RIVER VALLEY HIGH SCHOOL
JC 2 Preliminary Examination
In preparation for General Certificate of Education Advanced Level
Higher 2

ECONOMICS

9570/02

Paper 2 Essays

10 September 2024

2 hours 30 minutes

Additional Materials: Answer Booklet

READ THESE INSTRUCTIONS FIRST

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

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

Answer **each** question using **separate** answer booklets. You can ask for an additional booklet if you need more than one for a question.
Indicate clearly the **question number**.

For each Answer Booklet:
Write your name, Centre number and index number on the first page of all Answer Booklets that you hand in. Write clearly and use capital letters.

For each Answer Booklet, use both sides of the paper.
Write in dark blue or black pen. HB pencil may be used for graphs and diagrams only.

DO **NOT** WRITE ON ANY BARCODES.

Do not tear out any part of the Answer Booklet. All work must be handed in. If you have used any additional booklet, please insert it inside the first Answer Booklet.

Section A

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

1 Rising pork prices have led to a decrease in the number of farmers raising ducks and geese. Consequently, the price of feather shuttlecocks in China has increased by 40%. Feather shuttlecocks are typically made from 16 overlapping feathers, usually sourced from geese or ducks.

(a) Explain what might cause price elasticity of demand and cross elasticity of demand to vary for different products. [10]

(b) Discuss how rising pork prices could affect consumer expenditure on feather shuttlecocks and its related goods. [15]

2 In the early 2020s, the gym industry became more competitive, with new gyms offering advanced facilities and diverse classes. However, a surge in COVID-19 cases led some people to stay home out of fear, while gym-goers had to observe safe distancing measures at the gym.

(a) Explain why some firms in the gym industry may decide to remain in the market while others might choose to shut down due to Covid-19. [10]

(b) Discuss the potential effects that consumers are likely to experience due to the influx of competition. [15]

3 Nordic nations such as Denmark, Finland, Norway and Sweden offer access to higher education for free. Singapore chooses to lower the costs of higher education through subsidies.

(a) Explain two reasons why governments get involved in the education sector to achieve the objective of economic efficiency. [10]

(b) A 2022 research study by the National University of Singapore (NUS) described the wage premium of a university degree as substantial, more than double what those with secondary and lower education earn. This earnings gap increases over the workers' lifetimes.

Discuss whether the Singapore government should continue to subsidise higher education in view of the need to balance the achievement of economic efficiency with sustainability. [15]

Section B

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

4 **(a)** Explain why a rise in interest rates is used as a monetary policy tool to control inflation in some countries but not in Singapore. [10]

(b) Discuss whether a rise in world interest rates would likely have a negative impact on Singapore's domestic and external economy. [15]

5 An economy with an ageing population can benefit from an accumulation of wealth as older individuals save for consumption in old age and invest in their education. In Singapore, the government has invested significantly in life-long initiatives to boost the country's human capital potential and reduce unemployment.

Source: World Economic Forum

(a) Explain a possible demand-side cause for one type of unemployment and a possible supply-side cause for another type of unemployment for an economy like Singapore. [10]

(b) Discuss whether an ageing population makes it more difficult for an economy like Singapore to achieve low unemployment. [15]

6 **(a)** Explain how comparative advantage and technological improvements help to drive globalisation. [10]

(b) Global competitiveness can be seen from an economy's export competitiveness and its attractiveness as a foreign direct investment destination.

Discuss whether encouraging technological improvements and signing free trade agreements would be effective in influencing an economy's global competitiveness. [15]

2024 RVHS Prelim Essay Question 1

Rising pork prices have led to a decrease in the number of farmers raising ducks and geese. Consequently, the price of feather shuttlecocks in China has increased by 40%. Feather shuttlecocks are typically made from 16 overlapping feathers, usually sourced from geese or ducks.

(a) Explain what might cause price elasticity of demand and cross elasticity of demand to vary for different products. [10]

(b) Discuss how rising pork prices could affect consumer expenditure on feather shuttlecocks and its related good. [15]

Intro:

Price elasticity of demand (PED) measures the degree of responsiveness of quantity demanded of a good to a change in its price, ceteris paribus. It is calculated by $\frac{\%\text{ change in quantity demanded}}{\%\text{ change in price}}$.
Cross elasticity of demand (XED) measures the degree of responsiveness of demand for one good to a change in the price of another good, ceteris paribus. It is calculated by $\frac{\%\text{ change in quantity demanded of good X}}{\%\text{ change in price of good Y}}$.

Requirement 1: What causes PED to differ:
Price elasticity of demand (PED) is always negative due to the law of demand: a rise (fall) in price leads to a fall (rise) in quantity demanded. Therefore, only the absolute value of PED matters. The magnitude of PED varies based on factors like the availability of substitutes and the proportion of income spent on a good.

One factor that affects the magnitude of PED is the availability and closeness of substitutes, where the greater the availability of substitues for a good and the closer the substitutes are to the good, the bigger the magnitude of the good's PED. The number and closeness of substitutes in turn, depend on how broadly we define the good. E.g., demand for 'shuttlecock' as a broad category is more price inelastic than the demand for 'feather shuttlecock'. Reason being, fewer substitutes exist for shuttlecock in general whereas more substitutes exist for feather shuttlecock. If the price of shuttlecock increases, consumers have fewer/no substitutes to switch to. In contrast, more substittues exist for feather shuttlecock. Substitutes include synthetic shuttlecock, as well as hybrid shuttlecock. Thus, if the price of feather shuttlecocks were to increase, consumers have more substitutes to turn to, thereby making its demand less price inelastic ($PED_{\text{feather shuttlecock}} > PED_{\text{shuttlecock}}$).

Requirement 2: What causes XED between different pairs of gds to differ
Cross-price elasticity of demand (XED) varies depending on whether goods are substitutes or complements, and the closeness of their relationship. Substitutes have positive XED, while complements have negative XED.

For example, shuttlecocks and badminton rackets are strong complements (i.e., XED > -1), so an increase in racket prices reduces demand for shuttlecocks more than proportionately. Meanwhile, coffee and cream are weak complements, so an increase in price of coffee will lead to a less than proportionate reduction in demand for cream.

For substitutes, feather and synthetic shuttlecocks are close substitutes (XED>1) for casual players because both types can fulfill their needs with minimal differences in performance, so an increase in feather shuttlecock prices causes a more than proportionate rise in synthetic shuttlecock demand. However, for professional players, they are not close substitutes (0<XED<1) as feather shuttlecocks provides better control, feel and sound, so the increase in demand given an increase in price of feather shuttlecocks is smaller.

Understanding these determinants helps explain variations in PED and XED across products.

Level	Knowledge, Application, Understanding, Analysis	Marks
L3	For an answer that explains how different determinants of PED and XED would affect the values of PED and XED.	8 - 10
L2	For an undeveloped answer that explains how different determinants of PED and XED would affect the values of PED and XED. OR For a developed answer that only explains how that explains how different determinants of PED OR XED would affect the values of PED OR XED.	5 - 7
L1	For an answer that may show little knowledge of PED and XED. Mere definition of relevant concepts or mere listing of different determinants of PED and/or XED, without looking at different products.	1 - 4

(b)

Consumer expenditure is calculated by multiplying the price consumers pay by the equilibrium quantity in the market. We can use price elasticity of demand (PED) to determine the effect of rising pork prices on consumer expenditure for feather shuttlecocks, while cross elasticity of demand (XED) helps assess the impact on related goods like synthetic shuttlecocks or badminton rackets.

Rising pork prices have prompted farmers to shift from raising ducks and geese to pigs, as these goods are in competitive supply, using similar resources. This reduces the supply of duck and goose feathers, key inputs in feather shuttlecock production. The reduced supply of feathers increases price of factor inputs, raising its cost of production, causing a fall in supply and thus a leftward shift in the supply curve for feather shuttlecocks. This leads to higher prices and lower quantity demanded.

Whether consumer expenditure increases or decreases depends on the PED of feather shuttlecocks. Professional players, who require higher quality shuttlecocks with fewer substitutes, likely exhibit PED<1. Thus, a price increase results in a less than proportionate decrease in quantity demanded, leading to higher total consumer expenditure from 0P0AQ0 to 0PiCQi.

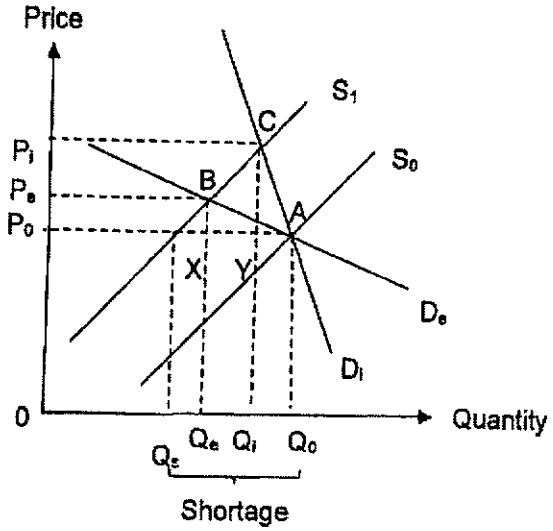


Figure 1: Fall in supply of feather shuttlecocks

Recreational badminton players, who play for leisure, likely do not have a strong preference for feather shuttlecocks and see synthetic or hybrid shuttlecocks as close substitutes. Thus, their demand for feather shuttlecocks is relatively price elastic due to the greater availability of substitutes. As shown by De in Figure 1, a price increase due to a supply fall leads to a more than proportionate decrease in quantity demanded, resulting in a decline in total expenditure from 0P0AQ0 to 0PeBQe.

R2: Effect on consumer expenditure for synthetic shuttlecocks [4]

Since feather and synthetic shuttlecocks are substitutes, cross elasticity of demand (XED) determines the effect on consumer expenditure for synthetic shuttlecocks. If they are weak substitutes, XED is positive but small. A price increase in feather shuttlecocks leads to a small rise in demand for synthetic shuttlecocks, resulting in a modest increase in price and quantity, and a small rise in consumer expenditure (0P0AQ0 to 0P1BQ1).

If they are strong substitutes, especially for recreational players, XED is positive and large. A price increase in feather shuttlecocks significantly boosts demand for synthetic ones, leading to a larger rise in price, quantity, and consumer expenditure (0P0AQ0 to 0P2CQ2).

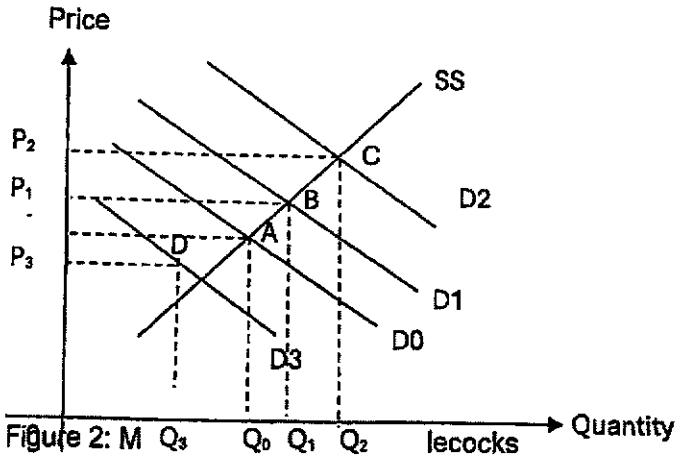


Figure 2: M lecocks

Evaluation:

The analysis assumes ceteris paribus. However, factors like the growing preference for synthetic shuttlecocks and the Badminton World Federation's approval of their use in international events may cause professional players to switch, significantly reducing expenditure on feather shuttlecocks and increasing it for synthetic ones.

Additionally, the durability of badminton rackets, a complement to feather shuttlecocks, means that consumer expenditure on them may not fall significantly, despite their complementarity.

Overall, consumer expenditure on feather shuttlecocks will likely fall, synthetic shuttlecocks will rise, and badminton racket expenditure will remain relatively stable due to its durability.

LORMS

Level	Description	Marks
L3	To enter L3, candidates are expected to discuss effect on consumer expenditure for both feather shuttlecocks and synthetic shuttlecocks/badminton rackets, using a range of elasticity concepts. A demand and supply diagram would be a useful tool of analysis.	8-10
L2	An underdeveloped explanation of effect on consumer expenditure for both feather shuttlecocks and synthetic shuttlecocks/badminton rackets, with limited use of elasticity concepts.	5-7
L1	For an answer that 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. Where the answer is mostly irrelevant and only contains a few valid points made incidentally in an irrelevant context.	1-4

E3	Analytically well-explained judgement about the effect on consumer expenditure for both feather shuttlecocks and synthetic shuttlecocks/badminton rackets, plus an overall summative conclusion. OR a well-explained judgment on feather shuttlecocks and an evaluative statement about the other related good, plus a summative conclusion	4-5
E2	A well-explained judgment about effect on consumer expenditure on feather shuttlecocks OR synthetic shuttlecocks/badminton rackets. OR 2 unsupported statements on effects on consumer expenditure for both feather shuttlecocks and synthetic shuttlecocks/badminton rackets.	2-3
E1	1 unsupported statement about effect on consumer expenditure for either on feather shuttlecocks OR synthetic shuttlecocks/badminton rackets.	1

EQ2

In the early 2020s, the gym industry became more competitive, with new gyms offering advanced facilities and diverse classes. However, a surge in COVID-19 cases led some people to stay home out of fear, while gym-goers had to observe safe distancing measures at the gym.

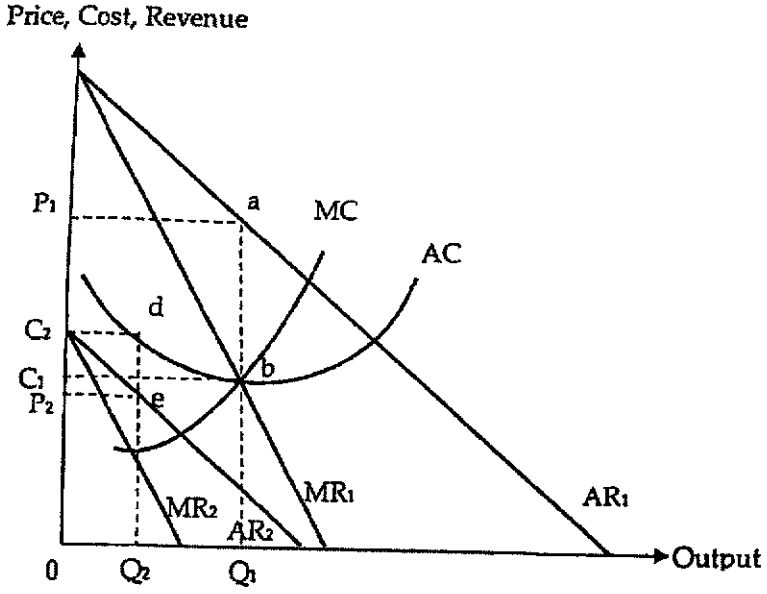
a) Explain why some firms in the gym industry may decide to remain in the market while others might choose to shut down due to Covid-19. [10]

b) Discuss the potential effects that consumers are likely to experience due to the influx of competition. [15]

Part (a)

R1: Explain why some gyms might choose to continue operations despite the the Covid-19 safe distancing measures.

Figure 1: Fall in profits due to the pandemic



Due to the Covid-19 restrictions, gyms may see a fall in demand for exercising at gyms due to the restrictions and people are more cautious about exercising together. This will result in a decrease in demand for gym services and membership fees and gyms may see a fall in their AR from AR_1 to AR_2 as shown in Figure 1 above. Furthermore, there may also be a fall in income levels due to to the decrease in economic output or some individuals may lose their jobs during this pandemic, resulting in a further fall in demand. Diagrammatically, the gym may earn a supernormal profit of area P_1abC_1 at first, however with the fall in AR, the gym may now be earning a subnormal profit of C_2deP_2.

In the short run, a firm incurs both fixed and variable costs. Fixed cost does not vary with output produced and it is incurred even when there is no production. Such costs are payable even when a firm shuts down its operation. Examples of fixed costs for a gym include rental payments for the shop space, payments for fitness machines and fire insurance, etc. Variable cost varies with

output produced and it is not incurred by a firm when it shuts down or ceases operation. Examples of such costs include wages of gym instructors and expenses for the operations like utilities and maintenance of the equipment due to wear and tear.

In the short run, even though a gym is earning subnormal profit, but if its AR exceeds its AVC (AR>AVC), it means that it can cover its variable cost and some of its fixed cost, it will choose to remain in operation.

This is because by continuing, the additional cost that will be incurred is AVC and not the fixed cost because fixed cost does not vary with the level of output, but nonetheless need to be paid even if it shuts down. At the same time, by continuing operation, the firm will still earn revenue from the sale of its products (TR), which can cover all of its TVC, and part of its TFC.

R2: Explain why some gyms might choose to shut down

if a gym like Ritual is earning subnormal profit but the gym's revenue is unable to cover its variable costs, (AR<AVC), it will not remain in the market and should shut down.

In the short run, if the firm is unable to earn enough revenue to even cover the AVC, the firm will shut down. Should a firm choose to shut down, it will have an operating loss that is equal to its total fixed cost, which will be incurred even if output is zero.

However, if the firm chooses to remain operating, with a P<AVC, the firm will suffer even greater losses of AVC + AFC. Hence, in order to minimise losses, the firm will choose to shut down instead.

In the long run, the firm must at least make normal profit, i.e. AR=AC, to remain in the industry. If the demand fails to recover and the firm continues to make subnormal profits, then it will have to exit the industry as it is better off redeploying its resources to other industries where it might be able to at least earn a normal profit.

	Knowledge, Application/ Understanding and Analysis	
L3	Thorough knowledge of the facts and theory with an excellent ability to explain in a precise, logical and reasoned manner. Illustrations and examples are evidence of the ability to recognise the principles of the question, application to relevant current situations, and appropriateness for the question.	8-10
L2	Answer is relevant to the question, but the theory may be incompletely explained. Evidence of an ability to identify facts, at graphs (where appropriate) and applying theory to new situations.	5-7
L1	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

Part (b)

R1: Positive effects experienced by consumers with the influx of competition

Before the influx of competition, the existing gym companies had relatively greater market power, allowing them to set higher prices. Each company faced a relatively high demand curve, which was also price inelastic due to the lack of close substitutes. As a result, under the profit-maximizing condition where marginal revenue equals marginal cost (MR=MC), these companies tended to set higher prices.

However, with the influx of competition, the existing gym companies will experience a decrease in demand. Also, the demand for their services becomes more price elastic. As a result, an existing gym company will now produce less and charge a lower price.

The influx of competition not only pressures existing gym companies to lower prices but also expands the variety of services available to consumers. New entrants often differentiate themselves by offering unique amenities and experiences. This increased diversity in services enhances the overall welfare for consumers, giving them more options to choose from based on their preferences and needs.

R2: Negative effects experienced by consumers with the influx of competition

Before the increase in competition, each gym company produced a relatively larger share of the industry's output, allowing them to operate at a larger scale and benefit from significant internal economies of scale (IEOS). IEOS refer to cost savings that occur when a firm increases its output. For example, larger gyms often have a bargaining advantage and receive preferential treatment from suppliers. This bulk buying enables them to obtain goods at lower costs and on better terms, which in turn reduces their unit costs.

With the influx of competition, each gym company now produces a smaller output and is likely to experience less extensive internal economies of scale (IEOS), leading to higher average and marginal costs. Consequently, consumers face higher prices and a lower level of output.

Furthermore, with the rise in average cost due to the influx of competition, the supernormal profits previously enjoyed by an existing gym company. These supernormal profits are typically used to fund research and development (R&D) activities and they are often costly and require substantial funding. As a result, with reduced profits, these companies now have less ability to invest in R&D and drive product innovation. In the long run, the reduced investment in product innovation could lead to a decrease in the variety and quality of services available to consumers compared to what they might have experienced in a less competitive industry.

Summative conclusion

While increased competition in the gym industry offers substantial benefits to consumers, including lower prices, better service quality, and greater variety, these benefits can be tempered by market conditions and the financial health of the gyms. The ability of gyms to maintain high service standards and continue innovating may be compromised by the financial pressures of a highly competitive market. Thus, while consumers may enjoy immediate advantages, the long-term sustainability of these benefits depends on the equilibrium between competition and the financial viability of the gyms.

	Knowledge, Application/ Understanding and Analysis	
L3	Thorough knowledge of the facts and theory with an excellent ability to explain in a precise, logical and reasoned manner. Illustrations and examples are evidence of the ability to recognise the principles of the question, application to relevant current situations, and appropriateness for the question.	8-10
L2	Answer is relevant to the question, but the theory may be incompletely explained. Evidence of an ability to identify facts, at graphs (where appropriate) and applying theory to new situations.	5-7
L1	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

E3	Builds on appropriate analysis to evaluate contemporary issues, perspectives and policy choices, that recognises unstated assumptions and evaluates their relevance, synthesises economic arguments to arrive at well-reasoned judgements and decisions.	5
E2	Some attempt at evaluation or a conclusion that answers the question but does not explain the judgement or base it on analysis.	3-4
E1	Superficial evaluative statement(s) without supporting analysis and elaboration.	1-2

EQ3

Nordic nations such as Denmark, Finland, Norway and Sweden offer access to higher education for free. Singapore chooses to lower the costs of higher education through subsidies.

(a) Explain two reasons why governments get involved in the education sector to achieve the objective of economic efficiency. [10]

(b) A 2022 research study by the National University of Singapore (NUS) described the wage premium of a university degree as substantial, more than double what those with secondary and lower education earn. This earnings gap increases over the workers' lifetimes.

Discuss whether the Singapore government should continue to subsidise higher education in view of the need to balance the achievement of economic efficiency with sustainability. [15]

(a) Explain two reasons why governments get involved in the education sector to achieve the objective of economic efficiency. [10]

Introduction:
Governments intervene in the market for education to achieve the microeconomic objective of efficiency especially allocative efficiency. This is because the unregulated free market fails to allocate resources which maximises societal welfare due to two primary reasons: positive externalities and imperfect information.

Main:
R1: positive externalities in the market for education
Positive externalities are beneficial side effects of production or consumption on persons other than the consumers and the producers themselves. These third parties do not make payment to enjoy the external benefits. In the context of education, consumers only consider the marginal private benefit (MPB) of an additional unit of education in terms of their higher earning potential in the future. Yet, third parties such as co-workers enjoy marginal external benefit (MEB) such as guidance from those who consumed more education and this could improve the formers' workplace productivity and positively impact their wages.

Since marginal social benefit (MSB)=MPB+MEB, the presence of positive externalities causes MSB to exceed MPB. Assuming no negative externalities, then marginal social cost (MSC) = marginal private cost (MPC). The MPC refers to the cost of providing an additional unit of education incurred by the education providers such as hiring of teachers, facilities and materials. With reference to Figure 1, the socially optimal level of output is at Q_s, where MSB=MSC and societal welfare is maximised. However, consumers and producers only consider their own private benefits and costs and disregard the benefit to external parties, hence the free market output is Q_m where MPB=MPC. Since $Q_m<Q_s$, the under-consumption/production of education and resultant allocative inefficiency is reflected in the deadweight loss to society shown by area ABC.

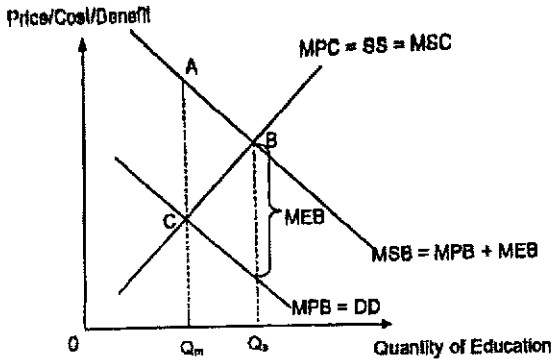


Figure 1: Under-consumption/production due to positive externalities

R2: information failure in the market for education

Consumers might also under-consume education due to information failure or imperfect information. Due to ignorance, individuals may not accurately estimate the longer-term marginal private benefits of consuming an addition unit of education such as future job prospects and earning potential. As such, they underestimate the private benefits of consuming education, causing the misperceived MPB to be lower than the actual MPB (or MSB) as seen in Figure 2.

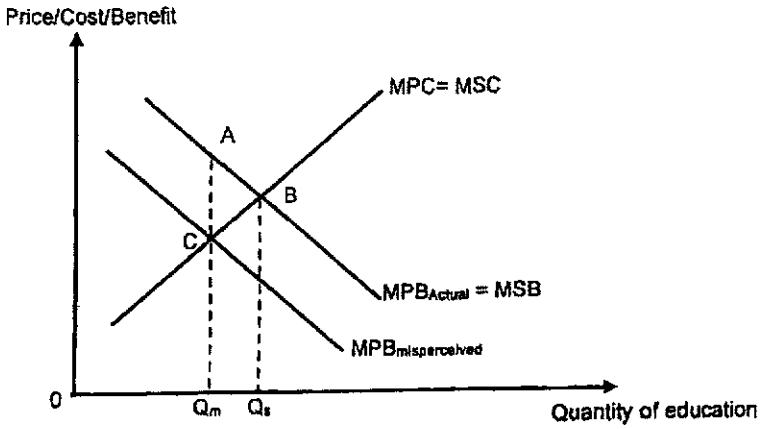


Figure 2: Under-consumption due to imperfect information

The market output is Q_m, given by the intersection of $MPB_{misperceived}$ and MPC, whereas the socially optimal level of output is Q_s, where MSB=MSC. Since Q_m<Q_s, there is under-consumption of education due to imperfect information. The deadweight loss due to under-consumption is shown by area ABC and this allocative inefficiency results in market failure for which governments might intervene in the market for education.

LORM

	Knowledge, Application/ Understanding and Analysis	
L3	Thorough knowledge of the facts and theory with an excellent ability to explain in a precise, logical and reasoned manner the 2 most appropriate sources of market failure. Illustrations and examples are evidence of the ability to recognise and apply to relevant context.	8-10

L2	Answer is relevant to the question, but the theory of the 2 sources of market failure may be incompletely explained. Evidence of an ability to identify facts, at diagrammatic analysis and applying theory to relevant context.	5-7
L1	Answer shows some knowledge of market failure 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

(b)

Introduction:
Similar to the analysis seen in part (a), there is under-allocation of resources in the market for higher education in Singapore (Sg) due to positive externalities and imperfect information. However, the extent of market failure in higher education differs from that in basic education and this calls for a re-examination how and how much the Sg government should intervene.

Main:
R1: The Sg government should continue to subsidise higher education (to achieve AE)

To correct the under-consumption/production and achieve greater economic efficiency, the Sg government provides subsidies to the producers of higher education such as the universities. This reduces the cost of production for the universities and increases the supply of higher education. With reference to Figure 3, when the amount of subsidies provided is equivalent to the value of the MEB, the MPC will be lowered to MPC + subsidy. The new market output occurs at Q_m' (where MPB = MPC + subsidy) now coincides with the socially optimal level of output Q_s. Hence, subsidies should continue to be given as the lower fees make higher education more affordable and the increase in consumption from Qm to Qs helps to correct the under-allocation of resources, eliminate the deadweight loss and achieve allocative efficiency.

However, it is difficult for the Sg government to accurately determine the optimal amount of subsidies due to the difficulty in quantifying the MEB derived from the consumption of education by the society. Any over- or under-estimation of MEB will still result in over- or under-consumption of higher education and allocative efficiency is still not achieved. In worst case scenario of government failure, this might lead to substantial wastages of resources leading to an even greater welfare loss than without government intervention.

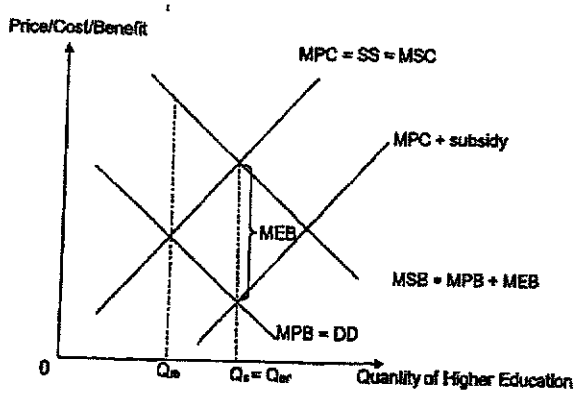


Figure 3: Subsidies in a market with positive externalities

R2: The Sg government should reduce the subsidies to higher education (to achieve sustainability)

Continuing to subsidise higher education by the Sg government to improve efficiency could mean a trade-off in terms of fiscal sustainability. Fiscal sustainability refers to the ability of a government to manage its expenditures and revenues over the long term such that future generations are not burdened with excessive borrowings and unsustainable debt. To continue with government subsidies in higher education would incur opportunity costs in other areas such as the increasing need for healthcare and infrastructure facilities in preparation to meet the needs of a rapidly ageing population. Such government expenditures can only be fiscally sustainable if they can be financed through an increase in revenues from taxation such as the Goods and Services Tax (GST), otherwise, the government fiscal position will worsen or even run into budget deficits.

However, any reduction in subsidies to higher education will have a negative impact on foreign direct investment (FDI). In a small, resource-scarce economy, foreign firms do not target the domestic market. Instead, they use Sg as a base to build capacity to serve customers in larger overseas markets which require more high-skilled workers. This involves specialised and high-skilled roles that require advanced expertise in sectors including investment banking, wealth management, data science, cyber security, artificial intelligence, and professional services such as consulting and law. Hence, reducing subsidies in higher education results in a talent deficit that deters FDI and this in turn reduces AD and real NY by a multiple which results in lower actual EG. In addition, potential EG is also compromised with a decrease in the quality of human capital and productive capacity. Taken together, all these have an adverse impact on the fiscal sustainability since government revenues e.g. in either personal or corporate income taxes will be lower.

LORM

	Knowledge, Application/ Understanding and Analysis	
L3	Thorough knowledge of the facts and theory with an excellent ability to explain in a precise, logical and reasoned manner the reasons for and against continuing subsidies. Illustrations and examples are evidence of the ability to recognise and apply to the context of higher education, efficiency and sustainability.	8-10
L2	Answer is relevant to the question, but the reasons for and against continuing subsidies may be incompletely explained. Evidence of an ability to identify facts, at diagrammatic analysis and applying theory to relevant context.	5-7
L1	Answer shows some knowledge of subsidies in correcting market failure 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

E3	Builds on appropriate analysis to evaluate contemporary issues, perspectives and policy choices, that recognises unstated assumptions and evaluates their relevance, synthesises economic arguments to arrive at well-reasoned judgements and decisions.	5
E2	Some attempt at evaluation or a conclusion that answers the question but does not explain the judgement or base it on analysis.	3-4
E1	Superficial evaluative statement(s) without supporting analysis and elaboration.	1-2

EQ4

(a) Explain why a rise in interest rates is used as a monetary policy tool to control inflation in some countries but not in Singapore. [10]

(b) Discuss whether a rise in world interest rates would likely have a negative impact on Singapore's domestic and external economy. [15]

Suggested answer part (a)

Introduction:

- The nature and size of an economy determines the appropriateness of a rise in interest rates as a monetary policy tool to control inflation.

Body:

R1: Why a rise in interest rates is used to control inflation in some countries

- Central banks that increase interest rates as a monetary policy tool to control inflation tend to be economies with a relatively large domestic demand such as the USA.
- ↑ interest rates increase the cost of borrowing, discouraging the consumption of big-ticket interest-sensitive item such as cars. A higher interest rate increases the reward to savings. This raises the opportunity cost of consumption and encourages saving. Consumption expenditure (C) falls.
- ↑ interest rates discourage firms from borrowing. And if the rate of interest exceeds the expected rate of return on investment, this means that previously viable projects become unviable leading to a fall in investment expenditure (I).
- Fall in C and I → ↓ AD →↓GPL

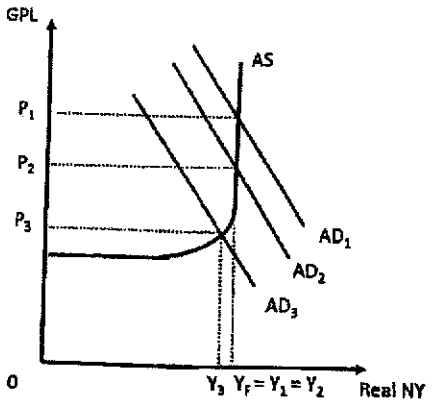


Figure 1

R2: Why interest rates are not used to control inflation in Singapore

[High degree of openness to capital flows]

- Singapore's status as a global financial centre and openness to capital flows means she is unable to effectively manipulate interest rates and is an interest rate taker. If Singapore were to increase its interest rate relative to global interest rates, this will attract how money from abroad into Singapore → ↑ domestic money supply and the supply of loanable funds → ↓ interest rates, returning interest rates to its initial level, making it difficult for Singapore's central bank – the Monetary Authority of Singapore (MAS) to manage interest rates.

[Small domestic capital market, high proportion of FDI]

- Singapore's small domestic capital market means a large proportion of investment expenditure is accounted by foreign direct investments (FDI). Marginal efficiency of planned investment (MEI) is interest inelastic.
- FDIs have the option of either drawing from their past profits or borrow in their own foreign home country where their company is headquartered and therefore are less reliant on borrowing from Singapore's banking institutions.
- A rise in interest rates leads to a less than proportionate fall in quantity of planned investment and thus AD may not fall by the extent intended and thus not be able to control for inflation, assuming Singapore's economy is operating on the intermediate range of the AS curve.

Conclusion:

- In economies with a large domestic demand, a rise in interest rates will influence the spending decisions of households and therefore control inflation.
- Unlike most other countries, Singapore's choice of the exchange rate to control for inflation is predicated on her economy's small size and its high degree of openness to trade and capital flows.

Level	Descriptor	Marks
L3	For an answer that applies relevant economic concepts with a consistent link to context. • Considered why economies with large domestic demand ↑I/r to control for inflation • Considered why Singapore's rejects the use of interest rates • Excellent AD-AS analysis Well-referenced and well-labelled diagram.	8 - 10
L2	For an answer that applies relevant economic concepts with some link to context. • Some consideration why economies with large domestic demand ↑I/r to control for inflation. • Some consideration why Singapore rejects the use of interest rates • Diagram may not be well-labelled or well-referenced to. OR • Well-explained one-sided answer	5 - 7
L1	For an answer that shows some knowledge on the choice of policy tools of different central banks.	1 - 4

(b) Discuss whether a rise in world interest rates would likely have a negative impact on Singapore's domestic and external economy. [15]

From (a), Singapore's nature as a global financial centre open to capital flows lead her to be an interest-rate taker. Hence, a rise in world interest rates will ultimately translate to a rise in interest rates in Singapore. This has implications on the domestic economy through impacts on consumption (C) and investment (I); and the external economy through the impact on net exports (X-M).

R1: Impact on Singapore's domestic economy (C & I)

As explained in part (a), a rise in interest rates will lead to a fall in consumption and investment expenditure.

Taken together, the rise in interest rates causes a fall in C and I, translating to a fall in AD. If the economy is currently operating at full employment (Y_F), the economy benefits in the form of a lowered risk of demand-pull inflation. Referring to Figure 1, suppose the initial equilibrium is at P_0 and Y_0. In this case, when AD falls from AD_0 to AD_1, there will be an unplanned increase in inventories at the original price P_0. Firms will reduce production and hire less factors of production such as labour. With more resources now available, firms will be able to get their resources at lower unit cost, thereby translating to reduced inflationary pressures. As reflected in Figure 1, there will be fall in general price level (GPL) from P_0 to P_1.

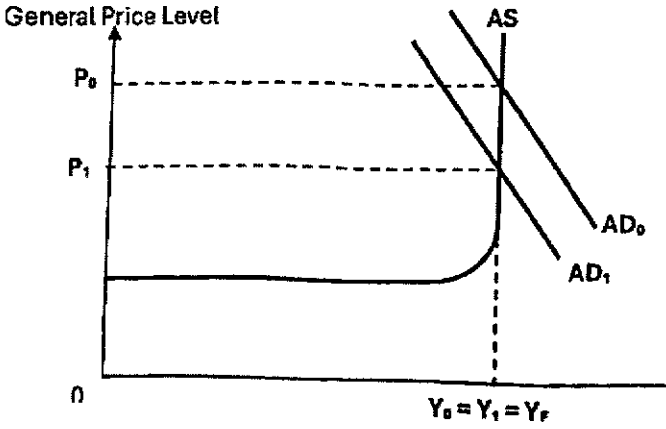


Figure 1: Impact of increase in interest rate on AD

On the other hand, if the economy is below full employment, i.e. at the Keynesian range, a fall in AD from AD_0 to AD_1 will bring about a negative impact to the domestic economy due to the fall in real GDP from Y_0 to Y_1. This will bring about increased cyclical unemployment and lead to more labour which is not used. Another negative impact to the domestic economy is the opportunity cost of the unused labour that could have been tapped on to generate economic growth.

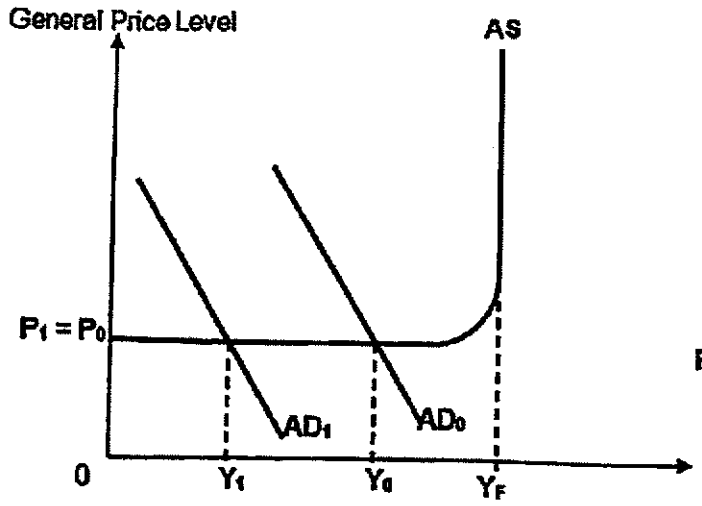


Figure 2: Impact of increase in interest rate on AD

A fall in investment expenditure could lead to a fall in the economy's productive capacity. This could lead to lead negative implications in the future when AD picks up again and there is not enough spare capacity in the economy to absorb the inflationary pressure.

Overall, as explained in (a), given that C and I takes up a relatively smaller proportion of Singapore's GDP, the rise in world interest rates is likely to have a negligible and insignificant impact on the domestic economy.

R2: Impact on Singapore's external economy (X-M)

When world interest rates increase, there may be a 'window period' where Singapore's interest rate has not risen to the same level yet, due to time lag. In this interim period, the rise in world interest rates may positively affect Singapore's net exports (X-M). Reason being, during this time where Singapore's interest rate appears to be relatively lower than that of the world, hot money will flow out of Singapore to the rest of the world. This translates to a rise in supply of Singdollar in the forex market, causing the Singdollar to weaken. Consequently, exports (X) from Singapore will be cheaper in terms of foreign currency while imports (M) into Singapore will be more expensive in Singdollars. Assuming the Marshall-Lerner conditions holds (i.e., $PED_X + PED_M > 1$), Singapore may see a rise in net exports (X-M) and positively impact the external economy.

However, such a situation will not last because as explained in (a), there will ultimately lead to an equalisation of interest rates in Singapore with that of the world due to Singapore being an interest rate taker. When that happens, hot money flows will revert back to the economy which will strengthen the value of the Singdollar. (X-M) will fall, thereby translating to a fall in AD as explained above. If the economy was initially operating at the Keynesian range where there is plenty of spare capacity as seen in figure 2, a fall in aggregate demand will lead to a contraction of the economy and lead to increased cyclical unemployment. The impact on the external economy would hence likely be negative.

Additionally, a rise in interest rates in other countries would also likely reduce their real GDP as in the case for Singapore. With a lowering of real GDP, households are likely to experience lower disposable income. Given that import is a function of income, foreigners would be less able to purchase goods and services from Singapore and this will lead to a fall in demand for exports and hence a fall in export revenue. A fall in X will reduce AD and in turn reduce real GDP by a multiple via the reverse multiplier effect. Given that X takes up a relatively larger proportion of Singapore's GDP, the fall in X will have a larger negative impact on Singapore's external economy

Synthesis:

Whether a rise in world interest rates will likely have a negative impact on the domestic and external economy would depend on where the initial equilibrium is. It is also more likely for interest rates to have a greater impact on the Singapore's economy through its impact on exchange rates given the nature of Singapore's open and trade reliant economy.

Secondly, the extent of change and the duration of the rise in world interest rates was not specified. A larger extent of change in interest rates may bring about a more significant impact compared to

a smaller change. This also depends on whether other policies have also been adopted in tandem to reinforce or counter-act the effects of the rise in interest rates.

Level	Descriptor	Marks
L3	For an answer that gives a detailed and analytic explanation that: • Considers the positive and negative impact on both the domestic and external economy • Excellent AD-AS analysis to analyse the impact of higher interest rates on the components of C, I and NX • Well-referenced and well-labelled diagram	8 - 10
L2	For an underdeveloped answer that attempts to explain, with gaps, on the likely negative or positive impact on the domestic and external economy. Diagrammatic reference, if relevant, is incomplete. • Analysis for domestic economy will entail that of the impact on consumption and investment expenditure • Analysis for external economy will entail that of the impact on export and import expenditure OR For an answer that gives a detailed and analytic one-sided explanation on the likely impact on the domestic or external economy.	5 - 7
L1	For an answer that shows some knowledge on the impact of a rise in interest rates on the economy	1 - 4

E3	Analytically well-reasoned judgement about the overall impact of a rise in world interest rates on the domestic and external economy	5
E2	Some attempt at a judgement of the overall impact of rise in interest rates by considering factors that would have a bearing on the impact on the economy	3-4
E1	Unsupported statement about the overall impact of a rise in interest rates on the economy	1-2

EQ5

Suggested pointers

a) Explain a possible demand-side cause for one type of unemployment and a possible supply-side cause for another type of unemployment for an economy like Singapore. [10]

An economy like Singapore is likely to face two types of unemployment – cyclical and structural.

Requirement 1: Demand-side cause for cyclical unemployment
Singapore is likely to suffer from cyclical unemployment due to insufficient aggregate demand (AD). As Singapore has a small domestic market, she is reliant on exports for growth. Any fall in external demand would cause a fall in her export revenue (X) and since X comprises more than 100% of her GDP, it will result in a significant fall in AD, ceteris paribus.

As AD falls, firms face unplanned rise in inventories and will reduce production by hiring less factors of production, including labour, thus paying out less factor income. Households who receive less factor income will decrease induced consumption on domestically produced goods and services, leading to a further decrease in AD. This leads to further unplanned rise in inventories, where firms reduce production again, thus reducing factor income and real NY. This process continues until there is no more decrease in induced consumption. Hence, the initial decrease in AD triggers a multiple decrease in real NY from Y_0 to Y_1 as seen in Fig. 1 below. This fall in real output is accompanied by a fall in derived demand for labour, thus causing a rise in cyclical (demand-deficient) unemployment, especially in export-related sectors.

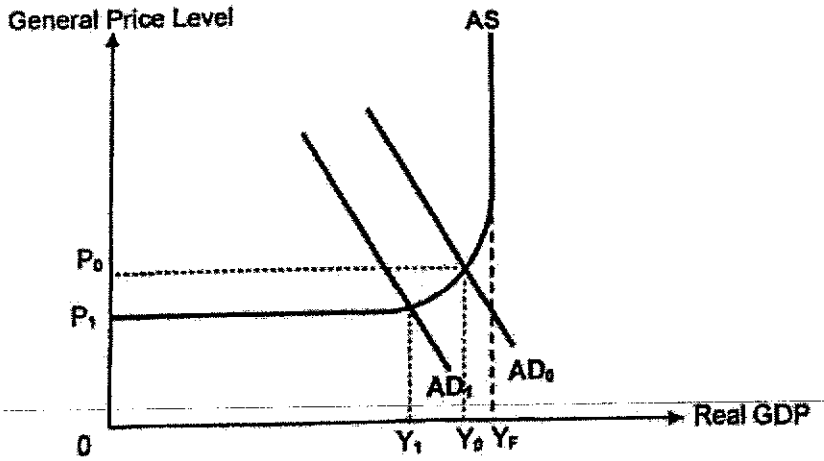


Fig. 1

Requirement 2: Supply-side cause for structural unemployment
In recent years, Singapore has been facing structural unemployment due to the restructuring of her economy. This restructuring of the economy occurs as part of the government's efforts to shift the economy towards productivity-driven growth, thus hastening skills obsolescence. For example, as Singapore undergoes rapid digital transformation in her move to become a smart nation, various industries have adopted innovative technologies to transform their work processes. Firms in the hotel/ F&B industries, for instance, are experimenting with digital

concierges and robot waiters to enhance productivity. As these labour-saving technological advancements allow for the same level of output to be produced with fewer workers, workers are increasingly displaced by machineries.

Workers in these jobs who are less proficient in handling the more advanced equipment may become unemployed. At the same time, these retrenched workers lack the necessary skills that are in demand (e.g. AI/ data solutions) to take on new jobs. Thus, structural unemployment results because of the mismatch of skills of the unemployed and the existing job vacancies.

Level	Description	Marks
L3	To enter L3, candidates are expected to provide an accurate and developed explanation of: • A possible demand-side cause for one type of unemployment (cyclical/structural) • A possible supply-side cause for another type of unemployment(cyclical/structural) for an economy like Singapore using a relevant tool of analysis such as AD-AS diagram	8-10
L2	There should be an accurate but undeveloped explanation of: • A possible demand-side cause for one type of unemployment (cyclical/structural) • A possible supply-side cause for another type of unemployment(cyclical/structural) for an economy like Singapore	5-7
L1	• For an answer that 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. • Where the answer is mostly irrelevant and only contains a few valid points made incidentally in an irrelevant context.	1-4

b) Discuss whether an ageing population makes it more difficult for an economy like Singapore to achieve low unemployment. [15]

Requirement 1: Ageing population makes it difficult for an economy like Singapore to achieve low unemployment

An ageing population, coupled with falling birth rates in Singapore, imply a fall in our working age population. As the number of new entrants to the workforce cannot adequately replace those who are retiring, the result is a shrinking resident labour force. This fall in labour supply relative to demand for labour causes equilibrium wage to rise in the labour market. This is because firms need to compete more intensely when hiring workers (e.g. offer higher wages), especially those in labour-intensive sectors such as food services and retail. Alternatively, if firms need to supplement their manpower count with foreign workers or tap on machines to maintain the same level of production, these add to costs in the short run too. Assume the rise in cost of production exceeds any rise in productivity, unit cost of production increases. Referring to Figure 2, the increase in unit cost of production causes a fall in short run aggregate supply (SRAS), which leads $SRAS_0$ to shift upwards to $SRAS_1$. Assuming no change in aggregate demand (AD), general price level (GPL) rises from P_0 to P_1 while national income falls from Y_0 to Y_1. As less goods and services are being produced, this will reduce the derived demand for labour, leading to an increase in cyclical unemployment.

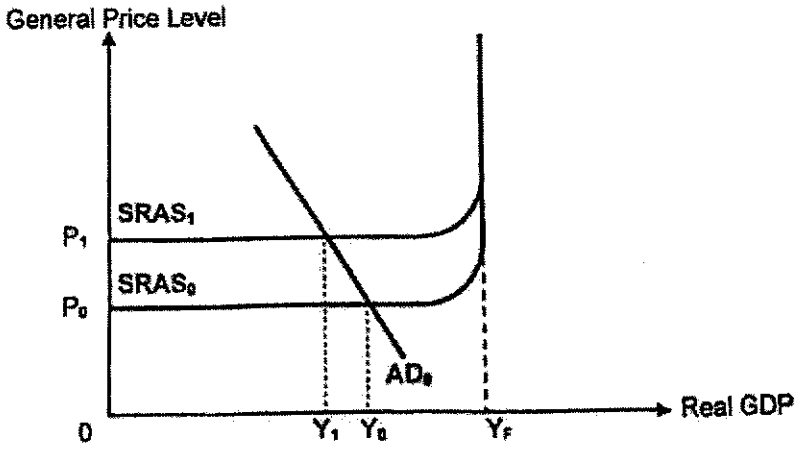


Fig. 2

Besides SRAS, the shrinking resident labour force also affects AD. Specifically, multi-national corporations (MNCs) may be deterred from entering Singapore. Reason being, it is tougher to get the necessary manpower so higher costs of hiring need to be incurred. This diminishes our attractiveness as a foreign direct investment (FDI) destination and MNCs may turn to regional countries (e.g. Malaysia) with greater availability of labour/ other resources. Reduced entry of MNCs may translate to reduction in investment (I), since MNCs usually enter Singapore and set up production plants. Failing which, AD falls. Referring to Figure 3, AD_0 shifts left to AD_1. As national income falls by a multiple from Y_0 to Y_1, less goods and services are being produced. Hence, firms hire fewer factor inputs such as labour, leading to an increase in cyclical unemployment.

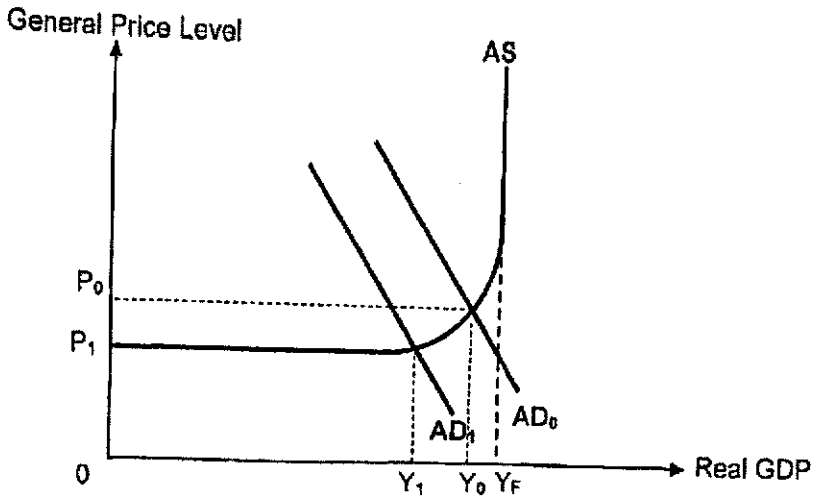


Fig. 3

With an ageing population, economies like Singapore will also undertake policies to support I in R&D and the adoption of new technology to increase productivity in order to increase the productive capacity of the country. Those lowly skilled elderly workers who have been displaced by technology may not have the relevant skills to take up jobs in the new industries. Adoption of new technology could have the unintended consequence of increasing structural unemployment.

Requirement 2: Ageing population does not make it difficult to achieve low unemployment

As stated in the preamble, individuals have invested in education which means they are likely to have taken up training to build up their skills. At the same time, the government have invested significantly in life-long initiatives to boost country's human capital potential like the Workfare Skills Support Scheme, which encourages low wage Singaporean workers to attend training to improve their skills. All these will help workers, including the older individuals, to increase their skills and raise their productivity. As such, all workers are less likely to remain structurally unemployed for a long period of time and will have less difficulty taking on jobs in new industries or will have picked up the skills needed to operate the new technologies in their area of work. This reduces structural unemployment.

If the ageing population has accumulated wealth as mentioned in the question, these older individuals have the means to spend on goods and services especially on healthcare services, thus increasing (C). In addition, with the government investing significantly in life-long initiatives, this will increase government expenditure (G). Together, the increase in C and G will lead to an increase in AD from AD_1 to AD_0 in Figure 3, resulting in a multiple increase in national income via the multiplier effect. With more goods and services being produced, this leads to an increase in derived demand for labour, thus reducing cyclical unemployment.

Summative Conclusion

While it is possible that ageing population can make it difficult for an economy like Singapore to achieve low unemployment, a lot also depends on the culture of the country and the policies that the government adopts. If citizens are used to saving enough for old age and are willing to engage in lifelong learning, quality of labour need not fall with an ageing population, especially with the government investing heavily in initiatives to boost human capital potential. If this is the case, ageing population will not make it difficult for an economy to achieve low unemployment.

Level	Description	Marks
L3	To enter L3, candidates are expected to • Explain how an ageing population makes it difficult for an economy like Singapore to achieve low unemployment (cyclical/structural) • Explain how an ageing population does not make it difficult to achieve low unemployment (structural /cyclical)	8-10
L2	There should be an accurate but undeveloped explanation of: • Explain how an ageing population makes it difficult for an economy like Singapore to achieve low unemployment (cyclical/structural) • Explain how an ageing population does not make it difficult for an economy like Singapore to achieve low unemployment (structural /cyclical)	5-7
L1	• For an answer that 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. • Where the answer is mostly irrelevant and only contains a few valid points made incidentally in an irrelevant context.	1-4

E3	2 analytically well-explained evaluation pointers on how an ageing population makes it more or less difficult for an economy like Singapore to achieve low unemployment, plus an overall summative conclusion. OR A well-explained evaluation pointer and an unexplained evaluate statement on how an ageing population makes it more or less difficult for an economy like Singapore to achieve low unemployment, plus a summative conclusion	4-5
E2	A well-explained judgment OR 2 unsupported statements on how an ageing population makes it more or less difficult for an economy like Singapore to achieve low unemployment.	2-3
E1	1 unsupported statement on how an ageing population makes it more or less difficult for an economy like Singapore to achieve low unemployment.	1

2024 J2H2 Prelims EQ6 (Macro) – Answer for Other JCs

(a) Explain how comparative advantage and technological improvements help to drive globalisation. [10]

(b) Global competitiveness can be seen from an economy's export competitiveness and its attractiveness as a foreign direct investment destination.

Discuss whether encouraging technological improvements and signing free trade agreements would be effective in influencing an economy's global competitiveness. [15]

Mark Scheme (a)

	Knowledge, Application/ Understanding and Analysis	
L3	Developed explanation of how the exploitation of comparative advantage (CA) and technological improvements drive globalisation. To enter L3, candidates should: - support their explanation with relevant economic analysis (e.g., PPC diagram) - consider all three aspects of globalisation i.e., trade, capital, labour.	8-10
L2	Answer is relevant to the question. However, the explanation for R1 and R2 is undeveloped OR developed explanation for R1 or R2 only. Some ability at graphs.	5-7
L1	Answer shows some knowledge but lacks economic analysis + limited coverage of the three aspects of globalisation.	1-4

Mark Scheme (b)

	Knowledge, Application/ Understanding and Analysis	
L3	Developed discussion of how signing FTAs and encouraging tech improvements influence an economy's global competitiveness. (Optional to use e.g. from SG context) 'Developed' – Uses appropriate analysis to explain how the measure addresses the 2 aspects of global competitiveness. This should be followed by limitations of each measure.	8-10
L2	Undeveloped discussion of how signing FTAs and encouraging tech improvements works OR developed explanation for 1 measure only. 'Undeveloped' – Explanation lacks economic analysis.	5-7
L1	Answer shows some knowledge but does not show proper grasp of the question. Basic errors of theory or an inadequate development of analysis may be evident.	1-4

E3	Builds on appropriate analysis to evaluate contemporary issues, perspectives & policy choices, that recognizes unstated assumptions and evaluates their relevance, synthesizes economic arguments to arrive at well-reasoned judgements & decisions. [*E.g., weighs the relative effectiveness of each measure/ provides policy recommendation, suggests other complementary measures to improve global competitiveness.*]	5
E2	Some attempt at evaluation or a conclusion that answers the question but does not explain the judgement or base it on analysis.	3-4
E1	Superficial evaluative statement(s) w/o supporting analysis & elaboration.	1-2

Part (a)

INTRO

- Define globalisation as the closer closer integration of economies and people of the world through the ease of movement of goods and services, capital and labour across borders.
- Acknowledge that technological improvements and the exploitation of comparative advantage are two key drivers of globalisation.

DEVT

Requirement 1: How exploitation of comparative advantage drives globalisation

- Highlight that countries engage in trade with each other because they hope to gain the benefits that come with trading based on the theory of comparative advantage.
- Explain what is theory of comparative advantage and how specialisation and trading based on a country's comparative advantage can benefit economies by increasing the amount of goods and services available for consumption.
- Use the production possibilities curve to explain how two countries can gain if they trade with each other.
- Provide assumptions – countries use all their available resources and how even if one country has absolute advantage, there are still gains from trading.
- Explain how a country with comparative advantage in producing one of the good will have a relatively gentler production possibilities curve and thus, she should specialise in production of this good.
- Explain that if countries specialise and then proceed to trade according the set terms of trade, this will lead to both countries being able to enjoy higher consumption levels compared to before trade.

Requirement 2: How technological improvements drive globalisation

- Explain how major technological improvements in transport (e.g., the development of container shipping and the proliferation of air travel) can lead to increased flows of trade, labour and capital.
- E.g., with the advent of cheaper air travel and shipping charges, we see more countries engage in trade with each other compared to before.
- Besides improvements in transport, technological improvements can also be seen in area of communications (e.g., the rise of the Internet) which has been facilitated by increasing digitalisation in many economic processes and activities (e.g., the development of mobile computing through devices like laptops and smart phones, and the rise of big data, cloud computing and artificial intelligence).
- E.g., with the rise of the Internet, we see more e-commerce transactions now being undertaken by more people.
- Besides trade in goods and services, we also see the above technological improvements in transport and communications translate to more businesses taking place across borders, and also more people being willing to take up employment opportunities across borders.
- To attain the 'Analytical' level for this requirement, students would need to link the technological improvements to increased flows of trade in goods and services, capital and labour.

CONCLUSION

- Recognise that besides technological improvements and exploitation of comparative advantage, another key driver of globalisation is the development of multilateral (e.g., World Trade Organisation) and bilateral (e.g., Free Trade Agreements FTAs) economic cooperation, which enabled trade, investments and migration barriers to be reduced over time.

Part (b)

INTRO

- Highlight that the two measures cited in the question:
  - Encouraging technological improvements
  - Signing Free Trade Agreements (FTAs)
- will affect an economy's export competitiveness (price and non-price) and also its ability to attract foreign direct investment.
- Note that it is optional for students to provide examples on Singapore context for this question.

DEVT

<u>Requirement 1: How encouraging technological improvements can affect global competitiveness</u>

- Explain what 'encouraging technological improvements' entail. Specifically, in the Singapore context, when the government provides the Productivity and Solutions Grant (PSG) to encourage firms to tap on technology, this may be one way to achieve this.
- Alternatively, the government may choose to devote funds towards improving technology and research & development in the country.
- Provide examples on how the above can lead to firms enjoying a consequent rise in productivity. This may in turn lead to more price competitive exports.
- Alternatively, it may bring about the development of new and more innovative products. If so, then it will lead to more competitive exports in the non-price aspect.

- In addition, explain how the above measures may also provide an investment-friendly environment. This thereby serves to attract foreign multinational corporations (MNCs) to enter the domestic country to invest and set up plants.
- If so, this also improves the country's global competitiveness in this respect.
- Provide real world examples to substantiate the above point.

- Qualify that despite the above positive impact on an economy's global competitiveness, there are limitations nonetheless.
- Examples of limitations include the long time lag required for the above policies to materialise. In addition, the success is not guaranteed and there may also be opportunity cost incurred when the government chooses to put her money into these uses.

Requirement 2: How signing of free trade agreements can affect global competitiveness

- Define free trade agreements (FTAs) as legally binding agreement between two or more countries to reduce and eliminate barriers to trade and facilitate the cross border movement of goods and services between the countries who signed it.
- Explain what 'signing FTAs' entail. Specifically, in the Singapore context, when the government signs FTAs with another country, this will bring about benefits to domestic firms and investors.
- Highlight that signing FTAs lead to and opening up of export markets and this enables domestic firms to now export to a wider consumer base.
- Consequently, this translates to increased scale of production and in turn brings about economies of scale. If the lower average cost leads to lower prices of exports, this also helps to improve the price competitiveness of exports.
- Alternatively, the presence of the FTAs may allow firms in the domestic country to access cheaper imports of raw materials.

- Besides having a positive impact on export price competitiveness, students should highlight that usually, FTAs cover more than trade.
- As they may also allow for freer mobility of investment, there needs to be explicit link to how this may in turn bring about improvement in global competitiveness as the domestic country will be able to attract more foreign direct investment following the negotiation of the FTA.
- Provide real world examples of the above.
- Elaborate on some possible limitations that can result from the signing of FTAs.

Note to markers:

- Students can link their explanation for R1 or R2 to the impact on AD and/ or SRAS.
- When doing this, they must show in their diagrams how the consequent rise in exports (X) or investment (I) may lead to a rise in aggregate demand (AD) and in turn, a multiple rise in national income (NY).
- Alternatively, if there is a fall in cost of production brought about from having access to cheaper imports, this can be represented by a rise in short run aggregate supply (SRAS).
- This in turn translates to fall in general price level (GPL) and rise in national income (NY).
- The above diagrams are, however, optional. If students can provide a detailed verbal explanation with good link to global competitiveness, it is acceptable too.