.

	- Germany is known for offering free or affordable higher education to students from Germany and abroad. - The German education system comprises five main stages: early childhood, primary, secondary, tertiary, and continuing education.
Economic Analysis	Supply Side Policies: - Subsidies for retraining and reskilling targeted at improvement of the labour skills set - Reduction in cost for retraining and reskilling - Better skills set - Increase in efficiency - Increase in quality of labour - Increase in productive capacity and LRAS (AS0 to AS1) - Higher potential economic growth and higher future income level (Yf0 to Yf1) - Higher purchasing power in the future - Increase in consumption of G&S in future - Higher satisfaction and utility - Higher material SOL in the future The graph illustrates the AS-AD model. The vertical axis represents the 'General Price Level' and the horizontal axis represents 'Real National Income'. A downward-sloping demand curve, labeled AD0, intersects two vertical supply curves, AS0 and AS1. The initial equilibrium is at the intersection of AD0 and AS0, corresponding to price level P0 and output Yf0. The new equilibrium, after supply-side policies shift the aggregate supply curve rightward from AS0 to AS1, is at the intersection of AD0 and AS1, corresponding to a lower price level P1 and higher output Yf1. Dashed lines indicate these equilibrium points and their projections onto the axes. - Subsidies for retraining and reskilling targeted at improvement of the labour skills set - Reduction in cost for retraining and reskilling - Improvement in skills set - Improvement in literacy of skills set that are necessary and relevant in the economy - Increase efficiency in work

	- Increase leisure hour with lesser working hours required for the same production - Improvement in quality of life, with more time for leisure activities e.g Gaming, Sports, Gardening etc - According to MEW, indicates a higher quality of life - Improvement in non- material of living
Link to ATQ	While the government could provide subsidies for retraining, the ability to select relevant courses, the success rates of the retraining and the efficacy in achieving work life balance often varies across individuals. Individuals who are generally better educated, with more information and understanding of the needs of self and society generally tends to make more informed decision on the courses and management of life. Henceforth the tendency to improve SOL is generally higher.

Point	Supply-side policies will lead to an improvement in standard of living to a small extent
Example	The Enterprise Development Grant (EDG) supports projects that help you upgrade, innovate, grow and transform your business. Submit your individual project proposals with details on your business plans and project outcomes to take your business further. EDG funds qualifying project costs namely third-party consultancy fees, software and equipment, and internal manpower cost. • Up to 50% of eligible costs for local SMEs. From 1 April 2023, SMEs can receive up to 50% support for EDG (sustainability-related projects may be supported at up to 70% from 1 April 2023 to 31 March 2026) Research and Innovation Scheme for Companies (RIS(C)) The Research and Innovation Scheme for Companies (RIS(C)) aims to encourage companies' technology development and innovation activities, to bring about the development of product and processes from Singapore. A central component of the new tax law, Japan's DX investment incentive plan makes DX-related investments of up to ¥30 billion (about \$300 million) eligible for a 30% special depreciation, or a tax credit of 3% (5%, if that data is linked to an external party).
Economic Analysis	Supply Side Policies that target economic restructuring resulting in the switch in production methods. - Subsidies given to encourage R&D among firms - Encourage R&D to improve on production processes

	- Switch from labour intensive production to capital intensive - Switch in new skills demanded among the labour force - Current skills might be irrelevant - Skills mismatch - Structural unemployment - Lack of income and purchasing power - Greater proportion of population with lesser ability to consume G&S - Decrease in satisfaction and utility - Decrease in material SOL Supply Side Policies that target economic restructuring resulting in the switch in production methods. - Subsidies given to encourage R&D among firms - Encourage R&D to improve on production processes - Switch from labour intensive production to capital intensive - Increase in production processes enhances energy usage - Energy usage and production processes leads to higher release of greenhouse gases - Air pollution problem - Reduces the quality of environment - Degradation of environment - Reduces the quality of life according to MEW - Decrease in non- material SOL
Link to ATQ	The effective implementation of supply-side policies can drive an economy forward, fostering both actual and potential economic growth, thereby enhancing standards of living. However, the success of these policies largely depends on the economy's capacity to support their objectives. If the labor force lacks sufficient education and transferable skills, resulting in low occupational mobility, supply-side policies may struggle to improve living standards. Furthermore, the government's priorities are crucial, particularly in addressing environmental concerns. The integration of regulations to mitigate environmental impacts must align with policy implementation to ensure a concurrent improvement in non-material standards of living.

Conclusion:

Stand	Supply Side Policies often brings about an improvement in SOL, both material and non- material, however, the extent is dependent on the effectiveness of the government to complement the implementation process.
Substantiate	In the pursuit of driving economic growth through supply-side policies, it is crucial for the government to assess the readiness of the labor force and firms to effectively implement these measures. When well-executed, supply-side policies can stimulate both actual and potential

	economic growth, thereby significantly improving standards of living. Complementary policies, such as early initiatives to train and develop the labor force to foster a learning culture or forming strategic partnerships with firms to support their investment efforts, are essential in maximizing the effectiveness of these policies. In terms of non-material standards of living, governments must remain vigilant of the potential unintended consequences of supply-side policies. Proactive measures, such as implementing regulations that promote environmentally sustainable production methods or ensuring work-life balance, can help mitigate these negative effects.
Suggest	While supply-side policies often focus on capital and labor accumulation, the government's ability to foresee challenges and complement these policies with forward-looking initiatives is critical to fully realizing their benefits. Therefore in determining the extent to which supply side policies can improve living standards, the capabilities of the government plays a significant role and influences the outcome.

Markers' comments:

Most students demonstrated a clear understanding of supply-side policies and their mechanisms. However, a subset of students displayed confusion, often conflating supply-side policies with fiscal policies. Additionally, many responses lacked a detailed explanation of the specific supply-side policies being employed. Furthermore, some students introduced alternative policies as counterarguments, which were not relevant to the question, as it specifically required an analysis of supply-side policies and their effectiveness in improving the standard of living (SOL).

Level	Knowledge, Understanding, Application and Analysis	
L3	- Answer is relevant to question requirements and covers sufficient breadth (the extent of the improvement in SOL that are likely to be experienced by with the implementation of supply side policies) - Answer has sufficient depth: - Rigorous and detailed economic analysis with the use of economic framework and clear explanation about the changes in SOL. - Consideration of both material and non- material - In the context of using supply side policies Relevant and accurate use of economic concepts;	[8 – 10] [A+A: 10] [A+C: 8-9]

L2	• Answer is mostly relevant to the question requirements with sufficient breadth: - Adequate explanation of (the extent of the improvement in SOL that are likely to be experienced by with the implementation of supply side policies) that contain minor inaccuracies; • Economic analysis is accurate but incomplete or lacks precision. • Relevant diagrams are used but might not be accurately explained or applied to support economic analysis. MAX 6: - Good explanation of the impact on improvement of SOL to small or large extent (with rigour and use of real-world examples to illustrate) MAX 6: - Good explanation of the impact on improvement of SOL to small or large extent but focused on either material or non- material aspect only (with rigour and use of real-world examples to illustrate)	[5 – 7] [A+K: 7] [C+C: 6-7] [A+0: 6] [K+C: 5-6]
L1	• Adequate explanation of only one either the impact on one agent or one sided discussion with just the benefit/ cost without economic framework. • Unclear and/or inaccurate economic analysis.	[1 – 4] [C+0: 4] [K+K: 2-4] [K+0: 1-2]
Evaluation		
E3	Takes a clear overall stand that is comprehensively justified by providing convincing evaluative comments on the considerations of the factors covered in the body and supported by economic analysis .	5
E2	For an answer that (so far as required by the question) builds on appropriate analysis to evaluate critically alternative theoretical explanations, contemporary issues, perspectives and policy choices, that recognises unstated assumptions and evaluates their relevance, and that synthesises economic arguments to arrive at well- reasoned judgements and decisions.	3–4
E1	For an answer that makes some attempt at evaluation or a conclusion that answers the question but does not explain the judgement or base it on analysis.	1-2

- 5 In 2022, Singapore's economy was impacted by global events such as the ongoing supply chain disruptions caused by the Russia-Ukraine war, which led to increased energy prices and inflation. Additionally, the tightening of global monetary policies by major economies, including the Federal Reserve's interest rate hikes, put further pressure on Singapore's export-driven economy.
- (a) Explain how the above events led to adverse consequences on the Singapore's economy. [10]
- (b) Discuss the policies implemented by the Singapore government to mitigate the adverse consequences brought by the above global events. [15]

Suggested answer for (a)

R1: Explain the adverse impact of supply chain disruptions caused by the Russia-Ukraine war on the Singapore's economy.

The supply chain disruptions arising from the Russia-Ukraine war led to a rise in general price level (GPL) in Singapore. The two countries are major suppliers of key commodities such as oil and gas. The war disrupted their supply, causing prices of several commodities such as oil and gas to spike. Given that Singapore lacks natural resources and imports these commodities, which are key factor inputs in many production processes in the country, the rise in prices of the commodities would increase unit cost of production. Higher energy prices also drove up electricity and transport costs for firms.

Firms typically respond to the rising cost by passing on part of the increase to consumers in the form of higher prices and by cutting back on production. This translates to a fall in short run aggregate supply (AS) causing the AS curve to shift from AS_0 to AS_1 as illustrated in Figure 1. This results in a shortage that causes a rise in GPL from P_0 to P_1 . If this increase is sustained, cost-push inflation occurs. The fall in AS also leads to a fall in real national income (RNY) from Y_0 to Y_1 . As firms cut back on output, they also reduce the amount of labour hired and unemployment increases.

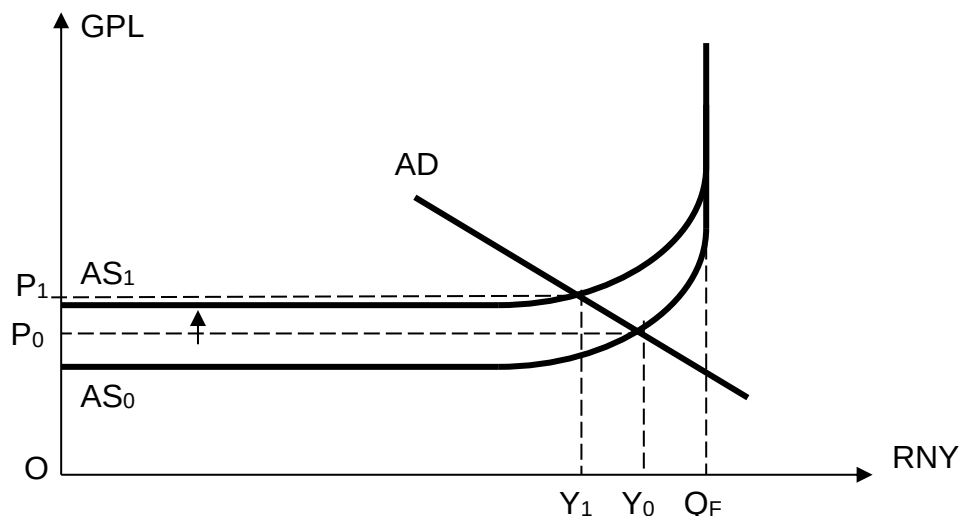


Figure 1: Fall in AS

R2: Explain the adverse impact of tightening of global monetary policies by major economies on the Singapore's economy.

The tightening of global monetary policies by major economies, including the Federal Reserve's interest rate hikes will have contractionary effects on Singapore's economy. The rise in interest rate in major economies such as US increases borrowing costs which will reduce the expected profitability of investments, so investment expenditure (I) will fall. Consumption expenditure (C) also falls due to higher borrowing costs as the loan repayment will be costlier for the consumers. The combination of fall in C & I will lead to a fall in AD. With a fall in AD, firms experiencing excess inventory will cut down production, resulted in fewer demand for factors of production such as labour, hence lesser factor income will be paid out and further reduce consumption. National income will fall by a multiple, leading to negative growth and higher cyclical unemployment. This is harmful to Singapore economy, as Singapore is dependent on exports for growth. Fall in national income of our trading partners will imply lesser purchasing power from them to import from Singapore. The demand for Singapore's export will fall, such that Singapore's export revenue and net exports will fall ceteris paribus. As a result, Singapore's AD will fall from AD_0 to AD_1 and this will lead to a fall in RNY from Y_0 to Y_1 as shown in Figure 2. As firms cut back on output, they also reduce the amount of labour hired and unemployment increases. The fall in net exports also worsen its balance of trade.

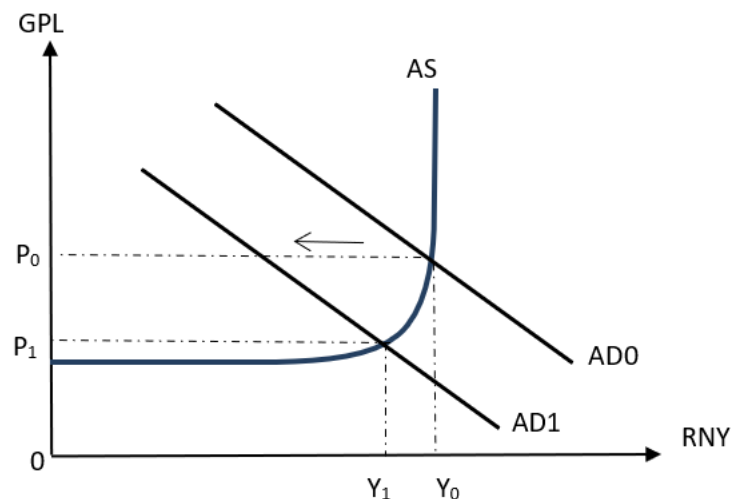


Figure 2: Fall in AD

Combined effects of a fall in AD and AS

As the intention of the major economies to raise interest rates was to slow down their pace of economic growth to reduce inflationary pressures, rather than cause negative growth, the purchasing power of our trading partners will still remain and hence their demand for Singapore's exports may not fall by a large extent. So, the fall in AS is likely to outweigh the fall in AD. Therefore, Singapore is likely to experience an overall rise in GPL from P_0 to P_1 and fall in RNY from Y_0 to Y_1 as shown in Figure 3.

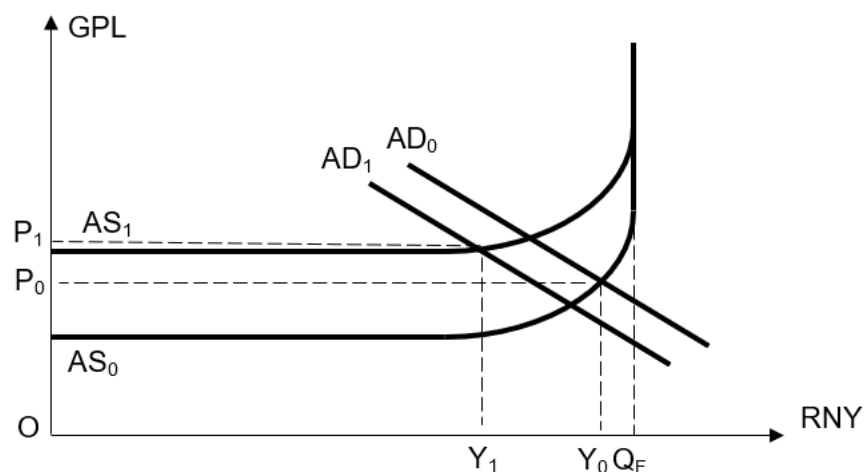


Figure 3: Fall in AS > Fall in AD

Level of Response Mark Scheme (LORMS)

Level	Descriptor	Mark
L3	Analysis & Application For an analytical answer that addresses the question thoroughly with clear explanation well supported by tools of analysis, such as AD/AS analysis and diagram. There's clear and thorough explanation of how supply chain disruptions caused by the Russia-Ukraine war and tightening of global monetary policies by major economies led to adverse consequences on the Singapore's economy. There is good ability to organise ideas or discriminate between relevant and irrelevant factors. Answer is well-focused on question (e.g., the Singapore's economy) with the good use of economic concepts, theories or principles. Knowledge & Understanding For an answer that demonstrates an accurate knowledge and understanding of economic concepts, theories related to question, e.g., AD/AS analysis.	[8 – 10] [A+A: 10] [A+C: 8-9]
L2	Analysis & Application For an under-developed answer that attempts to address the question and explain how supply chain disruptions caused by the Russia-Ukraine war and tightening of global monetary policies by major economies led to adverse consequences on the Singapore's economy. Answers may be descriptive, lack an analytical approach (e.g., not supported with tools of analysis, incomplete use of graph) or is incompletely explained with gaps in analysis. [Or For a one-sided analytical answer that address only one of the two question requirements, i.e., explanation of the impact of one event only]	[5 – 7] [A+K: 7] [C+C: 6-7] [A+0: 6] [K+C: 5-6]

	For an answer that is supported with some application to the context of the question (e.g., the Singapore's economy). There is limited ability to organise ideas or discriminate between relevant and irrelevant materials. Answer has some relevance to the question context but is generic (e.g., pre-learned answer that is not focused on addressing the question specifically). Knowledge & Understanding For an answer that demonstrates largely accurate knowledge and understanding of economic concepts, theories related to question, e.g., AD/AS analysis (i.e., no major conceptual errors).	
L1	Knowledge & Understanding For an answer that shows limited knowledge and understanding of relevant economic concepts and theories (e.g., basic description or definitions). Few valid points made which are scant and inadequately explained. Answers are mostly irrelevant and inaccurate. Answer demonstrates that the meaning of question is not properly grasped or may contain basic errors of theory.	[1 – 4] [C+0: 4] [K+K: 2-4] [K+0: 1-2]

Markers' comments

- Some students did not identify the two global events correctly e.g. explained the negative impact of inflation on Singapore's economy.
- Most students are able to explain the impact of supply-chain disruptions on Singapore's economy (e.g. imported cost-push inflation) correctly via a fall in SRAS.
- Some students misinterpreted tightening of global monetary policies as a depreciation of currency and wrongly linked to the impact on exports and imports.
- Tightening of global monetary policies refer to the increase in interest rates by major economies affecting the cost of borrowing instead of affecting the cost of production of goods and services.
- Answers that explained how the rise in global interest rates also led to Singapore, as an interest rate taker to raise her interest rate, linking to a fall in consumption and investment expenditure and hence AD are accepted.

- (b) Discuss the policies implemented by the Singapore government to mitigate the adverse consequences brought by the above global events. [15]

Suggested answer for (b)

Singapore government implemented a range of policies such as monetary policy centred on exchange rate and supply side policies to mitigate the adverse consequences brought by supply chain disruptions arising from the Russia-Ukraine war and the tightening of global monetary policies by major economies – in other words, the objective is to improve economic growth, increase employment, achieve price stability and improve balance of trade.

R1: Explain how Singapore government implemented monetary policy centred on exchange rate to mitigate the adverse effects brought by supply chain disruptions arising from the Russia-Ukraine war.

- The Singapore government allows for slow and modest appreciation of the domestic currency to curb inflationary pressures.
- When the SGD appreciates, imported raw materials become cheaper in SGD. Given that Singapore imports a lot of her raw materials as mentioned in (a), a stronger SGD helps to lower costs of production for firms → increase in SRAS → downward shift in SRAS from $SRAS_0$ to $SRAS_1$ → fall in GPL from P_0 to P_1 → fall in cost-push inflation
- At the same time, since SRAS increases, RNY increases from Y_0 to Y_1 . Firms' demand for labour increases and unemployment falls.

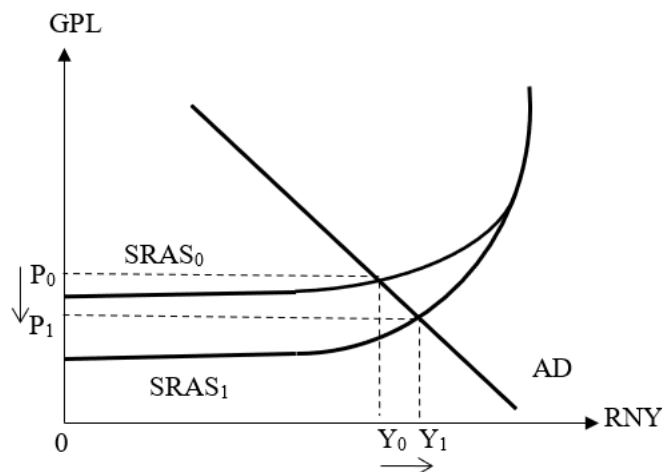


Figure 4: Increase in SRAS

Limitations

- A stronger SGD will mean that prices of exports will be more expensive in foreign currencies, leading to a fall in quantity of exports demanded. Prices of imports will be cheaper in SGD, leading to consumers switching to imported goods, increase the quantity demanded for imports. Given that Singapore mainly exports electronic products that have many close substitutes such as those from Korea and Taiwan, demand for its exports is relatively price elastic. Since Marshall-Lerner condition ($|PED_x + PED_m| > 1$) holds for Singapore, an appreciation of SGD will lead to a decrease in net exports. Hence AD falls, leading to fall in RNY and this will worsen economic growth and increase cyclical unemployment further. Balance of trade also worsens.

R2: Explain how Singapore government implemented supply-side policy to mitigate the adverse effects brought by supply chain disruptions arising from the Russia-Ukraine war and the tightening of global monetary policies by major economies.

- The Singapore government provides grants or subsidies to workers to upgrade their skills through Skill Future Credit and/or Workfare Training Support (WTS) scheme. With relevant training, workers' productivity levels may increase, allowing them to produce more output per unit labour. Assuming wages increase more slowly than productivity, unit cost of production will fall, and firms will be more willing and able to produce. This causes short run aggregate supply to increase, with horizontal and upward sloping portion of AS shifting downwards, which leads to a fall in GPL allowing the government to manage cost-push inflation and increase actual economic growth. / This will offset some of the rise in unit cost of production arising from the supply chain disruptions, mitigating the rise in GPL and fall in RNY.
- The increase in labour productivity also increases productive capacity of the economy. Long run aggregate supply increases, with vertical portion of AS shifting out and the maximum possible output increasing from Y_f to Y_f' as shown in Figure 5.
- The Singapore government provides more incentives to encourage innovation, e.g. Productivity & Innovation Credit (PIC) is a tax deduction given to firms who invest in Research & Development. Firms can engage in product innovation to improve the quality of their products exported to overseas markets. Assuming innovation is successful, this can increase the demand for Singapore's exports, increase its AD and RNY, improving its actual economic growth, unemployment and BOT. / This will reduce the extent of fall in Singapore's exports by trading partners who tightened their monetary policies, mitigating the fall in RNY, rise in cyclical unemployment and worsening of BOT.
- As shown in Figure 5, the rise in aggregate demand from AD_0 to AD_1 and aggregate supply from AS_0 to AS_1 leads to a rise in RNY from Y_0 to Y_1 and fall in general price level from P_0 to P_1 , so the Singapore economy would experience economic growth and price stability concurrently.

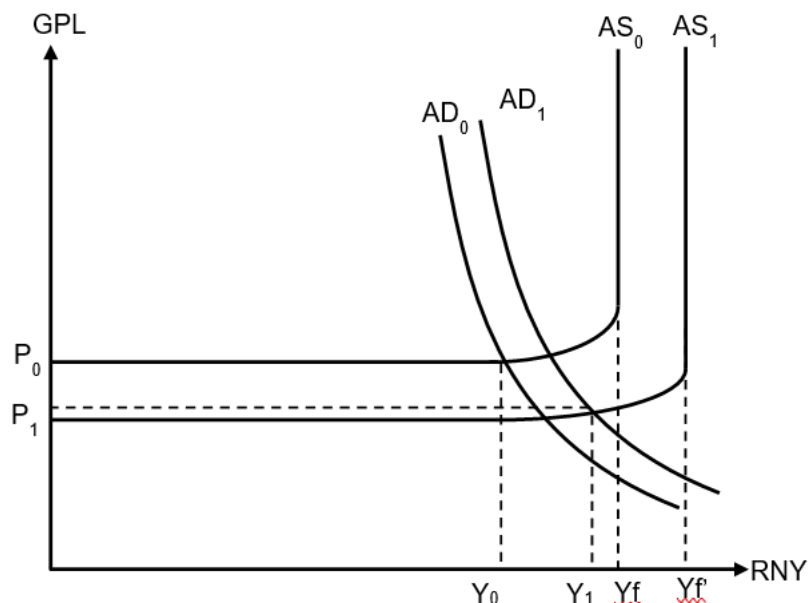


Figure 5: Increase in AD and AS

Limitations

- It can take a long time for workers to pick up the skills to improve their labour productivity, and hence the effectiveness of the policy would only be seen in the longer term.
- Additionally, workers might also be reluctant to go for skills upgrading, which would reduce the effectiveness of the policy to increase AS to mitigate the rise in GPL and fall in RNY.
- Furthermore, some of the more traditional firms may not have the expertise and willingness to adopt and invest in R&D. So, the policy may not be effective to increase net exports and hence AD as well as AS to improve economic growth and achieve price stability.

Conclusion

- Given that Singapore economy lacks natural resources and is highly reliant on imported raw materials, a slow and modest appreciation of SGD is a more appropriate policy to mitigate the rise in GPL/ imported cost-push inflation arising from supply-chain disruptions caused by the Russia-Ukraine war.
- The impact of an appreciation of SGD is also likely to take effect quickly, allowing Singapore's GPL to fall, addressing the inflation problem more immediately as compared to supply side policies which take a longer time to show effect.
- However, exchange rate appreciation could also reduce net exports and further worsen economic growth, unemployment and BOT caused by the tightening of global monetary policies by major economies.
- Therefore, the Singapore government needs to complement exchange rate appreciation with supply-side policies. As explained earlier, supply-side policies can help to compensate the negative effect of appreciation of SGD on export sector, ensuring that exports remain competitive in terms of price and non-price. This would enable Singapore to improve economic growth, increase employment, achieve price stability and improve balance of trade in the long term.

Level of Response Mark Scheme (LORMS)

Level	Descriptor	Mark
L3	Analysis & Application For an analytical answer that addresses the question thoroughly with clear explanation well supported by tools of analysis, such as AD/AS analysis and diagram. There's thorough explanation of how at least two policies work to mitigate the adverse effects brought by supply chain disruptions arising from the Russia-Ukraine war and the tightening of global monetary policies by major economies as well as the strengths and/or limitations of policies. There is good ability to organise ideas or discriminate between relevant and irrelevant factors. Answer is well-focused on question, (e.g., the Singapore economy) with the good use of relevant economic concepts, theories or principles. Knowledge & Understanding For an answer that demonstrates an accurate knowledge and understanding of economic concepts, theories related to question, e.g., AD/AS analysis.	[8 – 10] [A+A: 10] [A+C: 8-9]

L2	Analysis & Application For an under-developed answer that attempts to address the question and explain how at least two policies work to mitigate the adverse effects brought by supply chain disruptions arising from the Russia-Ukraine war and the tightening of global monetary policies by major economies as well as the strengths and/or limitations of policies. Answers may be descriptive, lack an analytical approach (e.g., not supported with tools of analysis, incomplete use of graph) or is incompletely explained with gaps in analysis. [Or For a one-sided analytical answer that address only one of the two question requirements, i.e., explanation of one policy only] For an answer that is supported with some application to the context of the question (e.g., the Singapore economy). There is limited ability to organise ideas or discriminate between relevant and irrelevant materials. Answer has some relevance to the question context but is generic (e.g., pre-learned answer that is not focused on addressing the question specifically). Knowledge & Understanding For an answer that demonstrates largely accurate knowledge and understanding of economic concepts, theories related to question, e.g., AD/AS analysis (i.e., no major conceptual errors).	[5 – 7] [A+K: 7] [C+C: 6-7] [A+0: 6] [K+C: 5-6]
L1	Knowledge & Understanding For an answer that shows limited knowledge and understanding of relevant economic concepts and theories (e.g., basic description or definitions). Few valid points made which are scant and inadequately explained. Answers are mostly irrelevant and inaccurate. Answer demonstrates that the meaning of question is not properly grasped or may contain basic errors of theory.	[1 – 4] [C+0: 4] [K+K: 2-4] [K+0: 1-2]
Evaluation		
E3	Well-explained evaluative judgements about 2 requirements + a summative conclusion.	5
E2	Well-explained evaluative judgements about 2 requirements. OR A well-explained evaluative judgement about 1 requirement + an evaluative statement for the second + a summative conclusion.	4
	A well-explained evaluative judgement about 1 requirement + an evaluative statement for the second.	3
E1	A well-explained evaluative judgement about 1 requirement. OR evaluative statements for 2 requirements.	2
	An evaluative statement for 1 requirement.	1
E0	No attempt at evaluation.	0

Markers' comments:

- Most students were able to explain at least two policies – how they work to mitigate the adverse effects of the global events on Singapore's economy and their limitations but with varying quality of responses.
- Stronger responses provided developed explanation supported with the use of AD/AS tool of analysis and diagrams and were well-contextualized to addressing the adverse effects of the two global events on Singapore's economy. Weaker responses tend to be descriptive without the use of economic tool of analysis.
- Most responses are under-developed and merely regurgitated the theoretical content without explaining how the policies can address the adverse effects of the two global events on Singapore's economy.

Prelim Essay Q6 – International Trade & Globalisation

Amidst global economic slowdown and rising unemployment, there is growing dissatisfaction with free trade, globalisation, and increasing protectionism of some countries.

- a. Explain the reasons for the rise in protectionism in some countries. [10]
- b. Discuss whether the use of policies promoting greater free trade is the best strategy for Singapore to improve her balance of trade amidst rising protectionism in the globalised world. [15]

Suggested answer for part (a):

Question Analysis	
Command	Explain the reasons – Use economic reasoning to explain
Content	Rise of protectionism (Reasons for Protectionism- Choose 2) - Infant Industry Argument - Protect domestic production and employment using sunset industry argument - Protection against dumping - Protection to align environmental and social standards
Context	Some countries
1st Requirement: Reason 1 for the rise in protectionism – Costs of globalization, i.e., loss of comparative advantage, rise in structural unemployment and deterioration of trade balance	
2nd Requirement: Reason 2 for the rise in protectionism – Explain the benefits of protectionism in improving trade balance and protecting domestic industries.	

Introduction

Protectionism refers to economic policies or practices that governments use to protect their domestic industries from foreign competition. Common tools of protectionism include tariffs, quotas, and subsidies. In recent years, rising dissatisfaction with free trade and globalization has prompted some countries to adopt protectionist measures, driven by factors such as loss of comparative advantage, rising structural unemployment, and efforts to protect domestic industries and improve trade balances.

1st Requirement: Reason 1 for the rise in protectionism – Costs of globalization, i.e., Reducing the impact of loss of comparative advantage, rise in structural unemployment and deterioration of trade balance

- **Loss of Comparative Advantage:** Some developed countries, such as the United States, have experienced a loss of comparative advantage in various sectors due to

increased competition from developing economies like China and Vietnam. These countries often have lower labour costs, attracting foreign direct investment (FDI) and outsourcing from developed countries. As domestic industries become less competitive, local firms may close down or shift operations abroad, leading to job losses. Eg: The U.S. has experienced a loss of comparative advantage in electronics manufacturing, as companies like Apple outsource production to China, which offers lower labour costs and an efficient supply chain. Similarly, U.S. automobile manufacturers have faced competition from Japanese, South Korean and Chinese manufacturers, leading to declining market share and job losses in the industry.

- **Structural Unemployment:** Structural Unemployment: As industries close down, workers face long-term unemployment due to a mismatch between their existing skills and those required in the evolving economy. The "skills gap" widens as the demand for highly skilled labor in growing industries outpaces the supply of qualified workers. Displaced workers from shrinking sectors may struggle to transition to new roles, particularly in countries with generous unemployment benefits, which can reduce the incentive to retrain. Even when retraining is pursued, the rapid pace of economic restructuring often surpasses the rate of skill development, leading to structural unemployment in the short term as workers experience occupational immobility in high-skilled industries.
- **Deterioration of Balance of Trade:** As developed countries lose competitiveness, exports decline, and imports rise, leading to trade deficits. This deterioration in the BOT can result in reduced foreign reserves, increased borrowing, and heightened economic instability. Protectionist measures are thus seen as a way to counter this negative trend by boosting domestic production and reducing reliance on imports.

2nd Requirement: Reason 2 for the rise in protectionism – Explain the benefits of protectionism in improving trade balance and protecting domestic industries.

Protectionist policies are often implemented with the aim of protecting domestic industries, maintaining employment levels, and improving the balance of trade. While such policies may provide short-term relief, they also come with potential drawbacks like higher prices and inefficiencies.

- **Protecting Infant Industries:** Protectionism can help infant industries, which are still developing their comparative advantage, by giving them time to grow and become competitive. Without protection, these industries might fail to achieve economies of scale, leading to a loss of potential future competitiveness. By protecting these sectors in the short run, governments can encourage diversification, reduce dependency on specific imports, and support long-term economic stability. Eg: China's renewable energy sector, particularly solar panel manufacturing, benefited from protectionist measures like subsidies and low-interest loans in the early 2000s. These policies allowed domestic companies to scale up, reduce costs, and become global leaders in solar panel production, helping China dominate the global market.

OR

- **Export Subsidies and Trade Balance:** Export subsidies lower the unit cost of production for domestic firms, enabling them to sell their goods at more competitive prices in international markets. This can help increase exports, reduce trade deficits,

and boost AD, potentially leading to economic growth and higher employment. Countries with large current account deficits may resort to protectionism to boost exports and reduce imports, improving their BOT in the short term. Eg: The European Union's Common Agricultural Policy (CAP) provides export subsidies to farmers, reducing production costs and enabling competitive pricing in global markets. This has boosted EU agricultural exports, reduced trade deficits in the sector, and supported domestic farm incomes.

OR

- **Import Tariffs and Employment:** Import tariffs raise the prices of foreign goods, making domestically produced alternatives more attractive to consumers. This can support domestic industries, safeguarding jobs, especially in industries facing strong international competition. Thus, reducing structural unemployment. However, the extent of the benefit depends on how long protectionist measures are in place and how effectively domestic firms can adapt and become more competitive.

Conclusion

The rise of protectionism in some countries can be attributed to the need to address domestic economic challenges such as structural unemployment, loss of competitiveness, and trade imbalances. While protectionist measures can offer short-term benefits, especially in protecting jobs and improving trade balances, their long-term effects on economic efficiency and global trade relationships need to be carefully considered.

Markers' Comments:

Only 46 candidates attempted this question. While most candidates were able to identify the two key reasons for the rise in protectionism, many struggled with providing strong theoretical explanations and did not substantiate their points with relevant real-world examples. Additionally, candidates need to maintain a sharper focus on the key requirements of the question. Crafting clear topic sentences can help ensure that responses directly address the question and are structured logically.

Mark Scheme:

Knowledge, Understanding, Application, Analysis		
L3	Analysis & Application For an analytical answer that addresses the question thoroughly with clear explanation well supported by tools of analysis. The reasons for protectionism as well as the benefits of protectionism are clearly explained. There is good ability to organise ideas or discriminate between relevant and irrelevant factors. Answer is well-focused on question. Knowledge & Understanding For an answer that demonstrates an accurate knowledge and understanding of economic concepts, theories related to question, e.g. reasons for protectionism Marks within L3:	8 - 10

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L1	Knowledge & Understanding For an answer that shows limited knowledge and understanding of relevant economic concepts and theories (e.g. basic description or definitions). Few valid points made which are scant and inadequately explained. Answers are mostly irrelevant and inaccurate. Answer demonstrates that the meaning of question is not properly grasped or may contain basic errors of theory. Marks within L1: <table border="1" data-bbox="313 499 1253 972"> <thead> <tr> <th>Annotation</th><th>Description</th><th>Mark</th></tr> </thead> <tbody> <tr> <td>C + 0</td><td>One cursory explanation for 1 question requirement</td><td>4</td></tr> <tr> <td>K + K</td><td>Knowledge and understanding of 2 question requirements</td><td>4</td></tr> <tr> <td>K + K</td><td>Knowledge and understanding of 1 question requirement and knowledge of the second requirement</td><td>3</td></tr> <tr> <td>K + K</td><td>Knowledge of 2 question requirements</td><td>2</td></tr> <tr> <td>K + 0</td><td>Knowledge and understanding of 1 question requirement</td><td>2</td></tr> <tr> <td>K + 0</td><td>Knowledge of one question requirement</td><td>1</td></tr> <tr> <td>0</td><td>Nothing of relevance in the answer</td><td>0</td></tr> </tbody> </table>	Annotation	Description	Mark	C + 0	One cursory explanation for 1 question requirement	4	K + K	Knowledge and understanding of 2 question requirements	4	K + K	Knowledge and understanding of 1 question requirement and knowledge of the second requirement	3	K + K	Knowledge of 2 question requirements	2	K + 0	Knowledge and understanding of 1 question requirement	2	K + 0	Knowledge of one question requirement	1	0	Nothing of relevance in the answer	0	0 - 4
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Discuss whether the use of policies promoting greater free trade is the best strategy for Singapore to improve her balance of trade amidst rising protectionism in the globalised world. [15]

Suggested answer for part (b):

Question Analysis	
Command	Discuss: 2 sided response
Content	Policies to promote greater free trade is the best strategy for Singapore to improve her balance of trade amidst rising protectionism: (1) Signing more FTAs to gain access to more export markets (2) Supply-sides policies (R&D, skills training) to improve comparative advantage. Explain why Singapore should not engage in protectionism
Context	Singapore - resource poor nation and reliant on trade for growth and imports.
1st Requirement: Explain how the use at least one policy to promote greater free trade is the best strategy for Singapore to improve her balance of trade amidst rising protectionism in the globalised world. 2nd Requirement: Explain how the use of another policy to develop Singapore's domestic capabilities as well as why Singapore should not engage in protectionism.	

Introduction

In the face of a global economic slowdown and increasing protectionism, Singapore's approach to improving its balance of trade should strategically leverage free trade policies. As a small, resource-scarce nation with a heavy dependence on trade, Singapore's open economy reaps substantial benefits from globalisation. To capitalize on these benefits, Singapore should focus on policies that enhance free trade, such as negotiating Free Trade Agreements (FTAs) and implementing supply-side measures. These policies offer considerable advantages in expanding market access and boosting economic performance. However, it is crucial to also consider the limitations of these policies and the reasons why protectionism may not be a viable strategy for Singapore.

1st Requirement: Explain how the use of at least one policy promoting greater free trade is the best strategy for Singapore to improve her balance of trade amidst rising protectionism in the globalised world.

Free trade policies advocate for the expansion of cross-border exchanges of goods, services, and resources, often facilitated through Free Trade Agreements (FTAs). These treaties between two or more economies aim to simplify and promote trade and investment by reducing barriers and tariffs.

For Singapore, a small, resource-scarce nation heavily reliant on trade, embracing free trade policies is essential for improving its balance of trade, especially amidst rising global protectionism. By leveraging FTAs and implementing supportive supply-side measures, Singapore can maximize the benefits of globalization and address its trade challenges effectively.

Benefits of Free Trade Policies for Singapore:

Free trade policies allow Singapore to overcome domestic demand constraints by providing access to larger international markets. This can lead to increased export revenues ($X-M$), improving the balance of trade. Enhanced trade opportunities attract FDI, as businesses seek to capitalize on larger markets and potential profitability. This influx of investment boosts aggregate demand (AD) by increasing both net exports and investment.

→ this can trigger a multiplier effect, leading to further rounds of income-induced consumption and a multiplied increase in AD → actual economic growth

→ Higher FDI and trade also lead to technological advancements and improved productivity. This enhances the quality and quantity of capital and labour, shifting the Long-Run Aggregate Supply ($LRAS$) rightward and achieving potential economic growth.

Policy Recommendation (Example): Signing More Free Trade Agreements

Signing more Free trade agreements (FTAs) to its already extensive network of 15 bilateral and 12 regional FTAs, can help companies based in Singapore to expand and leverage on their comparative advantage more effectively, overcoming protectionist barriers and enhancing export opportunities.

By doing so, FTAs create a more favourable environment for cross-border trade. When Singapore signs an FTA with another nation or a group of nations, it gains preferential access to those markets. This means that its exporters can sell their goods and services more easily in those markets, leading to a higher demand for Singapore's exports.

More FTAs signed can lead to more foreign competition entering domestic market, it also raises the degree of contestability. Overall, entrance of foreign firm into domestic market can reduced monopoly power, domestic firms will seek to find ways to achieve productive efficiency leading to lower production costs. Larger production scales facilitated by FTAs enable firms to benefit from technical economies of scale. Specialization and repeated job functions increase productivity and reduce average costs, making Singapore's exports more price-competitive. Given that Singapore's exports often have a price elasticity of demand (PED) greater than one, this can lead to a significant rise in export revenue. Hence, net exports rise, causing greater BOT surplus and helping Singapore's ($X-M$) sector component to grow bigger. Since ($X-M$) & I are key components of aggregate demand, an increase in Singapore's net exports & I would lead to an increase in aggregate demand, leads to a multiple increase in real national income through the multiplier process thus reaping greater benefits in terms of actual growth. Higher FDI inflow, can lead to greater transfer and exchange of knowledge and skills thus improving

the quality and quantity of capital and labour of Singapore economy, helping Singapore economy to further increase its productive capacity leading to greater potential growth.

Limitations of signing more FTAs

- While signing more FTAs offers numerous benefits, one potential drawback is trade diversion. Trade diversion occurs when Singapore imports goods from FTA partner countries rather than more efficient non-member countries. This shift can potentially increase the overall cost of imports if the FTA partner's goods are more expensive or of lower quality compared to those from non-member countries.
- While the expanded market access, increased competition, and enhanced investment opportunities provided by FTAs generally outweigh the drawbacks, trade diversion can still result in higher costs for consumers and businesses. The challenge lies in ensuring that the benefits of FTAs outweigh the potential increase in import costs and that trade diversion is minimized through careful negotiation and agreement structuring.

OR Candidates could also explain supply-side policies promoting greater free trade is the best strategy for Singapore to improve her balance of trade amidst rising protectionism in the globalised world.

2nd Requirement: Explain how the use of another policy to develop Singapore's domestic capabilities as a complementary stance to promoting greater free trade.

Supply-side policies that focus on research and development (R&D) and improving labour productivity can be used to **enable Singapore to overcome domestic constraints, increase export competitiveness**, and maintain a robust economic position.

- Strengthening R&D initiatives enables Singapore to improve product quality and develop innovative goods. By investing in emerging industries and clusters such as robotics and 3D printing, Singapore can produce unique and high-quality products. This leads to increased demand for exports and strengthens Singapore's competitive edge.
- By focusing on high-value and technologically advanced products, Singapore can avoid head-on competition with low-cost producers. This strategic shift enhances Singapore's comparative advantage and contributes positively to its balance of trade.
- Investing in education and training ensures that the workforce remains highly skilled and adaptable. Supply-side policies aimed at increasing labour productivity help attract foreign direct investment by providing foreign firms with access to a skilled workforce without significant training costs.

Limitations of Supply-Side Policies

- Supply-side policies may take time to yield results as they depend on the effectiveness of training programs and the adaptability of the workforce. Delays in realizing benefits may occur if workers do not quickly acquire necessary skills.

- Implementing supply-side policies requires significant government funding, which could strain the budget and limit resources for other initiatives eg infrastructure development.

Evaluative Comments

When assessing whether promoting greater free trade is the most effective strategy for Singapore to improve its balance of trade amid rising global protectionism, several critical factors need to be weighed, each with its associated trade-offs and implications.

SG Context:

Singapore, as a small and resource-scarce nation, derives substantial benefits from engaging in free trade. This strategy allows Singapore to capitalize on its comparative advantages by specializing in sectors where it excels and accessing a broader range of global resources and markets. For Singapore, free trade is crucial for sustaining economic growth and maintaining competitiveness on the international stage. The country's diverse economic landscape — spanning finance, technology, pharmaceuticals, and manufacturing — enhances its ability to participate effectively in global trade. Free trade policies facilitate Singapore's ability to leverage these diverse strengths, broaden its market access, and drive economic expansion.

In today's interconnected global economy, the advantages of free trade are closely linked to the reciprocal actions of trading partners. As a global trading hub, Singapore is particularly vulnerable to trade tensions and retaliatory measures resulting from protectionist policies adopted by other nations. Embracing free trade enables Singapore to fortify its trade relationships, minimizing the risk of being excluded from new opportunities and markets. The optimal approach for Singapore is a nuanced strategy that blends free trade with strategic targeted measures as needed. For example, temporary protection for emerging or struggling industries, alongside initiatives for economic restructuring and skill development, can address immediate challenges while pursuing the long-term benefits of free trade.

Greater free trade fosters competition, compelling industries to address inefficiencies and adapt while protectionism might provide temporary relief by shielding specific industries from international competition, it often results in inefficiencies, diminished competitiveness, and hampered innovation. **Over the long term, free trade is more likely to promote both actual and potential growth, contributing to sustained economic development.**

Conclusion

Singapore should prioritize greater free trade to improve its balance of trade amidst global protectionism. As a small, resource-scarce, and diverse economy, free trade allows Singapore to leverage its strengths, access broader markets, and drive sustained economic growth. While protectionism might offer short-term benefits for specific industries, it risks inefficiencies and reduced competitiveness in the long run. A balanced

approach that combines free trade with targeted protectionist measures when needed can help Singapore address immediate challenges while pursuing long-term economic advantages.

Additional Information to support Thesis:

Explain why Singapore government should not engage in protectionist measures due to its drawback.

- Singapore is a small, resource-scarce, and highly open economy that relies heavily on international trade for both imports and exports. Given its dependence on trade, adopting free trade policies is crucial to maintaining a favourable balance of trade, especially in the face of rising global protectionism. While protectionist measures—such as tariffs or import restrictions—may appear attractive during times of economic distress, they can have significant drawbacks for a trade-dependent nation like Singapore.
- Economic downturns triggered by global events, such as the COVID-19 pandemic, have led some countries to adopt protectionist measures to shield domestic industries and stimulate local demand. These measures can be effective during widespread economic disruptions. However, for Singapore, who is deeply integrated into global supply chains, such measures are unlikely to resolve the core economic challenges. Instead, they could stifle international cooperation, reduce market access, and hinder the ability to capitalize on global growth opportunities.
- In cases where Singapore aims to **develop a comparative advantage in a new industry or sector**. For instance, Singapore's exclusive agreement with Taylor Swift to host the only Southeast Asian stop of her concert tour showcases its competitive advantage in the entertainment and tourism sectors. This arrangement not only enhances Singapore's profile in the entertainment and tourism sectors but also attracts international attention and investment. By leveraging such agreements, Singapore can build and showcase its competitive edge in emerging areas, contributing to its overall economic growth and diversification.

Markers' Comments:

This part of the question was poorly attempted. Many candidates gave rehearsed, generic responses that failed to address the specific context of the question. Additionally, while some candidates suggested that Singapore should use supply-side policies, such as R&D grants, to enhance the quality of exports, they did not provide sufficient detail. Candidates are expected to explain how specific supply-side policies could be applied to particular industries, and how these policies would enable firms to improve the quality of their exports in a targeted and meaningful way.

Mark Scheme:

Knowledge, Understanding, Application, Analysis														
L3	Analysis & Application For an analytical answer that addresses the question thoroughly with clear explanation well supported by tools of analysis, such as relevant policies analysis and diagram. There is good ability to organise ideas or discriminate between relevant and irrelevant factors. Answer is well-focused on question with the good use of relevant economic concepts, theories or principles. Good application to the context of the question. Knowledge & Understanding For an answer that demonstrates an accurate knowledge and understanding of economic concepts, theories related to question. Marks within L3: <table border="1"> <thead> <tr> <th>Annotat ion</th><th>Description</th><th>Mark</th></tr> </thead> <tbody> <tr> <td>A + A</td><td>Analytical explanations for 2 question requirements</td><td>10</td></tr> <tr> <td>A + C + K</td><td>1 analytical and 1 cursory explanation for 2 question requirements and an explanation of additional factor that is relevant</td><td>9</td></tr> <tr> <td>A + C</td><td>1 analytical and 1 cursory explanation for 2 question requirements</td><td>8</td></tr> </tbody> </table>	Annotat ion	Description	Mark	A + A	Analytical explanations for 2 question requirements	10	A + C + K	1 analytical and 1 cursory explanation for 2 question requirements and an explanation of additional factor that is relevant	9	A + C	1 analytical and 1 cursory explanation for 2 question requirements	8	8-10
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Evaluation detailed marking guide

Note:

A **well-explained evaluative judgement** should be supported by arguments presented in the answer and is linked to the context of the question.

An evaluative statement is a judgement that is not supported by arguments presented in the answer or not linked to the context of the question, e.g. pre-learnt evaluative statement.

Level		Mark
E3	Well-explained evaluative judgements about 2 requirements PLUS a summative conclusion	5
E2	Well-explained evaluative judgements about 2 requirements	4
E2	A well-explained evaluative judgement about 1 requirement + an evaluative statement for the second requirement PLUS a summative conclusion	4
E2	A well-explained evaluative judgement about 1 requirement + an evaluative statement for the second requirement	3
E1	A well-explained evaluative judgement about 1 requirement OR evaluative statements for 2 requirements	2
E1	An evaluative statement for 1 requirement	1
E0	No attempt at Evaluation	0