



YISHUN INNOVA JUNIOR COLLEGE
JC 2 PRELIMINARY EXAMINATION
Higher 2

CANDIDATE
NAME

CG

INDEX NO

ECONOMICS

9757/01

Paper 1

27 August 2021

Case Study Questions

2 hour 15 minutes

Additional Materials: 4-page Answer Booklets

READ THESE INSTRUCTIONS FIRST

Write your name, CG and index number on the work you hand in.
Write in dark blue or black pen on both sides of the paper.
You may use a HB pencil for any diagrams or graphs.
Do not use staples, paper clips, glue or correction fluid/tape.

There are **two** questions in this paper. Answer **all** questions.
Start **each question** (not each part) on a **fresh answer booklet**.

At the end of the examination, fasten your work for each question **separately**.

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

This document consists of 7 printed pages and 3 blank pages.

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1

Answer all questions.

Question 1: Unsustainable Production and Consumption of Soy and Meat

Table 1: Soybean Production

Country	2008 (million tonnes)	2018 (million tonnes)
Brazil	80.8	123.7
China	59.8	117.9

Source: Ourworldindata, accessed 13 August 2021

Extract 1: Global Market Report: Soybeans

Soybeans are among the few complete protein vegetable-based foods with nine essential amino acids. For this reason, the soybean has become an important source of human and animal protein, with the majority of its cultivation destined for animal feed and the remaining for direct human consumption. In fact, almost 80% of the world's soybean crop is fed to livestock, especially for beef, chicken, egg and dairy production (milk, cheeses, butter, yogurt etc.). Soy oil is used for cooking and can also be found in margarine, chocolate, ice cream or baked goods, as well as in cosmetics or soaps. Soybean production grew significantly, largely driven by world population growth and increased demand for meat.

Source: Global Market Report: Soybean 2020 and WWF, accessed on 26 July 2021

Extract 2: Why is the Amazon burning?

The rainforest in Brazil has progressively fallen victim to global demand for soybean and beef.

To produce soy, millions of hectares of land like the Amazon rainforest is being ploughed up and converted from forests, savannahs and grasslands, endangering valuable habitats and species, putting at risk, traditional local livelihoods. Many fires are set in previously cleared lands to quickly remove any excess vegetation that has popped up. Others are set in land that is still in the process of being cleared, in order to make more open land for crops, to make way for cattle ranches, and to grow soybean which is used to feed livestock or exported to other parts of the world.

The National Institute for Space Research (INPE) reported that there were more than 80,000 fires throughout Brazil in 2019, the most that it had ever recorded. More than half of those fires took place in the Amazon.

Deforestation increased sharply ever since Brazil's President, Jair Bolsonaro, argued that the country must prioritise economic growth, even if it comes at the cost of destroying the planet's largest tropical rainforest and dismantled protections for the Amazon when he took office in January 2019.

Source: Adapted from The Verge, 28 Aug 2019 and Foreign Policy, 4 Jan 2019

Extract 3: Mighty Giants: Leaders of the Global Meat Complex

Institute for Agriculture & Trade Policy (IATP) defines the “Global Meat Complex” as a highly concentrated (horizontally and vertically), integrated web of transnational corporations (TNCs) that controls the inputs, production and processing of mass quantities of food animals. Some of these TNCs occupy all major parts of the global meat production value chain.

The rise of this type of agribusiness has been phenomenal over the last forty years, but particularly intense since the 2000s. JBS, Tyson Foods, Cargill and Smithfield are the world’s largest meat-producing companies. JBS alone accounted for over ten million tons of meat processing from 2009 to 2010, surpassing the combined total of the world’s top 11 to 20 companies. Each of these companies has deployed a mix of similar strategies: mergers and acquisitions of other companies to grow bigger as well as product diversification and/or wholesale retail. They are also successful in the lobbying of governments that in turn negotiate trade and investment deals that ease these companies’ access to foreign markets.

Source: Adapted from IATP, 10 April 2018

Extract 4: Brazil's JBS accused of violating Amazon rainforest protection laws

The Amazon rainforest, the world's largest rainforest, is considered one of the best natural defenses against global warming.

The world's largest meatpacker, Brazil's JBS SA, has for years knowingly bought cattle that were raised on illegally deforested land, turning a blind eye to regulations meant to protect the Amazon rainforest, Brazil's environmental regulator has alleged. Earlier this month, the environmental agency, Brazilian Institute of the Environment and Renewable Natural Resources (IBAMA), the Brazilian Ministry of the Environment's administrative arm, ordered the suspension of two JBS meat packing plants and 13 others in southwest Pará state for buying cattle raised on pastures cleared by slashing and burning the forest. It fined the company 24 million reais (\$7.7 million).

Brazilian authorities have long said cattle ranching is responsible for more destruction of the Amazon than any other activity. The onus should be on the meat companies to check their livestock sources properly with modern technology available today and crosscheck with satellite imagery publicly posted on the agency's website.

Source: Adapted from Reuters, 1 April 2017

Extract 5: Brazil bans fires, redeploys military to protect Amazon rainforest

Brazil's President Jair Bolsonaro on Tuesday issued a broad 120-day ban on unauthorized outdoor fires as the country suffered its worst drought in decades ahead of the annual burning season in the Amazon rainforest. Bolsonaro also redeployed the military to stop deforestation in the world's largest rainforest. Both moves repeat policies instituted by Bolsonaro annually since 2019, in response to international outcry that Brazil was not doing enough to stop the

destruction of the vital defence to climate change. Neither policy has previously been effective in lowering deforestation or forest fires.

In a paper published in the journal, *World Development* concluded that hotter temperatures which result from clearing natural vegetation already are costing Brazil's soybean farmers more than \$3 billion each year in lost productivity. These local and regional temperature increases are on top of global climate change, which also is intensified as deforestation adds carbon dioxide to the atmosphere. However the economic harm to the soybean industry from these regional weather changes still is outweighed by the profits that soybean farmers collectively can gain by claiming more land. But Rafaela Flach, co-author of the study say that when this damage is added to other disincentives to stop deforestation, such as a possible tax on carbon emissions, the economic argument against deforestation could become compelling.

Source: Adapted from Reuters, 29 June 2021 and NPR, 13 July 2021

Questions

- (a) With reference to Table 1, identify the country with the higher growth in soybean production from 2008 to 2018. Justify your answer. [2]
- (b) With reference to Extracts 1 and 2,
- (i) explain the relationship between soybean crop and livestock. [2]
- (ii) explain the likely value of price elasticity of demand for soybean. [2]
- (c) With the help of a diagram or diagrams, explain two strategies adopted by the world's largest meat-producing companies to raise their profits. [6]
- (d) (i) The production of soy as livestock feed and for export comes at the cost of destroying the Amazon forest and leads to economic inefficiencies in resource allocation.
- In light of the above economic inefficiencies in resource allocation, discuss whether Brazil should continue to prioritise economic growth. [8]
- (ii) Discuss whether a ban on unauthorised outdoor fires is the best policy to deal with the problems caused by the slashing and burning of the Amazon rainforest. [10]

[Total: 30]

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Question 2: China's Quest for High Quality Growth

Table 2: Selected Economic Indicators of China (2014 – 2019)

	Real GDP Growth (%)	Unemployment (%)	Annual Inflation (%)	Population growth (%)	Gini coefficient
2014	7.4	4.1	2.0	0.51	0.469
2015	7.0	4.1	1.4	0.51	0.462
2016	6.9	4.0	2.0	0.54	0.465
2017	7.0	3.9	1.6	0.56	0.467
2018	6.8	3.8	2.1	0.46	0.468
2019	5.8	3.6	2.9	0.36	0.465

Source: *statista.com*, *worldbank.org*, accessed 19 Aug 2021

Extract 6: China's achievement and challenges

In the past four decades, the Chinese economy has been transformed from a predominantly agricultural one to an industrial powerhouse and is now increasingly service oriented. With China's tremendous economic development, average incomes grew nine-fold since 1990, and some 800 million people were lifted out of poverty. This was associated with an increase in labour productivity, which led to higher wages, saving, investment and capital stock growth. However, population ageing, productivity slowdown, rising inequality and environmental degradation are constraining China's economic growth potential.

As China approaches the technological frontier, productivity growth is slowing, and so has the growth of the Chinese economy in recent years. While a trend decline in economic growth appears inevitable in the coming decades, the quality of growth will differ significantly depending on the policy choices. China's structural reform rebalancing from export- and investment-led growth to consumption- and innovation-led growth is important. Without such rebalancing, its efficiency of investment is projected to decline further while wide income disparities remain and energy consumption and carbon emissions rise.

Source: Adapted from UN ESCAP Policy Brief, 27 March, 2019

Extract 7: Can China avoid a growth crisis?

Demographic data shows that China's working-age population is shrinking. In the absence of drastic improvements in labor productivity, a smaller workforce means a lower GDP growth rate. Japan has experienced a similar decline in working-age population, and it has been unable to achieve the productivity gains necessary to maintain the same rate of growth. It is unlikely that China's firms will succeed where Japan's have failed, primarily because the factors that have driven China's spectacular growth over the past 20 years—a low baseline of productivity to begin with, an excess supply of rural workers, and easy access to foreign technology—have significantly weakened.

Source: Black & Morrison, Harvard Business Review, September 2019

Extract 8: China says will not set target to double GDP from 2021

China, the world's second largest economy, will focus more on higher-quality, long-term growth, in a break from past practice. The economy has sailed into a new era when the country gears up to build a moderately prosperous society in all respects, not just impressive economic figures.

China would deepen economic reforms and further open its markets to foreign investors as it looks to move from high-speed to high-quality growth. Chinese Premier Li Keqiang said that China has the ability and conditions to achieve higher quality, more efficient, more inclusive and sustainable development, citing a complete industrial system, a vast market, abundant human resources and dynamic entrepreneurs and innovators. China will completely open its general manufacturing sector to foreign investors this year. Meanwhile, access to sectors like telecommunications, medical services, education, elderly care and new energy vehicles will also be expanded for foreign investment.

Also, China's rising middle-income group, with a population of around 400 million, means a huge consumption market for foreign firms thanks to their increasingly bigger appetite for foreign products. China will open their markets wider to promote industry upgrading and to provide Chinese consumers with a broader range of choices. However, China's future economic growth is not without headwinds. Recent rising trade friction with the United States is widely considered to be a major roadblock checking the country's external demand.

Source: *Reuters.com*, 26 October 2017

Extract 9: Towards a sustainable future

Recent government policies show that China is giving more weight to the quality of growth. First, China is pursuing supply-side reforms, focusing on technology and innovation. The country has established objectives to become an “international innovation leader” by 2030.

Second, actions are underway to improve the inclusiveness of economic growth. China has established objectives for eliminating absolute poverty by 2020. Fiscal transfers to enhance social protection have been increased, while more funds have been deployed for rural infrastructure, agricultural subsidies and discounted loans.

Third, China has taken serious steps to curb pollution while speeding up the transition to clean energy. China aims to get 20 per cent of its energy from renewables by 2030. In late 2017, a carbon emissions trading system was launched in the country.

Such policies should be pursued in an integrated manner in order to reduce trade-offs and maximise synergies. In the Chinese example, policy priorities on technology and innovation could boost growth in GDP but might worsen income inequality. Policies to reduce carbon emissions would be more effective if combined with new technologies and innovation which improves resource efficiency.

Source: UN ESCAP Report, 8 July 2019

Questions

- (a) With reference to Table 2, comment on what can be concluded about the change in living standards in China. [5]
- (b) (i) Define the Production Possibility Curve. [2]
- (ii) With the aid of a production possibility curve diagram, explain why economic growth would slow as an economy approaches its technological frontier as described in Extract 6. [3]
- (c) With reference to Extract 7, explain why “a smaller workforce means a lower GDP growth rate”. [2]
- (d) Discuss the impact of deepening economic reforms and further opening its market to foreign investors on China’s balance of payments. [8]
- (e) Discuss the appropriateness of any two measures described in Extract 9 in achieving high-quality growth in China. [10]

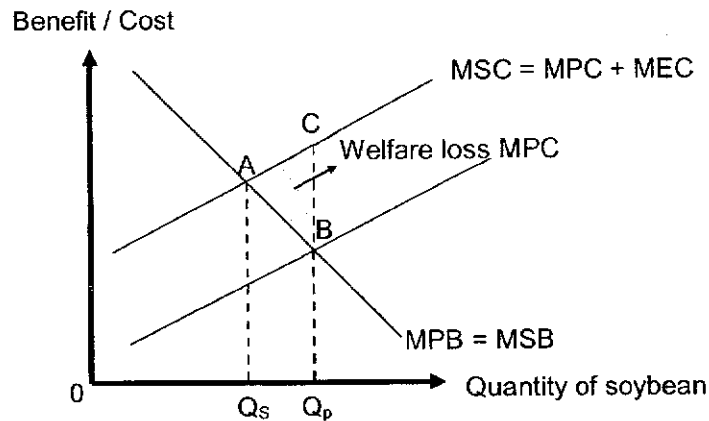
[Total: 30]

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(a)	With reference to table 1, identify the country with the higher growth in Soybean production from 2008 to 2018. Justify your answer.	[2]
	<p>China [1]</p> <p>Formulae used: $(2018-2008)/2008 * 100$ 53.1% for Brazil vs 97.2% for China</p> <p>Answer must reflect understanding of how to use the data to derive growth in Soy bean production[1]</p>	
(b)	With reference to Extract 1 and 2,	
	(i) Explain the relationship between Soybean crop and livestock.	[2]
	<p>Extract reference: "almost 80% of the world's soybean crop is fed to livestock"</p> <p>State relationship: Soybean crop is the FOP of livestock [1]</p> <p>Explanation: Changes in price of soybean crop affects the unit COP of raising livestock and hence SS of livestock is affected. [1]</p> <p>Or</p> <p>Explanation: Change in DD for livestock will lead to change in derived demand for soybean crop. [1]</p>	
	(ii) Explain the likely value of price elasticity of demand for Soybean.	[2]
	<p>Extract reference: "soybean has become an important source of human and animal protein, with the majority of its cultivation destined for animal feed and the remaining for direct human consumption,"</p> <p>State likely value: PED value < 1 [1]</p> <p>Explanation: Due to the importance of soybean as an important FOP for production of many food as well as direct consumption e.g. animal feed. The high need for it makes its demand price inelastic i.e demand insensitive to price changes. [1]</p>	
(c)	With the help of a diagram or diagrams, explain two strategies adopted by the world's largest meat-producing companies to raise their profits.	[6]
	<p>"Mergers and acquisitions" [3m]</p> <ul style="list-style-type: none"> - Through mergers and acquisitions, the merged company will have a larger market share → larger output → Could enjoy greater technical economies of scale → lowered unit cost of production → Since profits = revenue – costs, lowered MC and AC leads to higher profits. <p>OR</p> <ul style="list-style-type: none"> - Through mergers and acquisitions, the merged company will have a greater market share → greater firm DD, AR shifts to the right → Through diagram, P and Q increases → Since revenue = P* Q, revenue increases, ceteris paribus. <p>"Product Diversification" [additional 2m]</p>	

	<p>- Through product diversification, firms could better cater to the taste and preferences of consumers as well reduce substitutability of products → increases firm demand and more price inelastic (AR shifts to the right and more price inelastic) → P and Q increases → Since revenue = P* Q, total revenue increases, ceteris paribus</p> <p>OR</p> <p>"Successful lobbying of governments...ease of these companies' access to foreign markets."</p> <p>- Larger export market for greater firm DD → AR shifts to the right → Since revenue = P* Q, total revenue increases, ceteris paribus</p> <p>-</p> <p>Correct use of at least 1 diagram to support analysis [1m]</p>	
(d)	<p>(i) The production of soy as livestock feed and for export comes at the cost of destroying the Amazon forest and leads to economic inefficiencies in resource allocation.</p> <p>In light of the above economic inefficiencies in resource allocation, discuss whether Brazil should continue to prioritise economic growth.</p> <p>Brazil should continue to prioritise economic growth due to the improved standards of living that it could bring about. The production of soy for export allows for greater export revenue (X) leading to AD increasing since $AD=C+I+G+(X-M)$. The increase in AD leads to RNY increasing by multiples causing economic growth. The increase in real purchasing power of Brazil citizens as a result of greater disposable income leads to increased consumption of goods and services hence improving MSOL.</p> <p>Brazil should not prioritise economic growth due to the presence of allocative inefficiency, in particular, the over-production of soybean. Production of soybean through slash and burn techniques leads to negative externalities such as carbon dioxide and the resulting air pollution which affects the respiratory health of people living around. They may incur healthcare cost which are not compensated for. The presence of the negative externalities leads to a divergence between MPC and MSC where MSC is greater than MPC by the MEC generated. Producers of soy through slash and burn techniques ignore the spillover costs such that they would choose to maximise their net private benefit by consuming at Q_p where $MPB = MPC$. However, the socially optimum quantity where societal welfare is maximized, is at Q_s, where $MSB = MSC$. At Q_p, $MSC > MSB$ where for every additional unit of soy produced, the society incurs a greater cost than it would benefit (value). Since $Q_p > Q_s$, there is an overproduction of soy through slash and burn techniques in the market, This results in over-allocation of resources leading to welfare loss which is the summation of the excess of MSB over MSC for the units $Q_p Q_s$. Hence there is allocative inefficiency in the production of soy.</p>	[8]

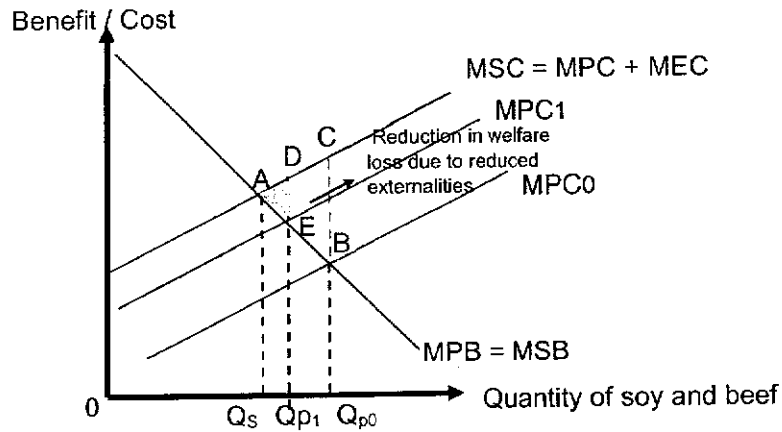


Overall, as it is mentioned in Extract 5 that the Brazilian government has not been effective in lowering deforestation or forest fires through the implementation of policies, whether Brazil should prioritise the economic growth in light of the economic efficiencies depends on whether there is the presence of effective government intervention to ensure that the negative externalities is reduced to the minimum in order to reduce the extent of economic inefficiencies in resource allocation. Should the government be able improve implementation and monitoring, prioritization on economic growth is possible without economic inefficiencies.

Level	Knowledge, Understanding, Application, Analysis	Mark
L2	For a well-developed answer that explains both the benefits of economic growth as well as costs of economic inefficiencies in resource allocation as a result of economic growth. Answer is well-supported with appropriate examples where applicable/in the context of the question.	4-6
L1	For an underdeveloped answer that explains the benefits of economic growth and/or costs of economic inefficiencies in resource allocation as a result of economic growth. Answer may be one-sided.	1 -
Evaluation		
E1	Value-judgements on the whether Brazil should continue to prioritise economic growth.	1-2

(ii) Discuss whether a ban on unauthorised outdoor fires is the best policy to deal with the problems caused by the slashing and burning of the Amazon forest. [10]

As explained in di), slashing and burning of the Amazon forest has led to the problem of negative externalities in the production for soybean and beef. To tackle the issue, one policy adopted by Brazil is to issue a ban on unauthorized outdoor fires (Extract 5)



A ban on unauthorized outdoor fires restricts the cheap slash and burn method of farming to produce soy and beef. This will reduce the MEC as there is less pollution to the environment as well as deforestation. Producers will now experience higher unit COP due to the need to switch to more expensive production method and hence produce at Q_{p1} where $MPB=MPC1$. The overproduction is reduced from Q_{p0} to Q_{p1} and welfare loss is reduced from ACB to ADE . At the same time, this may reduce the problem of hotter temperatures which had led to loss of productivity in the soybean farmers. Soybean farmers are then potentially able to make more profits with reduced pollution.

The ban may not be the best policy as it may not be effective, as evidenced in the case of Brazil where enforcement is difficult to be implemented and monitored. Curbing the slashing and burning as a farming practice also meant that Brazil has to give up on lesser soy and beef production, leading to lower economic growth. However, a ban is a clear and easy policy to understand and follow, especially by farmers in Brazil who may not be well-educated.

Another policy to tackle the problems caused by the slashing and burning of the Amazon forest is through the use of public education on farmers to inform them of the cost on themselves as well as negative externalities due to global climate change. For instance, farmers should be educated on the economic harm to the soybean industry from regional weather changes and how they outweigh the profits that soybean farmers collectively can gain by claiming more land. With increased MPC from $MPC0$ to $MPC1$, producers will now produce at Q_{p1} where $MPB=MPC1$. The overproduction is reduced from Q_{p0} to Q_{p1} and welfare

loss is reduced from ACB to ADE. On the other hand, with understanding on the negative externalities,

However, public education may not tackle the issue of negative externalities directly and its effectiveness is dependent on public receptivity.

The 'cap and trade' system can also be implemented. The Brazilian government decides on the optimum number of permits to be given out. A permit gives a polluter the right to discharge wastes of a certain amount into the environment. If the number of permits issued corresponds to the socially optimum quantity, it will solve the market failure problem. The government then issues permit to all farmers. The excess permit that the firms received from the government can be resold in the trading market. The price of the permit in the trading market is determined by the market demand for permits by firms wanting to pollute, and the market supply of permits available in the market. The price of pollution permits will be determined by the demand and supply for pollution permits. Firms who could reduce pollution cheaply by changing production processes and investments in green technology would do so as long as it is cheaper than to buy a permit at the prevailing market price. They would then either not require additional permits, and / or be able to sell the permit off in the market to another firm who is not able to reduce pollution cheaply.

The policy can be very effective if the government is able to correctly and accurately measure the optimal level of emissions and therefore decide on the correct number of permits to be issued. It also targets root cause of problem – i.e. firms are now internalising external costs, as firms are now made to pay for permits to pollute (or incur costs by investing in new technology to reduce pollution). However, it could be difficult, or costly for the Brazilian government to estimate the amount of permits to issue in the first place. The government also has to estimate the socially optimum level of pollution accurately.

In conclusion, a ban, being an easy policy to understand can be a short term policy to deal with the problems caused by the slashing and burning of the Amazon forest. As long as the enforcement can be fulfilled and done in well, this is a direct method to tackle immediate environment threats. However, this is also a blunt policy and without the relevant knowledge of the problem holistically i.e how farmers' profits and not third parties can also be hurt with environmental degradation, as well as policies to facilitate farmers to raise their productivity of farming via other farming methods, this policy will not work for the long term. With Amazon forest owned by many countries, it should also be a collective effort/ partnerships from all countries involved to restrict deforestation and pollution. In this sense, the 'cap and trade' system collectively owned by all countries will likely be the best policy to coordinate international efforts on the problems of the Amazon forest.

Level	Knowledge, Understanding, Application, Analysis	Marks
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	L2	For a well-developed answer that explains 2 policies to reduce the market failure and associated problems caused by the slashing and burning of the Amazon forest. Explanations includes limitations of policies.	5-7	
	L1	For an answer that explain policies to reduce the market failure and associated problems caused by the slashing and burning of the Amazon forest. Cap of 4 if only 1 policy is explained	1 – 4	
Evaluation				
	E2	Value-judgements on the best policy	2-3	
	E1	Unjustified stand	1	



YISHUN INNOVA JUNIOR COLLEGE
JC 2 PRELIMINARY EXAMINATION
Higher 2

CANDIDATE
NAME

CG

INDEX NO

ECONOMICS

9757/02

Paper 2 Essays

14 September 2021

2 hours 15 minutes

Additional Materials: 4-page Answer Booklets

READ THESE INSTRUCTIONS FIRST

Write your name, index number and civics group on all the work you hand in.
Write in dark blue or black pen on both sides of the paper.
You may use an HB pencil for any diagrams or graphs.
Do not use staples, paper clips, highlighters, glue or correction fluid/tape.

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

Start **each question** (not each section) on **fresh answer booklet**.

At the end of the examination, fasten your work for **each question separately**.

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

This document consists of **3** printed pages and **1** blank page.

Answer **three** questions in total.

Section A

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

- 1 Palm oil price hits record high due to recovering global demand and labour shortages as a result of the coronavirus pandemic. Palm oil is one of the most commonly used oils in the world, with its main uses in food but also in cosmetics and biofuels. To help ease the people's cost of living, Malaysia's government has set a maximum retail price of below 30 Malaysian ringgit for 5kg of pure palm cooking oil in bottled packaging.

Source: *The Edge Markets*, accessed 21 August 2021

- (a) Using demand and supply analysis, explain why recovering global demand and labour shortage may have led to a record high price for palm oil. [10]
- (b) Discuss the factors that the Malaysian government would consider when deciding to set a maximum retail price for pure palm cooking oil in bottled packaging. [15]

- 2 One of the most competitive consumer categories is telecommunications. The market has opened up with home-grown brands, as well as foreign players looking to disrupt the market. The result: Consumers now have more options than ever before. In 2016, there were three service providers to choose from. Today, there are eleven. The consequence is shrinking revenues for these firms.

Source: *The Business Times*, 9 December 2019

- (a) Explain how the market structure in which telecommunications firms operate is likely to influence how prices are determined. [10]
- (b) Discuss the various strategies telecommunication firms could adopt to increase their profits. [15]

- 3 Singapore's spending on healthcare has grown every year and is likely to continue rising, which is why the country needs to be prudent and ensure support is targeted at those in greater need, said Health Minister. In the end, preventative healthcare will be key in addressing the rising medical demands of an ageing population and containing costs in the long term.

Source: Adapted from *The Business Times*, 6 March 2021

- (a) Explain why the Singapore government might intervene in the provision of healthcare. [10]
- (b) Discuss the policies that the Singapore government can adopt to achieve the efficient allocation of resources in the healthcare market. [15]

Section B

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

- 4 Singapore's real Gross Domestic Product per capita recorded a growth of 3.0% in 2018 while Cambodia's growth in real Gross Domestic Product per capita stands at 5.9% in 2018.

Source: *World Bank*, accessed 30 Aug 2021

Discuss the extent to which you would support the use of real Gross Domestic Product per capita as a measure of the change in the living standards in Singapore in 2018, and when comparing living standards with another country such as Cambodia. [25]

- 5 The US Federal Reserve signalled on June 19 that it is ready to cut interest rates for the first time in more than a decade to give employment a boost but this could indirectly spur more inflation.

Source: Adapted from *The Conversation*, 20 June 2019

- (a) Explain the main causes of unemployment in an economy such as the USA. [10]
- (b) Discuss whether possible conflicts between macroeconomic objectives is the main factor that needs to be considered in policy decision-making by a government. [15]

- 6 In 2019, Singapore overtakes US to become the most competitive economy. Singapore will need to improve the capabilities of the enterprises, transform industries and ensure that workers are well-equipped with the right skills to stay competitive. The global competitiveness of an economy can be improved by supply-side policies that attract FDI which brings about innovation.

Source: Adapted from *Channel News Asia*, 9 Oct 2019

- (a) Explain how improving competitiveness will help Singapore achieve its macroeconomic goals. [10]
- (b) Discuss whether supply-side policies focusing on attracting FDI is the best approach to help Singapore maintain its global competitiveness. [15]

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2	<p>Palm oil price hits record high due to recovering global demand and labour shortages as a result of the coronavirus pandemic. Palm oil is one of the most commonly used oils in the world, with its main uses in food but also in cosmetics and biofuels. To help ease the people's cost of living, Malaysia's government has set a maximum retail price of below 30 Malaysian ringgit for 5kg of pure palm cooking oil in bottled packaging.</p> <p style="text-align: right;">Source: <i>The Edge Markets</i>, accessed 21 August 2021</p>
(a)	Using demand and supply analysis, explain why recovering global demand and labour shortage may have led to a record high price for palm oil. [10]
(b)	Discuss the factors that the Malaysian government would consider when deciding to set a maximum retail price for pure palm cooking oil in bottled packaging. [15]

Suggested Answers for 2021 H2 Mid-Year Exam – Essay Q2

Question Analysis (3'Cs' Approach):

Command	Explain Making clear of causal links, supported by economic analysis.
Content	Demand and Supply factors to explain a record high price for palm oil What are demand and supply factors? What are the relevant elasticity factors? What framework and tools of economic analysis to use?
Context	No specific context

Question Approach:

This question tests on the demand and supply factors to explain on the record high price for palm oil. To explain a record high price, besides demand and supply factors, there is a need to apply concepts of PED and PES.

Suggested Answer:

Introduction:

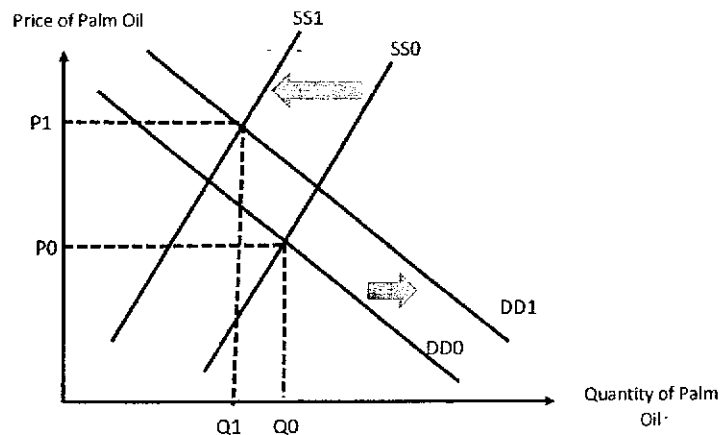
- Price of a good is determined by demand and supply factors.
- Recovering global demand could lead to a rise in demand and labour shortage could reduce the supply.
- Together, the increase in demand and fall in supply could contribute to the record high price for palm oil.

Body Paragraph 1: Increase in demand

- As mentioned in the preamble, factors like worldwide economic recovery can lead to higher disposable income and a rise in demand for commodities. Since palm oil is one of the most commonly used oils in the world, with its main uses in food but also in cosmetics and biofuels. When demand for commodities increase, there will be a rise in derived demand for FOP such as palm oil in the production of these commodities → demand for palm oil is likely to increase. The demand curve shifts rightwards.

Body Paragraph 2: Decrease in supply

- Supply of palm oil is likely to decrease.
- This is largely due to labour shortage leading to a rise in labour cost → upward pressure on wages (price of labour) → producers are less willing and able to supply at all price levels → supply for palm oil is likely to fall. The supply curve shifts leftwards.



As seen from the diagram above, the increase in demand and a fall in supply leads to a reinforced increase in price of palm oil. A shortage is created at the original price level P_0 . This shortage creates an upward pressure on price for palm oil, leading to the price increase until it reaches to the new eqm at P_1 .

Body Paragraph 3: Price inelastic demand and supply

- While the demand increase and supply decrease could contribute to the rise in price, PED and PES concepts could be used to explain the record high price for palm oil.
- The **demand for palm oil is likely to be relatively price inelastic** as palm oil is one of the most commonly used oils in the world, with its main uses in food but also in cosmetics and biofuels.
- It is an important FOP of high need for the production of goods and services.
- The **supply of palm oil is also relatively price inelastic** due to the long production time as it takes time to plant and harvest palm trees for palm oil.
- Therefore, with demand and supply both being price inelastic, as shown in the figure above, the rise in demand and fall in supply along price inelastic supply and demand curves leads to a large increase in price, leading to record high price for palm oil.

Conclusion

In conclusion, a rise in demand, coupled with a fall in supply are reasons behind the increase in price for palm oil. In addition, the price inelastic demand and supply increases the price increase in terms of magnitude.

Mark scheme

Knowledge, Understanding, Application and Analysis		
L3	For a well-developed answer that thoroughly explains how recovering global demand and labour shortage as demand and supply factors to explain for a record high price for palm oil. Answer demonstrates excellent knowledge and understanding of demand and supply analysis, including concepts on PED and PES.	8 - 10
L2	For an under-developed answer that explains how recovering global demand and labour shortage as demand and supply factors to explain for a high price for palm oil. Answers may not have included concepts of PED and PES.	5 - 7
L1	For a largely irrelevant or smattering answer that demonstrates little/some knowledge & understanding of demand and supply factors to explain the high price for palm oil. Answer may contain conceptual errors.	1 - 4

Marker's Comments

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Discuss the factors that the Malaysian government would consider when deciding to set a maximum retail price for pure palm cooking oil in bottled packaging. [15]

Question Analysis (3'Cs' Approach):

Command	'Discuss' (whether) 2 sided arguments + Stand. Support answers with economic analysis
Content	DM factors that the Malaysian government would consider when deciding to set a maximum retail price for pure palm cooking oil in bottled packaging. What are the benefits and costs for setting the price ceiling? What are the constraints? What are some information to be gathered? What are the different perspectives the government will consider?
Context	Malaysia DM factors should be applied to the Malaysian context.

Question Approach:

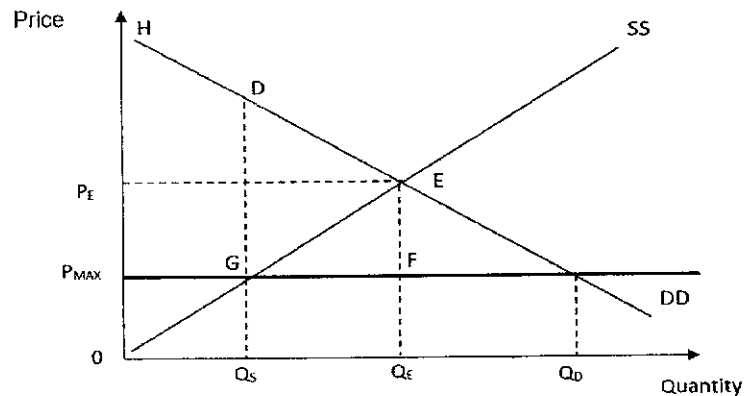
This question tests on decision-making factors the Malaysian government would consider in setting a policy of a maximum retail price for pure palm cooking oil in bottled packaging. Students have to apply this context to the decision-making factors, weigh among them for importance in consideration.

Suggested Answer

Introduction	Palm oil price has hit a record high. Given its importance as cooking oil, the high price has affected the cost of living. One of the policy to reduce the impact on cost of living is to set a price ceiling i.e maximum retail price for pure palm cooking oil in bottled packaging. This essay seeks to discuss the factors the Malaysian government would consider when deciding on this policy.
Body 1:	The objective of maximum price control is to prevent prices from rising above a certain level to make goods and services more affordable. The government will consider the benefits of price ceiling i.e maximum retail price which is the
Benefits	

reduction of the price of palm oil and improving equity of the good to the lower income group.

A maximum price is the maximum permissible price that producers may legally charge for a good or service.



For the maximum price regulation to be effective, the price will be set below the market equilibrium price. With the maximum permissible price P_{MAX} , Q_S number of consumers will be able to purchase the palm oil at this price, sheltering them from the record high price of the good. Consumer surplus increases from HEP_E to $HDGP_{MAX}$.

Body 2:

Costs

The Malaysian government also has to consider the costs of the policy. A maximum price leads to allocative inefficiency. Maximum permissible price leads to shortage of palm oil in the market. In the diagram, the maximum price P_{MAX} leads to a shortage of $(Q_S Q_D)$ units. Due to the policy, while there is a tendency for the price to increase, price is not able to adjust to the equilibrium, leading to allocative inefficiency and deadweight loss of area DEG .

Prolonged shortages of palm oil of high demand may lead to the emergence of black markets for certain goods, i.e. food products that are bought at the price and are illegally sold at prices above the legal price ceiling. This suggests that the policy may not work and less consumers may benefit from the policy.

Body 3:

Constraints

To effectively implement the policy, the Malaysian government has to consider constraints to the implementation of it. The government has to consider if there is sufficient enforcement officers to all supermarkets and shops selling bottled palm cooking oil. This is because firms have a profit maximizing objective and since there is shortage of palm cooking oil due to the maximum permissible price, supermarkets and shops may succumb to the higher black market price, intentionally restricts sale of the products to only the black market.

As one of the largest exporter of palm oil in the world, producers may also keep stock of the good to have it exported overseas. Without effective enforcement, the policy will not be feasible to be carried out.

In deciding the implementation of maximum permissible price, the Malaysian government is likely to weigh between the benefit and costs of it. This depends

on the importance of palm cooking oil as a necessity in the country. For example, if it is the primary cooking oil in the country and there are no close substitutes for it, the benefit of the policy which is lowered price of the good is likely to outweigh the cost. The benefit of the policy is then likely to be the primary factor of consideration.

However, whether benefits of the policy can be reaped is also dependent on the constraints in the implementation, which is whether the maximum permissible price can be successfully implemented successfully. If enforcement is indeed an issue, then constraints will also be an important factor to consider as without constraints only then the benefits can be reaped.

Lastly, to reduce the impact on the shortage problem, the government can implement complementary policy of rationing of the good to limited quantity per household. If this can be implemented, costs of policy can be mitigated and it will not be as important a factor of consideration.

Mark Scheme

Knowledge, Understanding, Application and Analysis		
L3	For a well-developed answer that shows thorough knowledge and explanation of the decision-making factors the Malaysian government considers when deciding to set a maximum retail price for pure palm cooking oil in bottled packaging. There is good application to the Malaysian government context.	8 - 10
L2	For an under-developed answer explains the decision-making factors the Malaysian government considers when deciding to set a maximum retail price for pure palm cooking oil in bottled packaging. Answers may not have applied to the Malaysian government context.	5 - 7
L1	For an answer that shows some knowledge of the decision-making factors.	1 - 4
Evaluation		
E3	For an answer that arrives at an analytically well-reasoned judgement.	4-5
E2	For an answer that makes some attempt at evaluation, but does not explain adequately their judgement.	2-3
E1	For an answer that gives an unexplained, unsupported evaluative statement.	1

Markers' Comments:

- 2 One of the most competitive consumer categories is telecommunications. The market has opened up with home-grown brands, as well as foreign players looking to disrupt the market. The result: Consumers now have more options than ever before. In 2016, there were three service providers to choose from. Today, there are eleven. The consequence is shrinking revenues for these firms.

Source: *The Business Times*, 9 December 2019

- (a) Explain how the market structure in which telecommunications firms operate is likely to influence how prices are determined. [10]

Explain the reasons for their choice of market structure

Oligopoly	MC
<p>High barriers to entry E.g. High financial costs E.g. Substantial iEOS reaped</p> <p>Few large firms, holding a large market share in the industry E.g. the dominant players in SG include SingTel, StarHub, M1</p>	<p>Low barriers to entry E.g. Low financial costs (cutting down on rent by going online, sharing the established firm's infrastructure network etc.) E.g. Smaller iEOS reaped</p> <p>Many small firms, each with insignificant market share E.g. new players include TPG, Circles, MyRepublic, Gomo</p> <p>Nature of product: differentiated (different pricing, customisation of plans etc.)</p>

Link to how prices are being determined in the market

Oligopoly	MC
<p>Explain price rigidity Kinked Demand Theory</p> <p>OR, price-fixing, under a collusive model (e.g. price leadership model/ cartel)</p>	<p>The above features gives rise to a relatively elastic demand curve Weak price-setting ability ($P > MC$ by a small amount)</p> <p>Due to low barriers to entry, in the long run, if firms earns supernormal profits, there is entry of new firms, and profit levels are eroded to long run normal profits.</p> <p>Similarly, in the long run, if firms earns subnormal profits, there is exit of firms, and profit levels rises to long run normal profits.</p>

L3	For a well-developed answer that shows thorough knowledge and appropriate application of the telecommunications firms to the student's choice of market structure. Answers explains how characteristics affects prices determined in the market.	8 - 10
L2	For an under-developed answer that shows some knowledge and application of the telecommunications firms to the student's choice of market structure.	5 - 7
L1	For an answer that shows some knowledge of the student's choice of market structure.	1 - 4

Marker's Comments:

Weaker responses were much more cursory and lacked the required depth and breadth of explanation. In these responses, diagrams were less well explained or the responses lacked a tool of analysis to support the explanations.

The stronger responses to this question clearly explained the reasons for their choice of market structure in which telecommunication firms operate. Explanations were based on market characteristics such as barriers to entry or the number of firms. Oligopoly was the most popular and the best explained of these, but there were also some stronger responses in support of monopolistic competition. Stronger responses also gave a good explanation of why prices might be rigid in oligopoly or lead, in the long run, to normal profits in monopolistic competition. Weaker responses tended to state rather than explain their choice of market structure and gave a more cursory explanation of how prices might be determined. The weakest responses either listed all possible types of market structure, none of which was applied to telecommunication firms, or simply stated that telecommunication firms operate in an oligopoly without explanation to justify this choice.

- 2 One of the most competitive consumer categories is telecommunications. The market has opened up with home-grown brands, as well as foreign players looking to disrupt the market. The result: Consumers now have more options than ever before. In 2016, there were three service providers to choose from. Today, there are eleven. The consequence is shrinking revenues for these firms.

Source: *The Business Times*, 9 December 2019

- (b) Discuss the various strategies telecommunication firms could adopt to increase their profits. [15]

Oligopoly	MC
<p><u>Price strategies</u></p> <p>Limit/predatory pricing: The oligopolist can lower prices significantly in the short run to prevent new firms from entering, or drive out an existing firm. But, this leads to losses</p> <p>Price discrimination: The oligopolist can adopt 3rd degree price discrimination to increase its total revenue, and thus profits. Its effectiveness depends on whether the other conditions for price discrimination are met.</p> <p><u>Non-price strategies</u></p> <p>Product and/or process innovation: With long run supernormal profits, the oligopolist has the ability to undertake product and process innovations. Tends to be costly, and an increase in profits from these innovations is not guaranteed.</p> <p>Advertising and brand promotion In creating perceived differences in consumer's minds, the oligopolist enjoys an increase in its demand, as well as a relatively more inelastic demand curve. Tends to be costly, and the result depends on the effectiveness of the advertising campaigns</p>	<p><u>Price strategies</u></p> <p>As demand is relatively price elastic, the MC firm would decrease prices to increase total revenue, and thus profits. But, this may lead to a price war, and thus, losses.</p> <p>Price discrimination: The MC firm can adopt 3rd degree price discrimination to increase its total revenue, and thus profits. Its effectiveness depends on whether the other conditions for price discrimination are met.</p> <p><u>Non-price strategies</u></p> <p>Advertising and brand promotion In creating perceived differences in consumer's minds, the MC firm enjoys an increase in its demand, as well as a relatively more inelastic demand curve. Tends to result in only weakly differentiated products (nature of product)</p>

<u>Evaluative comment</u>	
<p>Time period: Recognising that these alternative strategies may only be effective in the short run, while process innovation is more likely to have long term effects.</p> <p>Nature of industry: Telecommunications may benefit firms with higher capital as they are better able to leverage off the rapid changes in technology to create better, more seamless ICT product offerings for their consumers.</p>	<p>Type of long-run profits: Its non-price strategy tends to be constrained by its long run normal profits which negates its ability to do product and process innovation.</p> <p>Customisation of product: Their niche lies in offering the customisation of products to suit the varying needs of their consumers. E.g. gamers who require fast and reliable broadband, or companies who require work phones that have attractive data roaming rates for international business calls.</p>

L3	For a well-developed answer that shows thorough knowledge and explanation of strategies telecommunication firms can take to increase profits. Answers are supported with AR/MR/MC/AC diagrams.	8 - 10
L2	For an under-developed answer that explains some strategies telecommunication firms can take to increase profits. Answers may lack clear diagrammatic analysis or lack consistent application to the context of telecommunication firms.	5 - 7
L1	For an answer that shows some knowledge of firms' strategies to increase profits.	1 - 4
Evaluation		
E3	For an answer that arrives at an analytically well-reasoned judgement.	4-5
E2	For an answer that makes some attempt at evaluation, but does not explain adequately their judgement.	2-3
E1	For an answer that gives an unexplained, unsupported evaluative statement.	1

Marker's Comments:

Similar to (a), weaker responses were much more cursory and lacked the required depth and breadth of explanation. In these responses, diagrams were less well explained or the responses lacked a tool of analysis to support the explanations.

In general, most candidates gave a good explanation of the strategies firms can adopt to increase their profits. The factor that discriminated the stronger from the weaker responses was in the quality of analysis used in the explanation. These were supported with excellent and well drawn AC/MC/AR/MR diagrams. Except in the strongest responses, alternative policies were less well explained. The best explained of these alternatives tended to be strategies based on advertising and brand promotion, limit/predatory pricing or on price discrimination.

There were some good and appropriate evaluative comments, the strongest of which recognised that within an oligopoly/competitive market these alternative strategies may only be effective in the short run, while process innovation is more likely to have long term effects.

1

- 4 Singapore's real Gross Domestic Product per capita recorded a grow of 3.0% in 2018 while Cambodia's growth in real Gross Domestic Product per capita stands at 5.9% in 2018.

Source: *World Bank*, accessed 30 Aug 2021

Discuss the extent to which you would support the use of real Gross Domestic Product per capita as a measure of the change in the living standards in Singapore in 2018, and when comparing living standards with another country such as Cambodia. [25]

Question Analysis

*Standard of living consists of both **material** and **non-material** aspects.*

*The key statistics mentioned in the preamble, namely real GDP per capita growth is an indicator of internal economic performance. However, it needs to be noted that indicators of economic performance alone are not sufficient to assess standards of living. This question has **four main areas for discussion, how can real GDP per capita growth shows/measure higher standard of living, the limitations of this indicator for comparison of standard of living over time in Singapore, and with other economies and what indicators could be a better measurement.***

*For comparison overtime within a country (Singapore), it should be recognised that there are other factors that can affect standard of living. **Hence, an explanation of a range of the factors that impact on quality of life** can include indicators on hours worked, pollution, access to education and health care, and equity (in terms of fairness and ease of access to goods and services) and so on should be explained.*

*For comparisons to be made with other economies, limitations of the use of data should be explained and students should suggest **real GDP per capita needs to be converted to a common currency - PPP.***

In addition, for better assessment a range of additional measures might be used instead.

Suggested Outline

Introduction

Standard of living refers to the well-being of an average person in the economy. This includes the **material / quantitative** and **non-material / qualitative** aspects of welfare.

Material standard of living refers to the quantity and quality of goods and services available for consumption to the average resident of a country while non-material standard of living refers to the intangible aspects of quality of life, e.g. in terms of physical, social and mental well-being.

Real GDP per capita growth rate is to a certain extent able to indicate the increase in quantity of goods and services available for consumption to the average resident of a country; but, it is insufficient to assess accurately SOL within a country and between countries.

Explain how real GDP per capita growth is able to measure of the change in the living standards in Singapore

- From the preamble, Singapore's real GDP per capita has grown by 3.0% in 2018 implying that on average, an individual is having an increased share of national output produced.
- GDP refers to the total monetary value of all final goods and services produced within a country's geographical boundary, regardless of the ownership of factors of production, during a given period of time and before adjustment for depreciation.
- Using "real" GDP meant that GDP has been adjusted for inflation on the monetary value of the goods and services produced and it measures the **actual volume of production**.
- Besides accounting for the changes in prices (inflation), this indicator has also **considered the change in size of population** where the "per capita" value is derived from real GDP divided by the population size and hence signifies what an average citizen would be enjoying in terms of the actual volume of production.
- Hence, with a **growth in real GDP per capita**, it means that **each individual** is likely to have a **higher income and hence higher purchasing power to consume more goods and services**. Hence, **material aspect of standard of living has increased**. In Singapore in 2018, our material growth as measured is 3.0% while Cambodia's was 5.9%
- Since Cambodia's growth rate was higher, it means that she has achieved greater growth in material SOL as compared to SG.
- With economic growth, Singapore government is also able to collect more tax revenue, which can in turn be used for financing government expenditures, particularly on **merit goods**, e.g. health care and education, improving the **non-material aspects** of Singapore residents as well
- However, this indicator is likely to only measure SOL within and between countries accurately to a small extent.

Explain the limitations of using real GDP per capita growth to measure SOL within country (SG) overtime / real GDP per capita growth insufficient to measure SOL overtime

- Indicator does not consider income distribution. Income inequality is not captured in this data. There is a need to use complementary indicators like Gini coefficient to assess changes in income distribution in a country. This is because real GDP per capita growth although indicates what an average citizen may enjoy, it does not accurately captures the distribution. This increase in gini coefficient in SG in the recent years meant that the economic growth **may not be equally enjoyed** by all. The *greater availability of goods and services* could have been felt more intensely by the higher skilled/higher income earners but less for the lower skilled/lower income. Hence standard of living might not have improved for the lower income households. It not only meant that material SOL may not have increased for the

latter group, it may also give rise to social and political instability, worsening non-material aspect of standard of living.

- Other aspects of non-material SOL are not captured too. For example, higher GDP could come at the expense of longer hours worked, a greater stress level and lesser leisure hours. This is especially so if the larger output was not because of higher productivity. In fact, statistic has shown that our productivity has indeed seen a fall in the recent years. This compromises the mental health of individual and would decrease the non-material well-being of the individual.
- *Can also explain material SOL using point on the need for unemployment rate as the higher real GDP could be due to less pool of employed contributing to more production → hence the increase in income and purchasing power is not enjoyed unequally.*
- *Can also explain that to ascertain material SOL, need data on real income growth rate → real income growth rate needs to be at least on par with inflation in order for citizens to increase purchase of G&S*
- *For non-material SOL, can also explain using pollution level, state/ quality of health, state/quality of education status etc is not captured*
- *(any 2 points above that are well explained)*

Explain reason why comparing real GDP per capita growth between countries is insufficient/inaccurate to measure SOL

- Real GDP per capita growth rate in the preamble shows that Cambodia has a higher growth than Singapore. While this indicates what may have happened to Cambodia's SOL over the years in the same way as explained above, the ability to compare SOL between SG and Cambodia based on this indicator is largely limited and should only be supported to a small extent.
- First and foremost, stages of development in the 2 countries are vastly different. SG is considered as a relatively developed country while Cambodia is still developing. As such, the stock of wealth and the ability to accumulate wealth to give a higher growth value in the real GDP/capita is different. The real GDP/capita growth measures what was gained from the new production, but it failed to account for the utility that is available from the already existing assets. Singapore would have already built up large stock of consumer durables and well-developed infrastructures and amenities compare to Cambodia. Thus, even though Cambodia growth of real GDP per capita is greater in year 2018, it does not necessarily means that the Cambodians are enjoying a higher SOL than Singaporeans.
- Riding on similar point, the increase in Cambodia's national income could have been contributed by an increase in her defence expenditure which Singapore has

previously and consistently been investing in. While this causes an increase in national income, it does not necessarily mean that Cambodia will have a higher SOL. Likewise, if the national income of Cambodia was contributed by an increase in investment into education and healthcare services, SOL may not increase immediately.

- Moreover, to begin with, assessment on SOL between countries by using such indicator may be inaccurate.
- This is because, national income figures accounted by individual countries are denominated in different currencies. When there is a need to compare SOL within these countries, their GDP figures measured in their local currencies are then converted at the current exchange rate for comparison. However the current market exchange rate may be a poor indicator of the purchasing power of the currency at home especially if a country's exchange rate has been manipulated to meet its macro goals such as to boost economic growth.

For example, for a comparison of the United States and China. In 1992, real GDP per person in the U.S. was US\$24,408. In China, it was 2,028 Yuan. During 1992, US\$1 was worth 5.732 Yuan. Using this exchange rate to convert Chinese Yuan into U.S. dollars, real GDP per capita in China was US\$352. Based on the data, real GDP per capita in U.S. was 69 times higher than that in China. But \$1 in the U.S. cannot buy the same amount of goods as 5.762 Yuan can buy in China. The relative prices (or cost of living) in the two countries are very different.

Henceforth, in order for a fairer comparison, there is a need to convert real GDP per capita of different economies to a **common currency using purchasing power parity (PPP) exchange rate**. This is a rate of exchange that would allow a given amount of money in one country to buy the same amount of goods in another country after exchanging into the currency of the other country.

Explain the limitations should countries use real GDP per capita growth to compare between countries overtime / real GDP per capita growth insufficient to measure SOL overspace

- Should 2 countries still continue to use real GDP per capita growth, the accuracy could also be flawed by the following

(any 2 points from the following)

- Accuracy of GDP figures may be different in different countries depending on data collection methods. It is typically more difficult to collect accurate data in larger and less developed countries as compared to smaller and more developed countries. In developing countries like Cambodia, the method used may be primitive and data may not be as readily available less compared to SG which is likely to use more advanced and accurate means of accounting for our national income. Thus,

comparison between the 2 may not give an accurate picture of the SOL in respective countries.

- Another problem about using national income statistics to make international comparison is the omission of non-marketed transactions. In this case, there is a higher possibility that less developed Cambodia has a larger non-marketed transaction than Singapore. Much more families in Cambodia are likely to for example, engage in farming and be self-sufficient in terms of planting their own food and exchanging produces with their neighbours, they are more likely to make their own clothes, look after their children on their own etc. These are productive labour service that are not accounted for but would have be recorded in Singapore as these services are often 'outsourced' and are official transactions.
- *Can explain size of black market → these earnings are omitted and unrecorded e.g. part time one-to-one tutor in SG, Private drivers e.g. Grab drivers who made a deal with passenger privately to avoid giving commission to Grab company. → These unrecorded transactions will understate national income figures. Thus, cannot compare accurately.*
- *Can explain difference in quality of goods and services....*

If without PPP and a comparison would like to be made, perhaps the countries could use other indicators

Explain the need to use other indicators to measure and compare SOL

- Recommend and explain the use of composite indicators that have considered both aspects of both the quantitative and quality aspects have been taken into consideration....
-

Evaluation/Judgement/Conclusion

For comparison within country overtime, real GDP per capita growth rate is probably one of the more accurate indicators that measures SOL and is able to measure change in material SOL to a large extent, nonetheless, it should be complemented with gini coefficient in order to account for the distribution of the growth. However, in measuring the non-material SOL, this indicator to a large extent is not sufficient.

For comparison between countries, there are much more considerations about its inadequacy and accuracy and hence to a larger extent, I will not support the use of this indicator on its own. Nonetheless, when the need arising to use such indicator to compare between different countries, the accuracy may differ. It should be noted that it would have a higher accuracy in terms of comparison if it is used for comparing 2 countries which are of comparable level of development and used similar methodologies of computing data as the inaccuracy could be reduced and hence able to shed more reliability data on the difference in SOL as compared to 2 countries with large difference in development and/or used vastly different methods of computing.

Last but not least, while we may agree that using composite index may give rise to more accurate comparison overtime within a country and also between countries, the data collection and use of the data can also be fraught with difficulties and inaccuracies too. Henceforth, an array of indicators should be used and made reference to before any conclusion can be made about the SOL within and between countries.

Level	Knowledge, Application/Understanding and Analysis	Marks
L3	<p>For an answer that uses economic analysis to explain how <i>real GDP per capita growth shows/measure higher standard of living</i> and the limitations of the data in assessing both standard of living within a country over time and in comparisons with other economies. Answer also suggested use of composite index to measure SOL more accurately.</p> <p>Max 18m if answer is not able to explain that a the given stats is unable to conclude that SG has lower SOL than Cambodia (i.e. did not explain 2 countries have different stages of growth and "stock of wealth")</p> <p>Max 15m if students fail to recognise that question is on "growth".</p>	15-20
L2	<p>For an underdeveloped answer that uses economic analysis to explain how <i>real GDP per capita growth shows/measure higher standard of living</i> and the limitations of the data in assessing both standard of living within a country over time and in comparisons with other economies. Answer also suggested use of composite index to measure SOL more accurately.</p> <p>(for markers:) Max 14m if all 3 main points not in.</p> <p>Max 14m for ans with enough scope but lacks in depth in explanation (i.e. indicator can measure mat SOL + indicator limited for both mat & Nmat SOL within country + indicator limited for comparing between countries x2 + composite index)</p> <p>Max 12m for ans that lacks depth in scope and explanation (i.e. indicator can measure mat SOL + indicator limited for either mat or Nmat SOL within country x2 + indicator limited for comparing between countries x2 + composite index)</p> <p>OR</p> <p>Max 11m for an answer that uses economic analysis to explain how <i>real GDP per capita growth shows/measure higher standard of living</i> but only consider either the limitations of the data in assessing standard of living within a country over time or in comparison with other economies</p>	9-14

	OR For an answer that gives a descriptive explanation of measures of standard of living and / or their limitations	
L1	For an answer that shows some basic but largely unexplained knowledge of measures of the standard of living or their limitations.	1-8
Evaluation		
E3	For an answer that uses economic analysis to support evaluative comments about both assessing standard of living within a country over time and comparisons with other economies	4-5
E2	For an answer that gives unsupported evaluative comment(s) about assessing standard of living within a country over time or comparisons with other economies	2-3
E1	Stating of judgment, without any substantiation	1

- 5 The US Federal Reserve signalled on June 19 that it is ready to cut interest rates for the first time in more than a decade to give employment a boost but this could indirectly spur more inflation.

Source: Adapted from *The Conversation*, 20 June 2019

- (a) Explain the main causes of unemployment in an economy such as the USA. [10]
- (b) Discuss whether possible conflicts between macroeconomic objectives is the main factor that needs to be considered in policy decision-making by a government. [15]

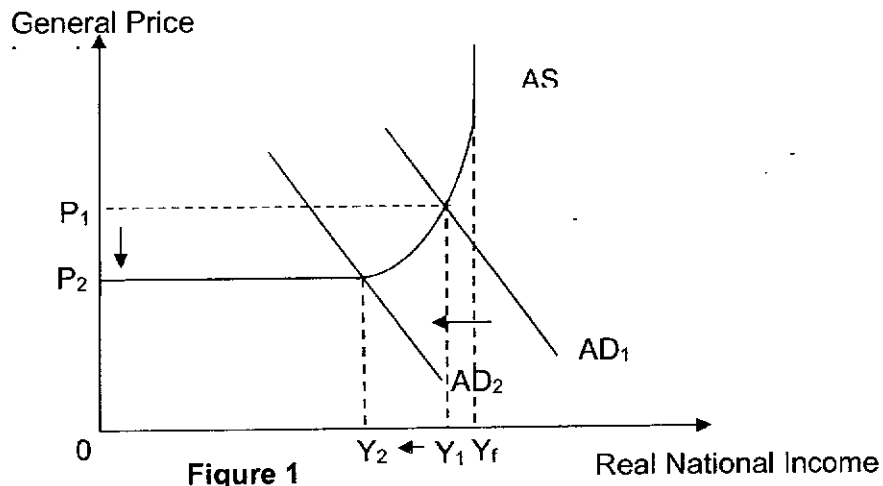
Question Analysis (3'Cs' Approach):

Command	Explain Making clear of causal links, supported by economic analysis.
Content	Main causes of unemployment What framework and tools of economic analysis to use?
Context	Economy such as USA

Question Approach:

This question the various causes of unemployment. To explain cyclical unemployment, the AD/AS framework is important and in explaining structural unemployment key economical analysis on the skills mismatch is essential. Frictional unemployment could be the 3rd cause of unemployment.

In the recent Covid-19 pandemic, not only has USA's exports been badly impacted by the global shocks, its aviation and tourism sectors have also come to a standstill as leisure travel drops to near zero. The pandemic depressed domestic consumption (C) with lock-downs/circuit breaker, while travel restrictions reduced investment expenditure (I) and paralysed the trade sector leading to a fall in net export revenue (X). The fall in these components of AD reduces AD and hence national income, leading to a rise in cyclical unemployment, ceteris paribus. With reference to Figure 1, the economy is initially at equilibrium at national income level Y1, where AD1 intersects AS. When recession occurs, AD in the economy falls, resulting in a fall in the national income from Y0 to Y1. Firms will find that they cannot sell all their current output leading to an accumulation in stocks (or inventories). Rationally therefore, firms will cut back on production and attempt to cut losses. As the firms cut down on production, they hire fewer factor inputs, including labour. This fall in employment reflects the rise in cyclical unemployment and the widened gap between the new national output level (Y2) and the full employment output (Yf) implies that there are more idling labour resources in the economy corresponding to the higher unemployment levels.



Countries like USA have to continuously restructure in the face of competition. We have developed new areas of comparative advantage which are relevant and competitive so as to differentiate our products from rivals. When an economy undergoes restructuring there is a deliberate shift in the focus from one industry to another. Workers in the old industry may find themselves out of job, but are unable to find job in the new industry, due to the lack of skills needed. There mismatch in the skills set results in the employers not willing the hire labours without the relevant skills set bringing about structural unemployment.

Frictional unemployment occurs because it takes time for people to find the right jobs and for employers to find the right people to hire, but there exists market imperfections such as **imperfect information** (e.g. Employers are not fully informed about the types of workers that are available and workers are not aware of the jobs that are available.) As a result, there is usually some time lag between leaving and finding employment, which leads to inevitably some form of frictional unemployment being present in any economy at any point of time, even at the full employment level of national output. This is part of the natural rate of unemployment as mentioned earlier. Inefficiency of information worsens the time lag between leaving and finding employment, but jobseekers who are frictionally unemployed are usually unemployed for a relatively short period of time.

Level Descriptors		Marks
L3	<ul style="list-style-type: none"> Conceptually accurate and well-developed explanation on <u>3</u> causes of unemployment in an economy such as the USA including both structural and demand deficient unemployment. Good use of relevant examples to support explanation. <p>Cap at 9 if it is only on cyclical + structural causes of unemployment</p>	8-10
L2	<ul style="list-style-type: none"> Conceptually correct but explanation contains several inaccuracies and/or is not well developed 	5-7

	<ul style="list-style-type: none"> • Explanation not well developed • Explanation not sufficiently supported by relevant examples. 	
L1	<ul style="list-style-type: none"> • Major conceptual errors in explanation. • Absence of conceptual analysis. 	1-4

Marker's Comments

Most responses were able to identify cyclical and structural unemployment as major sources of unemployment in economies such as USA. Stronger responses managed to use strong context to illustrate the sources of unemployment and for cyclical unemployment managed to use concepts present in the multiplier process to explain how greater production led to lowering of demand deficient unemployment. Weaker responses tend to be descriptive in nature.

- (b) Discuss whether possible conflicts between macroeconomic objectives is the main factor that needs to be considered in policy decision-making by a government. [15]

Question Analysis (3'Cs' Approach):

Command	Discuss whether 2 sided arguments + Stand. Support answers with economic analysis
Content	Conflicts between macroeconomic objectives 'Main Factor' DM framework could be used to brainstorm of the other factors that a government could consider in policy decision-making. Alternatively, one could consider the factors which influence the effectiveness of policies such as the multiplier size.
Context	Pre-amble context is on the USA.

Question Approach:

This question could be answered using the DM framework or by considering factors that influences the effectiveness of policies. The first factor that should be considered will be the conflict between macroeconomic goals.

Policy decision making involves the careful deliberation of possible conflicts between macroeconomic objectives and consideration of various factors that could influence the effectiveness of the policy such as whether it targets the root cause and the interest elasticity of demand.

Possible conflicts between macroeconomic objectives is an important factor that needs to be considered in policy decision making.

Expansionary monetary policy used to resolve demand-deficient unemployment may lead to demand-pull inflation. For example, with lower interest rates set by the FED, there will be a rise in consumer spending and higher investment because the cost of borrowing is lower. When AD increases, there will be unplanned fall in inventory. Firms will raise production and increase the demand for factors of production such as labour. This will result in lower demand-deficient unemployment. As seen in Figure 2, while the GPL rises from P_0 to P_1 , the RNO rises as well from Y_0 to Y_1 and this rise in production is associated with the lower unemployment levels. However, as national income increases through the multiplier process and the economy operates nearer to full-employment. This results in competition for resources, thus pulling up the prices of factors of production and leading to demand-pull inflation. As such, the government faces unintended costs in the form of conflicts between macroeconomic objectives.

A government's policy decision-making is also dependent on whether the policy is effective.

For instance, a country like the USA might implement an expansionary monetary policy used to resolve demand-deficient unemployment. For example, with lower interest rates set by the FED, there will be a rise in consumer spending and higher investment because the cost of borrowing is lower. However, consumption and investment spending may not be responsive to interest rate changes. The reduction in interest rates may also fail to stimulate consumption and investment spending because of low confidence or pessimistic expectations of future economic conditions. For instance, if the producers perceive the harmful impacts of the Covid 19 pandemic on the economy to continue for a period of time, thereby harming the expectations of profitability, a fall in interest rate may not be sufficient to incentivise firms to borrow and invest. As such, governments may decide not to use the interest rate policy if they expect the policy not to be very effective and might instead choose to implement policies such as the expansionary fiscal policy through an increased G which could more directly stimulate the economy.

A government's policy decision-making is also dependent on whether the choice of policy targets the root cause of the economic problems it seeks to resolve.

For instance, while the usage of an interest rate policy could spur an increase in AD to resolve demand deficient unemployment, this policy might not be effective if the cause of unemployment is due to that of structural unemployment instead. The root cause of structural unemployment is that of skills mismatch between the skills possessed by the workers and the skills demanded by the employers. Consequently, the usage of an expansionary interest rate policy will not reduce the extent of skills mismatch and will not be effective in reducing the structural unemployment. To resolve structural unemployment, governments might choose to implement a supply side policy such as Skills Future in Singapore which provides workers with the platform to retrain their skills into skills

demanded by the employers, thereby reducing the extent of skills mismatch and effectively reducing structural unemployment.

Conclusion

In conclusion, the extent to which conflicts play a role in determining a government's macroeconomic decision making depends on the nature of the economy. A government will have to be concerned about the conflict between low inflation and low unemployment is also one that governments have to constantly consider. In this case, conflicts become a lesser concern than the interest elasticity of demand for investments and consumption because the unresponsiveness of consumption and investments would mean that growth is not even achieved, which thus means that unemployment remains high. This then causes inflation to not be a concern since the main issue is making the policy work in the first place. Overall, the level of influence that conflicts have on government policy decision making is highly dependent on the nature of the economy.

Knowledge, Application, Understanding and Analysis		
L3	<ul style="list-style-type: none"> • A well-developed answer that demonstrates a strong understanding of the possible conflict that may arise and the other factors that influence government decision making. • Good use of economic frameworks that provide rigorous depth of analysis • Answer is well-balanced and considers both the possibility that conflicts are a major influence and may not be. • Coverage of at least 1 conflicts and 2 other factors that influence a government's decision. <p>Cap at 9 if hit only 1 conflict and 1 other factor?</p>	8 – 10
L2	<ul style="list-style-type: none"> • An adequately developed answer that demonstrates some understanding of the possible conflict that may arise and the other factors that influence government decision making. • Adequate use of economic frameworks that provide some depth of analysis • 1-sided answer or insufficient coverage of depth if both sides are considered. 	5 – 7
L1	<ul style="list-style-type: none"> • Smattering of points • Descriptive answer lacking in economic analysis 	1 – 4
Evaluation		
E3	<ul style="list-style-type: none"> • Judgement that is well supported and synthesizes all the arguments put forth 	4 – 5
E2	<ul style="list-style-type: none"> • Judgement that has some support and has some attempt to draw conclusions from the arguments raised. 	2 – 3
E1	<ul style="list-style-type: none"> • Unsupported judgement 	1

Marker's Comments

Stronger responses were able to identify the conflict between macroeconomic objectives with strong application of the context present within the preamble. For instance, such answers recognised the use of the interest rate policy and the conflict between lowering of unemployment and higher inflation rates. Stronger responses also used strong examples to illustrate the other factors to be considered such as the consideration and link of the nature of economy to the size of the multiplier. These responses then made a strong link back to how the factors influenced policy decision making. Weaker responses tend to lack context, failed to consider relevant factors or did not make a link back to how their answer influenced the decision making process.

- 6 In 2019, Singapore overtakes US to become the most competitive economy. Singapore will need to improve the capabilities of the enterprises, transform industries and ensure that workers are well-equipped with the right skills to stay competitive. The global competitiveness of an economy can be improved by supply-side policies that attracts FDI which brings about innovation.

Source: Adapted from *Channel News Asia*, 9 Oct 2019

- (a) Explain how improving competitiveness will help Singapore achieve its macroeconomic goals. [10]
- (b) Discuss whether supply-side policies focusing on attracting FDI is the best approach to help Singapore maintain its global competitiveness. [15]

Suggested Answers for 2021 H2 Mid-Year Exam – Essay Q6

Question Analysis (3'Cs' Approach):

Command	Explain how Making clear of causal links, supported by economic analysis.
Content	Improving competitiveness will help to achieve macroeconomic goals like sustained economic growth, price stability, low unemployment and healthy balance of payment. What is improving competitiveness? How does it help SG to achieve such macroeconomic goals? What framework and tools of economic analysis to use?
Context	Singapore being an open and small economy. Small (without natural resources, only humans) and open economy who is heavily reliant on the trade sector as engines of growth.

Question Approach:

This question tests on the AD-AS analysis on how improving competitiveness will help to increase FDI and net exports which in turn lead to achieving sustained economic growth, price stability, low unemployment and healthy BOT for SG.

Suggested Answer:

Introduction:

Improving competitiveness can help a country to achieve macroeconomic goals. This would include the attainment of

- Sustained, Inclusive, Sustainable economic growth
- Low Inflation / Price Stability
- Low unemployment / Full Employment
- Healthy balance of payments

Singapore being a small and open economy that is export-oriented and heavily dependent on trade. Improving competitiveness in terms of capabilities of the enterprises, transform industries and ensure that workers are well-equipped with the right skills to stay competitive. All these can lead to attraction of investors and bring about **foreign direct investments (FDI)** and brings about **increase in net exports** that lead to the attainment of sustained economic growth and full employment. Furthermore, with a competitive export sector in terms of better quality for SG's exports, it will also help SG to achieve external macroeconomic performance.

Sustained Economic Growth (non-inflationary) + Full Employment

Firstly, Sg improving its competitiveness such as transforming the industries and ensuring workers are well equipped with right skills will be able to attract investors and bring about foreign direct investments (FDI) thus attaining sustained economic growth and full employment.

- With greater inflow of FDI, **investment expenditure increases** which in turn leads to an **increase in aggregate demand (AD)**. For example, when foreign MNCs relocate their operations in Singapore, they would have to purchase machinery and new capital goods in order to start production. The increase in investment spending and AD leads to an increase in real national output resulting in **actual growth**.
- In addition, with FDI inflows, quantity of capital stock in the country would increase as there are greater amount of factories and productive equipment. Not only will there be greater amount of factors of production to, **higher quantity of capital stock increases the capital-labour ratio leading to capital deepening** as each worker is equipped with machinery and equipment that **increases labour productivity**. As the quantity and quality of resources in Singapore increases, its productive capacity expands resulting in **potential economic growth**.

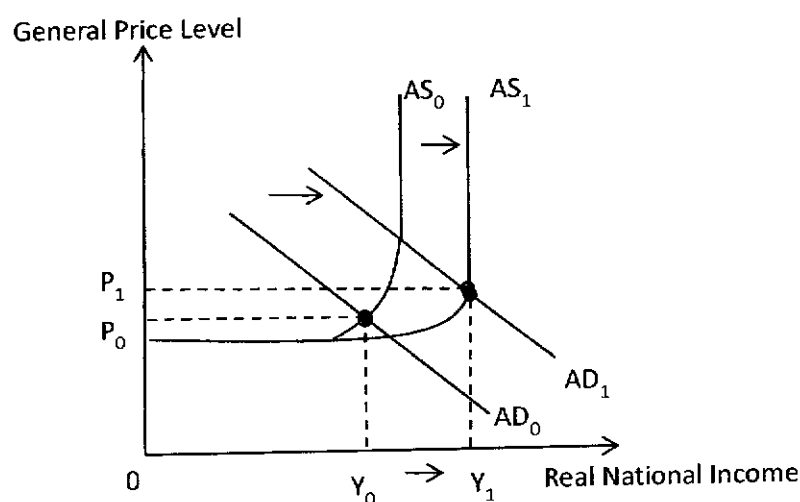


Figure 1: An increase in AS & AD

- The relocation of MNCs to Singapore would also create jobs for Singaporeans, lowering the level of unemployment.
 - For example, the location of many foreign banks and firms providing other financial services has created many jobs in the finance sector for Singapore.
- With an increase in AD, firms will respond by increasing the derived demand for FOP including labour, and in turn pay out more factor income, in order to increase production.
- With more income, this will also lead to a rise in income induced expenditure.
- This will lead to a multiplied increase in the real national income / national output via the multiplier effect, while general prices increase moderately as the rise in AD is supported with the rise in LRAS.
- This is important as it provides spare capacity for growth, and allows the country to achieve **sustained non-inflationary economic growth**.
- There will also be a **reduction in demand-deficient (cyclical) unemployment rate**.
- **With the workers being equipped with the right skills and when foreign companies set up here that requires certain skills, it can also help to reduce structural unemployment → hence overall unemployment rate will fall.**

Healthy BOP

Secondly, by transforming the industries and improving the capabilities of entrepreneurship, it will help to improve export sector would also help to achieve external macroeconomic performance. Transform our industries to ensure that our industries are relevant in the global market and able to produce goods for the global market, ensuring local entrepreneurs have increase capabilities in terms of production and hence able to experiences IEOS which will lower COP, able to price goods for exports at a lower price.

- Having a competitive export sector would mean Singapore's exports are price competitive, but are also of high quality, consisting largely of value-added, capital intensive or knowledge based services.
- Low prices of exports would mean that Singapore's exports are price competitive, which would boost export volume (quantity demanded of exports).
 - This would increase export revenue for Singapore.
- Likewise, producing high quality capital intensive or knowledge based goods and services would make them less substitutable due to the lack of competitors.
 - This would increase demand for exports, and would also increase export revenue.
- Moreover, increased export revenues would improve Singapore's balance of payments position, specifically in the current account. This would ensure Singapore's BOP is kept in a healthy position, maintaining external stability for the economy.

Price stability

Thirdly, by improving competitiveness where by ensuring the workers have the right skills will help to achieve price stability, full employment and healthy BOP.

- Focusing on having a skilled workforce
 - Prevent wage push inflation
- Having a highly skilled workforce might also improve occupational mobility
 - As workers have the basic literacy skills to learn new complex tasks
 - This prevents the mismatch between the skills workers have and what the job requires
 - Which helps to alleviate the onset of structural unemployment.
- A skilled labour force also represents one of our most important factor endowments.
 - This decreases the opportunity cost of producing knowledge based and capital intensive goods and services.
 - Our comparative advantage, and subsequent specialization into these goods and services, help boost export revenue, acting as an engine for growth in the economy.

Mark scheme

Knowledge, Understanding, Application and Analysis		
L3	<p>For a well-developed answer that thoroughly explains how improving competitiveness leads to SG achieving its macroeconomic goals.</p> <p>Answer demonstrates excellent knowledge and understanding of how improving competitiveness lead to attainment of macroeconomic goals using aggregate demand and aggregate supply analysis, including attainment of its internal and external goals.</p>	8 - 10
L2	<p>For an under-developed answer that explains how explains how improving competitiveness leads to SG achieving its macroeconomic goals.</p> <p>Answers may not have included both internal and external goals.</p>	5 - 7
L1	<p>For a largely irrelevant or smattering answer that demonstrates little/some knowledge & understanding of how improving competitiveness leads to SG achieving its macroeconomic goals.</p> <p>Answer may contain conceptual errors.</p>	1 - 4

Marker's Comments

Stronger responses were able to identify Singapore's nature of economy is small and open and this question has 2 parts to it. Stronger responses first identify relevant methods Singapore adopt to improve its competitiveness via FDI and increase quality of exports or maintain price competitiveness of exports and secondly able to link these methods to the attainment of growth. There is a need to elaborate on how to increase FDI and particularly net exports. Some answers lacked methods that Singapore had undertaken to increase both FDI and/or net exports. Answers should contain scope of both methods on how to increase FDI and were not stated clearly. Weaker answers lacked development of answer to show how such methods lead to attainment of both internal and external goals.

Discuss whether supply-side policies focusing on attracting FDI is the best approach to help Singapore maintain its global competitiveness. [15]

Question Analysis (3'Cs' Approach):

Command	'Discuss' (whether) 2 sided arguments + Stand. Support answers with economic analysis
Content	Approaches can be supply side or demand side to help SG maintain its global competitiveness. Supply side policies such as focusing to attract FDI how it help SG to maintain its global competitiveness and other supply side policies such as improving labour productivity and demand side approaches would also help in short run. What the different approaches SG can adopt? How will supply-side policies focusing on attracting FDI (which also brings about innovation) works to help SG maintain its global competitiveness? What are the constraints SG might face if it wants to maintain its global competitiveness? Hence suggest what other approaches could be adopted. What are the criteria to come to a conclusion which is the best approach for Singapore?
Context	Singapore Approaches suggested should be applied to Singapore context.

Question Approach:

This question tests on the various approaches to help SG to maintain its global competitiveness. Supply sides policies like attracting FDI that brings about innovation may not be the best approach as there are other ways that SG can adopt such as other supply-side policies and even demand-side policies in the SR. Student must consider what SG is/will be facing if it wants to maintain its global competitiveness - such as labour productivity and constraints such as infrastructure restrictions hence need to consider other approaches. Students have to apply to Singapore context and come to a conclusion on which is the best approach with clear criteria and justification to weigh among the different approaches for importance in consideration.

Suggested Answer

Supply side policies focusing on attracting FDI which brings about innovation helps Singapore to maintain its global competitiveness.

Supply-side policies focusing on attracting FDI is a good approach for Singapore to maintain its global competitiveness as it will help to improve the qty, qly of capital and level of technology with innovation that it brings about.

Why:

Singapore has a small domestic market and small pool of local entrepreneurs. Singapore is also a financial hub with little or no capital controls. FDI is hence an important source of investment for Singapore, and can help supplement domestic investment. FDI can bring in more innovation which might be limited if just dependent on domestic market.

Benefits:

Supply-side policies focusing on attracting FDI through tax holidays/ grants, removing or reducing restrictions imposed on FDI, no limits on foreign ownership, removal of complex rules and regulations and screening procedures on inward FDI, foreign enterprises would now find it easier and more attractive to invest in Singapore because they can retain a relatively larger portion of their profits earned, hence able to invest in different sector of the economy, bringing much needed capital, skills and technology, and spurs innovation within the domestic market.

For example: The Pioneer Certificate Incentive (PC) and the Development and Expansion Incentive (DEI) are aimed at encouraging companies to grow capabilities and conduct new or expanded activities in Singapore. Approved company under the PC or DEI is eligible for a corporate tax exemption or a concessionary tax rate of 5% or 10%, respectively, on income derived from qualifying activities. The incentive period is limited to five years.

Attracting FDI rather than focusing just on domestic sources of capital accumulation is that FDI not only often brings in foreign capital, but also foreign technology and knowledge, thus spurring innovation to take place.

FDI will allow resource and technology transfer. This allows for the host country to experience an increase in productive capacity at a faster pace, compared to relying on domestic investments alone.

Domestic firm's faces more competition hence will also likely innovate to keep up, spurring more innovation.

This ensures that our level of technology, Qty and Qly of capital high and we can continue to sustain our competitiveness through the encouragement of investments from foreign companies.

Limitations of supply side policies focusing on attracting FDI which brings about innovation.

- Difficulty in removing tax concession, opp cost of supporting investment by foreign firms than local firms.
- Massive attraction of FDI and the entrance of foreign firms may result in these short run consequences:

- Higher structural unemployment in the short run, possibly due to the adoption of capital-intensive methods of production in which workers may not be able to keep up with.
- Perceived inequality between foreign and domestic firms, particularly when foreign firms have advantage of scale of operations and skilled labour.
- New innovations and workers does not possess relevant skills to adopt such technology and structural unemployment. Thus, the government must consider if the long-run benefits of transference of knowledge from the foreign firm to local labour force outweighs the short-term costs of rising unemployment.

Other supply-side policy focusing on Education and Labour Training Programmes

The Singapore government maintains the competitiveness of the economy by improving the quality of education and enacting labour training programmes which also helps to reduce structural unemployment that might be brought about by inflow of FDI and foreign talent.

Why:

Singapore is a city state with a small population, with falling birth rates. Adding to that, its population is also ageing, which means over time, its labour force will start shrink as well. Hence, focusing on having a skilled workforce is especially important to prevent wage push inflation, improve occupational immobility and helps too develop knowledge-based, capital intensive comparative advantages

Benefits:

Having a highly skilled workforce might also improve occupational mobility as workers would have the basic literacy skills to learn new complex tasks that are required when FDI enters and bring in new technology. This prevents the mismatch between the skills workers have and what the job requires which helps to alleviate the onset of structural unemployment.

A skilled labour force also represents one of our most important factor endowments. This decreases the opportunity cost of producing knowledge based and capital intensive goods and services. Which improves our comparative advantage, and subsequence specialization into these goods and services, help boost export revenue, acting as an engine for growth in the economy.

The SkillsFuture Programme which provides all Singaporeans aged 25 and above will be given \$500 worth of credits to be spent on registered training and upgrading courses. These courses improve the quality of human capital in Singapore. The SkillsFuture programme ensure that workers currently in the workforce are kept up to date with new technologies and new jobs, as old ones may become obsolete This ensures that our labour force is kept competitive even though it is ageing.

Keeping the cost of university education low and affordable and providing bursaries ensure that tertiary education is kept affordable for more Singaporeans. Singaporeans can then be able to take on complex, high skilled jobs in value added sectors

These schemes help increase the productivity of the firms and help lower their per unit cost of production. This would also improve the quality of human capital and labour in Singapore, making our economy more competitive as a result.

Therefore, supply side policies focusing upskilling workers are key to Singapore's global competitiveness and attainment of its macroeconomic goals. In particular, in the long run, to ensure we can continue to sustain our competitiveness through the encouragement of labour that are skilled.

Limitations of Supply-side policies focusing on education and retraining

- However, the cost of these programmes are not insignificant.
- The government may have to divert funds away from other pressing needs, such as subsidizing healthcare for the aged, or developing our transport network
- These alternatives forgone are also important as they improve standard of living and the mobility of factors of production.
- In addition, labour training and education programmes have to be sustained for a long period of time before any of them bear fruit.
- Deep skills take time to learn, and workers have to also learn on the job to achieve mastery.
- Meaningful changes made to tertiary education are slow, as students and teachers adapt to new industry needs and competencies
- This means any gains in competitiveness are not visible at least until years later.
- The outcomes of some training programmes are also uncertain.
- They depend on the receptivity of the workforce and of the employees.
- Employees might not be receptive to training as it might mean loss of income during the training period
- Employers or firms might be sceptical of the effects of training, and might not want to send workers for training especially during times where workers are needed for production.

Therefore, while the policy may sound impressive in theory, in reality they require buy-in from workers and firms and it may be difficult.

Other approaches-demand-side policies may be alternative in the short run.

- Spending on infrastructure (Expansionary Fiscal Policy)
- Exchange rate policy (zero-appreciation or gradual and modest appreciation → used to keep imported inflation at bay → keeping COP low for producers.)

During severe recession, to maintain our global competitiveness it can be helped by keeping the prices of our exports low, Singapore should directly reduce the price of our exports in terms of foreign currency through a depreciation of the Singapore dollar.

Hence a depreciation of the Singapore dollar during times of recession, will help boost our global competitiveness and increase our export demand which will boost our aggregate demand and actual economic growth.

Limitations of exchange rate policy to help SG maintain global competitiveness:

It is still a short run measure to help sg maintain its global competitiveness as depreciation of the Singapore dollar would lead to higher import prices in terms of Singapore dollars. This would hence increase the cost of production of many of our industries since sg is import dependent. This would lead to a fall in Short Run Aggregate Supply (SRAS) and a rise in General Price level and cost push inflation in the economy → if inflation is relatively higher than other countries, it will not help to a great extent.

Conclusion:

The only way to maintain our global competitiveness in the long run is through our supply side policies. This is largely done by the Singapore government through attraction FDI, spurring innovation, transforming industries and efforts to increase R and D as well as retraining of workers. Focusing on developing the capabilities and competitiveness of its own local producers in face of foreign competition helps local enterprises grow and develop their capabilities to compete in the world market. Supply side approaches is the best approach but in the short-run not sufficient just to depend on Supply-side policies as there might be circumstances like recession.

Singapore being an advanced developing nation and high income country, our exports are being competed based on quality rather than prices in the global market. Therefore, demand management policies will just be a short run measure and will not have significant impact on helping to improve quality of exports or attracting significant FDI inflow. Thus supply side policies is the main policy to attract FDI and attract research and development here and helps to spur innovation which ultimately helps to improve quality of exports, thus allowing us to maintain global competitiveness.

Mark Scheme

Knowledge, Understanding, Application and Analysis		
L3	For a well-developed answer that shows thorough knowledge and explanation of how supply-side policies focusing on attracting FDI and other supply side approaches or even demand management policies can help SG in SR to maintain its global competitiveness. There is good application to the Singapore context.	8 - 10
L2	For an under-developed answer explains of how supply-side policies focusing on attracting FDI and other approaches can help SG to maintain its global competitiveness. Answers may not have applied to the Singapore context.	5 - 7

L1	For an answer that shows some knowledge of how supply side policies such as attracting FDI can help SG maintain its global competitiveness or some of the the different approaches that SG can adopt.	1 - 4
Evaluation		
E3	For an answer that arrives at an analytically well-reasoned judgement.	4-5
E2	For an answer that makes some attempt at evaluation, but does not explain adequately their judgement.	2-3
E1	For an answer that gives an unexplained, unsupported evaluative statement.	1

Markers' Comments:

Students generally were able to grasp that this questions requires them to explore supply side approaches that lead to Singapore maintaining its global competitiveness via attracting FDI inflow and also betterment of export quality. However, when suggesting other approaches to help Singapore, weaker students suggested policy that is not appropriate to Singapore context such as interest rate policy. Students who understood how Singapore maintain its global competitiveness would be able to suggest exchange rate policy in terms of gradual and modest appreciation to prevent imported cost-push inflation as Singapore is highly dependent on raw material/imported intermediate goods for production of export goods. Stronger response were able to give relevant limitations to the policies. Stronger responses were able to give the judgement that supply side policy is a long run policy and should be the priority while other demand management policies are short run, hence able to a give a well-explained judgement on what is the best approach for Singapore.