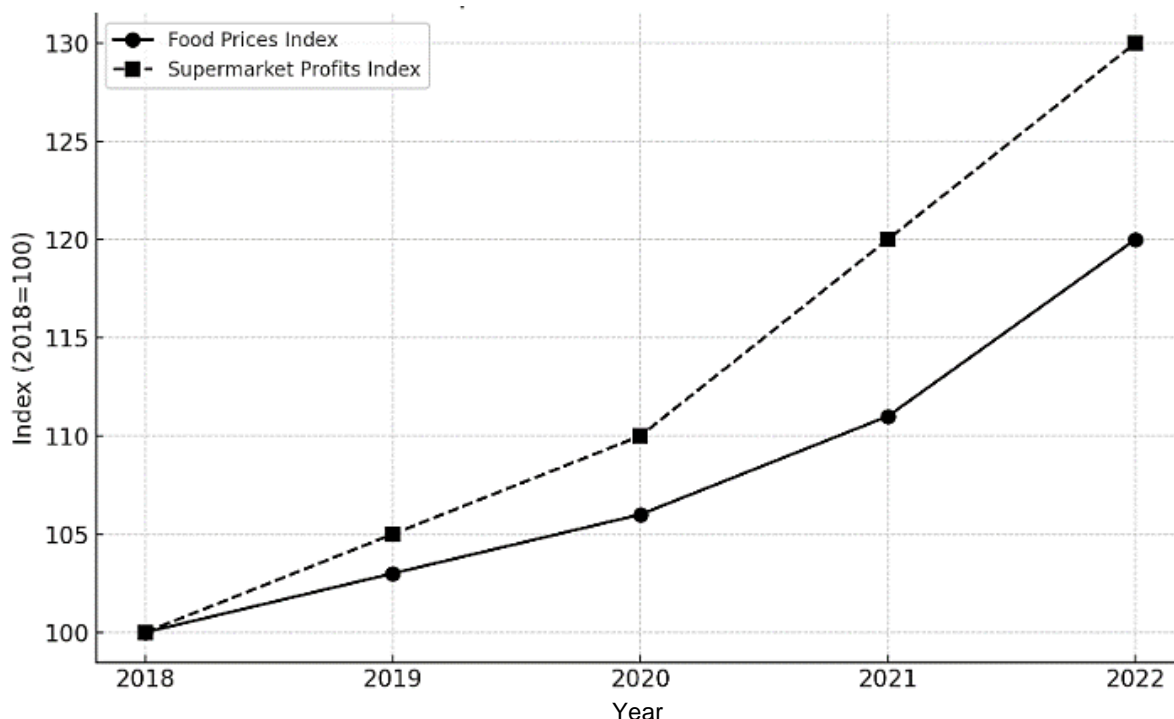


Adapted from 2024 VJC Prelims Paper 1**Question 1: Food! We need it but can we pay for it?****Figure 1: Food prices and supermarket profits in Australia, 2018 – 2022 (2018 = 100)**

Source: Australia Bureau of Statistics

Extract 1: Is your trolley getting lighter?

It is no surprise that the cost of filling up your trolley costs more in 2022 than it did three years ago. According to official numbers from the Consumer Price Index, the prices of groceries have risen by 4.2 per cent between December 2019 and December 2021 alone.

The chairman of SPC – one of Australia’s biggest food manufacturers – also warned that the cost of all supermarket products would increase by 10 to 20 per cent. He said the price increases were due to a “double whammy” of disrupted global supply chain issues, as well as food production and rising oil costs. “You’ve got the war between Russia and Ukraine, which impacted the oil, and means the oil price has gone up ... and impacted the food because Ukraine used to produce a lot of the food that went into Europe” he continued. “In a globalised economy, when you have a war in Europe like this, it is bound to have an impact on the rest of the planet.”

Source: www.news.com.au, 4 April 2022

Extract 2: Breaking the breadbasket

Ukraine has long been a land of natural bounty, not just for its own population but also for people around the world. Products made from its wheat, corn and sunflowers can be found in markets and kitchens from Estonia to Egypt. Its farmland is cheaper to run than that in Europe and the US, and its deep seaports have given it easy access to international markets. The combination has allowed Ukraine to become a key exporter of agricultural commodities, and to be described as the breadbasket of Europe.

Now the basket has been overturned. With swaths of farmland turning into battlefields and Ukraine's road and port infrastructure being attacked by Russian missiles and bombs, the country's food supply chain has stalled.

The war has also left a global supply gap. Ukraine accounts for 8 per cent of global wheat exports, 13 per cent of corn flows, and more than one third of the sunflower oil trade. Normally the country exports 40 to 50 million tonnes of cereals every year, but Russia's invasion has meant export volumes in March were a quarter of those in February, according to the agriculture ministry.

Source: The Financial Times, 27 April 2022

Extract 3: Two titans down under

Coles and Woolworths are household supermarket names in Australia. Over the years, this concentrated supermarket sector has faced criticism and scrutiny, and it has been reaching fever pitch again in recent months, with a number of investigations underway into their business practices during the current cost-of-living crisis.

Starting in the 1950s, Coles and Woolworths began to buy up the competition, in an intense period of growth leading to a combined share of 31 per cent of the grocery market in the 1960s, peaking at 65 per cent in 2022. In 2008, the Australian Competition and Consumer Commission had an inquiry into the competitiveness of retail prices for standard groceries. It found that grocery retailing in Australia was workably competitive. But there were several factors that were limiting the level of price competition. One of these was the exclusive lease agreements that Coles and Woolworths were able to obtain in shopping centres, which was making it very hard for new players to secure sites.

German chain Kaufland backed out of their plans to open stores at the last minute. One of the reasons Kaufland pulled out was because major suppliers – especially in fresh food – refused to supply them.

Source: Adapted from Australian Broadcasting Corporation, 22 February 2024

Extract 4: Your prices are too high!

Supermarkets like Coles and Woolworths have not only used the pandemic and recent inflationary period to sell more goods, but also profit more from each sale, expanding their margins. While the problem may exist across industries, it is exacerbated in sectors with muted competition, such as supermarkets, because they have fewer rivals ready to undercut them.

When products and services rise in price by amounts outpacing any additional costs businesses face, there is a good chance that profiteering – the practice of making or seeking to make an excessive or unfair profit – is happening. This is especially concerning in uncompetitive sectors, such as supermarkets, where there is no increased demand for a particular product or service. Rod Sims, the former head of the competition watchdog, said Australia's big supermarkets have likely taken advantage of limited competition and used their market power to increase prices higher than necessary.

Coles and Woolworths deny they are profiteering, and say it is actually improved productivity that has led to bigger profits. Specifically, Coles cited cost savings such as faster checkouts and distribution centre improvements, while Woolworths has said it improved the way it manages stock loss, referring to markdowns and items it cannot sell. Profiteering is not illegal, although there are regulations designed to prevent companies misleading consumers about the reasons for price rises.

Supermarkets are not the only ones expanding profit margins. Qantas has dramatically increased its air fares from pre-pandemic levels, citing rising costs such as jet fuel, after its revenue was curtailed during border closures. It has not significantly dropped prices even after jet fuel prices halved. A key difference between airlines and supermarkets, however, is that companies such as Qantas could argue they are taking advantage of pent-up travel demand to maximise profit. When it comes to supermarkets, there is no surge in demand; it is just that people need to eat.

Source: The Guardian, 27 July 2023

Extract 5: Supporting innovation in the agrifood sector

According to the Economic Outlook 2023 report, the rising price of food is the main contributing factor to Malaysia's higher inflation, from 2.2 per cent in March 2022 to 4.7 per cent in August 2022.

In response, the government implemented short-term measures to reduce the impact of food inflation including price controls, additional subsidies and cash assistance. The report noted that the projected consumption subsidies, which include subsidies for fuel, cooking oil, flour, electricity, chicken and eggs, have increased from RM5.2 billion to reach RM52 billion.

Accordingly, the government would have provided subsidies and social assistance of an estimated RM80 billion in 2022 – the largest in Malaysia's history. But the Economic Outlook 2023 report also noted that increased subsidies came at an expense to allocations to the country's productive capacity such as in developing public infrastructure, especially in the health and education sectors.

For longer-term sustainability, the report said the government was cognisant of undertaking reforms to strengthen food security. "Efforts to increase productivity will be undertaken to ensure producers have the ability and competitiveness to produce their products in the local market, as well as on a global scale, while helping to stabilise supply. "In this regard, the government will support the agrifood business in enhancing its productivity through the adoption of Fourth Industrial Revolution technologies such as precision farming drones and smart algorithms," the report said.

Source: Adapted from The Star, 8 October 2022

Questions

- (a) (i) Compare the changes in Australian food prices and the profits of Australian supermarkets from 2018 to 2022. [2]
- (ii) Using Extract 1 and a demand and supply diagram, account for the sharp change in food prices in Australia in 2022. [4]
- (b) Using economic theory, explain why Ukraine specialises in the production of agricultural products in the global supply chain. [2]
- (c) (i) Using Extract 3, explain two reasons that account for the level of competition faced by firms in the Australian supermarket industry. [4]
- (ii) Discuss the extent to which the Australian government should introduce greater competition in the supermarket industry. [8]
- (d) Discuss the case for and against the Malaysian government's decision to intervene in the agrifood business to improve productivity in this sector. [10]

[Total: 30]

Question 2: Staying resilient amidst global headwinds**Table 1: Singapore: Year-on-year growth in merchandise trade (%) vs GDP growth rate (%)**

Year	Year-on-year growth in merchandise trade (%)	GDP growth rate (%)
2017	11	4.5
2018	9	3.8
2019	-3	1.3
2020	-5	-3.9
2021	20	9.7
2022	18	3.8

Sources: World Bank and Statista, accessed 24 July 2024

Extract 6: MAS stance amid growing fears about global growth and ebbing inflation

Since the second half of 2022, global economic activity has been experiencing a broad-based and sharper-than-expected slowdown, with inflation higher than seen in several decades. The cost-of-living crisis, tightening financial conditions in most regions, Russia's invasion of Ukraine, and the lingering COVID-19 pandemic all weigh heavily on the outlook.

Global growth is forecast to slow from 6.0 per cent in 2021 to 3.2 per cent in 2022 and 2.7 per cent in 2023. Global inflation is forecast to rise from 4.7 per cent in 2021 to 8.8 per cent in 2022 but is expected to decline to 6.5 per cent in 2023 and to 4.1 per cent by 2024.

In Singapore, the Monetary Authority of Singapore (MAS) had assessed that it was prudent to tighten monetary policy further and lean against price pressures becoming more persistent. This was its fourth tightening move since October 2021.

In the quarters ahead, the drag on economic activity from the globally synchronised tightening in monetary policy will intensify. While inflation should moderate, it will remain high for some time. At the same time, growth in Singapore's major trading partners will slow to below trend but stay positive in 2023. However, further shocks, including from geopolitical tensions, could drive cost higher and cause full-year recessions in some key economies.

Sources: Channel NewsAsia, July 2022 and IMF, Oct 2022

Extract 7: Income inequality in China

China's labour market is beginning to face the challenges of other middle-income and some advanced economies. In cities, as employment opportunities in manufacturing and construction decline due to slowing growth, more people are entering the labour-intensive service sector, where wage growth is stagnant and where workers' time and skills are not efficiently being utilised.

That said, inequality in access to education and healthcare means that employees increasingly lack the capabilities needed to excel in the high-skilled, high-wage jobs that are appearing as China's economy seeks to reach high-income status. The increasing use of automation could reduce employment opportunities for a sizeable portion of the workforce in future.

These trends may, however, be counteracted by the creation of more employment opportunities, especially for high-skilled workers. If more workers were to find high-skilled service jobs, this would likely enable the country to progress forward in its economic development goals. Unfortunately,

shortfalls in education mean lower-skilled workers may currently have trouble attaining the skills to fill higher-skilled jobs.

Moreover, rural income has declined since the pandemic and survey responses indicated that government initiatives reached very few villagers. For example, 98 per cent of rural workers surveyed were not covered by unemployment insurance, and 81 per cent of villagers reported no government training programmes. In short, the survey indicates that rural workers are struggling, and that state support is far from adequate to meet their needs. This is despite China having a Common Prosperity plan, which aims to narrow the country's income gap after decades of capital-fuelled growth. Some expect that further redistribution of economic resources between income groups and regions, through tax reforms and welfare policies, will be implemented, but at a gradual pace.

Source: Adapted from CSIS.org, May 2022

Extract 8: A two-pronged approach to reducing income inequality

To tackle inequality, policies need to focus both on market income (income before taxes and transfer payments, or predistribution) and disposable income after redistribution through taxes and transfers. Predistributive policies aim to narrow differences in market incomes at their source, such as through a future-ready education system and a robust skills training ecosystem. While necessary, such policies are not sufficient to limit inequalities. Countries that spend more on social sectors (including education, health, and social protection) and have more redistributive tax systems tend to be more successful in reducing inequality.

Some economies choose to lean more on one rather than the other. A key feature of Singapore's approach to policymaking in general is its heavy reliance on human capital investment.

In recent years, emphasis has been placed on providing greater support to low-income families, such as providing enhanced subsidies for pre-school education, to enable children to have a good start in life. Emphasis has also been placed on adult learning through SkillsFuture, which aims to build a culture of lifelong learning and skills mastery to prepare workers for rapid transformations taking place across all industries. Redistributive measures exist in various forms including a progressive tax system, rebates such as utility rebates targeted at lower-income households, as well as the Workfare Income Supplement (WIS) scheme, which tops up the earned incomes of low-income individuals in employment.

Sources: Various

Extract 9: Driving sustainable growth in the face of global uncertainties

Speaking at the Peterson Institute for International Economics, Finance Minister Lawrence Wong emphasised the need for governments to drive inclusive and sustainable growth in response to today's deep structural challenges.

Mr. Wong noted that the lingering effects of COVID-19 and challenges due to the war in Ukraine are exacerbating existing structural challenges related to growth, inclusion, and sustainability. Addressing these challenges requires strategic spending and an active state role in achieving long-term goals such as raising productivity, tackling inequality, enhancing social mobility, and catalysing the green economy.

With rising reliance on coal as a result of the Russia-Ukraine conflict, the urgency of climate change action has increased. Mr. Wong advocated for setting the right carbon prices, regulating emissions, and investing in cleaner technologies.

Digitalisation can also play a pivotal role in addressing the challenges highlighted by Mr Wong. According to the World Economic Forum, digital technology can help to cut global greenhouse gas emissions (GHG) by 15 per cent. From the consumption point of view, e-commerce and online purchasing can lessen the need for physical storefronts and reduce energy use and waste production. Digital communication tools like video conferencing can also reduce the need for business travel, significantly reducing carbon emissions. From the production side, the adoption of emerging technology services such as precision agriculture, smart grids, and energy-efficient buildings can help improve resource efficiency while boosting economic productivity. The digitalisation of business operations can facilitate sustainable supply chains and assist industries to monitor their business risks and suppliers efficiently.

However, the rapid adoption of the digital economy can have an impact on infrastructure sectors that produce significant GHG emissions, particularly the power generation sector and logistics. The energy needed to power (and cool) data centres, for instance, is massive. The use of fossil fuels like coal and gas to power data centres contributes to climate change. While the digital economy can help businesses to decarbonise their operations, the need for logistical services like warehousing and shipping services will only increase, thus still releasing a vast amount of GHG emissions.

Sources: The Straits Times, 18 April 2022 and Asean Focus, March 2023

Questions

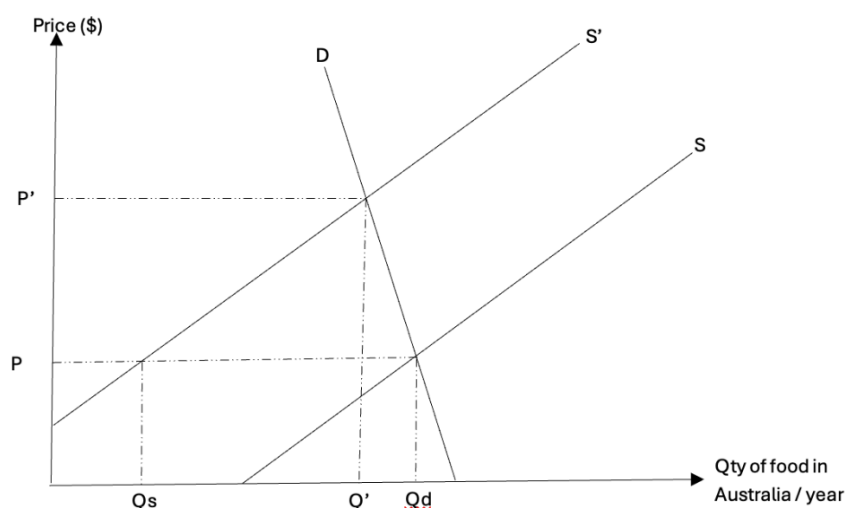
- (a) With reference to Table 1, explain two possible reasons that may account for the relationship between GDP growth and merchandise trade growth in Singapore. [4]
- (b) Explain two factors the MAS is likely to have considered when deciding whether to further tighten monetary policy. [4]
- (c) With reference to Extract 7 and using a Production Possibility Curve diagram in each case, explain:
- (i) how the adoption of automation might affect the Chinese economy. [2]
 - (ii) how having more people entering the labour-intensive service sector might affect the Chinese economy. [2]
- (d) Extract 8 discusses the roles that predistributive and redistributive policies play in reducing income inequality.
- Assess the relative importance of these policies in reducing income inequality in China. [8]
- (e) Discuss whether digitalisation of the Singapore economy is the key solution for Singapore to achieve sustainable growth. [10]

[Total: 30]

Adapted from 2024 VJC Prelims Paper 1**Question 1: Food! We need it but can we pay for it?****Suggested Answers**

(a)	(i)	Compare the changes in Australian food prices and the profits of Australian supermarkets from 2018 to 2022.	[2]
		<ul style="list-style-type: none"> • Similarity: Both Australian food prices and supermarkets' profits in Australia rose. [1] • Difference: However, Australian supermarkets' profits rose at a faster rate / by a larger extent than Australian food prices. [1] 	
		(ii) Using Extract 1 and a demand and supply diagram, account for the sharp change in food prices in Australia in 2022.	[4]

- The increase in oil prices from the Russian-Ukraine war (Ext 1, Para 2) has increased the marginal cost of production (MCOP) of food as energy costs contribute significantly to the cost of producing food.
- As the MCOP of food rises, the willingness and ability of farmers/food producers to supply food at every price level is expected to fall. This results in a fall in supply of food (from S to S' to Figure 1).

Figure 1

- In addition, there are few to no substitutes for food, given its broad definition. In particular, since Ukraine is a major food commodity producer (Ext 2), the war led to a significant reduction in the number of substitutes available.
 - Hence, demand for food is price inelastic, where a given rise in price will bring about a less than proportionate decrease in quantity demanded.
- Assuming that demand for food remains constant, the fall in supply of food will cause a shortage of $Q_s Q_d$ units at the initial price level.
 - This creates an upward pressure on food prices in Australia. As prices rise, quantity demanded for food will fall while quantity supplied will rise.
- Given that demand for food is price inelastic, the increase in price will need to be significant in order to clear the shortage, leading to a sharp rise in food prices (P to P').

Mark Scheme

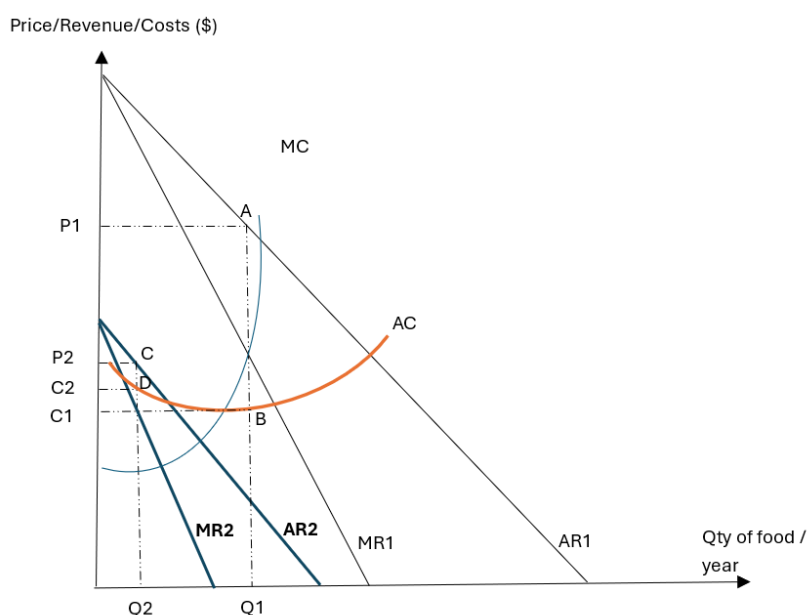
- 1 mark: Correct DD/SS diagram with appropriate labels
- 1 mark: Explanation of appropriate supply factor
- 1 mark: Explanation of PED factor/value
- 1 mark: Explanation of MAP

(b)	Using economic concept, explain why Ukraine specialises in the production of agricultural products in the global supply chain.	[2]									
<ul style="list-style-type: none"> From Extract 2, Ukraine has factor endowment in agricultural products, given its cheaper farmland and deep seaports. [1] Therefore, it incurs a lower opportunity cost and hence has a comparative advantage in producing agricultural products as compared to other countries. Thus, it should specialise in producing agricultural products and export them to other countries in the global supply chain. [1] <p><u>Mark Scheme</u> 1m to show factor endowment (farmland and deep seaports) 1m to show relatively lower opportunity costs → specialise in producing agriculture product + export</p>											
(c)	(i) Using Extract 3, explain two reasons that account for the level of competition faced by firms in the Australian supermarket industry.	[4]									
<ul style="list-style-type: none"> State level of competition: <u>Low</u> level of competition in Australia's supermarket industry – inferred from the high market concentration ratio (65% for the largest two supermarkets in 2022). Caused by acquisitions – Extract 3 mentioned that “Coles and Woolworths began to buy up the competition, in an intense period of growth”. Through these acquisitions, existing firms face less competition as there are fewer firms remaining in the industry, meaning fewer substitutes for their products. [2] High barriers to entry – Extract 3 also mentioned “restrictive leases that Coles and Woolworths were able to obtain in shopping centres” and “couldn't reach supply agreements, because those suppliers were worried about retribution from Coles and Woolworths”. The control of essential resources (strategic deterrence) needed for supermarkets to operate (i.e. shop space and food supplies) serves as a barrier to entry that makes it difficult for new firms to enter and compete with existing firms. [2] 											
	(ii) Discuss the extent to which the Australian government should introduce greater competition in the supermarket industry.	[8]									
<p><u>Question interpretation:</u></p> <table border="1" data-bbox="231 1496 1364 1758"> <tr> <td>Command phrase</td><td><i>Discuss the extent</i></td><td>This question requires a <u>balanced approach</u> on the benefits and costs of stated policy before coming to a substantiated conclusion.</td></tr> <tr> <td>Content</td><td><i>Should introduce greater competition</i></td><td>Stated policy can affect efficiency and equity</td></tr> <tr> <td>Context</td><td>Supermarket</td><td>Apply to context of supermarket in Australia</td></tr> </table> <p><i>Students should explain the considerations that will determine if the Australian government should introduce more competition in the supermarket industry, based on the various efficiency and equity concerns. Thereafter, their responses should weigh between the benefits and costs of introducing competition before making a substantiated stand.</i></p> <p>Introduction</p> <ul style="list-style-type: none"> Given the high market concentration ratio of 65 per cent (Ext 3, para 2), we can consider Woolworths and Coles to be operating in an oligopolistic market structure. This can lead to prices that are higher than prices in a more competitive market. However, the decision to 			Command phrase	<i>Discuss the extent</i>	This question requires a <u>balanced approach</u> on the benefits and costs of stated policy before coming to a substantiated conclusion.	Content	<i>Should introduce greater competition</i>	Stated policy can affect efficiency and equity	Context	Supermarket	Apply to context of supermarket in Australia
Command phrase	<i>Discuss the extent</i>	This question requires a <u>balanced approach</u> on the benefits and costs of stated policy before coming to a substantiated conclusion.									
Content	<i>Should introduce greater competition</i>	Stated policy can affect efficiency and equity									
Context	Supermarket	Apply to context of supermarket in Australia									

introduce further competition in the supermarket industry must be considered by looking at the benefits and costs of increased competition.

Thesis/Key Argument 1 – The Australian government should introduce greater competition in the supermarket industry

- **Increased competition can improve the outcomes for consumers in the supermarket industry.**
- Increasing competition such as through deregulation can allow new entrants into the supermarket industry by reducing the barriers to entry. For example, the removal of exclusive agreements with suppliers or leasing of storefronts (Extract 3). The entry of more firms into the industry leads to an increase in the supply of food products sold in the supermarkets, resulting in greater competition and reducing market dominance by the incumbents.

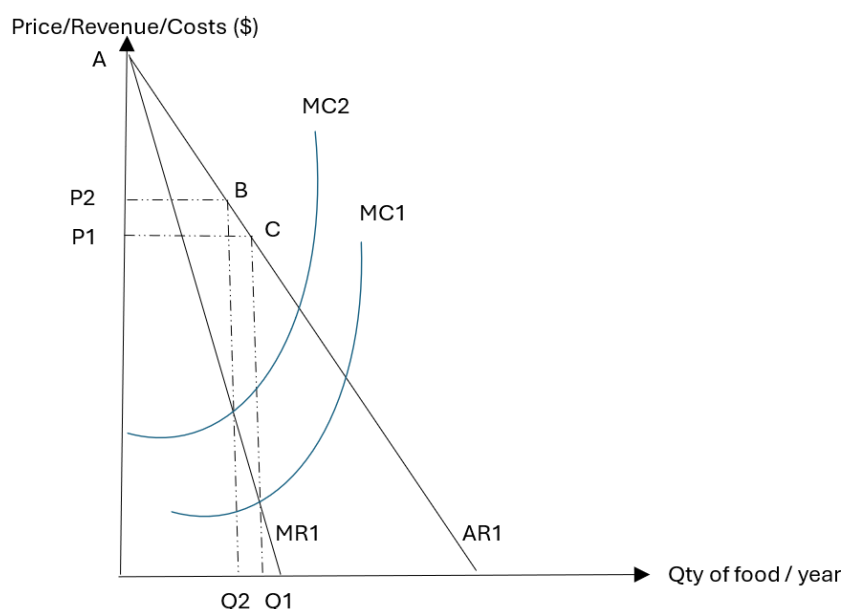


- Assuming market demand and costs remain unchanged, with new entrants into the industry, incumbent firms are likely to face a falling demand, i.e. $DD=AR$ falls from AR_1 to AR_2 , and MR also falls from MR_1 to MR_2 .
- Demand also becomes more price elastic with more substitutes available.
 - The prices that incumbents can charge have fallen from P (where $MC=MR_1$) to P' (where $MC=MR_2$), making it more affordable (since price falls from P_1 to P_2) for consumers to purchase food items in supermarkets, hence improving consumer surplus and hence welfare.
- **Increasing competition can also improve equity within society by reducing the long run supernormal profits that the incumbents can earn.**
- With a low level of competition, Woolworths and Coles have a high price setting ability (price set at P_1 where $MC=MR_1$ in the above diagram). Coupled with the high barriers to entry, the incumbents can earn long-run supernormal profits of P_1ABC_1 .
 - Furthermore, there is a likelihood of profiteering by the incumbents (Ext 4, Para 2), leading to a price level that is even higher than the profit-maximising price P_1 and higher profits, given the price inelastic demand for food.
- As explained above, higher levels of competition will reduce the supermarkets' demand, leading to lower price and quantity of P_2 and Q_2 respectively.
 - As such, their supernormal profits would fall from P_1ABC_1 to P_2CDC_2 , improving the distribution of income from the supermarket owners (who were earning higher supernormal profits) to consumers, thus reducing inequity.

- *Alternative point: Reduction of allocative inefficiency (show that deadweight loss to society decreases as a result of greater competition).*
- *Note: For economic rigour, response should explain **how** the price, quantity and profits of the firm will change, rather than simply reading off the diagram.*

Anti-thesis/Key Argument 2 – The Australian government should not introduce greater competition in the supermarket industry

- **Increasing competition might lead to higher prices.**
- Increasing competition within the supermarket industry can lead to a loss of cost savings due to the lower ability to reap internal economies of scale (EOS) (Ext 4, Para 3).
 - Without the larger scale of production, the firms might not have the ability to reap these internal EOS and end up with higher unit costs. The inability to use technology/automation to manage their stock across the country might lead to an increase in the unit logistic costs.
 - Hence, we can expect a rise in the marginal cost (from MC1 to MC2). The new profit-maximising quantity falls from Q1 (MC1=MR1) to Q2 (MC2=MR1) price rises from P1 to P2.



- Similarly, consumers might face higher prices for supermarket food products, leading to a reduction of consumer surplus and hence welfare.
- There might be a rise in demand of fresh produce with higher levels of competition in the supermarket industry. This can increase the operating costs for supermarkets resulting in a higher marginal cost.
 - Furthermore, the higher prices will bring reduce consumer surplus from ACP1 to ABP2.
- *Alternative point: Possible reduction in dynamic efficiency (as lower profits earned means lower **ability** to engage in R&D – note that incentive to engage in R&D will still be high, given the level of competition).*

Evaluative Conclusion

- **[Stand]** Although more competition in an industry might not always benefit society, in light of the current situation in the supermarket sector, it is likely that introducing greater competition would have an overall net benefit to society.
- **[Situation]** Given the nature of the products sold, “when it comes to supermarkets, there is no surge in demand; it’s just that people need to eat”, it is likely that demand for food products is price inelastic given that they are necessities, so an increase in competition and supply in the industry would lead to a significant drop in price that would improve consumer welfare significantly.
- **[Situation]** That said, it is important to understand the root cause of the increasing prices in the supermarket industry. If the increase in prices of food in Australian supermarkets were due to adverse supply-side shocks such as the Russian-Ukraine war, the higher prices thus may not be driven by the price-setting abilities of a dominant firm but of market forces, which may then not warrant government intervention.

Mark Scheme

Level	Knowledge, Application/ Understanding, Analysis	Marks
L2	For a well-developed answer that has: <ul style="list-style-type: none"> • Good scope – explains the benefits and costs of increasing competition in the Australian supermarket industry; and • Good rigour – supporting firm’s analysis with accurate and well-labelled diagram(s); and • Good application to the Australian supermarket industry 	4-6
L1	For an answer that: <ul style="list-style-type: none"> • Lacks scope – only explains either the benefits or costs of increasing competition in the Australian supermarket industry; and/or • Lacks rigour – there are gaps in using firm’s analysis and/or explanation is not supported by accurate and well-labelled diagrams(s) where relevant; and/or • Lacks application to the Australian supermarket industry 	1-3
E	<ul style="list-style-type: none"> • Up to 3 additional marks for a reasoned conclusion on whether the government should increase competition within the supermarket industry. • The evaluation should weigh the benefits and costs. Possible criteria for comparison include: <ul style="list-style-type: none"> ○ Magnitude of benefits/costs ○ Nature of the product (PED value of food) ○ Root cause of the higher prices 	1-2

(d)	Discuss the case for and against the Malaysian government's decision to intervene in the agrifood business to improve productivity in this sector.	[10]
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Question interpretation:

Command phrase	<i>Discuss the case for and against</i>	This question requires a <u>balanced approach</u> on the arguments for and against the stated decision before coming to a substantiated conclusion.
Content	<i>Intervention in the agrifood business to improve productivity</i>	Aim of improving productivity in the agrifood sector with the background of improving food security
Context	Agrifood sector in Malaysia	Apply to context of agrifood sector in Malaysia

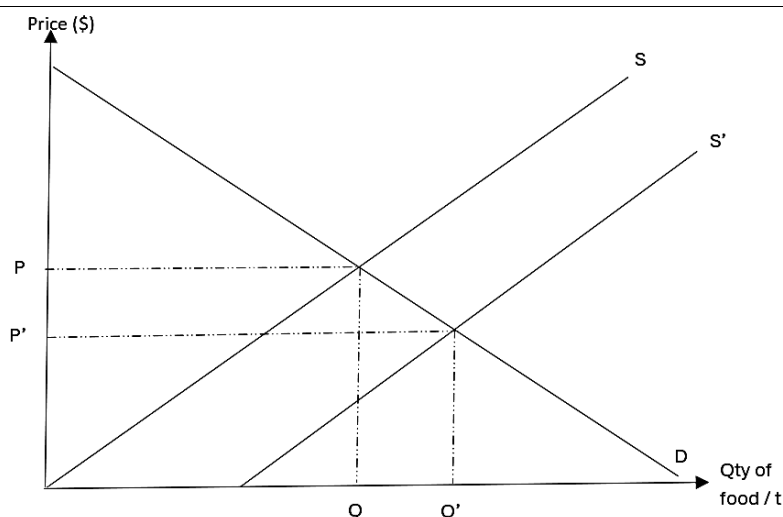
Students should explain the benefits and costs of improving productivity in the agrifood business sector. Thereafter, their responses should weigh between the benefits and costs of improving productivity before making a substantiated stand.

Introduction

- The Malaysian government's decision to intervene in the agrifood sector can be largely attributed to the increase in food prices caused by the Russian-Ukraine war and the global supply chain issues faced by the country.
- This essay seeks to use a cost-benefit analysis to present the case for the Malaysian's government decision to intervene to improve productivity in the agrifood business sector.

Thesis – Benefits of improving productivity in the agrifood business sector

- **Intervening in the agribusiness can strengthen food security in Malaysia and help reduce food prices through the improvement of productivity in the agrobusinesses.**
- The adoption of precision farming drones and other new farming technology (Ext 5, Para 4) can reduce the marginal cost of production for Malaysian farmers since the use of capital to replace labour as a factor input can bring about significant cost savings in the long run.
- In addition, the use of technology can potentially increase the yield of any given farm area, increasing the productivity of farmers.
 - This can lead to the increase in supply of domestically produced food (from S to S').
 - At the original price level P, there will be a surplus of food, thus creating a downward pressure on food prices.
 - As price falls, Qd rises and Qs falls, ultimately leading to a new equilibrium with a fall in food prices (from P to P') and an increase in quantity (from Q to Q').



- Hence, improving productivity in Malaysia's agrifood sector can not only help lower food prices and make food more affordable, but also increase the quantity produced, thereby helping Malaysia buttress its food security.
- **[Situation]** However, we will also need to consider that Malaysia has a sizeable labour pool. Hence, the cost of labour can be relatively cheaper than the cost of implementing drones and algorithms at scale.
 - The relatively high cost of new farming technology might deter most farmers from adopting the technologies or, worse, increase the cost of production for farmers who choose to adopt the technologies in the short run (i.e. there is a high fixed cost).
 - Hence, this benefit might not be fully realised, at least in the shorter term, given the possibility of a low adoption rate in the country.
- Intervening in the agribusiness can improve Malaysia's price competitiveness in the agriculture industry, which would contribute to economic growth.
- As mentioned above, improvement to productivity in agribusiness can lead to a fall in food prices in Malaysia.
 - This increase in price competitiveness of its agricultural products would lead to an increase in the quantity demanded for Malaysia's agricultural products.
 - If these products make up a significant enough proportion of Malaysia's export revenue (X), the increase in X could contribute to actual growth as the fall in unit cost of production for firms leads to an increase in AS, leading to an increase in real GDP, thus contributing to economic growth.

Anti-thesis – Costs of improving productivity in the agrifood business sector

- **The opportunity cost of the Malaysian government intervening to increase productivity in the agrifood sector is high.**
- A significant opportunity cost of intervening in the agrifood sector is the diversion of government spending away from other economic priorities such as education and healthcare or even transfer payments meant to improve the material standard of living (SOL) of lower income families (Extract 5, Paras 2 & 3).
 - As such, this could lead to a worsening of the current material SOL of Malaysian households, or could even hamper sustained growth due to the lack of improvement of factor productivity in the Malaysian economy.

- Intervention in the agribusiness might worsen the Malaysian government's fiscal balance in the short run.
- Given the significant amount already being spent by the Malaysian government on social assistance (Extract 5, Para 3), it is likely that further subsidies to improve productivity in the agrifood sector might worsen the Malaysian government's fiscal balance in the short run.
 - While this might not present much of an issue in the short run, a persistent fiscal deficit might worsen Malaysia's future material SOL as additional funds will be needed to finance the debt and interest payments.

Evaluative Conclusion

- **[Stand]** The Malaysian government should proceed with improving productivity in the agrifood business sector as the economy stands to benefit significantly in the long run.
- **[Time/Situation]** It is likely that shocks to the global supply chain will persist in the longer term, given the increasing geopolitical tensions globally as well as climate change.
 - Hence, the strengthening of a country's ability to provide for its own nutritional needs will become more pertinent.
 - As such, there is a strong need to make structural changes to the agrifood business sector now in order to ready the Malaysian economy for further inevitable adverse supply shocks in the future. In doing so, Malaysia would be able to better "strengthen food security" (Extract 5, Para 4).
- **[Situation]** To do so, the Malaysian government can consider diverting existing subsidies in other areas (e.g. fuel subsidies) to finance the improvement of agrifood business sector productivity, thereby mitigating the fiscal burden in the short run.

Mark Scheme

Level	Knowledge, Application/ Understanding, Analysis	Marks
L2	For a well developed answer that has: <ul style="list-style-type: none"> • Good scope – explains the benefits and costs of intervening in the agrifood business sector; and • Good rigour – supporting DD/SS analysis with accurate and well-labelled diagram(s); and • Good application to the Malaysian agrifood sector 	4-7
L1	For an answer that: <ul style="list-style-type: none"> • Lacks scope – only explains either the benefits or costs of intervening in the agrifood business sector; and/or • Lacks rigour – there are gaps the analysis and/or explanation is not supported by accurate and well-labelled diagrams(s) where relevant; and/or • Lacks application to the Malaysian agrifood sector 	1-3
E	Up to 3 additional marks for a reasoned conclusion on whether the Malaysian government should proceed with intervening in the agrifood business sector. Possible considerations: <ul style="list-style-type: none"> • Magnitude of benefits/costs • Duration/persistency of benefits/costs • Future trends 	1-3

Question 2: Staying resilient amidst global headwinds**Suggested Answers**

(a)	With reference to Table 1, explain two possible reasons that may account for the relationship between GDP growth and merchandise trade growth in Singapore.	[4]
<ul style="list-style-type: none"> • [State relationship] There is a <u>positive relationship</u> between GDP growth and merchandise trade growth. <ul style="list-style-type: none"> ◦ (Optional) As seen in Table 1, from 2017 to 2020, as GDP growth rate fell, % change in merchandise trade also fell, same goes for the rise in 2020 to 2021. • The merchandise trade balance consists of export revenue and import expenditure, i.e. $X+M$. <p><u>Possible reasons (any two of the following):</u></p> <ul style="list-style-type: none"> • When GDP growth rates are higher, it is likely to be brought about by export revenue (X), given Singapore's export-oriented economy where X is a large component of Singapore's GDP. Assuming the rise in X is greater than that of import expenditure (M) over time, an increase in merchandise trade ($X+M$) growth could lead to an increase in GDP growth. [2] • A higher GDP growth signifies an expanding economy, which boosts consumer and business confidence. This results in a rise in demand for consumer goods and capital goods by households and firms, some of which would be imported, resulting in an increase in M, hence contributing to a rise in ($X+M$). [2] • Higher GDP growth often leads to increased incomes and employment, augmenting the purchasing power of consumers. This increase in purchasing power allows for greater consumption of both domestic and foreign goods, resulting in an increase in M, hence contributing to a rise in ($X+M$). [2] • As Singapore relies heavily on imported factor inputs to produce goods for export, a faster rise in X that contributes to GDP growth necessarily implies a faster rate of increase in M as well, hence contributing to a rise in ($X+M$). [2] <p><i>Notes:</i></p> <ul style="list-style-type: none"> ◦ Answers that explain the positive relationship between GDP and merchandise trade are also accepted, as one possible observation could be that when GDP growth rates are positive, merchandise trade growth rates also are generally positive. ◦ 1m awarded if answer stated correct relationship, but explanations were wrong. 		
(b)	Explain two factors the MAS is likely to have considered when deciding whether to further tighten monetary policy.	[4]
<ul style="list-style-type: none"> • One factor the MAS would have considered is the inflation rate in Singapore. If inflation rate is high and expected to persist, MAS could want to tighten monetary policy i.e. appreciate the SGD to lower inflation. This would result in the price of imported inputs falling, increasing the AS and causing GPL to fall, thereby lowering cost-push inflation. [2] • Another factor the MAS would have considered is that economic growth rate of SG as well as that in other economies. Allowing the SGD to appreciate against other currencies would result in a loss of export price competitiveness. Assuming the Marshall-Lerner condition (i.e. $PED_x + PED_m > 1$) holds, $(X-M)$ falls, AD falls and real NY falls. If economic growth was already very low (or other countries growth expected to be negative, translating to a fall in Singapore's export demand and hence negative EG in Singapore), MAS would be more cautious of further tightening. [2] 		

- Note: Answers that are framed as explaining the benefits (lowering cost-push inflation) and costs (negative effect on economic growth) of further tightening MP are also correct.

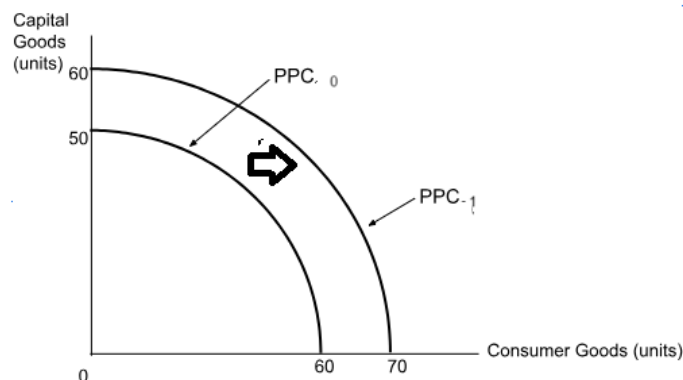
(c) With reference to Extract 7 and using a Production Possibility Curve diagram in each case, explain:

(i) how the adoption of automation might affect the Chinese economy.

[2]

- Automation enhances the **productivity of factor inputs (capital and labour)** in China. If the quantity of resources is the same but each unit of labour has become more efficient with automation i.e. the **quality of resources improves**, the country's ability to produce goods and services and hence its productive capacity increases, causing an **outward shift of the PPC from PPC₀ to PPC₁**, leading to potential growth. [1]

Diagram [1]



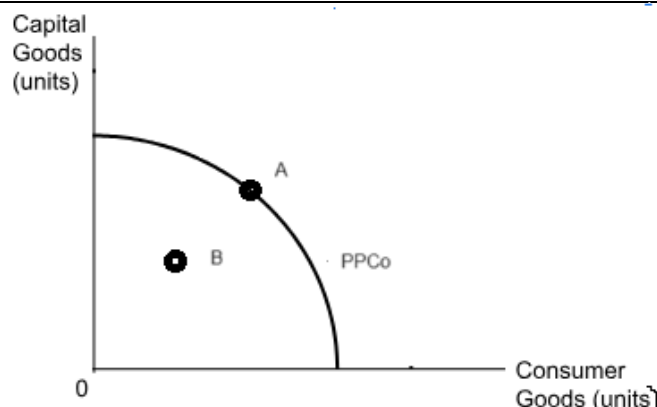
- Note: Answers that utilise Extract 7's "automation could reduce employment opportunities for a sizeable portion of the workforce in future" to explain how this could lead to increased unemployment (movement of point on PPC further in, not a shift in the PPC) are also accepted.

(ii) how having more people entering the labour-intensive service sector might affect the Chinese economy.

[2]

- An increase in the number of workers entering the labour-intensive sector means that more resources (labour) are being used in a way where "labour-intensive service sector, where workers' time and skills are not efficiently being utilised". Resources are hence not being efficiently utilised such that there is underemployment of resources and the economy will not be operating at the highest possible level of output given its resources and technology. This inefficiency can cause the actual production point to be inside the PPC (from point A to point B). [1]

Diagram [1]



(d) Extract 8 discusses the roles that predistributive and redistributive policies play in reducing income inequality.

Assess the relative importance of these policies in reducing income inequality in China.

[8]

Question interpretation:

Command phrase	<i>Assess the relative importance</i>	This question requires a <u>balanced approach</u> on the importance of these policies and come to a substantiated conclusive on the relative importance of these policies
Content	<i>These policies</i> <i>income inequality</i>	Refer to extract 8 – <i>predistributive policies and redistributive policies</i> Objective of policies
Context	China	Apply to context of China

Students are to explain how predistributive policies and redistributive policies work to reduce income inequality and come to a substantiated conclusive on which policies are more important for China given its aim of reducing income inequality.

Introduction

- China faces rising income inequality due to widening income gaps between the fewer workers who now work in manufacturing and construction sectors and the increasing number of workers entering the services sector, as well as between the rural and urban workers.

Body

Key Argument 1: Explain how predistributive policies can reduce income inequality

- Predistributive policies can reduce income inequality before taxes and transfers take place. This would be attained through increasing the income of lower wage workers, and would be attained through human capital investment, which takes the form of both education, training and retraining.
 - Through higher education levels and skills training, relatively lower skilled workers are able to perform tasks more efficiently through the use of latest tools.
 - Ceteris paribus, this increases the demand for their labour as firms would want to hire the now more skilled labour (who can now contribute more to the firm's revenue) to increase their profits. The effects of this can be seen below.

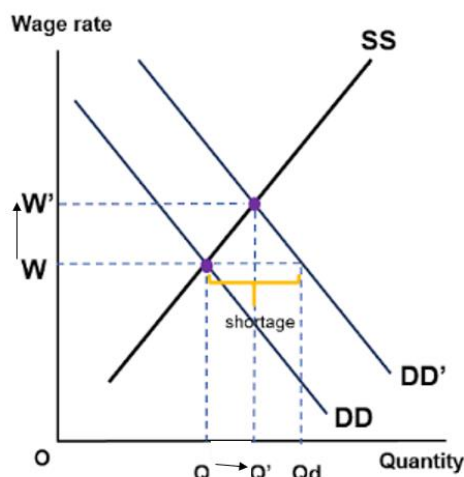


Figure 1: Effect of human capital investment on market for lower-skilled labour

- With the rise in demand for lower-skilled workers who have now become more productive as a result of training, there would be a shortage of $Q - Q_d$ units of workers at the initial wage rate W , resulting in upward pressure on wages and wages will rise to clear the shortage.
 - As wage rises, the quantity demanded for labour falls and quantity supplied rises until a new equilibrium is reached with higher wage rate W' .
- As such, this narrows the wage gaps between the higher-skilled workers and lower-skilled workers, who now more productive.
- In the context of China, this would mean rising wages for workers who are or were once in the service sectors (as they would move on to perform jobs in other sectors which require more skills) as well as in rural areas.
- *Note: Answers that explain how lower-skilled workers transiting to higher-skilled jobs as a result of skills upgrading, thereby leading to a reduction in the wage gap due to a rise in SS of higher-skilled workers and fall in SS of lower-skilled workers, are also accepted.*

Key Argument 2: Explain how redistributive policies can reduce income inequality

- Redistributive policies reduce income inequality by reducing the incomes of higher-income earners through taxes, while increasing the incomes of lower-income earners through transfer payments.
- Taxation takes the form of a progressive taxation system whereby higher income earners are taxed a higher proportion of their incomes than lower income earners.
 - This reduces the income gap between higher and income earners, as the after-tax income of higher-income earners is now closer to that of lower-income earners than before taxation.
 - Together with revenue raised from other sources of taxation such as corporate taxes and value-added taxes, tax revenue can then be redistributed to lower income earners in the form of transfer payments such as wage support, which tops up the wages of lower income earners.
- Hence, redistributive policies contribute to a reduction in the income gap after taxes and transfers.
- In the context of China, this could also take the form of redistribution between regions, since there are more higher income earners in urban areas and more lower income earners in rural areas.

Evaluative Conclusion i.e. comparing relative importance of policies

- **[Stand]** While both are important in reducing income inequality, predistributive policies in the form of retraining can be argued to be more important, in light of the fact that “the increasing use of automation could reduce employment opportunities for a sizable portion of the workforce in future” (Extract 7, Para 2).
- **[Situation]** Without sufficient emphasis on retraining, more workers will be forced to enter the lower-paying service sector jobs, resulting in an increase in the supply of labour in such sectors, resulting in further fall in wages. This would also mean that transfer payments would be increasingly unsustainable, given the large number of lower-income workers who would need to be supported.
 - In contrast, an emphasis on retraining would mean that the system of taxes and transfers would remain sustainable as there would be fewer lower-income workers to support and would be able to play a complementary role to retraining.
- *Note: An evaluative conclusion that uses time period to justify that predistributive policies are more important, but as this takes time, redistributive policies are also needed and more important in the short run, is also acceptable.*

Mark Scheme

Levels	Knowledge, Application/ Understanding, Analysis	Marks
L2	For a well developed answer that has: <ul style="list-style-type: none"> • Good scope – explains how predistributive and redistributive policies can reduce income inequality in China; and • Good rigour – supporting DD/SS analysis with accurate and well-labelled diagram(s); and • Good application to the context of China 	4 – 6
L1	For an answer that: <ul style="list-style-type: none"> • Lacks scope – only explains how predistributive or redistributive policies can reduce income inequality in China and/or • Lacks rigour – there are gaps in using DD/SS analysis and/or explanation is not supported by accurate and well-labelled diagrams(s) where relevant; and/or Lacks application to the context of China 	1 – 3
E	For an analytically well-reasoned and synthesised judgement as to which of these policies is more important in reducing income inequality in China, with reference to issues mentioned in the extracts.	1 – 2

(e)	Discuss whether digitalisation of the Singapore economy is the key solution for Singapore to achieve sustainable growth.	[10]
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Question interpretation:

Command phrase	<i>Discuss whether... is the key solution...</i>	This question requires a <u>balanced approach</u> on the workings and limitations/unintended consequences of this policy and a substantiated judgment.
Content	<i>Digitalisation</i> <i>To achieve sustainable growth</i>	This is the cause/trigger where your analysis should begin with Sustained economic growth without significant socioeconomic issues for future generation

Context

Singapore

Apply to context of Singapore

Students are to explain how digitalisation of the Singapore economy can lead to sustainable growth and its limitations/unintended consequences and provide a reasoned judgement if this is a key solution for Singapore.

Introduction

- Sustainable economic growth refers to growth that is sustained and that can be achieved without creating significant socioeconomic issues for future generations (e.g. environmental degradation and resource depletion).
- For sustained economic growth to take place in the first place, there needs to be both actual and potential growth, such that real GDP can continue to increase over time without accelerating inflationary pressures.

Thesis/Key Argument 1 – Explain how digitalisation of the Singapore economy can contribute to sustainable growth

- **Digitalisation results in greater resource efficiency, leading to sustainable growth.**
- With digitalisation, there will “reduced needs for physical storefronts”, resulting in “reduced energy use”, “video conferencing” (Extract 9, Para 4) among other changes.
 - These result in increased factor productivity i.e. given inputs of firms in the economy can now be used to generate more output, resulting in decreased unit cost of production, which is represented by downward shift of the horizontal portion of the AS curve.
- This leads to actual growth, as real NY increases from Y_0 to Y_1 .
- With an increase in factor productivity (quality of capital) from the use of “emerging technology” on the production side, productive capacity of the economy also increases, and hence potential growth, as represented by the increase in the full employment level of national income from Y_{f0} to Y_{f1} .
 - As such, there is sustained economic growth, as real GDP can continue to increase over time without accelerating inflationary pressures.

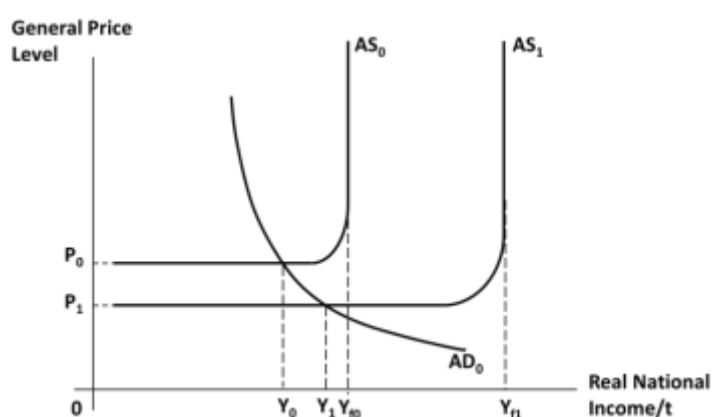


Figure 1: Effect of digitalisation on an economy

- As there is more efficient use of resources, less negative externalities are generated from the production of electricity needed for all economic activity such as manufacturing and retail operations.
 - This not only reduces the emissions of greenhouse gases and other harmful pollutants and hence slows down environmental degradation, but also reduces resource depletion, as more energy-efficient methods of production are being used.
- As such, with sustained growth as well as a focus on reducing the rate of exploitation of natural resources, sustainable economic growth can be achieved.

Anti-thesis/Key Argument 2 – Explain how digitalisation of the Singapore economy may not lead to sustainable growth (limitations and unintended consequences)

- **However, digitalisation may not be able to lead to sustainable growth.**
- Digitalisation requires data to be stored in data centres, which require a lot of energy to operate. This means that the demand for electricity will rise in tandem with the growth of digitalisation.
 - The generation of electricity in power plants requires the burning of fossil fuels, which generates greenhouse gases as well as other harmful pollutants, which adversely affect the health of residents living in the area, who are third parties not involved in the generation of electricity and they incur healthcare costs.
 - Since these external costs are not taken into account by producers when deciding how much electricity to produce, there is a tendency for the market to produce too much electricity (i.e. overproduction), leading to allocative inefficiency and hence market failure.
- This therefore hampers Singapore's pursuit of sustainable growth, as more negative externalities in the form of greenhouse gases and other pollutants are emitted, which leads to greater harm on the environment.
- **Digitalisation could also result in structural unemployment and greater income inequality.**
- Structural unemployment happens when there is a mismatch in skills possessed by jobseekers and those demanded by firms.
- With the increased efficiency of production processes, some workers would be made redundant (capital-labour substitution).
 - At the same time, more jobs would be created either directly in sectors supporting digitalisation such as software design and online inventory management, but many of those who are now unemployed may not have the skills for such roles.
- This skills mismatch is form of occupational immobility which prevents workers from being employed despite their being sufficient jobs to be filled.
- Furthermore, workers who have the necessary skills will see a rise in their wage rates as there will be greater demand for their services.
 - On the other hand, there will be a drop in demand and wage rates for workers who lack the expertise to cope with the technological changes.
- Given that digitalisation affects different sectors and industries, it could lead to significant structural unemployment and widening income inequality in the economy.

Evaluative Conclusion

- **[Stand]** Digitalisation is a key solution for Singapore to achieve sustainable growth, but it is unlikely to be sufficient.
- **[Situation/Magnitude]** Digitalisation is a promising way to attain sustainable economic growth due to its potential to affect every industry, and hence lead to significant overall efficiency gains to the economy as well as decreased resource use. This is especially important for Singapore, given our lack of natural resources.
 - Further, digitalisation is also key as it helps to keep the GPL low (via an increase in AS), hence enabling Singapore to remain export price competitive, which is particularly important for us because of the export-oriented nature of our economy.
 - However, there are current limitations, in particular the heavy use of energy to power data centres and the polluting nature of its accompanying logistical services.
- **[Alternative]** The government hence needs to complement digitalisation with policies such as funding R&D in the renewable energy sector to promote the development of clean technology or clean energy, which produces far lesser negative externalities.

- R&D can also be directed towards developing greater energy efficiency in sectors such as data storage and warehousing.
- The unintended consequence of structural unemployment will not be as big a concern as Singapore already has a comprehensive lifelong learning programme in the forms of SkillsFuture which is already being used to prepare workers for industry disruptions.

Levels	Knowledge, Application/ Understanding, Analysis	Marks
L2	For a well developed answer that has: <ul style="list-style-type: none"> • Good scope – explained how digitalisation of the Singapore economy can bring about sustainable economic growth as well as its limitations/unintended consequences; and • Good rigour – supporting analysis with accurate and well-labelled diagram(s); and • Good application to Singapore 	4 – 7
L1	For an answer that: <ul style="list-style-type: none"> • Lacks scope – only explains how digitalisation of the Singapore economy and can bring about sustainable economic growth without limitations/unintended consequences; and/or • Lacks rigour – there are gaps in analysis and/or explanation is not supported by accurate and well-labelled diagrams(s) where relevant; and/or • Lacks application to Singapore 	1 – 3
E	An analytically well-reasoned and synthesised judgement as to whether digitalisation of the Singapore economy would be the key measure to bring about sustainable economic growth.	1 – 3

Adapted from 2024 VJC Prelims Paper 2

Answer **three** questions in total.

Section A

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

- 1** In 2022, the Minister for Finance announced that the Goods and Services Tax (GST) rate will be raised in two steps, from 7 per cent to 8 per cent on 1 Jan 2023 and from 8 per cent to 9 per cent on 1 Jan 2024. The revenue from the increase in GST will go towards meeting our medium-term needs including supporting our healthcare expenditure, and to take care of our senior citizens.

Source: www.gov.sg, 1 Jan 2024

- (a) Using relevant elasticity concepts, explain how an increase in income levels and the GST hike can each affect consumers' expenditure on healthcare services. [10]
- (b) Discuss whether the provision of healthcare subsidies or the imposition of a price cap on healthcare services is a better measure to help senior citizens cope with the rising cost of healthcare in Singapore. [15]
- 2** In February 2024, Ritual, a boutique gym brand, abruptly shut all four outlets in Singapore permanently. The company cited COVID-19 as a big factor impacting their business, on top of other challenges like rising rental costs and changing workout fads. Locally owned boutique gyms are hit harder by competition compared to larger gym chains like Fitness First, which typically have more capital and a more attractive brand image.
- (a) Explain why Ritual exited the market in response to the challenges in the gym industry. [10]
- (b) Discuss the factors that a gym would consider when deciding which strategies to adopt to remain in the market. [15]
- 3** Excessive tourism often leads to significant water and air pollution, as increased demand for resources and services strains local environments, leading to inefficiencies and long-term ecological damage.
- (a) Explain how a rational consumer decides whether to travel abroad for leisure, and how such decision-making may lead to an inefficient allocation of resources. [10]
- (b) Discuss the measures a government can implement to improve resource allocation in the market for tourism services. [15]

Section B

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

- 4** Governments seek to attain various macroeconomic goals, one of which is inclusive and sustainable economic growth, in order to raise the living standards of its citizens.
- (a) Explain why governments aim to achieve inclusive and sustainable economic growth. [10]
- (b) Discuss the extent to which policies to achieve inclusive economic growth would cause difficulties for an economy. [15]
- 5** In early 2022, Sri Lankans started experiencing power cuts and shortages of basics such as fuel. The rate of inflation rose to 50 per cent while unemployment rate remains high. Currently, Sri Lanka owes about \$7 billion to China and around \$1 billion to India.

Adapted from BBC, 29 March 2023

- (a) Explain two possible causes of inflation. [10]
- (b) Discuss the extent to which the Sri Lankan government should focus on reducing its inflation rate over reducing its unemployment rate. [15]
- 6** Deglobalisation is the movement towards a less connected world, characterised by powerful nation states, local solutions, and border controls, rather than global institutions, treaties, and free movement.
- (a) Explain why a country like Singapore exports and imports both different and similar types of goods and services when it trades with other countries like China. [10]
- (b) With the trend of rising deglobalisation, discuss whether Singapore should also deglobalise. [15]

Adapted from 2024 VJC Prelims Paper 2 Suggested Answers

- 1 In 2022, the Minister for Finance announced that the Goods and Services Tax (GST) rate will be raised in two steps, from 7 per cent to 8 per cent on 1 Jan 2023 and from 8 per cent to 9 per cent on 1 Jan 2024. The revenue from the increase in GST will go towards meeting our medium-term needs including supporting our healthcare expenditure, and to take care of our senior citizens.

Source: www.gov.sg, 1 Jan 2024

- (a) Using relevant elasticity concepts, explain how an increase in income levels and the GST hike can each affect consumers' expenditure on healthcare services. [10]
- (b) Discuss whether the provision of healthcare subsidies or the imposition of a price cap on healthcare services is a better measure to help senior citizens cope with the rising cost of healthcare in Singapore. [15]

Part (a) Question Interpretation

Command word/phrase	Explain how	Make clear the reasons and explain the theory behind the question. Cause and effect relationships must be explained thoroughly
Content	<i>Using relevant elasticity concepts</i>	
	<i>Increase in income levels</i>	Relevant elasticity concept of YED
	<i>GST hikes</i>	Relevant elasticity concept of PED as GST hikes will affect the supply
	<i>Consumers' expenditure</i>	Consumers' expenditure = price x quantity
Context	<i>Healthcare services</i>	Apply analysis to the context of healthcare service in Singapore

This question requires an explanation of how a rise in income can lead to an increase in the expenditure for healthcare services by applying income elasticity concept – normal good and an explanation of how a GST hike can lead to an increase in the expenditure for healthcare services by applying price elasticity of demand concept.

Introduction

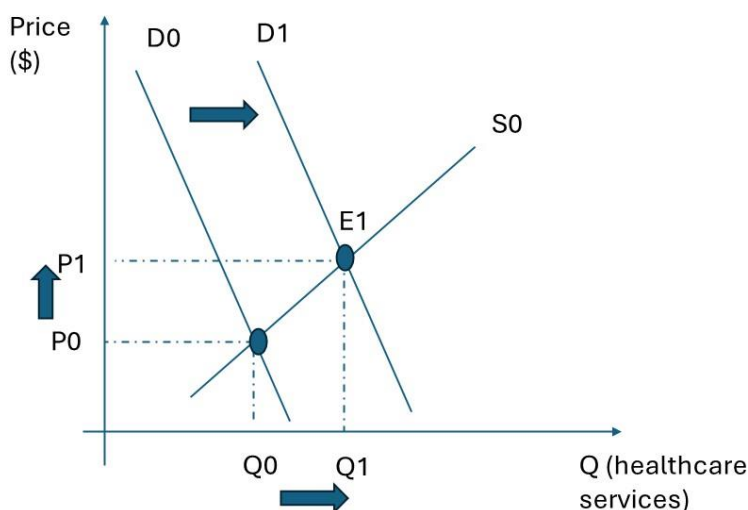
- The rise in income levels as well as GST hike will impact the market for healthcare services in Singapore.
- Using demand and supply analysis, as well as the concepts of income elasticity of demand (YED) and price elasticity of demand (PED), this essay will explain the impact of the two events on the total expenditure on healthcare services by consumers.

Body

Key Argument 1: Explain how a rise in income can lead to an increase in the expenditure for healthcare services (apply income elasticity concept – normal good).

- A rise in income will lead to an increase in consumers' expenditure on healthcare services.
- YED is the responsiveness of demand for a good or service to a change in income level, ceteris paribus.
 - When YED is positive, a rise in income results in a rise in the ability of households to consume more normal goods and services, which include luxury goods ($YED > 1$) and necessities ($0 < YED < 1$).
- Since healthcare services are considered normal services due to their necessity in people's lives (i.e. regular health check-ups to ensure people remain healthy, or doctor visits due to illness), this rise in income would cause the demand for healthcare services to increase.
 - This is illustrated by a rightward shift in the demand curve in Figure 1a below.

Figure 1a. Rise in income on expenditure for healthcare services

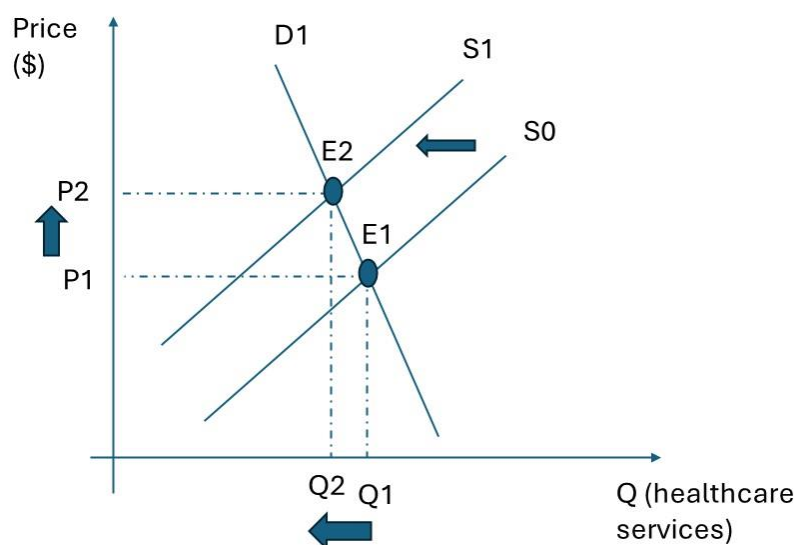


- Holding supply curve constant, the rightward shift in the demand curve from D_0 to D_1 would lead to a shortage at the initial price, P_0 .
 - This shortage will lead to an upward pressure on price. As price rises, quantity demanded would fall, as shown by a movement along the new demand curve, D_1 .
 - At the same time, quantity supplied would also rise as the price rises, as shown by a movement along the original supply curve, S_0 .
 - The process stops when the new demand curve intersects the supply curve at E_1 , resulting in a new equilibrium.
- Since expenditure refers to the total amount spent on the good, the rise in equilibrium price and quantity from $(P_0 \times Q_0)$ to $(P_1 \times Q_1)$, will result in an increase in total expenditure on healthcare services.

Key Argument 2: Explain how a GST hike can lead to an increase in the expenditure for healthcare services (apply price elasticity of demand concept).

- **A GST hike would lead to an increase in the expenditure for healthcare services.**
- An increase in GST, which is an indirect tax, results in an increase in the marginal cost of production of firms.
 - When this happens, firms will increase the price by the amount of tax at each quantity supplied to maintain profitability.
 - This is illustrated by a leftward shift in the supply curve from S_0 to S_1 in Figure 1b below.
- Holding demand curve D_1 constant, the leftward shift in the supply curve from S_0 to S_1 would lead to a shortage at the initial price, P_1 .
 - This shortage will lead to an upward pressure on price. As price rises, quantity supplied would rise, as shown by a movement along the new supply curve, S_1 .
 - At the same time, quantity demanded would fall as prices rise, as shown by a movement along the demand curve, D_1 .
 - The process stops when the new supply curve intersects the demand curve at E_2 , resulting in a new equilibrium.
- The concept of PED can be used to determine the effect of the GST hike on consumers' expenditure on healthcare services.
- PED measures the responsiveness of quantity demanded to a change in the price of healthcare services, ceteris paribus.
- Since there are no close substitutes for healthcare services and the degree of necessity is high (especially for certain essential healthcare services), the demand for healthcare services is likely to be price inelastic i.e. $|PED| < 1$.
 - Hence, the rise in price because of the GST will lead to a less than proportionate fall in quantity demanded.
- Since the rise in expenditure due to a rise in price is greater than the fall in expenditure due to a fall in quantity demanded, total expenditure on healthcare services will rise because of the GST.

Figure 1b. Hike in GST on expenditure for healthcare services



Conclusion

- As such, the rise in income levels and GST hike would both lead to an increase in consumers' expenditure on healthcare services.

Mark Scheme

Level	Knowledge, Application/Understanding and Analysis	Marks
L3	For a well developed answer that has: <ul style="list-style-type: none"> Good scope – explains the effects of the two events on consumers' expenditure on healthcare services using the concepts of YED and PED; and Good rigour – supporting demand and supply analysis with accurate and well-labelled diagram(s); and Good application to the context of market for healthcare services 	8 – 10
L2	For an answer that: <ul style="list-style-type: none"> Lacks scope – only explains how one event or incomplete use of elasticity concepts in the explanation on consumers' expenditure on healthcare services. Lacks rigour – there are gaps in using demand and supply analysis and/or explanation is not supported by accurate and well-labelled diagrams(s) where relevant; and/or Lacks application to the context of market for healthcare services. 	5 – 7
L1	For an undeveloped answer that: <ul style="list-style-type: none"> Is descriptive, lacking in application of economic theory; and/or Contains serious and pervasive conceptual errors; and/or Is largely irrelevant. 	1 – 4

1 In 2022, the Minister for Finance announced that the Goods and Services Tax (GST) rate will be raised in two steps, from 7 per cent to 8 per cent on 1 Jan 2023 and from 8 per cent to 9 per cent on 1 Jan 2024. The revenue from the increase in GST will go towards meeting our medium-term needs including supporting our healthcare expenditure, and to take care of our senior citizens.

Source: www.gov.sg, 1 Jan 2024

- (b) Discuss whether the provision of healthcare subsidies or the imposition of a price cap on healthcare services is a better measure to help senior citizens cope with the rising cost of healthcare in Singapore. [15]

Part b Question Interpretation

Command word/phrase	Discuss whether...	To examine and present the different aspects of a problem or subject, and give a judgement
Content	<i>Provision of healthcare subsidies</i> <i>Imposition of price cap on healthcare services</i> <i>Senior citizen to cope with rising cost of healthcare</i>	Policy 1: explain how subsidies work & its limitation or unintended consequences Policy 2: explain how maximum price/price ceiling work and its limitation or unintended consequences Objective: reduce the price of healthcare
Context	Singapore	Context of Singapore

A relevant answer requires a balanced analysis (workings and limitation/unintended consequences) of the 2 stated policies that can be used to address the issue of rising healthcare costs borne by the senior citizens in Singapore. A judgement of which is a better measure with substantiation is required.

Introduction

- Given the rising cost of healthcare in Singapore, there is scope for the government intervene to help ensure healthcare costs are affordable, especially for senior citizens, who form an increasing proportion of Singapore's population. This essay will discuss the policies of healthcare subsidies and the imposition of a price ceiling on healthcare services, as well as consider which is likely to be better at helping senior citizens cope with these rising healthcare costs.

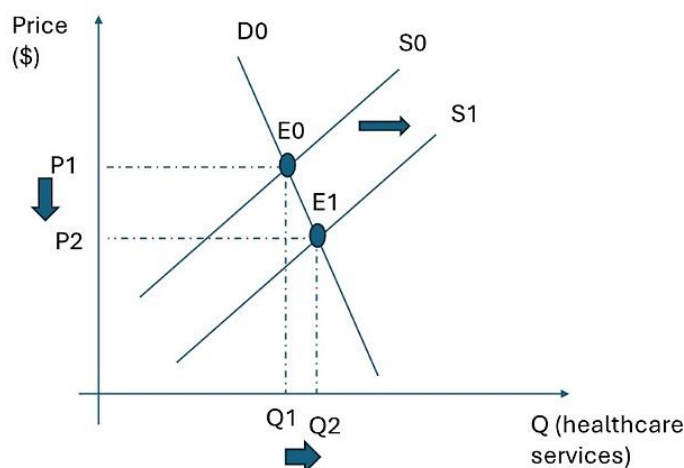
Body

Key Argument 1: Explain how the provision of subsidy (reduce price of healthcare) can help the seniors to cope with rising healthcare costs in Singapore & its limitation/unintended consequence

- The provision of subsidy will lead to a reduction in the price of healthcare to help the seniors to cope with rising healthcare costs in Singapore.
- A subsidy will lower the marginal cost of producing healthcare services for firms in the market.
 - This means that healthcare providers will be more willing and able to offer healthcare services at each price level, leading to a rise in supply of healthcare services, which is illustrated by a rightward shift in the supply curve from S₀ to S₁.

- This creates a surplus at the initial price, P_1 . This surplus will cause downward pressure on the price.
- As price falls, quantity demanded will rise as illustrated in Figure 2 below by a movement along the demand curve while quantity supplied will fall, as illustrated by a movement along the new supply curve, S_1 .
- The new equilibrium is achieved at point E_1 when the demand curve, D_0 intersects the supply curve, S_1 .

Figure 2. Subsidy provided for healthcare services



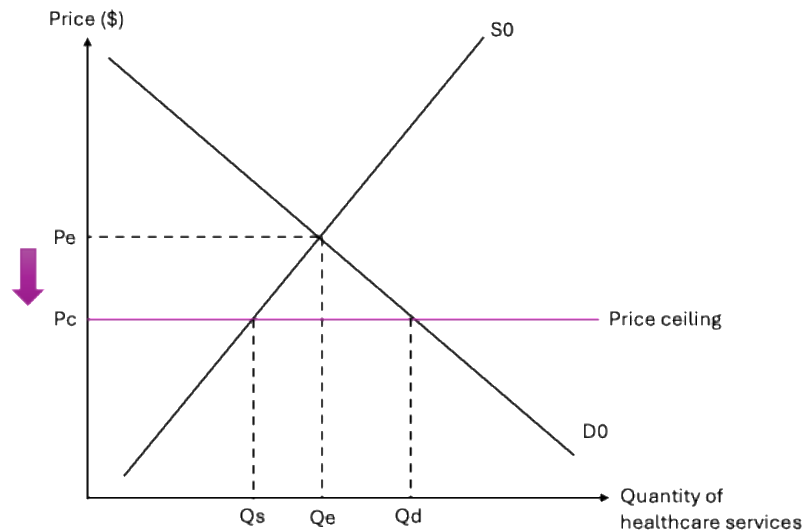
- At the new equilibrium, seniors can now enjoy more healthcare services at a lower price, P_2 , and equilibrium quantity increases to Q_2 .
- This helps senior citizens cope with the rising healthcare costs in Singapore by lowering its price and also increasing the amount of healthcare services offered.

Limitation/unintended consequences:

- The provision of subsidies will put a strain on the government's budget. There is an opportunity cost incurred from the government choosing to spend on subsidising healthcare – in the case of Singapore, this would likely be the net benefits to society that could have been gained had the government spent on education or skills upgrading instead (the next best alternative foregone).
 - Even though Singapore still has large fiscal reserves, if the subsidies were to be provided in the long-term, coupled with our increasingly ageing population, the policy could end up becoming fiscally unsustainable.
 - This is especially so since the demand for healthcare services is price inelastic (as explained in part (a)) – as such, a sizeable subsidy is required to significantly increase the consumption of healthcare by senior citizens to the level desired by the government.

Key Argument 2: Explain how the imposition of a price ceiling can help the senior citizens in Singapore to cope with rising healthcare costs in Singapore & its limitation/unintended consequences

- **The implementation of a price ceiling may be a better measure to help the seniors in Singapore to cope with rising healthcare costs in Singapore.**
- A price ceiling, set below the market equilibrium, is a legal maximum limit on the price of a good or service imposed by the government to protect consumers by ensuring that prices do not become prohibitively expensive.

Figure 3. A price ceiling for healthcare services

- As shown in Figure 3 above, by setting a maximum price, P_c , the quantity demanded would increase from Q_e to Q_d while the quantity supplied falls from Q_e to Q_s .
 - When the price falls to P_c (now the highest price that healthcare providers can legally charge for healthcare services), consumers are now more willing and able to consume more healthcare services.
 - However, producers are now less willing and able to produce the same amount of healthcare services as before, at this lower price.
 - Hence, there will be a persistent shortage of $Q_s Q_d$ units of healthcare services.
- Consequently, an alternative allocation mechanism for healthcare services is required – this could be in the form of providing priority access to healthcare for senior citizens, or via a first-come-first-served basis (i.e. queuing).
- Notwithstanding, the price ceiling has resulted in a lower price for healthcare services that allows seniors to cope with its rising costs.

Limitation/unintended consequences:

- The implementation of a price ceiling will lead to welfare loss as it disrupts the efficient allocation of resources in the market, resulting in a persistent shortage.
- For healthcare services to be offered at a lower price at Q_d , the government will need to ensure that producers can meet the shortage of $Q_s Q_d$ through other forms of subsidies or grants.
 - Otherwise, the fall in quantity supplied of healthcare services from Q_e to Q_s would defeat the purpose of the policy – even though healthcare services have been made more affordable to senior citizens (at a lower price P_c), there is a lower quantity of healthcare services offered.

Evaluative Conclusion (a reasoned stand that follows from the above analysis + 1 well-developed ATMS evaluative angle would suffice):

- [Stand]** The provision of healthcare subsidy is a better measure to help the senior citizens in Singapore cope with rising healthcare costs in Singapore because it is easier to implement and is likely to lead to lower welfare loss to society.
- [Situation]** Having a subsidy would allow all senior citizens to benefit from lower price of healthcare services in general. In addition, the provision of a subsidy does not have the issue of shortage for any of the healthcare services. This is especially so when Singapore is facing a rapidly ageing population.

- **[Magnitude]** Imposing price ceiling on the provision of healthcare services leads to welfare loss because of the persistent shortage that is created. As such, the government will still need to provide sufficient subsidy in order for such essential services to be provided.
- **[Alternative]** Alternatively, grants (transfer payments) can be given to senior citizens who are less able to afford certain expensive services such as surgery based on their housing status and insurance coverage. With more targeted assistance and spending by the government, the likelihood of overconsumption and lack of perfect knowledge on the amount of subsidy can be better prevented.

Mark Scheme

Level	Knowledge, Application/Understanding and Analysis	Marks
L3	For a well developed answer that has: <ul style="list-style-type: none"> • Good scope – explains how the provision of healthcare subsidies and the imposition of a price cap on healthcare services can help senior citizens cope with rising healthcare costs & their limitations/unintended consequences • Good rigour – supporting demand and supply analysis with accurate and well-labelled diagram(s); and • Good application to the context of market for healthcare services 	8 – 10
L2	For an answer that: <ul style="list-style-type: none"> • Lacks scope – only explains how one of the above policies and its limitation/unintended consequences and/or • Lacks rigour – there are gaps in using demand and supply analysis and/or explanation is not supported by accurate and well-labelled diagrams(s) where relevant; and/or • Lacks application to the context of market for healthcare services. 	5 – 7
L1	For an undeveloped answer that: <ul style="list-style-type: none"> • Is descriptive, lacking in application of economic theory; and/or • Contains serious and pervasive conceptual errors; and/or Is largely irrelevant. 	1 – 4
Evaluation		
E3	Well-developed evaluative judgements across both requirements are and backed by sound economic analysis. A summative conclusion that answers the question and takes a stand is provided.	5
E2	Some evaluative comments and attempts at making judgements that are explained using relevant economic analysis.	3 – 4
E1	An evaluative statement with some attempt at economic analysis.	1 – 2

2 In February 2024, Ritual, a boutique gym brand, abruptly shut all four outlets in Singapore permanently. The company cited COVID-19 as a big factor impacting their business, on top of other challenges like rising rental costs and changing workout fads. Locally owned boutique gyms are hit harder by competition compared to larger gym chains like Fitness First, which typically have more capital and a more attractive brand image.

- (a) Explain why Ritual exited the market in response to the challenges in the gym industry. [10]
- (b) Discuss the factors that a gym would consider when deciding which strategies to adopt to remain in the market. [15]

Part (a) Question Interpretation

Command word/phrase	Explain why	To utilise economic reasons to explain why firm exited the industry/market
Content	Challenges faced in the gym industry on firm's decision to exit the industry	Rising rental cost & changing workout fads have affected the cost, revenue and hence profits of firm. Exit market/industry → subnormal profits in the long run
Context	Gym industry	Application to context of gym industry

Students are expected to consider the challenges faced by Ritual in the gym industry and explain the effects of these challenges on the costs, revenue and hence profits made by Ritual. Students need to bring in the exit rule to explain why Ritual decided to leave the market (in the long run).

Introduction

- In the long run, all costs are variable and rational firms will only remain in the market if they can cover all their costs of production (i.e. earn at least normal profits). If a firm ends up making subnormal profits in the long run, it should exit the industry for good.
- From the preamble, the gym industry has been facing myriad challenges that have negatively affected both the revenue and costs of gyms.
- Since profits = total revenue (TR) – total costs (TC), the fall in TR and rise in TC might have led to gyms like Ritual earning subnormal profits in the long run, resulting in it exiting the market.

Body

Key Argument 1: Explain the challenges in the gym industry and their impact on the cost and revenue of firms in the gym industry, such as Ritual.

- COVID-19 as well as rising rental costs led to a rise in cost of production for Ritual.**
- The COVID-19 pandemic resulted in labour shortages and supply chain disruptions that might have limited the ability of gyms to obtain factor inputs such as labour and gym cleaning/sanitisation equipment.
- This led to a rise in both the marginal cost (MC) and average cost (AC) of production for gyms, including Ritual.
 - Furthermore, the rise in rental costs, which is a fixed cost in the short run, would have further increased Ritual's AC, as Ritual needs land space in order to operate its four gym outlets.

- As such, the rise in costs due to the above challenges is illustrated as upward shifts of the MC and AC curves from MC and AC to MC' and AC' respectively.
- Note: It is ok if students only explain one example of a cost factor, but the factor must be well-explained. For students who focus on rental costs, only the AC shifts upwards (in the SR).*
- COVID-19 and changing workout fads led to a fall in demand for Ritual's gym services.**
- During the COVID-19 pandemic, gyms operated on reduced capacity (or were not even allowed to open during the Circuit Breaker), in order to abide by Safe Management Measures.
- Consumers might also have preferred to workout outdoors or at home to avoid contracting COVID-19.
- As a result, there was a fall in the willingness of consumers to go to the gym, leading to reduced demand for Ritual's gym services.
 - Furthermore, changing workout fads might have led some individuals to prefer exercising in larger chain gyms like Fitness First rather than smaller boutique gyms like Ritual, perhaps due to the greater freedom and variety in equipment use in larger gyms.
 - This change in tastes and preferences away from boutique gyms would have also resulted in a fall in the demand for Ritual's gym services.
 - The fall in demand is illustrated as a leftward shift of its DD=AR and MR curves from DD=AR and MR to DD'=AR' and MR' respectively.

Key Argument 2: Explain how the rise in costs and fall in revenue led to subnormal profits for Ritual, hence causing them to exit the market in the long run.

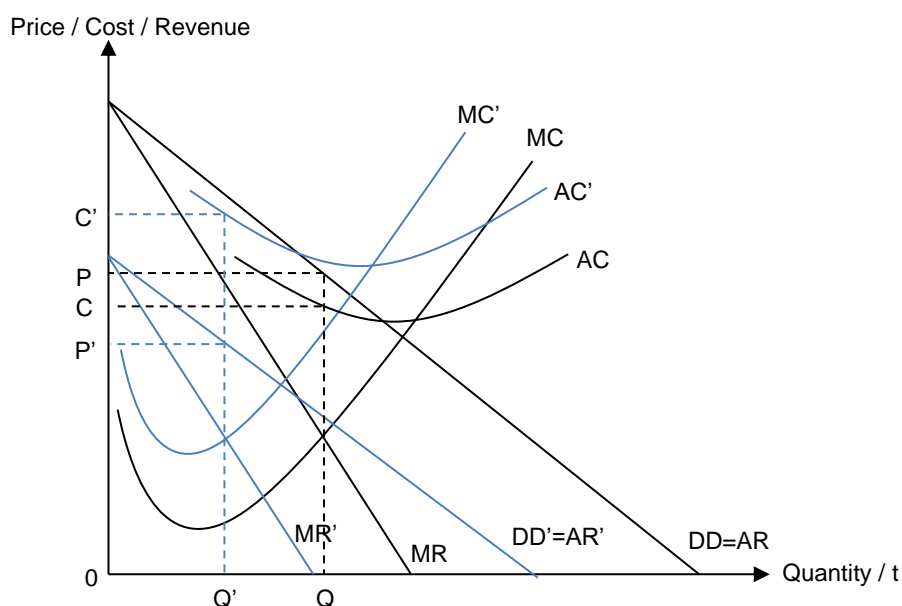


Figure 1: Impact of challenges in the gym industry on Ritual's profits

- The rise in costs and fall in revenue led to Ritual earning subnormal profits.**
- Assuming Ritual's objective is to maximise profits, it was initially producing at output level Q, where $MC=MR$, and priced its gym services at price P (corresponding to the demand curve $DD=AR$). It earned supernormal profits of $[(P-C) \times Q]$.
- However, as a result of the rise in costs and fall in revenue, MC and AC shifted upwards to MC' and AC' respectively, and DD=AR and MR fell to DD'=AR' and MR' as explained above.
 - Ritual's new profit-maximising output level fell to Q', and price rose to P'.

- This resulted in Ritual now earning subnormal profits of $[(C' - P') \times Q']$.
- In the long run, the subnormal profits earned led Ritual to exit the market as it was no longer profitable to remain in the industry.
- As such, the various challenges in the industry led Ritual to exit the market due to the subnormal profits made in the long run.

Conclusion

- In conclusion, Ritual exited the market as the challenges it faced resulted in the gym earning subnormal profits in the long run.

Mark Scheme

Level	Knowledge, Application/Understanding and Analysis	Marks
L3	For a well developed answer that has: <ul style="list-style-type: none"> • Good scope – explains the impact of challenges in the gym industry on Ritual's costs and revenue, and how it led to Ritual earning subnormal profits in the long run (i.e. exit rule).; and • Good rigour – supporting firm's analysis with accurate and well-labelled diagram(s); and • Good application to the context of gym industry 	8 – 10
L2	For an answer that: <ul style="list-style-type: none"> • Lacks scope – only explains how one part of the question; and/or • Lacks rigour – there are gaps in using firm's analysis and/or explanation is not supported by accurate and well-labelled diagrams(s) where relevant; and/or • Lacks application to the context of gym industry 	5 – 7
L1	For an undeveloped answer that: <ul style="list-style-type: none"> • Is descriptive, lacking in application of economic theory; and/or • Contains serious and pervasive conceptual errors; and/or • Is largely irrelevant. 	1 – 4

2 In February 2024, Ritual, a boutique gym brand, abruptly shut all four outlets in Singapore permanently. The company cited COVID-19 as a big factor impacting their business, on top of other challenges like rising rental costs and changing workout fads. Locally owned boutique gyms are hit harder by competition compared to larger gym chains like Fitness First, which typically have more capital and a more attractive brand image.

(b) Discuss the factors that a gym would consider when deciding which strategies to adopt to remain in the market. [15]

Part (b) Question Interpretation

Command word/phrase	Discuss the factors ... a gym should consider	Explain the factors that firm should consider and come to a substantiated judgment. The decision-making framework can also be used. Consider (1) benefits, (2a) unintended consequence/cost & (2b) constraint/limitation
Content	To remain in the market	Remain in the industry
Context	Gym market	To apply analysis to the context.

Students are expected to elicit at least two factors that a gym would consider when deciding which strategies to adopt to remain in the gym industry. There are many such factors, of varying importance, including the market structure the gym belongs to, the level of profits earned, the firm's objective(s), as well as external conditions (e.g. state of economy, changes in consumer preferences). For evaluation, students need to weigh between the factors to decide which is the most important consideration for a gym when deciding which strategies to adopt to remain in the market.

Alternatively, students may also opt to explain the factors as "benefits" and "costs" (or constraints). This approach is also acceptable:

- *Benefits of strategies: Explain one or two strategies and possible limitations that might hinder the effectiveness of the strategies.*
- *Cost of strategies / constraints: Ideally, link to ability to secure funding*

Introduction

- As explained in (a), various challenges in the gym industry have led to some gyms (e.g. Ritual) exiting the market. In response to these challenges, firms remaining in the industry may decide to implement strategies to remain in the market, by raising revenue or lowering their costs of production.
- However, the strategy or strategies a particular gym would adopt depends on various factors.

Body

Key Argument 1: Explain one factor that a gym would consider when deciding which strategies to adopt to remain in the market.

- **One factor that a gym would consider when deciding which strategies to adopt to remain in the market would be its market structure.**
- Gyms generally fall within the oligopolistic market structure, due to the significant barriers to entry (BTE) faced, e.g. huge cost of capital needed to set up and equip a gym or chain of gyms.
 - As such, gyms operate on a large scale and reap significant internal economies of scale (iEOS), and there are few of such large firms in the industry (e.g. Fitness First, True Fitness, Pure Fitness).

- There is thus mutual interdependence between gyms, in that each firm takes the actions and reactions of their rivals' strategies into account when making their own production and marketing decisions.
- Since gyms are oligopolistic in nature, they tend to avoid price strategies, as they result in lose-lose situations – for example, if Fitness First were to lower their prices in a bid to increase revenue and hence profits, rival firms such as True Fitness would like also lower their prices similarly to avoid losing market share, which may result in both firms lowering prices and hence profits but without enjoying any eventual increase in market share.
- Rather, gyms with oligopolistic market structures would adopt non-price strategies to differentiate their products from other gyms.
 - This could include advertising to increase demand for their gym services and make demand more price inelastic, thereby raising revenue and hence profits (assuming advertising costs do not exceed the rise in revenue), or by developing new “products” e.g. exercise classes or offering high-tech equipment to achieve the same effect.
 - *Note: Alternative strategies for oligopolies include collusion, process innovation etc.*
- **[Situation]** That said, not all gyms fall cleanly under the oligopolistic market structure. Smaller boutique gyms like Ritual could be argued to be monopolistically competitive. These boutique gyms face relatively lower BTEs, as their floor space is usually smaller and hence rental costs lower, and they tend to not require as much gym machinery.
 - That said, monopolistically competitive firms typically have some degree of local monopoly power, where they have some ability to set price within a localised market or a given niche. For example, smaller boutique gyms may bank on consumers' desire for unique service offerings such as specialised fitness programmes or niche classes (e.g. sound bath yoga, animal flow classes), to attract specific customer segments.
 - While also a form of product differentiation, such non-price strategies are likely to be different from that adopted by larger chain gyms in oligopolistic market structures. Furthermore, having some degree of local monopoly power, monopolistically competitive gyms may be able to engage in price strategies such as price discounts.
 - *Other aspects of product differentiation include: customer service experience, brand-building to foster brand loyalty.*
- As such, depending on the market structure of the gym, they may opt to adopt different strategies to remain in the market.

Key Argument 2: Explain another factor that a gym would consider when deciding which strategies to adopt to remain in the market.

- **Another factor that a gym would consider when deciding which strategies to adopt to remain in the market would be the ability of the gym to secure funding.**
- If the gym were earning supernormal profits over a period of time (i.e. accumulated financial reserves) or is able to secure funding from outside sources (e.g. investors or bank loans), this would increase the range of strategies available to it, as it would be able to utilise strategies that require significant financial outlay.
 - These include strategies such as product and process innovation, as well as advertising, that require significant initial spending by the firm to develop new and/or better-quality products, to develop more efficient production processes, as well as to promote their products.
- In the case of product innovation and advertising, assuming the strategy is successful, there would be an increase in the demand.

- On the other hand, if the gym had been earning subnormal or normal profits over a period of time or is lacking in funding ability, they would be less able to adopt strategies that require significant costs (such as those explained above), as they would be less likely to have accumulated financial reserves.
- Instead, such gyms may have to resort to strategies that do not require as much financial input – mostly price strategies. An example of such a strategy would be that of third-degree price discrimination, where the gym charges different prices to different groups of consumers for the same gym services, for reasons not associated with differences in the cost of production.
 - By charging lower prices to the group with more price elastic demand (e.g. students) and higher prices to the group with less price elastic demand (e.g. adults), gyms can earn higher revenue from both groups and hence higher profits, thus increasing their ability to remain in the market, assuming costs remain constant.
- Hence, the level of profits earned by the firm affects the types of strategies it can adopt to remain in the market.

Alternative factor:

- **Another factor that a gym would consider when deciding which strategies to adopt to remain in the market would be that of the primary challenge faced (and its root cause).**
- The types of strategies that a gym would choose to adopt would have to take into account the economic and market conditions at the time, as well as their root causes.
- From (a), the gym industry was facing several challenges that led to both a fall in demand for its services as well as a rise in the cost of production. A gym might choose to respond to a fall in demand due to COVID-19 or changing workout fads by pivoting to strategies that might better cater to the tastes and preferences of consumers.
 - For example, due to the COVID-19 pandemic, consumers might increasingly prefer to exercise in the comfort of their own homes instead. As such, a gym could offer workout regimes on an online platform instead to raise the demand for its services (as many gyms did during the pandemic).
- On the other hand, if the primary external challenge facing the gym was a rise in costs instead, perhaps the most suitable strategy for the gym to implement would be process innovation to find a way to produce most efficiently instead (e.g. replacing some labour with technology).
 - This could help to lower its production costs, thereby raising profits and helping it to remain in the market.
- As such, a gym would need to consider the most major challenge it faces when deciding on what strategy to employ to remain in the market.
- *Other acceptable factors: Types / extent of government regulation (e.g. licenses, price regulation)*

Evaluative Conclusion (a reasoned stand that follows from the above analysis + 2 well-developed ATMS evaluative angles):

- Overall, a gym would need to consider several factors in deciding which strategies to use to remain in the market, with all of them being important in the decision. **[Stand]** Perhaps the foremost factor it needs to consider is its funding ability, followed by its market structure.
 - *Note: Any other chosen “stance” is acceptable, as long as it can be justified below.*
- **[Magnitude/Situation]** The gym should first and foremost consider its financial ability, either through accumulated supernormal profits or through securing funding, as this would affect the financial capability of the firm to implement expensive strategies such as product and process innovation.
 - The lack of funding ability or accumulated financial reserves would restrict the strategies available to the firm in the first place. With this in mind, the gym can then go ahead to consider its market structure in the gym industry, particularly in terms of the extent of interdependence with other gyms like it.
 - Smaller boutique gyms would likely benefit from some sort of monopoly power and hence can focus on ensuring differentiation to reduce the PED of their services, while larger chain gyms need to greater take into account the actions of their rivals.
- **[Situation]** That said, given that the gym’s short-term goal is to remain in the market, it should take into consideration the challenges it is facing, identify its primary challenge(s) and establish the root cause(s), such that it can respond by employing strategies that target the root cause(s) of the challenges.

Mark Scheme

Level	Knowledge, Application/Understanding and Analysis	Marks
L3	For a well developed answer that has: <ul style="list-style-type: none"> • Good scope – explains at least two factors that affect a gym’s decision on which strategies to adopt to remain in the market; and • Good rigour – explains the links to how the factors affect a gym’s choice(s) of strategies; and • Good application to the context of gym market 	8 – 10
L2	For an answer that: <ul style="list-style-type: none"> • Lacks scope – only explains one factor that affect a gym’s decision on which strategies to adopt to remain in the market; and/or • Lacks rigour – there are gaps in explaining the links to how the factors affect a gym’s choice(s) of strategies; and/or • Lacks application to the context of to the context of gym market 	5 – 7
L1	For an undeveloped answer that: <ul style="list-style-type: none"> • Is descriptive, lacking in application of economic theory; and/or • Contains serious and pervasive conceptual errors; and/or • Is largely irrelevant. 	1 – 4
Evaluation		
E3	For an answer that provides supported evaluative statements on the relative importance of the factors explained and arrives at an analytically well-reasoned and synthesised judgement with reference to the context (i.e. gym industry).	5
E2	For an answer that makes some attempt at evaluating the relative importance of the factors explained, but evaluative comments may be limited in scope, or not fully elaborated upon.	3 – 4
E1	For an answer that gives superficial evaluative statement(s) without supporting analysis and elaboration.	1 – 2

3 Excessive tourism often leads to significant water and air pollution, as increased demand for resources and services strains local environments, leading to inefficiencies and long-term ecological damage.

- (a) Explain how a rational consumer decides whether to travel abroad for leisure, and how such decision-making may lead to an inefficient allocation of resources. [10]
- (b) Discuss the measures a government can implement to improve resource allocation in the market for tourism services. [15]

Part (a) Question interpretation

Command word/phrase	Explain how	Explain the process using economic theory and relevant examples where appropriate
Content	<i>Rational consumer decide to travel abroad for leisure</i> <i>Such decision-making can lead to allocative inefficiency</i>	Maximise self-interest of utility/satisfaction. Weigh MPC and MPB Based on preamble, excessive tourism brings about negative spillover effects to third parties.
Context	<i>Travel abroad for leisure</i>	To consider the context of tourism

Students are to explain (1) rational decision-making by consumers – consumers are willing to buy an additional unit of travel so long as the additional benefit they derived from travelling (marginal private benefit, MPB) exceeds the additional cost (MPC) they incur from buying: the price of travelling and (2) how rational decision making by consumers will result in allocative inefficiency because of the externalities associated with tourism.

Introduction

- Consumers make rational decisions where they aim to maximise their self-interest.
 - Marginal benefit (MB) is the additional benefit derived from doing one more unit of an activity.
 - Marginal cost (MC) is the additional cost derived from performing one more unit of an activity.
- To maximise their self-interest, rational consumers apply the marginalist principle, which states that the optimal level of an activity is attained when $MB = MC$, and consumers maximise their net total private benefits.
- In the pursuit of self-interest, consumers consider only their private costs and private benefits.

Body

Key Argument 1: Explain rational decision-making by consumers – consumers are willing to buy an additional unit of travel so long as the additional benefit they derived from travelling (marginal private benefit, MPB) exceeds the additional cost (MPC) they incur from buying: the price of travelling. When this occurs, the consumer maximises his net total private benefit.

- **Consumers seek to maximise net total private benefit (consumer surplus) from consuming goods and services.**
- Consumers derive utility or satisfaction from traveling to a foreign destination. They are willing to take an additional trip abroad as long as the additional benefit they gain from the experience (marginal private benefit, MPB) – in this case, the added enjoyment from sightseeing, relaxation or experiencing new cultures – exceeds the additional cost they incur, which is the price of the trip (e.g. flight tickets, accommodation, tourist attractions).
 - When this occurs, the consumers maximise their net total private benefit from this leisure travel.

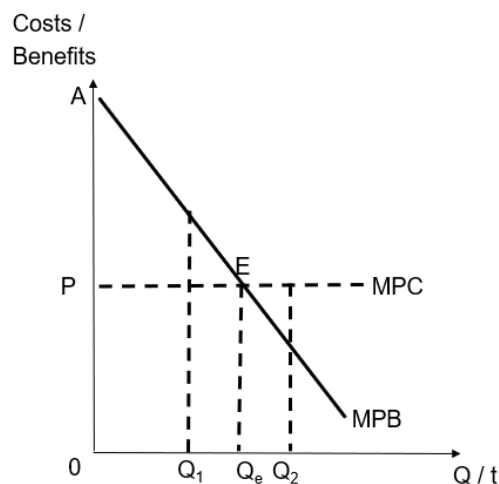


Figure 1: Self-interest maximisation by a consumer

- According to the marginalist principle, as long as the marginal private benefit (MPB) of traveling abroad is greater than the marginal private cost (MPC), the consumer derives a net private benefit from doing so and should continue to engage in more leisure travel, as this would increase his net total private benefit.
- With reference to Figure 1 above, the MPB curve is downward-sloping due to the law of diminishing marginal utility. This law states that after a certain level of travel experiences, the additional benefit derived from each subsequent trip declines as more trips are taken.
- If the price of traveling abroad is P, the consumer will travel up to Q_e trips, the point where his MPB equals MPC.
 - For any number of trips below Q_e , for example at Q_1 , MPB is greater than MPC, the rational consumer will choose to travel because the additional private benefit exceeds the additional private cost, indicating that net total private benefit is rising.
 - On the other hand, a rational consumer will not travel if MPB is less than MPC, as in the case at Q_2 , since the additional private benefit would be lower than the additional private cost, causing net total private benefit to fall.
- Consumers will aim to travel up to Q_e trips, where MPB intersects MPC, because at this point, the consumer maximises net total private benefits (consumer surplus).
 - The area representing net total private benefits, AEP, is calculated by the difference between the total private benefit (area $0AEQ_e$) and total private cost (area $0PEQ_e$).
- Therefore, when the consumer travels up to Q_e trips, he will maximise his net private benefit.
- The consumer must also consider his income constraint before deciding whether to travel abroad. If his income is insufficient, he would be unable to afford the trip, even if the MPB exceeds the MPC.

Kay Argument 2: Explain how rational decision making by consumers will result in allocative inefficiency because of the externalities associated with tourism.

- **Market failure (and hence allocative inefficiency) occurs in the market for tourism services due to the presence of negative externalities arising from this consumption activity.**
- Negative externalities arise when the actions of consumers impose spillover costs on third parties who are not directly involved in the economic transaction.
- **[ET]** When more people travel abroad for leisure, this can lead to overcrowding in popular tourist destinations, contributing to the degradation of local environments and infrastructure.
 - Local residents, who are third parties not involved in the consumption of leisure travel in their home country, may experience a decline in their quality of life due to increased pollution, noise, and strain on public services such as waste management or public transport.
 - Moreover, the environmental costs of tourism can extend to global issues like increased carbon emissions from air travel. These emissions contribute to climate change, affecting people worldwide, even though they are not directly involved in the tourists' decision to travel.
- As consumers are only concerned with maximising their net private benefit when traveling abroad and consume tourism services, they disregard these external costs imposed on others.

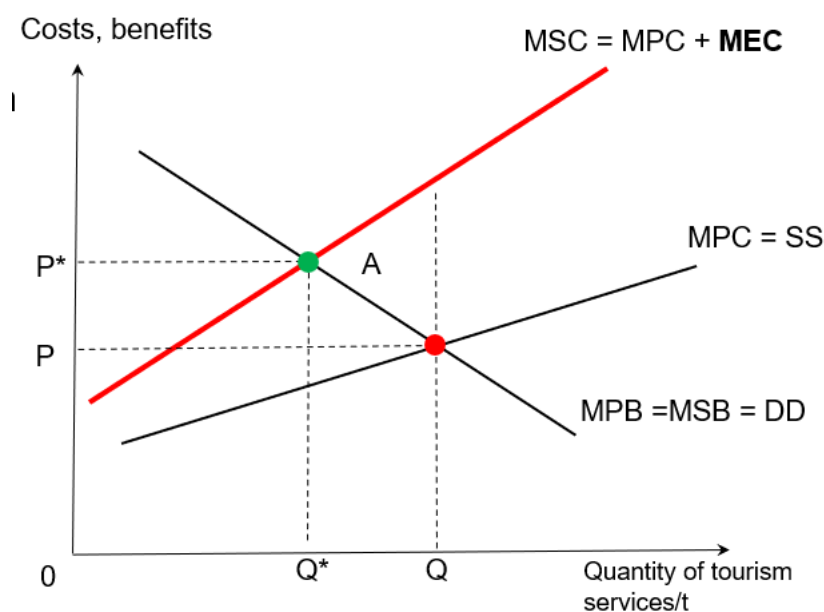


Figure 2: Allocative inefficiency in the Market for Tourism Services

- *Note: In Figure 2, the MSC and MPC curves can be illustrated as parallel to one another instead.*
- **[D]** The negative externality causes the marginal social cost (MSC) to be greater than the marginal private cost (MPC) from consuming tourism services since the additional cost to society (MSC) include both the additional private cost to consumers (MPC) as well as the additional costs to third parties not involved in the consumption (MEC).
 - MSC curve is higher than the MPC curve, where MEC is the vertical distance between the MSC and MPC curves.
- **[QQ]** Under the free market, consumers will base their decisions on their MPC and disregard the external costs. Assuming there are no positive externalities, $MPB = MSB$.

- When left to market forces, the market equilibrium output will be at Q where demand equals supply (which is also where $MPB = MPC$).
- However, the socially optimal output is at Q^* , where $MSB = MSC$, which is where society's welfare is maximised.
- Hence, under the free market, there is overconsumption of tourism services by $(Q - Q^*)$ units, resulting in welfare loss to society.
- **[D]** For every unit between Q^* and Q , total social costs (area under MSC) is greater than total social benefits (area under MSB); consuming one more unit of tourism services thus adds more to total social cost than to total social benefit.
 - The overconsumption of QQ^* units thus lead to a welfare loss of area A.
- *Note: Answers that focus on overconsumption of air travel resulting in negative externalities associated with air travel e.g. environmental pollution will also be accepted. Do note though that the question is on travel/tourism **in general**.*

Conclusion

- In conclusion, rational consumers' decisions on whether or not to travel abroad for leisure may lead to an inefficient allocation of resources due to consumers' disregard for the negative externalities generated.

Mark Scheme

Level	Knowledge, Application/Understanding and Analysis	Marks
L3	For a well developed answer that has: <ul style="list-style-type: none"> • Good scope – explains the application of marginalist principle when a rational consumer decides whether to travel, and how such decision-making may lead to an inefficient allocation of resources; and • Good rigour – supporting benefit and costs analysis with accurate and well-labelled diagram(s); and • Good application to the context of tourism market 	8 – 10
L2	For an answer that: <ul style="list-style-type: none"> • Lacks scope – only explains the application of marginalist principle when a rational consumer decides whether to travel, or how such decision-making may lead to an inefficient allocation of resources; and/or. • Lacks rigour – there are gaps in using benefits and costs analysis and/or explanation is not supported by accurate and well-labelled diagrams(s) where relevant; and/or • Lacks application to the context of market for tourism 	5 – 7
L1	For an undeveloped answer that: <ul style="list-style-type: none"> • Is descriptive, lacking in application of economic theory; and/or • Contains serious and pervasive conceptual errors; and/or • Is largely irrelevant. 	1 – 4

- 3 Excessive tourism often leads to significant water and air pollution, as increased demand for resources and services strains local environments, leading to inefficiencies and long-term ecological damage.

(b) Discuss the measures a government can implement to improve resource allocation in the market for tourism services. [15]

Part b Question Interpretation

Command word/phrase	<i>Discuss the measures</i>	To examine and present the different aspects of the measures and give a judgement on these measures
Content	<i>Measures to improve resource allocation</i>	Policies that government can implement to address allocative efficiency. Need to explain the workings of proposed policies and their limitations/unintended consequences
Context	<i>Market for tourism services</i>	To apply to context of tourism market

Students are to explain two measures and their limitations/unintended consequences that a government can implement to improve resource allocation in the market for tourism services and come to a judgement on these measures.

Introduction

- As explained in (a), tourism services often generate significant negative externalities, such as environmental degradation, overcrowding, and strain on local infrastructure, leading to overconsumption and market failure.
- In response, governments may implement corrective policies such as a tourism tax or quotas to force consumers to internalise these external costs and restore allocative efficiency.
- This essay will assess the appropriateness of such policies in addressing negative externalities in the tourism sector, focusing on the sources of external costs and how well these measures can correct the market failure while considering potential unintended consequences on the industry and local economies.

Body

Key Argument 1: Explain one measure that a government can implement to improve resource allocation in the market for tourism services and its limitation/unintended consequence

- A tax on tourism services is a tax levied on the producers of tourism-related activities or services to manage over-tourism.**
 - For example, a fee is imposed when tourists visit popular tourist attractions, such as national parks, historical monuments, or cultural heritage sites.
- The tax imposed will reduce the overconsumption of tourism services as tourists internalise the external costs associated with tourism.
- This tax is designed to be equal to the marginal external cost at the socially optimal level, Q^* .
 - The tax will cause the marginal cost of production of hotel operators or operators of tourist attractions to rise.

- By raising the MPC to $MPC' = MPC + \text{tax}$, the tax forces tourists to internalise the external costs, such as environmental degradation, overcrowding, and strain on local infrastructure, which are typically borne by third parties.
- As the rise in MPC leads to higher prices of tourism services from P to P^* , the quantity demanded for tourism services by consumers will fall.
- As a result, the new private equilibrium level of tourism where $MPC' = MPB$, Q' now coincides with the social equilibrium at Q^* , helping to reduce the overconsumption of tourism services and resolve the market failure of allocative inefficiency.

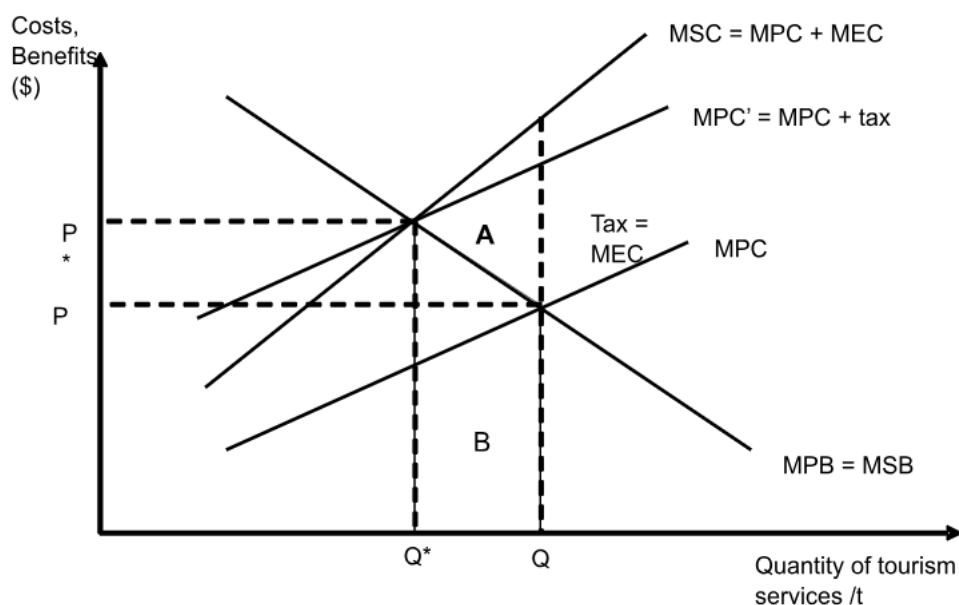


Figure 3: Production Tax

- Note: Similarly, in Figure 3, the MSC and MPC curves can be illustrated as parallel to one another as well.

Limitation/unintended consequence:

- However, governments often face imperfect information regarding the true extent of the external costs associated with tourism, making it challenging to determine the correct level of tax to impose.
- If the tax is set too low, it may not sufficiently reflect the external costs, leading to continued overconsumption.
 - For example, tourists may continue visiting excessively, contributing to environmental damage or strain on local resources, thereby not correcting the market failure.
- On the other hand, if the tax is set too high, it may overly deter tourists from visiting. This could result in an underconsumption of tourism services, leading to a different type of welfare loss to society.
 - Tourism-dependent businesses, employees, and local economies could suffer from reduced demand, causing negative effects on employment and income.
- If this new welfare loss from underconsumption exceeds the size of the original welfare loss from overconsumption, it could lead to government failure.

OR

- In addition to this, the **price elasticity of demand (PED)** for tourism services plays a crucial role in determining the effectiveness of the tax in reducing overconsumption.
 - If the demand for tourism services is relatively **price inelastic**, meaning that consumers are less sensitive to changes in price, then a tax may not significantly reduce the quantity of tourism demanded.

- Wealthier tourists, for instance, may continue to consume tourism services despite higher costs, meaning the negative externalities, such as environmental degradation and overcrowding, may persist.
- This undermines the policy's effectiveness in correcting the market failure.

Key Argument 2: Explain another measure that a government can implement to improve resource allocation in the market for tourism services and its limitation/unintended consequences

- A tourism quota is a regulatory measure implemented by governments to limit the number of tourists allowed to visit specific destinations or participate in certain tourism activities within a set period of time.
- In Thailand, the government implemented a tourism quota at Maya Bay to protect the environment after severe degradation caused by overcrowding.
 - The bay was initially closed for several months to allow for recovery, and when reopened, a strict limit of 375 tourists per hour was enforced to prevent further damage to coral reefs and marine life.
- When a tourist quota is imposed to reduce allocative inefficiency in the market for tourism, this measure effectively places a cap on the quantity of tourism services that can be consumed.
- The quota limits the quantity of tourism services to the socially optimal level, where marginal social costs (MSC) is equal to the marginal social benefits (MSB) at Q^* .

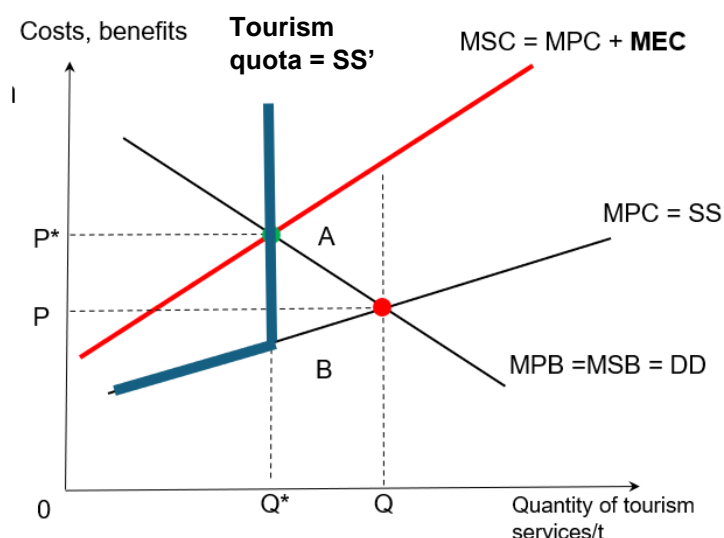


Figure 4: Tourism Quota

- This quota is represented as a vertical line at Q^* indicating that tourism consumption cannot exceed this level.
 - The quota effectively caps the quantity of tourism services supplied, regardless of demand. The supply curve becomes perfectly inelastic at the quota level Q^* .
- The 'new supply curve' is represented by the bold line SS' and equilibrium price of tourism services is at where $SS' = DD$ at P^* and this quantity occurs at the socially optimal output level, thus eliminating the welfare loss to society and restoring allocative efficiency in the market for tourism services.

Limitation/unintended consequence:

- Tourism quotas may not effectively address the root causes of the environmental issues associated with tourism.

- Quotas only limit the overall number of tourists rather than targeting the specific activities that generate the most significant negative externalities.
 - For example, in a coastal destination, restricting the number of visitors may do little to mitigate the environmental damage caused by large cruise ships that discharge waste into the ocean or by high-pollution transportation methods such as tour buses that emit substantial carbon emissions.
 - These high-impact activities can continue to degrade the environment even with fewer tourists, meaning the quota fails to correct the true source of market failure.

OR

- Implementing and enforcing tourist quotas can be an ineffective solution for addressing negative externalities in the tourism market due to high administrative costs involved.
- Developing an effective system for issuing permits and regulating tourist numbers involves enforcement officers and technological infrastructure, and this system may be costly for the government.
- Governments must also monitor visitor flows, often across multiple access points, which can make tracking and enforcement particularly challenging, especially for larger countries. This increases the risk of tourists bypassing the quota system, either intentionally or due to weak enforcement, which would undermine the policy's effectiveness.

OR

- Tourist quotas may worsen income inequality and impede economic growth in regions that are heavily dependent on tourism as a primary source of income, such as Bali in Indonesia.
- By limiting the number of tourists permitted in high-demand destinations, the policy can reduce income streams for small businesses, tour operators, and local communities and widens income inequality between different consumer groups in the country.
- The reduced tourist expenditure may also cause a fall in exports of tourism services and may stifle economic growth when AD falls, *ceteris paribus*. These regions may also struggle to attract alternative forms of investment and employment, thus hampering sustained economic growth.
- In essence, tourist quotas can deepen income inequality and hinder economic development in vulnerable tourism-dependent regions.

Alternative Policy

- Public awareness campaigns aim to educate tourists about the environmental and social impacts of their travel behaviours.
- These campaigns can encourage responsible tourism practices such as reducing waste and avoiding over-touristed areas.
 - Governments can disseminate information through various channels, including social media or travel agencies. By increasing awareness, the campaigns can shift consumer preferences towards more sustainable tourism choices, such as eco-friendly accommodations or low-impact travel methods.
 - For example, tourists might opt to visit less crowded destinations or choose tour operators that prioritise sustainability.
- When more tourists choose to practice eco-tourism or travel sustainably, MPC will move closer to MSC, as now the extent of external cost to third parties is smaller (MEC becomes smaller).
- *Note to students: The public awareness campaigns explained above have the intended effect of **moral suasion**, i.e. to encourage/persuade consumers to take into account the negative externalities in their consumption of tourism services generates on the environment. This should be articulated clearly, as the source of market failure here arises from consumers **disregarding** the external costs they impose on others, not from consumers being unaware of these external costs.*

Evaluative Conclusion *(a reasoned stand that follows from the above analysis + 1 well-developed ATMS evaluative angle would suffice):*

- Whether taxes on tourism services and quotas are effective in addressing the market failure problem will depend on the nature of tourism services and the nature of the country.
- **[Stand + Situation/Magnitude]** Taxes on tourism services are generally more effective for broad-based, high-volume tourism services such as air travel, hotel stays, or access to popular tourist cities.
 - Large numbers of tourists often consume these services, making it easier to apply a tax uniformly. When the externality is relatively diffused, such as carbon emissions from air travel or general congestion in a city, a tax on tourism services can be an efficient way to internalise these costs across all users.
 - The tax distributes the burden across many consumers and raises revenue that can be reinvested in mitigating the externalities, such as environmental protection or infrastructure upgrades.
- **[Stand]** Quotas are more effective in limiting access to specific destinations or tourist attractions where the externalities are severe and concentrated.
 - For example, world heritage sites, national parks, or protected ecosystems such as coral reefs may experience irreversible damage if visitor numbers exceed sustainable limits. In such cases, a tourist quota ensures that the number of tourists remains within the site's ecological carrying capacity.
- **[Stand + Situation]** Taxes on tourism services are often more effective in developed countries with established tax systems, strong administrative capabilities, and diverse tourism markets. These countries tend to have the infrastructure to efficiently collect taxes and reinvest the revenue into public services, infrastructure, or environmental conservation.
 - In countries where tourism is a large part of the economy and involves many different sectors (e.g., hotels, airlines, restaurants), a tax can help manage the negative externalities across the whole economy without restricting tourism excessively.
- **[Stand]** Countries with a few key attractions that are particularly sensitive to over-tourism (e.g. small island nations or countries with unique ecosystems) may benefit more from quotas. These countries may prefer to cap the number of visitors to protect their natural and cultural resources rather than imposing taxes, which may not effectively reduce tourist numbers in ecologically sensitive areas.

Mark Scheme

Level	Knowledge, Application/Understanding and Analysis	Marks
L3	<p>Well-explained and analytical answer on at least two measures that are supported with diagrammatic illustrations.</p> <p>For a well developed answer that has:</p> <ul style="list-style-type: none"> • Good scope – explains at least two measures that can used to achieve allocative efficiency and their limitations/unintended consequences; and • Good rigour – supporting benefits and costs analysis with accurate and well-labelled diagram(s); and • Good application to the context of tourism market 	8 – 10
L2	<p>For an answer that:</p> <ul style="list-style-type: none"> • Lacks scope – only explains how one measure that can used to achieve allocative efficiency and their limitations/unintended consequences; and/or • Lacks rigour – there are gaps in using benefits and costs analysis and/or explanation is not supported by accurate and well-labelled diagrams(s) where relevant; and/or <p>Lacks application to the context of tourism market</p>	5 – 7
L1	<p>For an undeveloped answer that:</p> <ul style="list-style-type: none"> • Is descriptive, lacking in application of economic theory; and/or • Contains serious and pervasive conceptual errors; and/or • Is largely irrelevant. 	1 – 4
Evaluation/Synthesis		
E3	For an answer that provides supported evaluative statements on the relative effectiveness and/or appropriateness of the measures explained, and arrives at an analytically well-reasoned and synthesised judgement with reference to the context (i.e. market for tourism services).	5
E2	For an answer that makes some attempt at evaluating effectiveness and/or appropriateness of the measures explained, but evaluative comments may be limited in scope, or not fully elaborated upon.	3 – 4
E1	For an answer that gives superficial evaluative statement(s) without supporting analysis and elaboration.	1 – 2

4 Governments seek to attain various macroeconomic goals, one of which is inclusive and sustainable economic growth, in order to raise the living standards of its citizens.

- (a) Explain why governments aim to achieve inclusive and sustainable economic growth. [10]
- (b) Discuss the extent to which policies to achieve inclusive economic growth would cause difficulties for an economy. [15]

Part (a) Question Interpretation

Command word/phrase	<i>Explain why</i>	To utilise economic reasons and reasoning to explain why governments aim to achieve inclusive and sustainable economic growth.
Content	<i>Aim</i> <i>Inclusive and sustainable economic growth</i>	Goals of the government → this is a consequence question which requires you to explain the benefits / positive consequences Inclusive growth → benefits of growth are spread evenly with little income inequality Sustainable growth → minimal impact on environment for future generations
Context	<i>Governments</i>	Different countries' governments

This answer requires an explanation of the benefits of achieving inclusive and sustainable economic growth, thus justifying why governments aim to achieve these two types of growth.

Introduction

- Governments generally aim to achieve various macroeconomic goals, of which inclusive and sustainable economic growth is just two of them.
- Inclusive growth indicates a rate of growth that is sustained over a period of time, broad-based across economic sectors, and creates productive employment opportunities for the majority of the country's population. It takes income distribution into consideration and does not contribute to worsening income inequality.
- Sustainable growth indicates that there must be a sustained rate of growth without creating other significant economic problems (such as depleted resources and environmental problems), particularly for future generations.

Key Argument 1: Governments aim to achieve inclusive economic growth because of the benefits it brings to society.

- **Achieving inclusive economic growth brings about higher material and non-material living standards for the citizens.**
- Inclusive growth requires economic growth to be sustained first, which refers to long-run, non-inflationary growth. When there is sustained growth, real GDP / income rises and assuming population size is constant, real GDP per capita rises, thus household's income and purchasing power increases, increasing the ability of consumers to purchase goods and services. Citizens' material living standards rises as a result.
- However, economic growth may not always be inclusive. Growth driven by technological advancement could lead to the decline of some industries and redundancy of some jobs.
 - For instance, many supermarkets are utilising self-check-out counters which displaces cashiers. If these unemployed workers lack the relevant skills to enter expanding sectors,

they will become structurally unemployed. Such growth will worsen income inequality, possibly resulting in social unrest, and lowering non-material living standards. Inclusive growth, in ensuring the benefits of economic growth are distributed among most of the population, will improve income equality and social stability, thus increasing citizens' non-material living standards.

- Additionally, boosting the income of low-income individuals can further promote economic growth. This is because the marginal propensity to consume domestic goods for low-income households is high.
 - When the incomes of low-income households rise, there will be a rise in Consumption expenditure, as these households will likely spend most if not all their increased income on domestic goods and services, thus increasing AD and achieving actual growth and further increases in material living standards.
 - At the same time, as there are productive employment opportunities for majority of the population, unemployment rates and crime rates fall due to higher opportunity cost of crime.
 - This could lead to an improvement in the non-material aspect of SOL as residents feel more secure both in employment and in their society.

Key Argument 2: Governments aim to achieve sustainable economic growth because of the benefits it brings to society.

- **Achieving sustainable economic growth brings about higher material and non-material living standards for the citizens.**
- As explained earlier, sustained economic growth in the first place can lead to a continued increase in material living standards of a country over time. By attaining sustainable growth too, it means that natural resources are not depleted and not creating environmental problems for future generations, and this will improve the quality of environment, thus non-material standard of living improves.
- Since not all natural resources are renewable, exploitation of these resources to bring about economic growth could mean insufficient natural resources for future generations to produce goods and services.
 - When the country's natural resources become depleted, the country's productive capacity shrinks where the vertical segment of AS shifts left over time. This leads to a fall in real GDP and hence lowers material standards of living of the future generation.
 - Achieving sustainable economic growth is therefore able to ensure future economic growth as it will ensure sufficient resources for the country's productive capacity to rise in the future. This will ensure higher material living standards in future.
- In addition, destruction of the natural environment tends to occur alongside economic growth. Profit-maximising firms typically disregard external costs that arise from pollution created during the production process in their output decisions.
 - The more rapid the economic growth, the more waste (i.e. air and water pollution from production) the environment must absorb. Rapid economic growth may thus lead to a depletion of clean water and breathable air for residents in the country. Future generations will then suffer a decline in their living standards.
 - Therefore, with sustainable economic growth, there will be better sanitation, clean water for and breathable air for future generations, thus ensuring higher non-material living standards.

Mark scheme

Level	Knowledge, Application/Understanding and Analysis	Marks
L3	For a well-developed answer that has: <ul style="list-style-type: none"> ● good scope – explains benefits of both inclusive and sustainable economic growth; and ● good rigour – with good linkages to material and non-material living standards; and ● good use of examples – to explain the benefits of the two types of economic growth. 	8 – 10
L2	For an answer that: <ul style="list-style-type: none"> ● lacks scope – only explains either the benefits of inclusive or sustainable economic growth; ● lacks rigour – there are gaps in the analysis, or did not link the benefits to material and non-material living standards. Answer lacks examples to link to the two types of economic growth. 	5 – 7
L1	For an undeveloped answer that: <ul style="list-style-type: none"> ● is descriptive, lacking in application of economic theory; and/or ● contains serious and pervasive conceptual errors; and/or ● is largely irrelevant. 	1 – 4

4 Governments seek to attain various macroeconomic goals, one of which is inclusive and sustainable economic growth, in order to raise the living standards of its citizens.

- (b) Discuss the extent to which policies to achieve inclusive economic growth would cause difficulties for an economy. [15]**

Part (b) Question Interpretation

Command word/phrase	<i>Discuss the extent</i>	To examine and present the different aspects of a problem or subject, and give a judgement on the extent to which policies for inclusive growth could cause difficulties for economy
Content	<i>Policies to achieve inclusive growth...</i>	Transfer payments / redistributive policies and supply-side policies
	<i>Cause difficulties for economy</i>	Potential unintended consequences / trade-offs for the economy (<i>as the balance to the policies</i>)
Context	<i>An economy</i>	No specified economy or country. Students to come up with examples of their own

A relevant response requires students to first explain how two policies would work to achieve inclusive growth, before explaining the potential negative unintended consequences (difficulties) on the economy as its balance. The evaluation entails a weighing of which policy will or will not cause eventual difficulties for an economy.

Introduction

- The government's macroeconomic goals include sustainable and inclusive economic growth, low unemployment, price stability and healthy balance of trade. However, due to certain conditions, the pursuit of these goals may lead to unintended consequences of the economy.
- This essay aims to discuss two policies to achieve inclusive economic growth and their accompanying unintended consequences on the economy.

Body

- **Policy 1: Governments can increase its transfer payments to lower income households and raise income taxes on higher-income households to achieve inclusive growth.**
 - One possible policy is via an increase in income taxes on higher income households and / or increase transfer payments to lower income households to reduce the income gap, thus achieving inclusive growth.
 - In Singapore, there is a progressive income tax system where higher income individuals are taxed a higher proportion of their income while lower income individuals are taxed a lower proportion of their income. This reduces the income disparity between the high-income households and low-income households, thus improving income equality.
 - Furthermore, the tax revenue collected can then be used to provide transfer payments to the lower income households in various forms such as means-tested subsidies for education, housing and healthcare.
 - This will also ensure that the lower income households will have sufficient amount to ensure that their basic needs are met, therefore ensuring inclusive economic growth.
- **However, such a policy may cause difficulties for the economy.**
 - An increase in transfer payments require expenditure by the government and needs to be financed. If the government did not increase the income tax on higher income individuals, then it will suffer a worsening budget position, which may not be sustainable in the long run.
 - As such, the government must collect more tax revenue in order to achieve inclusive growth while maintaining fiscal sustainability.
 - Raising income taxes has contractionary effects on the economy, as the increase in personal income tax will reduce Consumption expenditure and thus decreasing AD and real incomes.

**Alternatively, students can also explain the unintended consequence of demand-pull inflation should the increase in C via transfer payments rise while economy is near full employment.*

- **Policy 2: Governments can also utilise supply-side policies like training and retraining of the lower skilled and lower income workers to achieve inclusive growth.**
- Another possible policy is to increase spending on education and upskilling of the lower-skilled workers to achieve inclusive growth.
- The subsidisation of education and skills upgrading allows for an increase in the quality of labour.
 - This increases the productive capacity directly, thus increasing LRAS. The higher the labour productivity, the unit cost of production lowers too, thus increasing SRAS.
 - The rightward and downward shift of the AS curve leads to lower general price levels and higher real GDP, achieving sustained growth in the country.
- Furthermore, this economic growth becomes inclusive, should the upskilling be targeted at the lower skilled and lower income workers in the economy. In Singapore, there is the SkillsFuture Credit which provides a subsidy for workers who go for training and upskilling and encourages them to learn new skills to increase their productivity.
 - By upgrading the skills of lower skilled workers, they become more productive and will be more attractive to firms, which will be more willing to pay higher wages to these better skilled workers since these workers can now help the firms earn more revenue.
 - This will contribute to the reduction of the income gap and also increases occupational mobility as people are more able to pick up new jobs when the old ones are lost or switch to the growing job sector.
 - For those workers who are unemployed, helping them pick up a new skill for the next job would enable them to earn an income and narrows the income disparity, achieving inclusive growth.

- **However, such a policy may cause difficulties for the economy.**
- Supply-side policies like these also require usage of government's budget. This means that the government may have lesser funds to allocate to carry out expansionary fiscal policy to boost further growth for example.
 - Furthermore, should the policy be successful to increase productive capacity, there may be a greater extent of spare capacity. If there is no accompanied increase in real output, this may increase unemployment in the economy.

Evaluative Conclusion (a reasoned stand that follows from the above analysis + 1 well-developed ATMS evaluative angle would suffice):

- The extent to which economic policies used to achieve inclusive growth will cause difficulties for the economy depends on the type of policies implemented, the state of economy as well as the ability of the government to implement mitigating policies to address these difficulties.
- **[Stand / Situation + Magnitude]** The potential benefits of supply-side policies will mean that there may be lesser difficulties for the economy. This is because, supply-side policies such as skills retraining could generate sustained growth as well, thus resulting in lesser difficulties for the economy. In contrast, using just transfer payments can rake up government debt and disincentivise investments and there may not be any additional benefits beyond merely achieving inclusive growth.
- **[Situation]** If the economy is already operating close to productive capacity, achieving inclusive growth via transfer payments will likely cause demand-pull inflation. Governments that are in heavy fiscal debt (e.g. Sri Lanka) may also find themselves facing the unintended consequence of negative growth as a result of reduced confidence in the economy, thus limiting the effectiveness of the policies implemented in the first place.
- **[Situation]** If the country is currently experiencing high levels of structural unemployment, having targeted skills training will ensure lesser difficulties because it directly helps the lower skilled workers find employment, and close the income gap. Merely giving transfer payments to the lower income does not tackle the root cause of the problem and may lead to further difficulties.
- **[Alternative]** By choosing appropriate policies that suit the country's context, it is possible to ensure that the achievement of inclusive growth does not incur trade-offs with other macroeconomic goals in the longer term.
 - Therefore, if the governments are aware of the unintended consequences of pursuing inclusive growth on other macroeconomic goals, they can implement appropriate complementary policies to ensure that the growth is inclusive while alleviating other macroeconomic problems that might result e.g. by implementing supply-side policies that increase the productive capacity of the economy and hence attain potential growth to alleviate the demand-pull inflation that results from spending on transfer payments.
 - Fiscally, it is perhaps more sustainable to rely on supply-side policies such as subsidising skills upgrading and training programmes in addition to transfer payments to allow lower income households earn higher wages over time. They can then stop receiving the transfer payments while also contributing to the tax revenue collected.

Mark Scheme

Level	Knowledge, Application/Understanding and Analysis	Marks
L3	For a well-developed answer that has: <ul style="list-style-type: none"> • good scope and balance – explains at least 2 policies to achieve inclusive growth; and their accompanying unintended consequences; • good rigour – clearly explains how policies work, together with their unintended consequences using appropriate macroeconomic analysis; • good application to context – supports analysis with real world examples of policies used to achieve inclusive growth. 	8 – 10
L2	For an answer that: <ul style="list-style-type: none"> • lacks scope and balance – only explains one policy to achieve inclusive growth together with their unintended consequences, or only the workings of two policies without their unintended consequences; • lacks rigour – incomplete use of macroeconomic analysis; • lacks application – does not apply analysis to the context of inclusive growth. 	5 – 7
L1	For an undeveloped answer that: <ul style="list-style-type: none"> • is descriptive, lacking in application of economic theory; and/or • contains serious and pervasive conceptual errors; and/or • is largely irrelevant. 	1 – 4
Level	Evaluation/Synthesis	Marks
E3	For a balanced answer that arrives at an analytically well substantiated judgement on the policy that would cause the least difficulty for the economy.	5
E2	For an answer that has balance and makes some attempt at a substantiated judgement on the policy that would cause the least difficulty for the economy.	3 – 4
E1	For an answer that has balance (i.e. considers the unintended consequences proposed), but with no convincing overall judgement that considers the different policies holistically.	1 – 2

- 5 In early 2022, Sri Lankans started experiencing power cuts and shortages of basics such as fuel. The rate of inflation rose to 50 per cent while unemployment rate remains high. Currently, Sri Lanka owes about \$7 billion to China and around \$1 billion to India.**

Adapted from BBC, 29 March 2023

- (a) Explain two possible causes of inflation. [10]
- (b) Discuss the extent to which the Sri Lankan government should focus on reducing its inflation rate over reducing its unemployment rate. [15]

Part (a) Question Interpretation

Command word/phrase	Explain	To utilise economic reasons and reasoning to explain the two possible reasons for inflation
Content	Causes of inflation	Demand-pull inflation → caused by increases in components of AD Cost-push inflation → caused by decreases in AS (increase in unit cost of production)
Context	No context	No specified context, students can utilize the examples given in the pre-amble or use their own examples

A relevant answer requires the students to explain the two causes of inflation (demand pull inflation caused by increases in any of the components of AD) and also cost-push inflation caused by decreases in AS due to increase in unit cost of production.

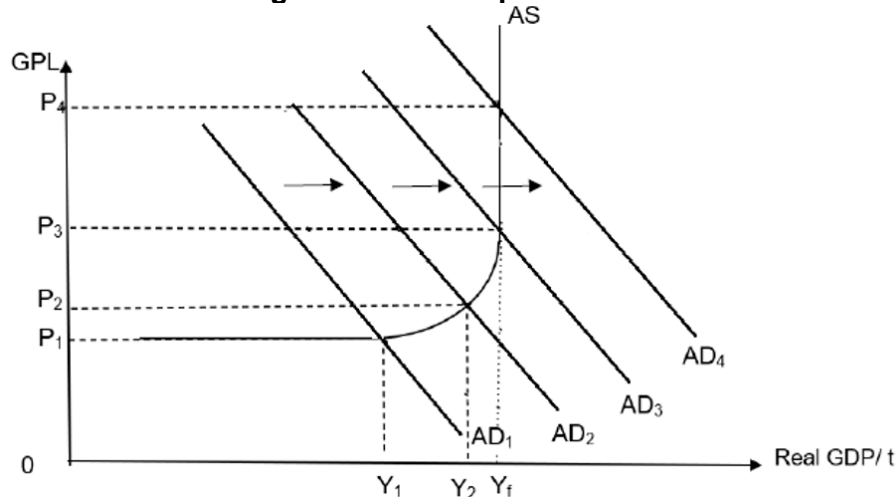
Introduction

- Inflation is a sustained increase in the general price level (GPL) of goods and services in the economy.
- There are two main types of inflation – demand-pull inflation and cost-push inflation. This response aims to explain the two causes of inflation.

Key Argument 1: Demand-pull inflation is caused by a rise in AD and it could be due to improved global sentiments.

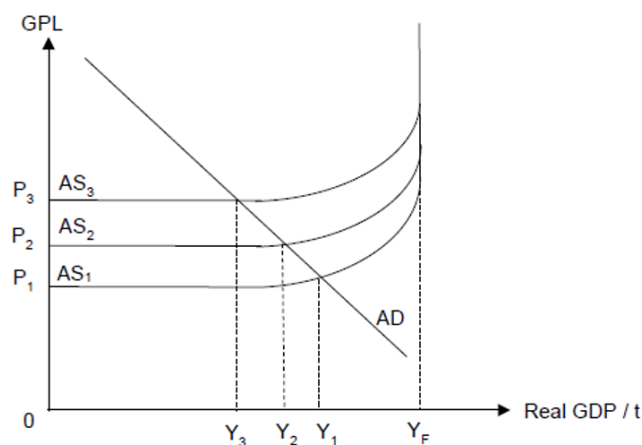
- **When there is improved global sentiments, AD of the country will rise, causing demand-pull inflation.**
 - With improved global sentiments, firms are optimistic about the future state of the economy and their expected rate of return on investment would be higher, thus increasing investment expenditure (I).
 - At the same time, households around the world are more willing to spend on goods and services and therefore the net export revenue (X-M) of this country in question may increase due to higher export demand from foreign countries, assuming import expenditure remains constant.
 - The economy is initially in equilibrium at GPL of P1 and national output of Y1, as seen in the Figure 1 below.
 - This rise in investment expenditure and export revenue will lead to a rise in AD from AD1 to AD2. As AD rises from AD1 to AD2, the general price level (GPL) increases from P1 to P2 and real output level increases to Yf.
 - At full employment output of Yf, there is no more spare resources and real output cannot rise any further.
 - When AD continues to rise from AD2 to AD3, this simply causes firms to bid up factor prices as they compete for resources with one another.

- As there is no overall increase in utilisation of resources, but merely a transfer of resources from one firm to another, total output remains unchanged. The higher unit cost of production incurred by firms are then passed on to households in the form of higher prices of goods and services, resulting in the GPL escalating to P3.
- This increase in the GPL from P1 to P3 thus represents demand-pull inflation.

Figure 1: demand-pull inflation

Key Argument 2: Cost-push inflation is caused by a decrease in AS due to higher unit cost of production.

- **When there is an increase in the price of imported factor inputs, it will increase the unit cost of production, thus causing cost-push inflation.**
 - Imported inputs are key inputs to produce a variety of products, e.g., crude oil for non-oil producing countries.
 - An increase in price of imported crude oil drives up the price of energy, and energy is a necessary input in any production process.
 - The resulting rise in unit cost of production pushes up the prices of almost all products as reflected by increases in the GPL since the AS curve would be shifting up as AS falls.
 - In Figure 2 below, at the initial equilibrium where AD1 intersects with AS1, the initial general price level is P1 and the corresponding real output is Y1. When there is an increase in the unit cost of production at all levels of output, it reduces the profit margins of firms.
 - The short-run aggregate supply decreases and the AS curve shifts upwards from AS1 to AS2. Therefore, the general price level rises from P1 to P2 while real output falls from Y1 to Y2.
 - When the unit cost of production rises persistently, it leads to cost-push inflation.

Figure 2: Cost-push inflation

Mark scheme

Level	Knowledge, Application/Understanding and Analysis	Marks
L3	For a well-developed answer that has: <ul style="list-style-type: none"> ● good scope – explain the two causes of inflation (both demand-pull and cost-push), and; ● good rigour – clearly utilises appropriate AD/AS analysis to explain; and; ● good application and good use of appropriate diagrams. 	8 – 10
L2	For an answer that: <ul style="list-style-type: none"> ● lacks scope – only explain either demand-pull or cost-push inflation; ● lacks rigour – there are gaps in explaining the causes of inflation; ● lacks application and lacks good use of appropriate diagrams to explain. 	5 – 7
L1	For an undeveloped answer that: <ul style="list-style-type: none"> ● is descriptive, lacking in application of economic theory; and/or ● contains serious and pervasive conceptual errors; and/or ● is largely irrelevant. 	1 – 4

- 5 In early 2022, Sri Lankans started experiencing power cuts and shortages of basics such as fuel. The rate of inflation rose to 50 per cent while unemployment rate remains high. Currently, Sri Lanka owes about \$7 billion to China and around \$1 billion to India.

Adapted from BBC, 29 March 2023

- (b) Discuss the extent to which the Sri Lankan government should focus on reducing its inflation rate over reducing its unemployment rate. [15]

Part (b) Question Interpretation

Command word/phrase	<i>Discuss the extent</i>	Provide multiple perspectives and come to a reasoned conclusion on the extent to which the Sri Lankan government should prioritise price stability or full employment
Content	<i>Reducing inflation rate..... unemployment rate... focus on</i>	Negative consequences of high inflation (goal of price stability) and negative consequences of high unemployment (goal of full employment)
Context	<i>Sri Lankan government</i>	Context of Sri Lanka

A relevant answer requires candidates to analyse the costs / negative consequences of high inflation and high unemployment on Sri Lanka. The evaluation entails a reasoned judgement on which negative consequence is worse, thus justifying the government focusing its attention on that particular goal.

Introduction

- As mentioned in the preamble, Sri Lanka is facing the twin issues of high inflation and high unemployment.
- Both macroeconomic problems lead to negative consequences on the economy and on Sri Lankan citizens' standard of living (SOL).

- As such, the Sri Lankan government should focus on resolving these issues. However, which macroeconomic issue the Sri Lankan government should focus on would depend on the relative severity of the negative consequences.

KA1: Sri Lankan government should focus on reducing inflation rate due to the negative consequences of high inflation.

- **High inflation leads to the negative consequences of negative growth and rise in unemployment.**
- With inflation, the real value of money falls, causing consumers to have a lower purchasing power. Therefore, households whose nominal income do not rise as fast as the general price level will suffer a fall in real income. They are able to consume fewer goods and services than before, and hence their material standard of living may worsen.
 - This could be particularly severe for Sri Lankans as the increase in inflation by 50% means that their material standard of living would have decreased significantly.
- Inflation erodes the real value of money, savers lose out because over time, their savings can buy fewer goods and services. Moreover, when prices are rising rapidly, rather than saving, consumers may prefer to spend more because they expect goods and services to be even more expensive in the future. With less savings, future consumption and future material standard of living may be lowered.
- Furthermore, when inflation is high and rising, investment will be discouraged. High levels of inflation increase the uncertainty of investment decisions, making it difficult for firms to predict their costs and revenues since inflation distorts price signals i.e., expected rate of return on investment is uncertain and volatile.
- Thus, investment will be discouraged, leading to a fall in AD. This triggers the reverse multiplier effect, leading to successive decreases in income-induced consumption, and a larger decrease in AD and hence multiplied fall in real GDP, causing negative growth.
- At the same time, as production level decreases, the derived demand for labour falls, increasing demand-deficient unemployment.

KA2: Sri Lankan government should focus on reducing unemployment rate due to the negative consequences of high unemployment.

- **High unemployment results in the negative consequences of negative actual and potential growth.**
- If the unemployment rate was high, as is the case in Sri Lanka (based on the preamble), it would mean that there are more households without a job, and hence no income.
 - This would mean lower MSOL as the purchasing power of households are lowered, leading to lower consumption of goods and services.
- Moreover, high unemployment that is prolonged leads to worries about possible loss of income sources, even amongst those currently employed.
 - This causes increased levels of anxiety for residents in the country about job security, lowering non-material living standards.
 - When unemployment is high and rising and/or prolonged, it leads to higher crime rates because of the lower opportunity cost of crime, and residents' sense of peace of mind is diminished which lowers non-material living standards (NMSOL).
- High unemployment therefore causes both MSOL and NMSOL of residents Sri Lanka to be lower.
- The high unemployment rate in Sri Lanka may lead to poor business confidence, causing fall in investments by firms as the expected returns of investments are likely to be low. This is especially so if the high unemployment is prolonged and/or rising.
 - Since investment is a component of the AD, AD will fall, creating a reverse multiplier effect on the country's real GDP, as explained previously. This will then result in negative growth, reduction in production and cause a fall in the derived demand for labour, further worsening the already high unemployment situation.

- Additionally, the fall in investment can also slow down potential growth since a fall in investment will cause the country's capital stock to expand more slowly, assuming that the growth rate of capital stock still exceeds the rate of capital depreciation.
- Hence, rising unemployment would have a negative effect on both actual and potential growth, as well as employment levels.

Evaluative Conclusion (a reasoned stand that follows from the above analysis + 2 well-developed ATMS evaluative angles):

- **[Stand + Situation]** Whether the Sri Lankan government should focus on reducing its inflation rate over reducing its unemployment rate would depend on which would bring about greater benefits for the economy in terms of reducing the negative effects associated with either inflation or unemployment. Given that Sri Lanka is facing an inflation rate of over 50%, which is a very high rate of inflation, Sri Lanka should focus on reducing the inflation rate first.
- **[Magnitude/Situation]** Given how a reduction in the inflation rate would have a positive effect by reducing unemployment rate, it would result in a significant improvement in the SOL of the Sri Lankans as we would see a rise in real GDP and thus, a rise in employment levels.
 - Also, given how the Sri Lankans do not have access to basic necessities such as power and fuel, a reduction in inflation would definitely bring about a greater SOL for the Sri Lankans, as it would make such necessities more affordable for the people.
 - With a reduction of high inflation rate, there would be restoration of confidence in the economy. This increased confidence in the economy would cause other countries to be still confident in lending Sri Lanka money to carry out its expansionary policies, as well as attracting more FDI to generate more jobs in Sri Lanka.

Mark scheme

Level	Knowledge, Application/Understanding and Analysis	Marks
L3	For a well-developed answer that has: <ul style="list-style-type: none"> • good scope and balance – explains the negative consequences of high inflation and high unemployment; and • good rigour – clearly explains the consequences with references to AD/AS analysis and standards of living; and • good application to the context of Sri Lanka. 	8 – 10
L2	For an answer that: <ul style="list-style-type: none"> • lacks scope and balance – only explains the negative consequences of high inflation or high unemployment; • lacks rigour – there are gaps in explaining the negative consequences, without linking to AD/AS analysis or standard of living; • lacks application to the context of Sri Lanka or the pre-ambles. 	5 – 7
L1	For an undeveloped answer that: <ul style="list-style-type: none"> • is descriptive, lacking in application of economic theory; and/or • contains serious and pervasive conceptual errors; and/or • is largely irrelevant. 	1 – 4
Level	Evaluation/Synthesis	Marks
E3	For a well-substantiated judgement on whether Sri Lankan government should focus on reducing high inflation or high unemployment.	5
E2	For an answer that makes some attempt at a substantiated judgement on whether Sri Lankan government should focus on reducing high inflation or high unemployment.	3 – 4
E1	For a reasoned evaluative comment on the strength of either the thesis or anti-thesis argument.	1 – 2

6 Deglobalisation is the movement towards a less connected world, characterised by powerful nation states, local solutions, and border controls, rather than global institutions, treaties, and free movement.

(a) Explain why a country like Singapore exports and imports both different and similar types of goods and services when it trades with other countries like China. [10]

Part a Question Interpretation

Command word/phrase	<i>Explain why</i>	To utilise economic reasons and reasoning to explain why Singapore exports and imports both different and similar types of goods in trade with China
Content	<i>Exports and imports different and similar types of goods with trade with China</i>	Patterns of Trade – inter-industry trade and intra-industry trade
Context	<i>Trade with China</i>	Context of Singapore, her trade with China

A relevant answer requires candidates to explain the reasons for inter-industry trade and intra-industry trade between Singapore and China.

Introduction

- International trade refers to the exchange of goods and services between countries. It can either be inter-industry or intra-industry trade.
- The trade pattern of a country refers to the composition and volume of its exports and imports, destination of its exports and the source of its imports.
- The trade pattern of inter-industry trade between Singapore and China can be explained by their theory of comparative advantage and the trade pattern of intra-industry trade can be explained by consumers' desire for variety and rational decision making.
- **Key Argument 1: Singapore exports and imports different goods with trade with China (inter-industry trade) because of the theory of comparative advantage.**
- A country has comparative advantage in producing a good when it can produce a good at lower opportunity cost than another country which entails sacrificing fewer units of another good in producing that good.
- A country tends to specialise and export the good for which it has CA in and import the good for which it has comparative disadvantage.
 - This is because in so doing, and assuming the terms of trade are mutually beneficial where the terms of trade lie between the 2 countries' opportunity cost, the trade partners enjoy a rise in consumption levels where consumption is at a level that lies beyond its PPC, leading to higher material living standards.
- The factor that determines a country's CA is its factor endowment and extent of capital accumulation
- Singapore has a relative abundance of physical and human capital, compared to land and (quantity of) labour, because of both domestic and foreign direct investment (FDI) in physical capital and its investment in human capital.
 - On the other hand, as a small country, it has limited land and labour. China's factor endowment is the opposite.
- As such if Singapore were to produce her own agricultural products, the opportunity cost, which entails forgoing the production of integrated circuits, will be high as its abundance of capital and high skilled labour force would have enable it to produce quite a lot of integrated circuits.

- In contrast, due to China's relative abundance of land and labour, its opportunity cost of producing agricultural products will be low and lower than Singapore because its lack of factors needed for producing integrated circuits would have limited the amount of this good that it could have produced, given its overall resources, when it devotes its resources to agricultural production.
- This means Singapore has a comparative disadvantage in agricultural production while China has the comparative advantage in this sector. On the other hand, Singapore has the comparative advantage in integrated circuits production and China has the comparative disadvantage in this sector.
- So long as the no. of units of agricultural product obtained in exchange for 1 unit of integrated circuit > opportunity cost of producing 1 integrated circuit, SG will be willing to export integrated circuit to China. So long as 1 unit of agricultural product imported from China < SG's opportunity cost of producing 1 agricultural product, SG will import the latter from China.
 - This explains why there could be inter-industry trade between Singapore and China.
- **Key Argument 2: Singapore exports and imports similar goods with trade with China (intra-industry trade) because of consumers' desire for variety of goods and rational decision making.**
- From Singapore consumers' point of view, so long as the Marginal Benefit obtained from buying instant noodles from China is > than the Marginal Cost (which is the price charged by the China producer), Singapore residents will be willing to import the good/service from China as it leads to rise in net benefit.
- China is likely to have the CA in producing instant noodles given the difference in factor endowment. China-made instant noodles are likely to be cheaper than SG-made ones if the instant noodles produced by both countries are assumed to be homogeneous. China producers are prepared to export instant noodles to China so long as the prices SG residents are willing to pay > their MC of production.
- However, Singapore also exports instant noodles to China. From SG producers' point of view, so long as China's residents are willing to pay a price (MR) for the SG-made instant noodles that > the MC of production, production is profitable, and SG producers are willing to export the good/service to China.
- The price charged by SG firms for instant noodles could be higher than the price charged by China firms since SG has comparative disadvantage in this good.
- However, the China residents might be willing to pay the higher price because their $MB \geq MC$ (price charged by SG producer) and this could be due to their desire for variety. The SG instant noodle firm that is producing a similar but differentiated good/service – e.g. the flavours or textures of the SG-made ones are different from the China made ones.
- Thus, horizontal intra-industry trade occurs between SG and China due to their residents' desire for variety.

Mark scheme

Level	Knowledge, Application/Understanding and Analysis	Marks
L3	For a well-developed answer that has: <ul style="list-style-type: none"> ● good scope – explain clearly the reasons for inter and intra industry trade; ● good rigour – explains using theory of comparative advantage and appropriate analysis; and ● good application to context of Singapore and China. 	8 – 10
L2	For an answer that: <ul style="list-style-type: none"> ● lacks scope – only explain either the reasons for inter industry or intra industry trade; ● lacks rigour – gaps in explaining the above, and/or explanation is not supported by appropriate analysis; and/or ● lacks application to the context of Singapore and China. 	5 – 7
L1	For an undeveloped answer that: <ul style="list-style-type: none"> ● is descriptive, lacking in application of economic theory; and/or ● contains serious and pervasive conceptual errors; and/or ● is largely irrelevant. 	1 – 4

6 Deglobalisation is the movement towards a less connected world, characterised by powerful nation states, local solutions, and border controls, rather than global institutions, treaties, and free movement.

(b) With the trend of rising deglobalisation, discuss whether Singapore should also deglobalise. [15]

Part b Question Interpretation

Command word/phrase	<i>Discuss whether...</i>	To examine and present the different aspects of a problem or subject, and give a judgement on whether Singapore should deglobalise.
Content	<i>Deglobalise</i>	Deglobalise – movement towards less connected world, its benefits and costs
Context	<i>Singapore</i>	Context of Singapore economy

A relevant response requires candidates to explain the benefits and costs of deglobalization on Singapore's economy. The evaluation entails a judgement on whether Singapore should deglobalise.

Introduction

- Deglobalisation occurs when countries limit international trade (via protectionist measures such as import tariffs or quotas), labour flows (e.g. restrict the inflow of foreign labour) and/or impose capital controls.
- To decide whether Singapore should deglobalise, the disadvantages and advantages of deglobalisation should be considered in relation to the context of Singapore, a very small economy, and against the backdrop of the rising trend of deglobalisation.

KA1: Singapore should deglobalise because it has benefits to Singapore's economy

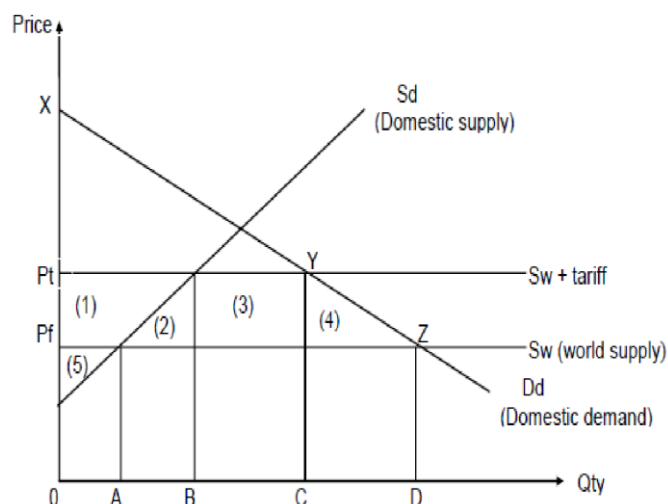
- **Deglobalisation leads to the benefits of reducing structural unemployment and reducing the high income inequality caused by globalisation.**
- When there is free movement of goods/services, countries will experience structural changes. The country will import goods/services in which it has comparative disadvantage because residents will choose to buy the relatively cheaper imported substitute and lower their demand for the domestic good. The domestic firms selling the substitutes of the imports face a fall in demand and will in turn lower their demand for labour.
 - This leads to structural unemployment due to the occupational immobility of workers. While globalisation enables the exporting sectors with CA to expand, which leads to job creation, those who lost their jobs in the import competing sectors may not have the relevant skills to take up the job openings in the exporting sectors. This results in structural unemployment.
- Free movement of capital through globalisation can also lead to structural unemployment.
 - For example, in a bid to cut costs, US MNCs have been off shoring some aspects of their production processes to developing countries like China / India where labour costs are relatively cheaper. The resulting closure of plants in USA led to structural unemployment in USA.
- Free trade and free capital movements also results in higher income inequality.
 - While wage rates will be falling in the declining sectors and structural unemployment rises, wage rates will be rising in the exporting sectors which are expanding, and in sectors receiving FDI. because demand for labour in these sectors will be rising. This leads to widening income gaps in the country.
- To avoid these problems of globalisation, a country, including SG might thus opt to deglobalise, just like what other countries have done, by imposing tariffs / quotas to limit imports or not allow FDI. This prevents the import-competing firms from declining, thus reducing structural unemployment and also reducing the high income inequality that resulted from globalisation.

(*Optional addition to KA1) Singapore should deglobalise to reduce her vulnerability to external shocks

- When a country is open to international trade, its growth performance and GPL becomes dependent on external factors.
 - For example, the US financial crisis of 2008 which led to a recession in USA caused USA's trade partners to also go into recession due to the falling demand by USA for its trade partners' exports when USA's GDP contracted.
 - For a country like SG for which X is a big share of its AD, the falling X leads to a significant fall in AD which leads to fall in real GDP (i.e. -ve growth) and rising demand-deficient unemployment.
- When the on-going Russian-Ukraine war broke out, the resulting shortage of grains led to imported inflation in countries like Singapore that depended on imported raw materials. The rise in prices of imported raw materials drove up the unit cost of production of firms in SG. This led to a fall in AS and hence rise in the general price level. Continuous rise in the prices of imported raw materials led to imported cost-push inflation.
- Deglobalisation by limiting dependence on exports and imported inputs can thus lower SG's exposure to external shocks.

KA2: Singapore should not deglobalise because it has costs to Singapore's economy.

- **Deglobalisation will lead to welfare loss to society as a whole.**
- A country like SG, a small country, is a price taker in world markets. Assume that for a certain good, foreign producers have the CA and the price of the imported good (P_f) is cheaper compared to if it were to be locally produced.
- If the government imposes an import tariff, it will cause the SS of the imported good to fall. In the diagram below, the SS falls and shifts up by the amount of tariff per unit.



- With the rise in price of the imported good, consumers lower the quantity demanded for the imported good and substitute towards the local good that is now relatively cheaper. The quantity of imports falls from AD to BC units.
- Overall, consumers lower Q_d for this good from D to C units and lose consumer surplus amounting to Area 1+2+3+4.
- Domestic firms are now able to charge a higher price (P_t) and increased Q_s from A to B units. This leads to a rise in producers' surplus by area 1.
- The govt earns area 3 as tariff revenue.
- There is a net loss of welfare to society of areas 2 and 4.
- Thus, although firms (and workers in this industry gain because there will be a fall in structural unemployment) gain, collectively, residents are worse off.

(*Optional addition to KA2) Singapore should not deglobalise as it will lead to higher cost of living, lower material living standards

- Singapore has hardly any natural resources. Without international trade, the cost of living will be much higher because if Singapore were to produce her own food crops and livestock, given the high demand relative to domestic supply, where domestic supply is low due to high MC from limited land, prices of food crops and livestock will be very high. This drives up the cost of living.
- Moreover, if Singapore were to lower exports, the reduced scale of production by domestic firms will lead to less exploitation of economies of scale (internal and external). As such, AC and MC of production rises, which translates to higher prices of goods and services.
- The inflow of foreign labour also helps to keep the cost of construction and various social services (e.g. cleaning, health care) lower as the inflow of such labour increases the supply of labour in these sectors and hence lowers wage rates. Deglobalisation in the form of limiting the inflow of foreign labour will lead to higher wage rates and higher MC of production faced by firms in these sectors, leading to higher prices and hence higher cost of living for residents.
- With higher cost of living, residents' purchasing power declines (assuming income remains constant), therefore resulting in lower material living standards.

Evaluative Conclusion (a reasoned stand that follows from the above analysis + 2 well-developed ATMS evaluative angles):

- **[Stand]** Singapore should not deglobalise because the advantages are likely to be outweighed by the disadvantages of doing so.
- **[Situation + Alternative]** Singapore is a very small and open economy. If she does not make use of exports and FDI to drive her growth, the alternative is to rely on domestic consumption and investment to drive growth.

- However, the local market is small given her small population. Growth from a rise in domestic demand will not be able to offset the negative growth due to reduction in external demand and FDI.
- Continued growth will also be limited because her resources are insufficient to accommodate the rise in AD caused by rise in domestic C and I. While it could count on technological advancement to create the potential growth to accommodate a rise in AD, the rate of technological advancement will likely be slow due to reduction in competition and absence of FDI.
- Hence, deglobalisation will result in a fall in real GDP initially and very limited rise in GDP over time. This adversely affects Singapore's material living standards. As such, even in a backdrop of rising deglobalisation, Singapore should continue to remain open and forge FTAs with countries that are not deglobalising, so that exports and FDI can continue to be a driver of economic growth.
- **[Alternatives]** Moreover, while globalisation has led to structural unemployment and higher income inequality, this can be mitigated by SS-side policies like provision of training opportunities and provision of incentives for workers to re-skill, so that they can take up jobs found in the sunrise industries that are thriving.
 - Not all countries are deglobalising and there is still growth potential for the export sector. As re-skilling takes time, the government could provide transfer payments in the shorter term to assist the structurally unemployed.
 - In addition, while globalisation exposes Singapore to imported inflation, cost of living in a deglobalised Singapore will likely to be higher than a globalised Singapore suffering imported inflation. This is due to her land scarcity. There are also ways to mitigate the effects of imported inflation – e.g. by having a strong SGD and by diversifying the sources of our imported inputs.

Mark scheme

Level	Knowledge, Application/Understanding and Analysis	Marks
L3	For a well-developed answer that has: <ul style="list-style-type: none"> • good scope and balance – analyses both the benefits and costs of deglobalization; and • good rigour – clearly explains the benefits and costs using appropriate analysis; and • good application to context of Singapore's economy. 	8 – 10
L2	For an answer that: <ul style="list-style-type: none"> • lacks scope and balance – only explains either the benefits or costs of deglobalization; • lacks rigour – there are gaps in explaining the benefits and costs without appropriate analysis, and/or explanation is not supported by well-labelled and accurate diagram(s). 	5 – 7
L1	For an undeveloped answer that: <ul style="list-style-type: none"> • is descriptive, lacking in application of economic theory; and/or • contains serious and pervasive conceptual errors; and/or • is largely irrelevant. 	1 – 4
Level	Evaluation/Synthesis	Marks
E3	For a well-substantiated judgement on whether Singapore should deglobalise.	5
E2	For an answer that makes some attempt at a substantiated judgement on whether Singapore should deglobalise.	3 – 4
E1	For a reasoned questioning of either the thesis or anti-thesis argument.	1 – 2