



ST ANDREW'S JUNIOR COLLEGE
PRELIMINARY EXAMINATIONS 2019 (JC2)
General Certificate of Education Advanced Level
Higher 2

ECONOMICS

9757/01

Paper 1

26 August 2019

2 hours 15 minutes

READ THESE INSTRUCTIONS FIRST

Write your name and class on all the work you hand in.

Write in dark blue or black pen on both sides of the paper.

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

Do not use staples, paper clips, highlighters, glue or correction fluid.

Answer **all** questions.

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

This document consists of 7 printed pages.

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[Turn Over]

Answer all questions.

Question 1: The Telecommunications Industry in Singapore

Extract 1: Singtel and StarHub sharpen tech to fend off new rival's freebies

Telecom companies in Singapore are scurrying to fortify their positions ahead of the arrival of a new competitor. Singtel and StarHub, the city-state's two largest telecommunications players, are pushing to enhance their technological capabilities. In July, Singtel announced a partnership with Ericsson that could take Singapore's first fifth-generation (5G) pilot network live by the fourth quarter of this year.

The move is in line with the Singaporean government's Smart Nation initiative, which aims to maximize the use of data and digital technology in pursuit of a knowledge-based economy. The pilot 5G network is one of the many projects between Singtel and Ericsson. Like Singtel, StarHub is focusing on digital strategies. Earlier this year, StarHub announced plans to roll out a network and provide "internet of things" services in partnership with Nokia.

Competition is heating up as a fourth mobile network operator (MNO), Australian wireless operator TPG Telecom, prepares to enter Singapore by the end of the year. Singtel holds the top market share with slightly more than 50%, followed by StarHub at about 30%. M1 is the third player, with a share of 17.5%. TPG's entry could put pressure on rates. The newcomer has announced plans to offer unlimited voice and 3 gigabytes of free data for 24 months to senior customers. DBS said in a report that TPG is "likely to adopt" free services early on, "possibly leading to price wars between operators."

To maintain and grow their market shares, both Singtel and StarHub are also working with mobile virtual network operators (MVNOs) to meet demand for SIM-only plans. Unlike the main telcos that have invested in mobile network infrastructure, MVNOs do not own a mobile network. What they do instead is to provide mobile services to its customers by purchasing bandwidth from one of the incumbent MNO at wholesale prices and reselling it to their consumers. StarHub is working with broadband internet provider MyRepublic, while Singtel has arrangements with two operators, Zero1 and Zero Mobile.

Source: Nikkei Asian Review, 14 August 2018

Extract 2: Are MVNOs a positive disruption to Singapore's telecoms industry?

Back in 2015, shopping for a mobile data plan in Singapore was a very different proposition. The cheapest SIM-only plan with 3GB of data cost \$20 from Singtel, whilst power users on M1's network had to pay \$125 for 13GB. Fast forward to 2019, and those prices have fallen. However, operating a wireless network hasn't suddenly got cheaper; in fact, with the deployment of LTE-Advanced technology and new spectrum requiring more equipment and cell sites, capital expenditure has been up for Singtel and M1 since 2015.

Downwards price pressure has been led by the emergence of mobile virtual network operators (MVNOs). Through aggressive price points and novel rate plans, MVNOs have been able to target particular niches, and have carved out a small but significant market share – the biggest, CirclesLife, claims a three to five percent market share.

Whilst consumers are benefiting from lower prices and wider plan options, shopping for cellular service has also become more confusing. Whilst the MVNOs claim to offer the exact same network experience as their host networks – in some cases, quoting drive-test results for their host network without clarifying the difference – our data shows that the end-user experience varies. As part of their price and plan differentiation, some of the MVNOs offer plans that have throttled or deprioritised data. For example, our data shows that nearly half of speed tests on Zero 1 are throttled to speeds of less than 3 Mbps; less than 10% of total speed tests on the host network, Singtel, fell below the same threshold.

Although throttling and deprioritization are disclosed in the plans' terms of service, inconsistent technical language can make comparing plans difficult. Rather than comparing the dollar price of a gigabyte of data, consumers have to navigate "unlimited" plans with "managed data speeds," "deprioritisation," or data that's throttled to "3G" speeds -- all of which might mean different things on different network operators.

Source: Singapore Business Review, 4 April 2019

Extract 3: Big boys muscle in on cheap mobile plans

Singtel's three-month-old Gomo mobile plan, the incumbent telco's answer to the spate of cheap mobile plans being offered by mobile virtual network operators (MVNOs) here, will get a data roaming option on Friday. The option fixes a glaring omission in the SIM-only postpaid mobile plan, allowing it to better compete with Giga, a similar low-cost mobile sub-brand from StarHub that was launched last Thursday.

Both Giga and Gomo are the latest attempts by the established telcos to muscle in on the SIM-only segment carved out by MVNOs such as Circles.Life and MyRepublic. Targeted at millennials and digital natives, these SIM-only plans are generally cheaper than the usual mobile plans as they come without a subsidised handset. They are often contract-free and offer relatively generous data bundles.

Table 1: Subscription Plans of Incumbent Telco's SIM-only plans

	StarHub's Giga	Singtel's Gomo	M1 SIM-only plan
Monthly fee	\$25	\$20	\$25
Data	25GB	20GB	30GB
Talktime	1,000 mins	200 mins	1,000 mins
SMSes	1,000	200	1,000
Incoming Call	Free	Free	Free
Caller ID	Free	Free	Free
Additional fees	None	None	Registration - \$10.70 SIM card - \$37.45
Roaming	14 countries at \$5 a GB for five days	10 countries at \$10 a GB for ten days	Use local data quota (capped at 10GB) in over 60 countries from \$10 a destination
Other benefits	Roll over unused data to the next month	1-for-1 dining offers	Free data on weekends Unlimited free calls to three M1 numbers Unlimited Spotify music streaming

Source: The Straits Times, 5 June 2019

Extract 4: Telco big boys in trouble

In the three years since mobile virtual network operators (MVNOs) entered the market, the number of telcos in Singapore has ballooned from three to 11 today — and counting. The increased competition has seen profits of the three big telcos — Singtel, StarHub and M1 — erode away.

StarHub began its S\$25 million restructuring exercise in October last year, laying off 300 full-time workers in a one-off exercise to improve productivity and lower operating expenditure. Singtel is also seeking to lower its operational expenditure of S\$490 million in the last financial year.

The main telcos have tried to diversify into new growth areas in the digital economy while maintaining their core business as an infrastructure and network provider. Singtel's overseas units, such as its Optus division in Australia, have performed well and helped offset the weakness in Singapore. In fintech, Singtel has also ventured into mobile financial services, such as mobile payments solution Dash. The group has also expressed interest in applying for a new digital banking license, which will allow it to operate as a bank that can take deposits from customers.

StarHub has also made a push into cybersecurity and Pay TV, though the latter has seen shrinking revenues owing to disruption by Netflix in 2016. This shows that diversification is no silver bullet as they take time to pay off and have their own risks too, said analysts.

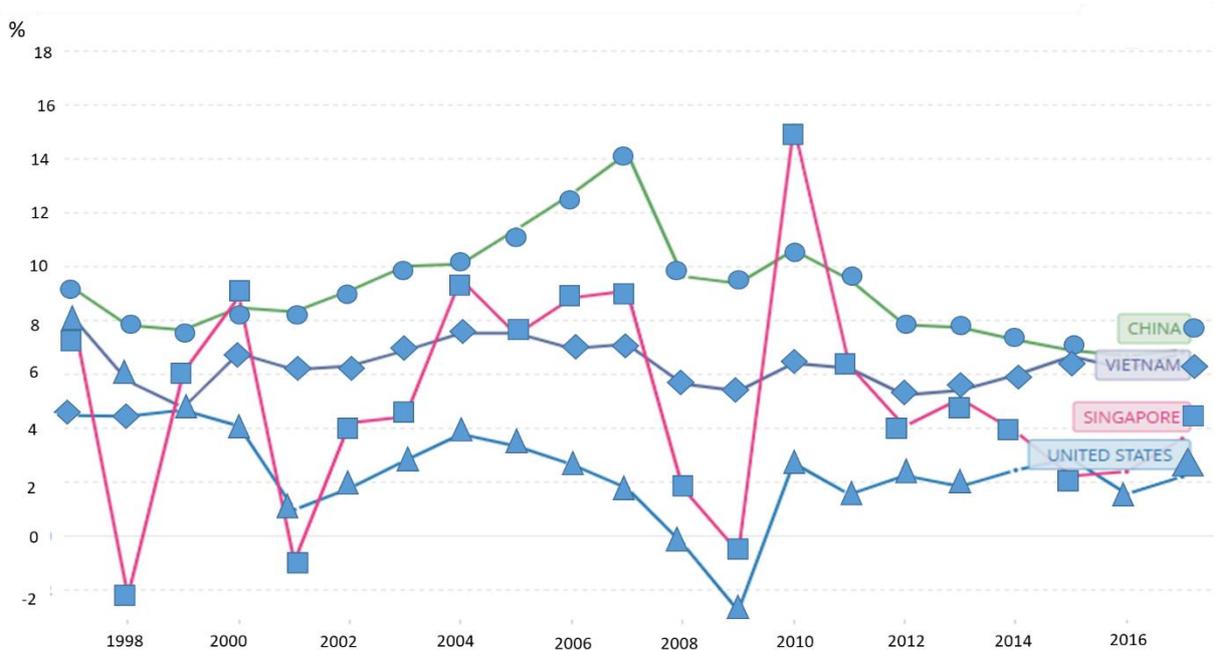
Source: Today Online, 6 July 2019

Questions

- (a) Compare the likely barriers to entry facing potential entrants to the mobile network operators (MNO) industry with those to the mobile virtual network operators (MVNO) industry. [2]
- (b) (i) Identify and explain the type of market structure of the Singapore telecommunications industry. [2]
- (ii) Explain how the telecommunications companies might compete in such a market structure. [4]
- (c) Extract 2 states the use of “inconsistent technical language” by the mobile network virtual operator (MVNO) resulting in difficulties for consumers when comparing plans. [4]
- Explain how the use of “inconsistent technical language” could lead to market failure.
- (d) With reference to the data, assess the strategies that telecommunications companies like M1, Singtel and StarHub have adopted to address their falling profits. [8]
- (e) Evaluate the possible effects on efficiency and resource allocation of increasing competition in the telecommunications industry. [10]

[Total: 30 marks]

Question 2: US-China Trade War: What's in it for Asian economies?

Figure 1: Growth in real gross domestic product: % change per annum

Source: World Bank

Table 2: Components of GDP in selected economies, 2017

	Consumption Expenditure (% of GDP)	Government Consumption Expenditure (% of GDP)	Exports of goods and services (% of GDP)	Imports of goods and services (% of GDP)
China	52.6	14.3	19.8	18.0
Singapore	46.5	10.9	173.3	149.1
US	82.4	14.0	12.1	15.0
Vietnam	74.5	6.5	101.6	98.8

Source: World Bank

Extract 5: Jobless claims fall to the lowest in nearly 49 years

The number of Americans filing for unemployment benefits unexpectedly fell last week, hitting near a 49-year low in a sign the job market remains strong.

Initial claims for state unemployment benefits fell by 3,000 to a seasonally adjusted level of 201,000, the Labour Department said on Thursday.

Though there have been reports of some companies either planning job cuts or laying off workers because of trade tensions between the United States and its major trade partners, they have been partially offset by increased hiring in the steel industry, where tariffs on imported steel have been imposed.

Economists, however, have warned of job losses if the trade tensions escalate.

Source: CNBC News, 15 September 2018

Extract 6: Understanding US Trade Imbalances

Labour-intensive mass production technology used to be profitable in the US, but technological improvements and rising labour productivity (and hence real wages) induce firms to adopt capital-intensive production technologies to save on labour costs. However, instead of going out of business, firms with labour-intensive technologies can move abroad where labour is still cheap, such as China and India.

Although the total US goods trade imbalance with Asia (including China) has been increasing, the Asian share (including China) of the US goods trade imbalance as a whole has been steadily declining since 1991, now standing at around 65 percent, despite China's rise as the largest supplier of goods to the US.

In other words, the rise of China since the late 1980s—especially after joining the WTO in 2001—has not increased the total share of Asia's contribution to the US trade imbalance; China simply substituted out other Asian economies by taking their positions.

Given this perspective, a trade war with China may not necessarily solve the US trade imbalance problem.

Source: *Federal Reserve Bank of St. Louis NBC News*, 9 October 2018

Extract 7: US-China trade war - The countries caught in the crossfire

China and the US are caught up in the continuing trade war, but they're not the only ones that will feel its effects. Other Asian economies are intricately linked to China's fortunes through their highly connected supply chains. And what hurts Beijing can also hurt countries further afield, like South Korea, Taiwan - or Singapore.

Singapore is a uniquely trade-dependent country - and is likely to be one of the hardest hit in the region by the trade war. If China and the US do place tariffs of up to 25% on all the products they trade, then Singapore could see up to 0.8% shaved off its economic growth figures this year - and 1.5% next year.

Many goods that are needed for final assembly in China actually come from other South East Asian countries such as Malaysia and Indonesia, and go through Singapore because they also need to have some other products added to them at times.

This is one of the reasons why Singapore has benefited immensely from globalisation and free trade - transforming itself from a tiny fishing village into one of the world's financial powerhouses. But now, much like everywhere else in this region, Singapore has found itself stuck in the middle of a fight between the world's two superpowers.

But it's not just Singapore that will be affected, as the country's Minister for Trade, Chan Chun Sing, points out. "To produce a product, chances are it would be a global production chain, and if one part of the global production chain gets disrupted or distorted, it hurts not just one specific country, but it hurts all countries," he says.

"If global confidence is shaken and impacted negatively and everybody withholds their investment, then I think we will suffer quite a serious consequence for the entire global economy, and this is the greatest uncertainty," says Mr Chan.

Source: *BBC News*, 22 August 2018

Extract 8: Asian Countries Seen Benefiting Most From US-China Trade War

A roaring US economy and inventory stockpiling due to the trade war with China has expanded the trade deficit. As companies redraw their supply chain maps, smaller South East Asian countries are seen benefiting more from manufacturing leaving China than the US.

As a result of the China-US trade war—or trade friction, as the Chinese prefer to call it—companies in the US have been busy stockpiling inventory out of concerns that President Trump will make good on his threats to increase tariffs on everything China exports to the US. The trade gap between the US and China is on the rise.

But that does not mean that Trump's trade tariffs are not working. Companies that have set up shop in China to export to the world are now redrawing their supply chain maps. If they are not there to sell to the Chinese, they are more likely to move to Vietnam, Indonesia or Thailand.

A number of luxury marques, including BMW and Mercedes-Benz, already have operations in Thailand. These companies are expected to ramp up their local output to support shipments to China. Although finished vehicle and auto parts exports are a small part of its total exports, Malaysia has over 800 auto component manufacturers, as well as a similarly diversified auto-component export network. This should position it to be another beneficiary of the US-China trade war.

Gone are the days when your shirt label reads *Made in China*. It's going to be *Made in Bangladesh, Vietnam and India* now. Vietnam is now the world's third-largest exporter of ready-made garments and has strong trade ties with the US.

However, for a majority of the countries involved, the impact of these changes will not be felt overnight. Indeed, it is likely to take at least two to three years for the effects of the trade war to be fully realised. Multinational companies will need time to draft new global and regional strategies, find new partners, navigate different legal systems and secure the required licenses and permits for new production facilities. As a result, the negative, disruptive effects of the trade war will predominate in the short term. Even under the most optimistic scenario, the benefits for Asia's winners in the trade war are unlikely to be seen before 2020.

Source: *Forbes*, 2 November, 2018

Questions

- (a) With reference to Figure 1,
- (i) Identify the economy with the greatest variation in its growth rate. [1]
 - (ii) Identify two differences in the growth rates between China and the US. [2]
- (b) With reference to Table 2 and using Extract 6, identify the balance of trade position of the US in 2017 and explain one reason for this position. [3]
- (c) Explain how unemployment benefits could help dampen the effects on an economy during an economic downturn. [2]
- (d) Explain the usefulness of Table 2 in comparing the size of the multiplier between the US and Vietnam. [4]
- (e) With the help of a diagram, discuss the impact of tariffs imposed by the US on Chinese goods on consumers in the US and China. [8]
- (f) Discuss whether the trade war between the US and China is more likely to harm or benefit various South East Asian economies. [10]

[Total: 30 marks]

~End of Paper~



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Questions

(a)	Compare the likely barriers to entry facing potential entrants to the mobile network operators (MNO) industry with those to the mobile virtual network operators (MVNO) industry.	[2]
	<p><u>Suggested Answer:</u></p> <p>Compare BTEs [1] Example of BTEs [1]</p> <p>Potential entrants to the MNO industry are likely to face higher barriers to entry due to high initial capital outlay for the infrastructure and network required to provide their services.</p> <p>Potential entrants to MVNO industry, on the other hand, face relatively lower barriers to entry as unlike the MNOs, they do not need to incur infrastructure costs to set up network as they buy bandwidth from MNOs at wholesale prices and resell them to consumers.</p>	
(b)	(i) Identify and explain the type of market structure of the Singapore telecommunications industry.	[2]
	<p><u>Suggested Answer:</u></p> <p>Oligopoly.</p> <p>3-firm concentration ratio of – estimated 97.5%</p> <p>As there are 3 large firms with large market share in the Singapore telecommunications industry which suggest a high concentration ratio, it is deemed to be operating in an oligopolistic market structure.</p>	
	(ii) Explain how the telecommunications companies might compete in such a market structure.	[4]
	<p><u>Suggested Answer:</u></p> <p><u>Mutual Interdependence [1]</u> Due to the market being dominated by a few large firms, these firms are mutually interdependent. This means that each firm has high rival consciousness as they will be affected by their rival firms' actions, thus each firm has to consider the pricing and output decision of the rival firms.</p> <p><u>Price Rigidity</u> Therefore firms focus on non-price competition [1] and avoid price competition as it is counter-productive and may lead to destructive price wars. [1]</p> <p><u>Eg of non-price competition [1]</u> Loyalty schemes are used by the telcos like Singtel, Starhub and M1 to</p>	

	<p>reward their consumers for their loyalty and helps in building brand recognition.</p> <p>Telcos compete in terms of the value-added services they provide e.g. free incoming calls, free unlimited local mobile data to customers on weekends, free streaming on Spotify, etc.</p> <p>This is done with the aim of increasing the firm’s market share</p> <p style="text-align: center;">or</p> <p><u>Price wars do occur as well. [2]</u></p> <p>New firms entering the market might be prepared to sacrifice profits by cutting price to increase its market share.[1] This can be seen from TPG Telecom which seeks to offer certain free services in order to gain a foothold in the telecom industry in Singapore. [1]</p>					
(c)	<p>Extract 2 states the use of “inconsistent technical language” by the mobile network virtual operator (MVNO) resulting in difficulties for consumers when comparing plans.</p> <p>Explain how the use of “inconsistent technical language” could lead to market failure.</p>	[4]				
	<p><u>Suggested Answer:</u></p> <p>Consumers may lack good quality information when they make decision on which mobile plan service to sign up for.</p> <p>With the use of “inconsistent technical language”, consumers may find it difficult to understand the information. [1]</p> <p>Asymmetric information may exist in the case where the producer invariably know more about the product than the consumer. [1]</p> <p>In this case, it is difficult for the consumer to estimate the marginal private benefit and/or the marginal private cost of a product and hence decide on the appropriate quantity of the product to buy. [1]</p> <p>This leads to a consumption level that is lower or higher than the socially optimal level. Market failure results as societal welfare is not maximised because of inefficient allocation of scarce resources to the production of such services leading to deadweight loss. [1]</p>					
(d)	<p>With reference to the data, assess the strategies that telecommunications companies like M1, Singtel and StarHub have adopted to address their falling profits.</p>	[8]				
	<p><u>Question Analysis:</u></p> <table border="1" data-bbox="320 2011 1222 2080"> <tr> <td data-bbox="320 2011 772 2047">Command word</td> <td data-bbox="772 2011 1222 2047">Assess</td> </tr> <tr> <td data-bbox="320 2047 772 2080">Content</td> <td data-bbox="772 2047 1222 2080">Strategies..... to address falling</td> </tr> </table>	Command word	Assess	Content	Strategies..... to address falling	
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	<table border="1" data-bbox="320 152 1222 226"> <tr> <td data-bbox="320 152 772 188"></td> <td data-bbox="772 152 1222 188">profits</td> </tr> <tr> <td data-bbox="320 188 772 226">Context</td> <td data-bbox="772 188 1222 226">M1, Singtel and Starhub</td> </tr> </table> <p data-bbox="268 293 497 327"><u>Schematic Plan:</u></p> <div data-bbox="552 360 991 499" style="border: 1px solid black; padding: 10px; text-align: center;"> <p data-bbox="595 398 948 465"><u>Objective:</u> <u>To address falling profits</u></p> </div> <table border="1" data-bbox="320 528 1222 768"> <thead> <tr> <th data-bbox="320 528 772 564"><u>Lower Cost</u></th> <th data-bbox="772 528 1222 564"><u>Increase Revenue</u></th> </tr> </thead> <tbody> <tr> <td data-bbox="320 564 772 768" style="text-align: center;">Restructuring</td> <td data-bbox="772 564 1222 768" style="text-align: center;"> Infrastructure Upgrading SIM-only Plans Diversification </td> </tr> </tbody> </table>		profits	Context	M1, Singtel and Starhub	<u>Lower Cost</u>	<u>Increase Revenue</u>	Restructuring	Infrastructure Upgrading SIM-only Plans Diversification	
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Restructuring	Infrastructure Upgrading SIM-only Plans Diversification									
	<p data-bbox="268 808 545 842"><u>Suggested Answer:</u></p> <p data-bbox="268 875 443 909"><u>Introduction</u></p> <p data-bbox="268 909 1278 1010">In order to address the falling profits, telecommunications companies like M1, Singtel and Starhub explored various strategies which look to lower costs as well as to increase revenue to to try to increase their level of profits.</p> <p data-bbox="268 1077 616 1111"><u>Infrastructure upgrading</u></p> <p data-bbox="268 1111 842 1144">(Extract 1 – Pilot 5G Network with Ericsson)</p> <p data-bbox="268 1178 1278 1346">As part of the development of the infrastructure upgrading to 5G, this pilot programme allows Singtel to experiment with the rollout of the 5G network. This would allow Singtel to be better equipped to manage the transition from current 4G to 5G network and when the 5G network is ready to be introduced, it would give them a head-start over their rivals.</p> <p data-bbox="268 1379 1278 1514">With the successful introduction of the 5G network, it would also allow Singtel to increase their revenue stream as they can expect customers to switch to the new 5G network which would offer super-fast wireless access and greater data transfers speeds.</p> <p data-bbox="268 1547 427 1581"><u>Limitations</u></p> <p data-bbox="268 1581 1278 1682">The costs involved for the infrastructural upgrading is likely to be high in the short-term as it involves updating of current network equipment and infrastructure.</p> <p data-bbox="268 1715 1278 1783">The benefits of higher revenue is likely to be materialised only in the long-term.</p> <p data-bbox="268 1816 1177 1850"><u>Coming up with GOMO, GIGA and M1-SIM only plans to compete</u></p> <p data-bbox="268 1850 900 1883">(Extract 3 GOMO GIGA and M1-SIM only plans)</p> <p data-bbox="268 1917 1278 2085">In response to catering to the SIM-only target audience that was carved out by the entry of MVNOs, the incumbent telco players, Singtel, StarHub and M1 introduced similarly-priced plans with benefits to cater to this group of customers. If successful, this would allow the incumbent players to re-capture their market share that was lost to MVNOs.</p>									

This would help to increase the demand for their services and thus increase the revenue of the incumbent telco players.

Limitations

As competition is already stiff, with the many MVNOs already in the industry, they may have to compete in terms of non-price competition e.g. M1's offering of free data usage on weekends and unlimited streaming on Spotify and Singtel's offering of dining offers and privileges.

These tie-ups would involve costs as well as they try to compete to see who can provide customers with a more attractive deal.

Diversification

Extract 1 – StarHub “Internet-of-things” (IOT) network with Nokia

Extract 3 – StarHub diversification to cyber-security and Pay TV

Extract 3 – Singtel diversification to fintech with mobile payments solution Dash and intention to operate as a digital bank

StarHub working with Nokia to develop new “internet of things” (IOT) use cases and applications allows them to diversify away from the provision of just telco services. This diversification attempt would allow StarHub and Nokia to reap the benefits as the successful development of the network would see companies looking to tap on to the services provided.

StarHub's diversification from their main line of business - that of the telecommunications industry, allows them to spread their risk across the different sectors. Their move to diversify into cyber-security and Pay TV also provides them with the opportunity to harness the possible synergies across the three sectors and allows them to develop product packages that can fit the needs of their customers.

SingTel has also diversified overseas and its Optus division in Australia, have performed well and helped offset the weakness in Singapore. Additionally, Singtel has also ventured into the fintech industry and came up with a mobile payments solution, Dash which can open a new market for Singtel in line with their intentions to move into digital banking.

Limitations

While the diversification to a new area of business would help to create opportunities for Starhub and Starhub, it could also result in additional costs as the diversification would involve added infrastructure, employee training and overheads such as wages.

Additionally, if diversification is not approached with caution, they may run into an overextension of their resources and run into diseconomies of scale resulting in average costs to increase.

Also, the success of the diversification is uncertain as well. New technologies such as Netflix have also caused shrinking revenues from Starhub's Pay TV.

Restructuring to reduce costs

Extract 4 – Singtel and StarHub restructuring to keep costs down

Benefits

Restructuring undertaken by both Singtel and StarHub to improve its productivity and laying off of workers results in lower cost.

	<p><u>Limitations</u> The restructuring and layoffs could affect the morale of the remaining staff. Unemployment results.</p> <p><u>Synthesis</u> In response to the greater competition in the telecommunication industry, the incumbent players, M1, Singtel and Starhub have looked at various strategies to help to address the falling profits.</p> <p>Whether or not they are successful depends very much on whether the increase in revenue outweighs the increase in costs. As some of the costs could be rather substantial in the short run, whether the revenue earned in the future could offset these costs remains uncertain. Assuming that the conditions are right, these strategies would help to reduce cost and increase the revenue for these companies and aid in increasing the level of profits for these companies.</p> <p>With the upcoming entry of the 4th telco, TPG Telecom, more may need to be done as the competition intensifies. As the telecommunications industry reaches its saturation point, the incumbent players would need to stay vigilant in terms of their control over their costs as well as looking for new areas and opportunities to grow so that their profit levels would be protected.</p> <table border="1" data-bbox="316 994 1230 1541"> <thead> <tr> <th data-bbox="316 994 528 1066">Level (Marks)</th> <th data-bbox="528 994 1230 1066">Knowledge, Understanding, Analysis and Application</th> </tr> </thead> <tbody> <tr> <td data-bbox="316 1066 528 1200">L2 (4 – 6)</td> <td data-bbox="528 1066 1230 1200">Well-developed answer with economic analysis explaining the strategies used by the telecommunications firms. Limitations of each strategy is discussed as well.</td> </tr> <tr> <td data-bbox="316 1200 528 1368">L1 (1 – 3)</td> <td data-bbox="528 1200 1230 1368">Under-developed answer for the strategies used, i.e. did not explain how each of them works nor provide limitations to question their effectiveness.</td> </tr> <tr> <td colspan="2" data-bbox="316 1368 1230 1406" style="text-align: center;">Evaluation</td> </tr> <tr> <td data-bbox="316 1406 528 1473">E2 (2)</td> <td data-bbox="528 1406 1230 1473">Judgment provided with substantiation.</td> </tr> <tr> <td data-bbox="316 1473 528 1541">E1 (1)</td> <td data-bbox="528 1473 1230 1541">Judgment provided but no substantiation.</td> </tr> </tbody> </table>	Level (Marks)	Knowledge, Understanding, Analysis and Application	L2 (4 – 6)	Well-developed answer with economic analysis explaining the strategies used by the telecommunications firms. Limitations of each strategy is discussed as well.	L1 (1 – 3)	Under-developed answer for the strategies used, i.e. did not explain how each of them works nor provide limitations to question their effectiveness.	Evaluation		E2 (2)	Judgment provided with substantiation.	E1 (1)	Judgment provided but no substantiation.	
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<u>Increasing Competition</u>	
<u>Positive Effects</u>	<u>Negative Effects</u>
Productive Efficiency Dynamic Efficiency Improved Allocative efficiency	Lower profits resulting in less funds for R&D purposes Wastage of resources (i.e. persuasive advertising)
<p><u>Suggested Answer:</u></p> <p><u>Introduction</u></p> <p>The increase in the level of competition in the telecommunications industry would bring about both positive and negative effects on efficiency as well as resource allocation.</p> <p><u>Positive effects:</u></p> <p><u>Efficiency</u></p> <p><u>Productive efficiency:</u></p> <p>From firm's point of view – as the firm is assumed to be profit maximising, there is likely to be continued productive efficiency from firm's point of view as the firm is likely to be producing on a point along the long run average cost (LRAC) curve.</p> <p>From society's point of view - the increased competition means firms have greater incentive to cut costs and remain efficient. Although the firm is not productively efficient from society's point of view as the firm is not producing at the lowest point of the LRAC curve, it might be more productively efficient than before as it seeks ways to move closer to the lowest point of the LRAC curve.</p> <p>Example: Restructuring programme undertaken by Singtel and StarHub as a bid to improve productivity and reduce redundancy.</p> <p><u>Dynamic efficiency:</u></p> <p>The increased competition means firms have more incentive to innovate and come up with improvements to the quality of existing products and services as well as new products.</p> <p>The streamlining of product offerings by M1 as well as GOMO and GIGA are evidence of how incumbents react when the level of competition increases.</p> <p>The different benefits offered in Table 1 by the various telco companies as part of the lure for customers show the level of innovation the companies take to compete and differentiate themselves, thereby offering consumers choice.</p> <p>Example:</p>	

The ability to roll-over unused data for Starhub GIGA subscribers, 1-for-1 dining privileges offered to Singtel's GOMO subscribers as well as the free data on weekends, unlimited free calls to 3 M1 subscribers as well as free streaming on Spotify app offered to M1's SIM-only subscribers.

Allocative efficiency:

Competition helps to keep prices low.

If there are supernormal profits to be earned, new firms will be encouraged to enter as barriers to entry may be rather low. The entry of MVNOs as well as the upcoming entry of fourth telco, TPG Telecom, has increased the competition level in the Singapore telecommunications industry. This will then cause each incumbent firm's demand (AR/MR) to fall, leading to lower prices.

The low prices help to increase allocative efficiency because prices will be closer to marginal cost.

Negative effects:

Lower ability to engage in R&D

More competition -> lower profits -> less funds available for R&D -> reduces dynamic efficiency.

Price Competition

Firms may also offer short-term price cuts in light of the greater competition to stand out from competition, rather than investing in the long term future of the infrastructure. This would benefit consumers in the short-run but ultimately suffer in the long-run.

Affects ability to reap EOS

With greater competition, the firm's ability to reap economies of scale may be reduced as their scale of production might not be that extensive compared to the case before -> reduces productive efficiency

Wastage of resources

Additionally, with competition, firms may engage in intensive advertising and these resources that are spent on advertising could have been spent on R&D to improve products or processes.

Synthesis/Conclusion

Make a judgement on the effects of having more competition in the telecommunications industry. Weigh overall positive and negative effects.

Overall, the positive effects are likely to outweigh the negative effects of increased competition.

It is expected that with increased competition, it would greatly increase the service standards as the increase in competition will spur firms to deliver

more efficient and innovative services which is crucial to attract consumers.

However, there are also concerns as to whether the telecommunications industry would reach a point of saturation with the upcoming entry of the 4th telco, TPG Telecoms especially in a small market like Singapore. This may result in unhealthy competition as firms resort to wasteful advertising and price cuts which can prove to be allocatively inefficient.

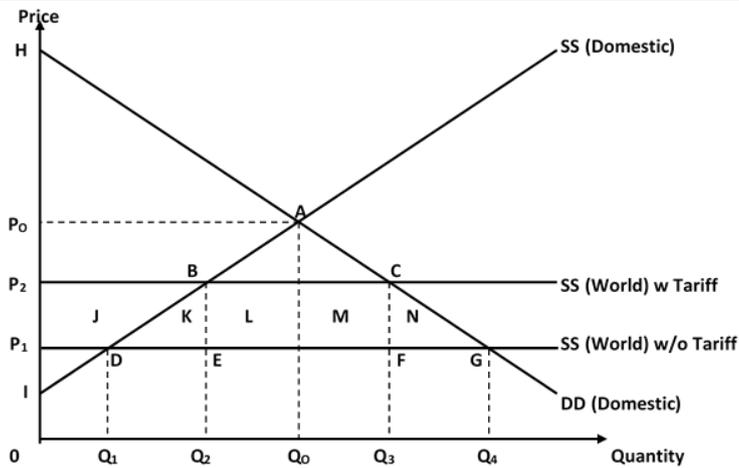
Level (Marks)	Knowledge, Understanding, Analysis and Application
L2 (5 – 7)	Well-developed and balanced answer that explained at least one positive and one negative effect.
L1 (1 – 4)	Under-developed answer that explained at least one positive and one negative effect <u>OR</u> well-developed answer that explained only one effect (either positive or negative).
Evaluation	
E2 (2 – 3)	Judgment provided with substantiation.
E1 (1)	Judgment provided but no substantiation.

Question 2: US-China Trade War: What's in it for Asian economies?

Questions

(a)	With reference to Figure 1,	
	(i) Identify the economy with the greatest variation in its growth rate.	[1]
	Suggested Answer: Singapore.	
	(ii) Identify two differences in the growth rates between China and the US.	[2]
	Suggested Answer: China had a higher growth rate than the US over the entire period of time. [1] China experienced positive growth over the whole period but the US experienced negative growth from 2008-2010. [1]	
(b)	With reference to Table 2 and using Extract 6, identify the balance of trade position of the US in 2017 and explain one reason for this position.	[3]
	Suggested Answer: The US had a trade deficit in 2017 [1]. (Evidence from from Table 2 and Extract 6) Although the US had a comparative advantage in labour-intensive mass production technology in the past, this comparative advantage had shifted towards Asia. US firms moved their production to places like China and India where labour was cheaper and as a result, US exported less and imported more from Asia, eventually leading to a trade deficit (import expenditure more than export earnings). [2]	
(c)	Explain how unemployment benefits could help dampen the effects on an economy during an economic downturn.	[2]
	Suggested Answer: When there is a recession, more unemployment benefits are given out and these benefits help households who lost income to be able to maintain some level of consumption of (essential) goods and service. [1] This helps to dampen the fall in disposable income and C and hence the fall in AD and NY. [1]	
(d)	Explain the usefulness of Table 2 in comparing the size of the multiplier between the US and Vietnam.	[4]

	<p><u>Suggested Answer:</u> Table 2 shows us that Vietnam imports make up a much larger % of GDP compared to the US. This means that Vietnam is likely to have a higher marginal propensity to import than the US. [1]</p> <p>Since $k = 1/mps+mpt+mpm$, [1] Vietnam's k is likely to be smaller than that of the US. [1]</p> <p>However, Table 2 does not provide us any information on saving and tax rates and hence, there is no info on mps and mpt.</p> <p>OR</p> <p>While import expenditure as a % of GDP gives us an idea of how reliant an economy is on imports, it is only an approximation of mpm value.</p> <p>Hence Table 2 is limited in its usefulness. [1]</p> <p><u>Alternative Answer:</u></p> <p>Table 2 shows that Vietnam has a smaller consumption expenditure as a % of GDP compared to US suggesting that the marginal propensity to consume (mpc) is smaller in Vietnam than in US. [1]</p> <p>As $k = 1/1-mpc$ [1], Vietnam's k is likely to be smaller than that of US. [1]</p> <p>However, consumption as a % of GDP gives us only an approximation of the mpc value hence Table 2 is limited in its usefulness. [1]</p>							
(e)	With the help of a diagram, discuss the impact of tariffs imposed by the US on Chinese goods on consumers in the US and China.	[8]						
	<p><u>Question Analysis:</u></p> <table border="1" data-bbox="272 1323 1278 1429"> <tr> <td>Command word</td> <td>Discuss</td> </tr> <tr> <td>Content</td> <td>Impact of Tariffs</td> </tr> <tr> <td>Context</td> <td>US tariffs on Chinese goods</td> </tr> </table>	Command word	Discuss	Content	Impact of Tariffs	Context	US tariffs on Chinese goods	
Command word	Discuss							
Content	Impact of Tariffs							
Context	US tariffs on Chinese goods							
	<p><u>Suggested Answer:</u> Assuming that the US government introduces a specific tariff of P1P2 on imported steel from China (<i>from Extract 1</i>) and assuming for simplicity that they are only importing from China, this will lead to a fall in supply of imported steel and the world supply curve shift from SS(World) w/o Tariff to SS(World) w Tariff.</p>							



Diagram

As seen in the diagram above, the new market price for steel will be OP_2 .

At OP_2 , total quantity consumed of steel is OQ_3 which consists of domestic production and imports:

- Domestic production = OQ_2
- Imports = Q_2Q_3

US Consumers of Steel will now experience a

- Decrease in the total consumption of steel from OQ_4 to OQ_3 .
- Increase in price of steel from OP_1 to OP_2 .
- Decrease in the consumer surplus from P_1P_2CG to P_2CH i.e. a loss of P_1P_2CG or Area $J+K+L+M+N$.
- *(Anti-thesis) However, the higher prices may come down in the future if steel producers in the US improve their production methods and find ways to lower their costs of production.*
- **Chinese consumers of steel** may see a fall in domestic prices. There will be a decrease in quantity of exports from Chinese producers of steel from Q_1Q_4 units to Q_2Q_3 units. Chinese firms might experience an increase in inventories which might then be sold in the Chinese market. The increase in supply of steel might then cause prices of steel in China to fall.
- Chinese consumers who are also workers/households in China might see a fall in incomes and standard of living since there is a fall in $(X-M)$, AD and hence NY .
- *(Anti-thesis) However, Chinese consumers of steel might not be affected as excess inventories of steel (Q_1Q_4 units to Q_2Q_3 units) might be sold to other countries.*

Evaluation:

- Since China is also retaliating, Chinese consumers might also suffer as their imports from US would also become more expensive.
- Not all consumers would be affected to the same extent. Consumers of products that can be imported from other countries might purchase substitutes from other countries. In this analysis, the assumption was

	<p>that US imported steel from China only but in reality, the US can import steel from other countries to avoid paying the tariffs.</p> <ul style="list-style-type: none"> How Chinese consumers might be affected would largely be dependent on what China does with the excess supply. If they export the excess goods and services to other countries, Chinese consumers might not see any effect. If the excess supply ends up being sold in China, Chinese consumers would see a fall in prices. 											
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(f)	Discuss whether the trade war between the US and China is more likely to harm or benefit various South East Asian economies.	[10]										
	<p>Question Analysis:</p> <table border="1"> <tr> <td>Command word</td> <td>Discuss</td> </tr> <tr> <td>Content</td> <td>Trade War Harm or benefit</td> </tr> <tr> <td>Context</td> <td>SEA economies</td> </tr> </table>	Command word	Discuss	Content	Trade War Harm or benefit	Context	SEA economies					
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	<p>Schematic Plan</p> <table border="1"> <tr> <th colspan="2">Introduction</th> </tr> <tr> <td>Thesis: Trade war harms SEA economies</td> <td>Anti-thesis: Trade war benefits SEA economies</td> </tr> <tr> <td colspan="2">Judgement: Consider criteria to decide whether trade war brings about more benefits or harm to SEA economies</td> </tr> </table>	Introduction		Thesis: Trade war harms SEA economies	Anti-thesis: Trade war benefits SEA economies	Judgement: Consider criteria to decide whether trade war brings about more benefits or harm to SEA economies						
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	<p>Suggested Answer:</p> <p>Introduction</p> <p>With increasing globalisation and interconnectedness between countries, the trade war between the US and China is likely to affect other countries. Some South East Asian countries will benefit from the trade war, while others might be harmed.</p>											

Thesis: Trade War Harms SEA economies

When the US imposes tariffs on Chinese goods, the volume of exports from China to the US falls. From Extract 7, "*many goods that are needed for final assembly in China actually come from other South East Asian countries*". This means that exports from SEA economies would fall if demand for Chinese exports fall since SEA exports are used in China's production.

In particular, economies like Singapore that are very trade-dependent would be hardest hit in the region. According to Extract 7, Singapore would see slower economic growth "*if China and the US do place tariffs of up to 25% on all the products they trade*".

If (X-M) falls, the balance of trade and **balance of payments** worsen, ceteris paribus. AD also falls since (X-M) is a component of AD. This will result in a **fall in real national income** by a multiplier effect. With the fall in output, there will also be a fall in demand for labour, resulting in an **increase in unemployment**.

Furthermore, the trade war could result in a fall in confidence as there is greater uncertainty about the future and fears of recessions. For countries like Singapore who depend a lot on FDI, "*if global confidence is shaken and impacted negatively and everybody withholds their investment*" (Extract 7), their AD would also fall, worsening the effects of the fall in (X-M).

Furthermore, a fall in FDI would also affect Singapore's **potential growth** as LRAS might not be able to increase as quickly. If the capital and financial account worsens together with the current account, there would be an **overall worsening in the BOP**.

Anti-thesis: Trade War Benefits SEA economies

However, Extract 8 suggests that "*smaller South East Asian countries are seen benefiting more from manufacturing leaving China than the US*". This is because firms may choose to relocate their factories to Vietnam, Indonesia or Thailand who also have a comparative advantage in labour-intensive manufacturing compared to the US, in order to avoid the tariffs imposed on Chinese goods.

Extract 8 suggests that Thailand and Malaysia would see an increase in exports related to the automobile industry. Bangladesh, Vietnam and India would see an increase in exports in the garment industry. Extract 6 suggests that over the past decade, China had "*substituted out other Asian economies*". Hence, there is high chance that US consumption of imports might not fall but instead be redirected towards SEA economies. These countries might thus see a rise in net exports instead, which would then lead to an improvement in the current account.

At the same time, the relocation of factories would also result in an increased inflow of FDI into these countries. This would lead to an improvement in the capital and financial account.

Thus BOP would improve. There would also be a rise in AD since (X-M) and I are components of AD, leading to a **rise in real national income** via the multiplier effect and a **fall in unemployment**. More jobs are created as factories are set up in these countries.

Judgment

Whether the trade war between the US and China is more likely to harm or benefit various South East Asian economies would depend on:

1. The comparative advantage of the economy

Countries that have low labour costs because of a comparative advantage in labour-intensive manufacturing would likely benefit as they would be able to export more as the US buys from them instead of from China, to avoid tariffs.

For countries like Singapore which do not have such a comparative advantage, they would more likely be harmed as their exports which are part of the global supply chain would fall as trade volumes between US and China falls.

2. The level of investor confidence

If global confidence falls, the inflow of FDI into SEA economies might also fall which would then harm SEA economies. Singapore, in particular, depends a lot on FDI for economic growth. Thus Singapore is more likely to be harmed.

However, economies that might benefit from an increase in the relocation of production firms from China would more likely see gains from the trade war.

3. The time frame in question

Extract 8 suggests that *“the impact of these changes will not be felt overnight.”* MNCs will need time to move production facilities to other countries. Hence, SEA economies like Vietnam, Thailand, Indonesia and Malaysia might not see the benefits yet. Instead in the short-run, they might also suffer from the fall in the volume of trade between US and China as they are part of the global production chain.

While Singapore is also likely to be harmed, if there are policies in place to continue remaining attractive to FDI, some of the potential harms could be mitigated. For example, if Singapore continues to keep tax rates competitive and provide good infrastructure to attract foreign investors, FDI might not fall as much as expected.

Level (Marks)	Knowledge, Understanding, Analysis and Application
L2 (5-7)	<ul style="list-style-type: none"> • Thorough knowledge and an excellent ability to analyse the positive and negative effects of the trade war on different SEA economies (which includes both effects on X-M and FDI). • Answer is presented in a precise, logical and reasoned manner. • Answer is balanced – how economies may benefit and how they may be harmed.
L1 (1-4)	<ul style="list-style-type: none"> • Answer may show some knowledge of the effects of the trade war on different SEA economies. • There could be basic errors of theory and inadequate

		<p>explanations.</p> <ul style="list-style-type: none"> • Answer is one-sided (i.e. may have considered only how SEA economies may benefit or how they may be harmed). 	
	E2 (2-3)	<ul style="list-style-type: none"> • There is a good summative conclusion. • Economic arguments have been synthesised to arrive at well-reasoned judgements. • For full 3m, there must be clear criteria explaining what to consider in order to make a judgment on whether SEA economies are more likely to benefit or be harmed. 	
	E1 (1)	<ul style="list-style-type: none"> • Unsupported judgment. 	



ST ANDREW'S JUNIOR COLLEGE

PRELIMINARY EXAMINATIONS 2019 (JC2)

General Certificate of Education Advanced Level

Higher 2

ECONOMICS

9757/02

Paper 2

2 September 2019

2 hours 15 minutes

READ THESE INSTRUCTIONS FIRST

Write your name and class on all the work you hand in.

Write in dark blue or black pen on both sides of the paper.

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

Do not use staples, paper clips, highlighters, glue or correction fluid.

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

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

This document consists of 3 printed pages.

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[Turn Over]

Answer three questions in total.

Section A

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

- 1** The food and beverage (F&B) industry in Singapore offers a wide range of cuisine and dining options. Singaporeans can choose to eat local food in a hawker centre, Western food at a casual dining restaurant or Japanese food at a fine dining restaurant. A rise in rentals and a fall in incomes are likely to affect different F&B businesses differently.

(a) Using price and income elasticities of demand, explain how each of these changes might affect the sales volume of different F&B businesses in Singapore. **[10]**

(b) Discuss the likely combined impact of both of these changes on the sales revenue earned by these different types of F&B businesses. **[15]**

- 2** In a highly competitive apparels industry where size matters, boutiques which offer customised tailoring services for discerning consumers nonetheless coexist with large firms which produce huge quantities of clothing for the mass market.

Discuss the factors that firms should consider when deciding whether to grow and evaluate which is the most important factor. **[25]**

- 3** Ministry of Home Affairs cited two areas of concern in Singapore: the large proportion of young drug abusers and cigarette smokers, who harm themselves and others.

Singapore has a zero tolerance approach to drug consumption - drugs are banned. Various measures including tax have been adopted to tackle the problem of cigarette smoking.

(a) With reference to the examples above, explain why government intervention is advocated in markets for demerit goods. **[10]**

(b) Discuss whether a total ban is the most appropriate policy for different demerit goods. **[15]**

Section B

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

- 4** As of 2018, Singapore's current account surplus stood at \$87.8 billion. For the Financial Year 2018, Singapore had a \$2.1 billion budget surplus.

Explain the possible causes of a country's current account surplus and budget surplus and discuss whether such surpluses are beneficial to Singapore's economy. **[25]**

- 5** Stability in prices and low unemployment are two key macroeconomic aims of most governments.

(a) Explain the benefits of attaining the above aims. **[10]**

(b) In view of the possible conflict between the above aims, discuss the economic policies that a government might consider adopting to achieve them. **[15]**

- 6** In recent decades, globalisation has transformed the world, boosting economic growth and connecting developed and developing countries. However, there are signs of reverse globalisation as trade patterns are changing and capital flows and immigration are slowing down.

(a) Explain the determinants of an economy's pattern of trade. **[10]**

(b) Assess the effects of globalisation on the standard of living in a developing country like China. **[15]**

~End of Paper~



ST ANDREW'S JUNIOR COLLEGE

PRELIMINARY EXAMINATIONS 2019 (JC2)

General Certificate of Education Advanced Level

Higher 2

ECONOMICS

9757/02

Paper 2

2 September 2019

Suggested Answers with Examiners' Comments

2 hours 15 minutes

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Write your name and class on all the work you hand in.

Write in dark blue or black pen on both sides of the paper.

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Section A

- 1 The food and beverage (F&B) industry in Singapore offers a wide range of cuisine and dining options. Singaporeans can choose to eat local food in a hawker centre, Western food at a casual dining restaurant or Japanese food at a fine dining restaurant. A rise in rentals and a fall in incomes are likely to affect different F&B businesses differently.
- (a) Using price and income elasticities of demand, explain how each of these changes might affect the sales volume of different F&B businesses in Singapore. [10]
- (b) Discuss the likely combined impact of both of these changes on the sales revenue earned by these different types of F&B businesses. [15]

Command word	Explain
Content	Price elasticities of demand Income elasticities of demand Changes → i.e. rise in rentals and fall in incomes Sales volume
Context	Different F&B businesses Singapore

Sales Volume (i.e. equilibrium quantity)
--

Demand Factors	Supply Factors
<p style="text-align: center;">Fall in incomes</p> <p>→ Rise in demand if the F&B is an inferior good → → Fall in demand if the F&B is a normal good</p> <p>The extent of the fall in demand depends on whether the F&B is a necessity or a luxury good.</p>	<p style="text-align: center;">Rise in rentals</p> <p>→ Fall in supply of all types of F&B</p> <p>The extent of the fall in equilibrium quantity depends on the PED value of the F&B.</p>

Introduction

- Identify that sales volume refers to the equilibrium quantity of different types of food and beverages in Singapore F&B industry.
- Define price elasticities of demand (PED) and income elasticities of demand (YED).
- State that the direction of change in the sales volume as well as the extent of the change of the sales volume of different types of F&B services would be affected by PED and YED.

Set Context

- Different types of F&B businesses in Singapore
 - Local food in hawker centre
 - Casual dining restaurants such as Jamie Italian, Marche, Fish & Co etc
 - Fine dining restaurants

Body

- **Explain how fall in incomes could cause changes in the demand for different types of F&B services.**

1. Local F&B in hawker centre

- Fall in income → consumers in Singapore experience a fall in their purchasing power → local hawker food could be deemed as inferior goods → $YED < 0$ → demand for local hawker F&B would increase.
- Due to the increase in demand for local hawker food and beverages from DD to DD_{local food}, there would be a shortage at the original price, which causes the consumers to compete with each other, bidding the price up.
- As price increases, quantity demanded falls while quantity supplied increases.
- At the new equilibrium where quantity demanded = quantity supplied, the equilibrium quantity i.e. the sales volume of local hawker food and beverages increases to $0Q_3$.

2. Casual dining restaurants and Fine dining restaurants

- Fall in income → consumers in Singapore experience a fall in their purchasing power → F&B of casual dining restaurants and fine dining restaurants could be deemed as normal goods → $YED > 0$ → demand for F&B of casual dining restaurants and fine dining restaurants.
 - Extent of the fall in demand depends on the YED value of the food and beverages provided by the casual dining restaurants and fine dining restaurants.

For casual dining restaurants

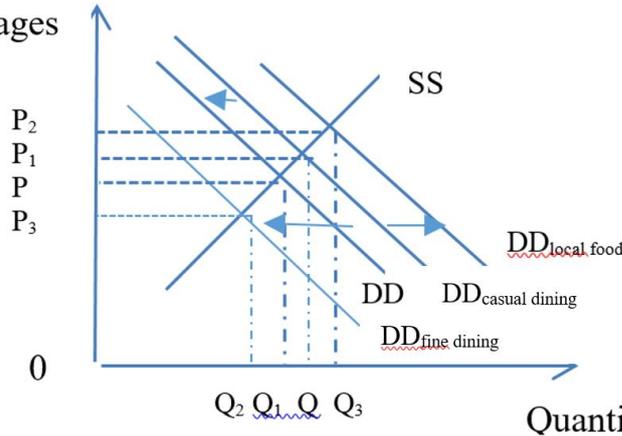
- Casual dining restaurants generally serve food which could be considered as necessities for the general population in Singapore especially when the households might not have the time to have home-cooked food.
- As a result, YED value for casual dining food and beverages is less than one.
- Therefore, the fall in the demand for casual dining restaurants/fast food restaurants would fall less than proportionately from DD to DD_{fast food/casual dining}

For fine dining restaurants

- Fine-dining restaurants generally serve more luxurious food
- As a result, YED value for fine dining restaurants' F&B is greater than one
- Therefore, the fall in the demand for fine dining F&B falls more than proportionately DD to DD_{fine dining}

- **Conclude how the different extent of the changes in demand of different restaurants would affect the sales volume**

Price of Food and Beverages



Quantity of Food and Beverages

Due to the more than proportionate fall in demand from DD to DD_{fine dining} for F&B of fine dining restaurants, the sales volume i.e. the equilibrium quantity of fine dining restaurants fall more (from 0Q to 0Q₂) than the sales volume of the fast food/casual dining restaurants (from 0Q to 0Q₁).

- Explain how rise in rentals could cause changes in the supply of the different types of F&B in Singapore.

Effect of the rise in rental on supply

Due to the increase in rental cost in Singapore → cost of production of all types of food and beverages increase → fall in supply of all types of food and beverages from SS to SS₁.

Analyse the PED values of different types of restaurants

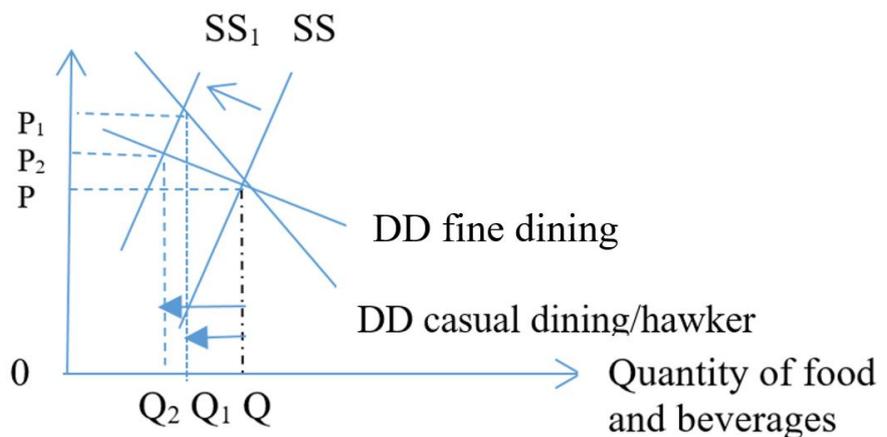
Fine dining restaurant → PED > 1

Reason: Proportion of income spent on the good is high

Casual dining restaurant and local hawker food → PED < 1

Reason: Proportion of income spent on the food catered by casual dining restaurants and hawker stores is small.

Price of food and beverages



Assuming that the extent of the fall in supply of both types of restaurants are the same, the fall in the sales volume (i.e. equilibrium quantity) of the food catered by fine dining restaurants would fall more (from 0Q to 0Q₂) than the sales volume of the casual dining restaurant/hawker stores (fall from 0Q to 0Q₁).

This is because the increase in price of the food and beverages catered by fine dining restaurants due to the fall in supply would lead to a more than proportionate fall in quantity demanded whereas the same increase in price of the food and beverages catered by casual dining restaurants/hawker stores would lead to less than proportionate fall in quantity demanded.

Conclusion

In conclusion, when there is a fall in consumers' income in Singapore, the sales volume of local hawker food market would increase while the sales volume of fine dining restaurants market would fall greater than that of casual dining restaurant market.

When there is rise in rental cost, the sales volume of both local hawker food market and casual dining market fall less than the sales volume of fine dining restaurants.

Levels	Knowledge, Application/Understanding and Analysis
L3 (8-10)	For an answer that uses both price and income elasticities of demand to explain the likely effects on sales volume of various types of F&B businesses in Singapore. Well-developed explanations with use of examples relating to the context.
L2 (5-7)	For an answer that uses both price and income elasticities of demand but gives an underdeveloped explanation of the likely effects on sales volume of various types of F&B businesses in Singapore. OR For an answer that only explains either PED or YED well (i.e. analyses only the impact of either the fall in incomes or rise in rentals well). Insufficient breadth and scope in essay.
L1 (1-4)	For an answer that may show little knowledge on PED and YED. Economic analysis might be lacking.

(b) Discuss the likely combined impact of both of these changes on the sales revenue earned by these different types of F&B businesses. [15]

Command word	Discuss
Content	Likely combined effects Both of these changes → i.e. fall in income and rise in rentals Sales revenue
Context	Different types of F&B businesses

**Sales revenue
(i.e. Total revenue)**

Different types of Food and Beverages		
	Normal Good	
Inferior	Necessity	Luxury
<p>From part a, restaurants that sells F&B which are inferior would experience an increase in demand caused by the fall in incomes and a fall in supply caused by the rise in rentals.</p> <p>1. Consider how the increase in demand would cause a change in total revenue (i.e. TR)</p> <p style="text-align: center;">+</p> <p>2. Consider how the fall in supply would cause a change in TR</p> <p style="text-align: center;">+</p> <p>3. Combine the above changes in TR to determine the overall change in TR.</p>	<p>From part a, restaurants that sells F&B which are necessity would experience a fall in demand caused by the fall in incomes and a fall in supply caused by the rise in rentals.</p> <p>1. Consider how the fall in demand would cause a change in total revenue (i.e. TR)</p> <p style="text-align: center;">+</p> <p>2. Consider how the fall in supply would cause a change in TR</p> <p style="text-align: center;">+</p> <p>3. Combine the above changes in TR to determine the overall change in TR.</p>	<p>From part a, restaurants that sells F&B which are more luxurious would experience a fall in demand caused by the fall in incomes and a fall in supply caused by the rise in rentals.</p> <p>1. Consider how the fall in demand would cause a change in total revenue (i.e. TR)</p> <p style="text-align: center;">+</p> <p>2. Consider how the fall in supply would cause a change in TR</p> <p style="text-align: center;">+</p> <p>3. Combine the above changes in TR to determine the overall change in TR.</p>

Introduction

- Define sales revenue
 - Sales revenue refers to the total revenue derived from the sales of food and beverages.
 - Total revenue = equilibrium price of food and beverage X equilibrium quantity of food and beverages
- The combined effect of both changes in income and rental cost on the various F&B businesses' total revenue (TR) depends on the values of PED and YED of these F&B.

Body:

Factors/Types of F&B businesses	Hawker	Casual Dining	Fine Dining
Fall in Income	<ul style="list-style-type: none"> • $YED < 0$ (inferior good) • DD increase • $\uparrow P, \uparrow Q \rightarrow TR \uparrow$ 	<ul style="list-style-type: none"> • $0 < YED < 1$ (necessity) • DD decrease less than proportionately as income falls • $\downarrow P, \downarrow Q$ less $\rightarrow TR \downarrow$ less 	<ul style="list-style-type: none"> • $YED > 1$ (Luxury) • DD decrease more than proportionately as income falls • $\downarrow P, \downarrow Q$ more $\rightarrow TR \downarrow$ more
Increase in rental cost $\rightarrow COP \uparrow$ $\rightarrow SS \downarrow$, Ceteris paribus	<ul style="list-style-type: none"> • $PED < 1$ (proportion of income spent on good is small) • $SS \downarrow \rightarrow \uparrow P$ and $Q \downarrow$ • Since $PED < 1 \rightarrow$ an $\uparrow P$ would cause Q_d to \downarrow less than proportionately $TR \uparrow$ 	<ul style="list-style-type: none"> • $PED < 1$ (proportion of income spent on good is small) • $SS \downarrow \rightarrow \uparrow P$ and $Q \downarrow$ • Since $PED < 1 \rightarrow$ an $\uparrow P$ cause Q_d to \downarrow less than proportionately $\rightarrow TR \uparrow$ 	<ul style="list-style-type: none"> • $PED > 1$ (proportion of income spent on good is large) • $SS \downarrow \rightarrow \uparrow P$ and $Q \downarrow$ • Since $PED > 1 \rightarrow$ an $\uparrow P$ would cause Q_d to \downarrow more than proportionately $TR \uparrow$
Combined effect	TR rises	TR indeterminate	TR falls

Conclusion (i.e. Possible evaluative points)

In conclusion, the combined effects of the rise in rental cost and decrease in income would cause an increase in the sales revenue of local hawker food businesses, and a fall in the sales revenue of fine dining restaurants. However, the sales revenue of casual dining restaurants market is indeterminate. Whether the sales revenue of casual dining restaurants market would increase or decrease depends on the relative magnitude of shift of demand and supply.

The extent of the fall in supply of casual dining restaurants market would depend very much on how much the business is affected by the rise in rentals. If the casual dining business is located in prime locations where rentals have increased the most, then the supply would fall to a larger extent. Assuming that a casual dining restaurant is located in a prime area in order to attract crowds, the rental costs could be a substantial part of its total costs of production. Rise in rentals might thus cause the supply curve to fall more than the demand. In this case, equilibrium price of casual dining would increase while the equilibrium quantity

of casual dining /fast food would fall. In this case, since PED is assumed to be less than 1, TR is likely to rise.

Furthermore, the above analysis on the change in sales revenue is based on the assumption that local hawker food is an inferior good and food catered by casual dining restaurants are a necessity. Whether a good is an inferior good, necessity or luxury good also depends on the stages of development of a country. While local hawker food and fast food/food provided by casual dining restaurants in a developing country such as Vietnam could be deemed as a normal good and luxury good respectively, Singapore's local hawker food could be deemed as an inferior good while fast food/food catered by casual dining could be deemed as luxury good. This is because there is a higher stage of development and income in Singapore.

Levels	Knowledge, Application/Understanding and Analysis
L3 (8-10)	For an answer that uses appropriate economic analysis to discuss a range of likely effects on total revenue of various types of F&B. There is strong application of economic concepts and analysis relating to the context given. Appropriate examples are used.
L2 (5-7)	For an answer that gives an underdeveloped explanation of the likely effects on total revenue of various types of F&B. There is some attempt to apply to the context but the examples may not always be appropriate.
L1 (1-4)	For an answer that shows knowledge of the likely effects on total revenue of various types of F&B.

E3 (4-5)	For an answer that arrives at an analytically well-reasoned judgement about what affect the effects on total revenue of various types F&B.
E2 (2-3)	For an answer that makes some attempt at a judgement about the likely effects on total revenue of various types of F&B.
E1 (1)	For an unexplained judgement.

- 2 In a highly competitive apparels industry where size matters, boutiques which offer customised tailoring services for discerning consumers nonetheless coexist with large firms which produce huge quantities of clothing for the mass market.

Discuss the factors that firms should consider when deciding whether to grow [25] and evaluate which is the most important factor.

Question Analysis:

Command	Discuss – balanced perspective Discuss the factors – identify and explain relevant factors Discuss... and evaluate – weigh the relative importance of factors to identify the most important one, based on a defined criteria
Content	Firms and decisions, Market structures - Revenue and costs advantages to firms from growing larger - EOS and DisEOS - Nature of firm, MES - Objectives of firms - Level of competition, firms' strategies in different market structures
Context	Open, i.e. pick a range of authentic industries to illustrate firms' decision making

Schematic plan:

<p><u>Intro</u></p> <ul style="list-style-type: none"> • State firms' main objective • List the factors to be considered
<p><u>Body</u></p> <ul style="list-style-type: none"> • Benefits of expansion <ul style="list-style-type: none"> ○ Revenue advantages – e.g. ability to increase demand and reduce PED ○ Cost advantages – e.g. ability to reap EOS • Costs of expansion <ul style="list-style-type: none"> ○ Explicit costs incurred from strategies undertaken to expand ○ Cost disadvantages – e.g. incur DisEOS ○ Uncertainty of outcome of expansion drive – e.g. loss incurred from unsuccessful expansion drive ○ Undue stress to owners • Constraints <ul style="list-style-type: none"> ○ Firm's ability to grow, i.e. availability of resources or profits accumulated ○ MES for the industry • Unintended consequences <ul style="list-style-type: none"> ○ Incentivising rivals to enhance their competitiveness • Objectives of firms – e.g. alternative objectives that firms may pursue, such as profit satisficing <p><i>Alternative approach to analysis of costs and benefits:</i></p> <ul style="list-style-type: none"> • <i>Benefits of remaining small</i> <ul style="list-style-type: none"> ○ <i>DD side factors, including provision of customised services; product differentiation; catering to localised demand</i> ○ <i>Operate at MES, which may occur at low level of output</i> • <i>Costs of remaining small</i> <ul style="list-style-type: none"> ○ <i>Inability to reap higher revenue from an expanded size</i> ○ <i>Inability to reap cost benefits from expansion</i>
<p><u>Conclusion/ Evaluation</u></p> <ul style="list-style-type: none"> • Judgment

- Clear criteria for judgment, with substantiation
 - Importance of factor is dependent on:
 - Market structure
 - Contrast the difference between firms in different market structures, e.g. oligopolistic and monopolistically competitive industries
 - MES for industry
 - Contrast the difference between industries with MES occurring at larger and small output levels

Introduction

Firms generally seek to maximise profits and do so by maximising total revenue and minimising total costs. In deciding whether to grow, firms will consider a range of factors, including the benefits and costs from expansion; constraints they may face; any unintended consequences of the planned expansion; and their core objectives.

Body

Firms stand to reap various benefits from growing in size. Revenue advantages refers to the expanded firm's ability to earn greater total revenue. To expand, one possible way is for the firm to undergo horizontal integration with another firm in the industry. Thus, the merged firm will have a greater share of the market and this strengthens its market dominance. Combining the product lines from both firms, the merged firm will be able to offer a wider range of products that better cater to more consumers' taste and preferences. For instance, the fashion label may now carry both the kids' and adults' clothing lines, and offer apparels to suit a range of purposes ranging from sportswear to high street casual styles. With its greater capacity, it could then potentially capture higher demand. This then allows the merged firm to charge a higher price and sell a larger quantity of output, and earn higher total revenue.

If the merged firm is able to secure higher demand and also strengthen brand loyalty by regularly refreshing its product line to cater to consumers' fast change tastes, the firm could reduce the degree of substitutability of its products vis a vis its rivals' offerings. Thus, demand for its products become less price inelastic. If the firm is very competitive and its demand eventually become price inelastic, the firm can then raise price to increase total revenue.

Apart from revenue advantages, an enlarged firm can reap cost advantages if it successfully lowers its total cost or average cost, allowing it greater security in facing its competitors. With a larger share of the market, the firm will need to expand its scale of production thereby being able to enjoy economies of scale (EOS) that leads to a fall in average costs. For instance, firms can reap managerial EOS. As the firm increases in size, there will be more scope for division of labour and specialisation for the managers. There can be centralised administration of the firm, such as having one human resources department to administer all the wages, or a dedicated marketing department that oversees the conceptualisation and implementation of marketing and branding strategies. Such changes can lead to better decision making and higher efficiency, which leads to a fall in average cost due to higher productivity of individual managers in their dedicated roles.

The above revenue and cost advantages can allow firms to increase their profits, assuming that the gain in total revenue is greater than the increase in total cost from the expansion.

Firms will also consider the possible costs of any planned expansion. One key area of costs would arise from the strategies undertaken to expand. In the apparels industry, commonly used strategies to build brand awareness and/or strengthen brand loyalty include advertisements that feature brand ambassadors, steep discounts and flash sales, and the like. A comprehensive advertising campaign broadcasted across various mediums (such as television, radio, social media, and bill boards in public spaces) and fronted by a popular artiste can be very costly. This may thus require the utilisation of a substantial amount of profits the firm had accumulated previously.

It is also possible that the firm may incur internal diseconomies of scale with its expansion, resulting in a higher cost per unit of output. This could, for instance, arise from the high cost of monitoring and management. As the size of the firm increases, management problems can become more complex. The enlarged firm could have many departments and divisions – in the case of a merger, these could be inherited from the original organisational structures of both companies. The enlarged firm thus faces greater difficulty coordinating its operations, compared to when it was smaller. More managers may have to be hired to coordinate between departments – such as marketing, design and manufacturing teams – and for closer supervision of the expanded team of workers. All these would result in higher average costs.

In spite of best efforts, an expansion drive may not succeed if consumers do not respond favourably. The monetary resources committed to the various strategies hence cannot be recouped and the firm could incur significant costs from this failed expansion drive. With the inherent uncertainty of outcome, especially in a fast-changing and highly competitive industry like the fashion apparels industry, an expansion drive could also cause much stress to the owners of the firm.

Beyond considering benefits and costs, firms could be constrained by their (lack of) ability to grow. As mentioned above, expansion of firms typically require an expansion of production capacity as well as advertising efforts to build brand awareness and product familiarity. To better gauge size of market, consumer demand and tastes and preferences, market research could be undertaken. In absence of substantial accumulated profits, or should the firm be unable to secure a sizeable bank loan to fund the expansion strategies, a firm would not be able to grow.

Depending on the unique nature of each industry and the method of production, the minimum efficient scale (MES) may occur at a relatively lower output level. This could be the case for products that require more labour input – such as artisanal handicraft work – which cannot be replicated by automated assembly lines. Thus, an expansion in scale of production beyond a firm's MES would not be efficient and hence constraints a firm's growth.

In a highly competitive industry, such as the apparels industry, firms typically mirror the strategies of rivals – if their resources permit – in order to maintain market share. One firm's expansion drive may cause other existing firms to feel threatened, and hence a possible

unintended consequence of incentivising rivals to enhance their competitiveness may arise. The rival firms may then undertake product innovation or refresh their marketing campaigns. This could increase the level of competition in the industry, which then makes it more challenging for firms to grow.

Although most firms in general seek to profit maximise, some firms may be an exception and rather adopt alternative objectives such as profit satisficing objective instead. This could be the case for family-operated small and medium enterprises (SMEs) operating in competitive industries, whereby owners opt to avoid undue stress or perceived challenges of expanding the firm. In the apparels industry, boutique firms which employ artisans with niche skills to offer highly personalised and unique pieces of clothing may aim to profit satisfice. They may, perhaps, aim to maintain normal profits so as to continue operations and to cater to their niche clientele. For such firms, expansion and increasing output may reduce the perceived value and prestige of their pieces, thus creating no incentive for expansion.

Conclusion

Firms have plenty to consider in deciding whether to grow – the potential benefits and costs, any constraints faced, any unintended consequences as well as their core objectives. It is essential that the firm owners determine that the benefits of expansion do outweigh the costs and that the constraints and unintended consequences are not prohibitively severe to hinder a move in this direction. The relative importance of the factors discussed above in a firms' decision on whether to grow would depend on factors such as market structure and MES for the industry.

The market structure in which a firm operates would influence a firms' pricing, output and other strategic decisions. In an oligopolistic industry, firms are mutually interdependent and highly conscious of the possible reactions of other rivals firms to their decisions. Thus, costs of expansion and unintended consequences may be the more important factors. Take for instance the retail petrol industry in Singapore, with a few dominant firms like ESSO, Shell and SPC selling a rather similar product. It is unlikely that any of the incumbents would reduce their selling price in order to grow and gain market share, as rivals are almost certain to respond by reducing their prices in order not to lose market share. To grow within a market, the petrol retailers might pursue non-pricing strategies like researching and enhancing the quality of their petrol to optimise engine performance; or introducing more attractive customer loyalty schemes; or partnering local banks to offer rewards to users of specific credit card. Such strategies are costly and the results are at best uncertain.

In a monopolistically competitive industry, however, constraints may be the more important factor. With the low barriers to entry and with firms earning normal profits in the long run, it is unlikely that firms would possess substantial resources to undertake expansion strategies. This could apply to neighbourhood hairdressing salons, bakeries, or hawker stalls. Price discounts to draw more customers can easily be replicated by rival firms. While efforts are made towards product differentiation, the outcomes may be superficial given the lack of resources for product development. New recipes or menu options can quickly be replicated by rivals thus consumers usually have many substitutes available and this constrains firms' ability to grow. Hence, many of such firms tend to remain small over time.

The MES of the industry would influence firms' decision on whether to pursue expansion. Take for instance two specific sub-markets within the larger food and beverage industry – the market for events catering services and that for handmade poh piah (Chinese spring roll) skin. For the former, the MES occurs at a larger output as there are various technical EOS that can be reap. Firms that operate out of central kitchens with industrial cooking equipment to reduce requirement for labour and to achieve greater consistency in food quality could reduce their average cost of production. For the latter, MES occurs at a much smaller output since production is entirely reliant on manpower and there is little that technology can assist with, without changing the nature (handmade) and quality of the product. Hence, firm's expansion is constrained by the availability of skilled chefs and also by the low demand.

Mark scheme:

Level	Descriptors	Marks
L3	<p>High L3</p> <ul style="list-style-type: none"> • The answer should contain ALL of the following: <ul style="list-style-type: none"> ○ Analysis of at least 4 distinct factors that firms will consider ○ Discussion of the relevance/ importance of each individual factor • Given the time constraint, the answer could not be improved significantly. • The answer demonstrates thorough knowledge and an excellent ability to explain facts and theory in a precise, logical and reasoned manner (an analytic explanation) and is coherent and well-structured. • The answer demonstrates good application to relevant contexts, with the use of real world examples. 	18 – 20
	<p>Low L3</p> <ul style="list-style-type: none"> • The answer should contain MOST of the following: <ul style="list-style-type: none"> ○ Analysis of at least 4 distinct factors that firms will consider ○ Discussion of the relevance/ importance of each individual factor • The answer demonstrates good knowledge of relevant facts and theory. • There is a reasoned (analytic) structure to the whole answer. • There is consistent attempt to apply to relevant contexts. 	15 – 17
L2	<p>High L2</p> <ul style="list-style-type: none"> • Answer is relevant to question but theory is incompletely explained. It should contain: <ul style="list-style-type: none"> ○ Analysis of at least 3 distinct factors that firms will consider ○ Some attempt to assess the relevance/ importance of each individual factor • There is application of economic principles to relevant contexts. 	12 – 14
	<p>Low L2</p> <ul style="list-style-type: none"> • Accurate but undeveloped explanation of facts, theory and policy. The answer should contain: <ul style="list-style-type: none"> ○ Analysis of at least 3 distinct factors that firms will consider 	9 – 11

	<ul style="list-style-type: none"> ○ Limited or weak attempt to assess the relevance/ importance of each individual factor • Limited ability at recognising unstated assumptions or organisation of ideas. 	
L1	<p>High L1</p> <ul style="list-style-type: none"> • Smattering of points that show weak understanding of question requirements. • An incomplete answer with question requirement partially addressed (e.g. a mere listing of factors with no explanation). • Poor application of content knowledge with several conceptual errors. 	4 – 8
	<p>Low L1</p> <ul style="list-style-type: none"> • Few valid points offered. • Answer was mostly irrelevant or inaccurate. 	1 – 3
E3	<ul style="list-style-type: none"> • A judgment with clear attempt to explain relevant criteria for assessing which would be the most important factor for consideration, and with consideration of relevant context(s). 	4 – 5
E2	<ul style="list-style-type: none"> • A judgment with some attempt to explain relevant criteria for assessing which would be the most important factor for consideration. 	2 – 3
E1	<ul style="list-style-type: none"> • An unexplained judgment. 	1

3 Ministry of Home Affairs cited two areas of concern in Singapore: the large proportion of young drug abusers and cigarette smokers, who harm themselves and others.

Singapore has a zero tolerance approach to drug consumption - drugs are banned. Various measures including tax have been adopted to tackle the problem of cigarette smoking.

(a) With reference to the examples above, explain why government intervention is advocated in markets for demerit goods. [10]

(b) Discuss whether a total ban is the most appropriate policy for different demerit goods. [15]



Introduction

Market failure is a situation in which the market does not provide the right mix of goods or optimal amount of a particular good.

The market is not allocating resources efficiently and society's welfare is not maximised.

Body

Market for demerit good

A demerit good is a good that generates negative externalities in consumption and is deemed by the government as socially undesirable and believed to be over-consumed if left to the free market. Examples of demerit goods include cigarettes and drugs. Over-consumption of demerit good is due to the 1) presence of negative externalities in consumption and 2) information failure.

Presence of negative externalities in consumption.

Negative externalities give rise to external cost incurred by third parties who are not involved in the consumption of the good. E.g.: In the case of cigarette smoking, the external cost borne by third parties (non-smoking family members and friends) may be the healthcare cost and loss of income due to the health issues caused by the second-hand smoke. In the case of drug consumption, the external cost borne by third parties may be the loss of productivity of young workers who are drug consumers that dampens economic growth and thus standard of living in the country.

Given the external cost that resulted from the negative externalities in consumption, the marginal social cost incurred exceeds the marginal private cost at every unit of cigarette or drug consumed.

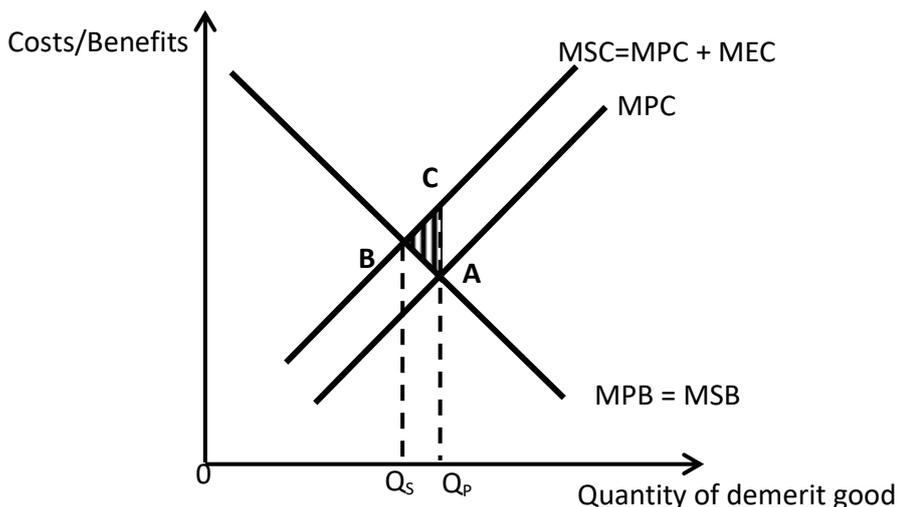


Fig. 1 Overconsumption of Demerit Goods due to Presence of Negative Externalities

If there is no government intervention in the market for cigarettes or drug, it can be seen from Fig 1 that the amount consumed would be at $0Q_P$ where $MPB = MPC$ when left to the free market. There is an over-consumption of $Q_S Q_P$ because the allocative efficient quantity where $MSB = MSC$ is $0Q_S$.

The quantity over-consumed, $Q_S Q_P$, generates a social cost of $Q_S B C Q_P$ which exceeds its social benefits of $Q_S B A Q_P$, resulting in a deadweight loss of area $A B C$ for the society.

Information failure.

Consumers may under-estimate the long-term damage to their health from cigarette smoking or drug consumption due to information failure. Individuals do not understand or appreciate the full extent of the ill effects on their health that can result from the consumption of cigarettes or drugs. Hence the perceived MPC is lower than the true MPC as shown Fig. 2.

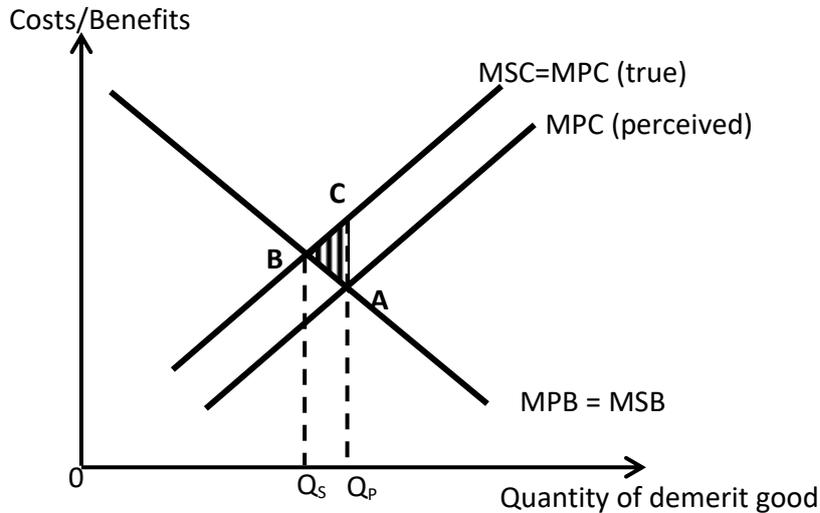


Fig. 2 Overconsumption of Demerit Goods due to Information Failure

The socially optimum quantity is $0Q_S$ where $MSB=MSC$. If there is no government intervention in the consumption of cigarettes or drugs, consumers will consume at $0Q_P$ (where $MPB=$ perceived MPC) rather than at $0Q_S$ which is the allocative efficient quantity. The quantity over-consumed, Q_SQ_P , would have generated a social cost of Q_SBCQ_P , which exceeds its social benefit of Q_SBAQ_P . Thus consuming $0Q_P$ instead of $0Q_S$ results in a deadweight loss of area ABC for the society.

Conclusion:

A partial market failure exists in the case of cigarettes and drugs. Price mechanism allocates excessive resources leading to over-consumption of cigarettes and drugs, rather than at the socially efficient output level. As a result of this, resources are not allocated efficiently and thus societal welfare is not maximised, resulting in market failure.

Level	Knowledge, Application, Understanding & Analysis	
L3	For an answer that provides a comprehensive explanation of negative externalities in consumption and information failure with good use of given examples of cigarettes and drug and relevant diagram(s). Marking Tip: If only either cigarettes OR drugs are explained but they are explained very well, we can still give up to 9m.	8 - 10
L2	For an answer that shows an attempt to explain negative externalities in consumption and information failure but may lack application to given examples of cigarettes and drug. Answer may have only well-explained either negative externalities or information failure but may not have explained adequately the other source of market failure.	5 - 7
L1	For an answer that shows some knowledge of negative externalities in consumption and information failure. Some errors are present.	1 - 4

(b) Discuss whether a total ban is the most appropriate policy for different demerit goods. [15]

Schematic Plan:

Synthesis/ Conclusion

Introduction:

Due to the large extent of external costs arising from the consumption of drugs, countries such as Singapore have chosen to impose total ban on the consumption of drugs. Whether total ban is most appropriate depends on whether it is able to address the source of market failure.

Body

Thesis: Total ban is appropriate policy for certain demerit good such as drugs.

A total ban is a straight-forward method to deal with goods that generate huge negative externalities in consumption such as demerit goods such as drugs incur very huge welfare loss when consumed such that it could be better that the society do without it.

For example, narcotic drugs such as Ecstasy and Heroin, when consumed, would incur a large external cost to the society and hence huge welfare loss in the private market.

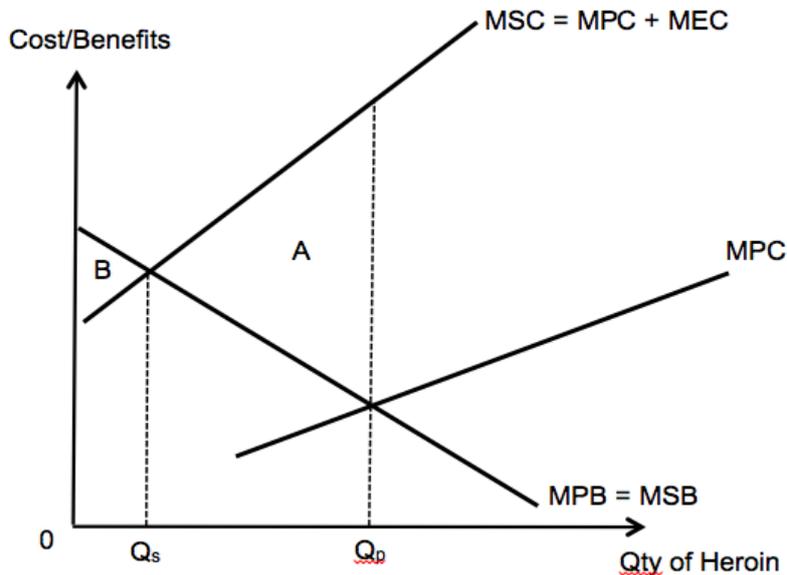


Fig. 3: Comparing welfare loss due to negative externality vs total ban

Fig. 3 compares the welfare loss caused by the externalities of consuming a drug such as Heroin against the welfare loss brought about by banning such a drug

If the drug is not banned, there is a welfare loss equal to the area of the triangle marked A. This is because the consumer's utility maximising level $0Q_p$ is higher than the socially efficient output $0Q_s$. The over-consumption of heroin results in deadweight loss reflected by area A.

However, if the government ban the consumption of heroin, production levels of heroin will fall to 0. Society will suffer a deadweight loss area reflected by area B due to the ban. This loss is due to the non-realisation of the total welfare gain that the society will have if $0Q_s$ of heroin is produced. Thus, compared to the socially optimum output of $0Q_s$, zero production and consumption, due to ban, will lead to net total welfare loss of B.

Though the negative externality in consumption of heroin and a ban both result in welfare loss, it can be seen from the above analysis that that banning heroin results in a SMALLER welfare loss (Area B) than not attempting to control consumption at all (Area A).

Anti-thesis: Total ban is not appropriate policy for demerit goods

For certain demerit goods such as cigarettes, total ban may not be appropriate if the extent of externalities is not as huge compared to drugs. In the case of cigarette consumption, indirect tax could be more appropriate than total ban.

To address the negative external costs that result from consumption of demerit good (e.g. cigarettes), as shown in Fig 4, a tax per unit equal to the MEC at Q_s can be implemented on every pack of cigarettes sold. This increases the cost of cigarettes to consumers, causing MPC of the consumers to rise to MPC' . Consumers will now consume at Q_s as this is where $MPB = MPC'$ which coincides with the socially optimal quantity. Hence, due to government intervention, the market failure and deadweight loss of area ABC arising from negative externalities is thus eliminated. However, if a ban had been imposed instead, the deadweight loss would be area BDE which is much larger than deadweight loss of area ABC in the private market. Hence, an indirect tax may result in more efficient outcome than total ban and thus is likely to be more appropriate.

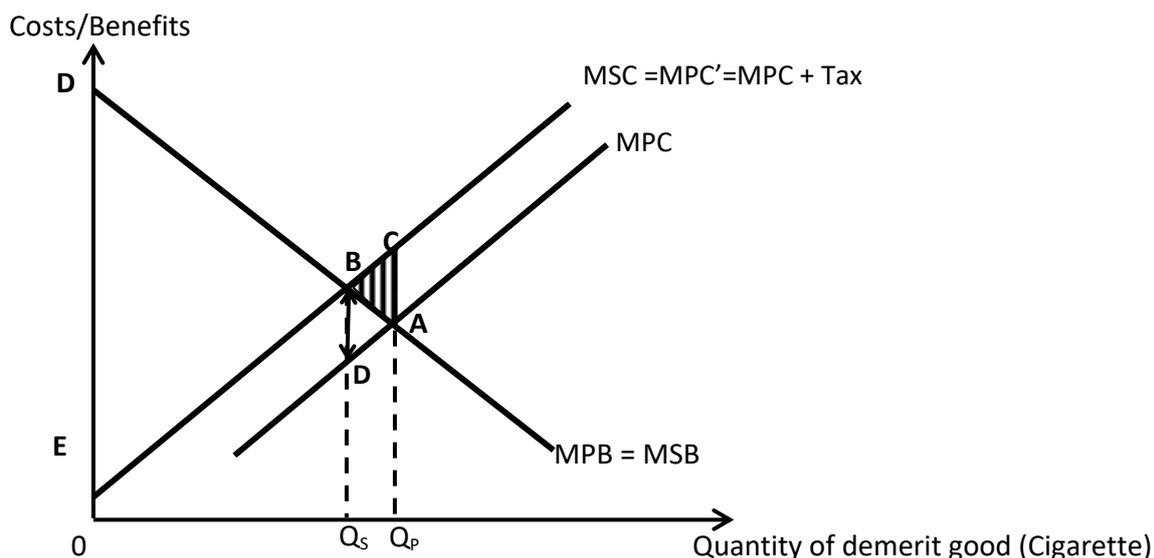


Fig 4

While total ban tackles negative externalities in consumption of demerit goods such as drugs, it does not address information failure that results in over-consumption of demerit goods. Public education campaigns such as Anti-Drug Abuse campaigns and Quit Smoking campaigns are more appropriate in reducing information gap and increasing MPC perceived to MPC true, thus eliminating deadweight loss and achieving allocative efficiency in the markets for drug and cigarette.

Regulation such as warning labelling and graphic images on cigarette packets also aids in reducing information gap and increasing MPC perceived to MPC true, thus eliminating deadweight loss and achieving allocative efficiency in the market for cigarette.

Evaluative Conclusion:

Criteria: Size of deadweight loss

There will still be welfare loss incurred by the society when total ban is imposed, thus allocative inefficiency still exists. The impact on allocative inefficiency depends on the size of deadweight loss compared to the private market outcome if ban had not been imposed. As welfare loss after ban is significantly smaller compared to that of private market, banning of demerit goods such as drugs leads to a more efficient outcome. In cases where welfare loss after total ban is larger, it is more appropriate to impose partial ban for example banning of smoking cigarettes in most public places to reduce consumption of cigarettes to socially optimum level to achieve more efficient outcome.

Criteria: Burden on government funds

In the case of a ban, enforcement costs may be high and it might be difficult to ensure compliance. As seen in preamble, there is large proportion of young drug abusers which could imply over consumption of drugs, resulting in greater deadweight loss than zero consumption that should have existed under total ban. This evidence shows that it is difficult for government agencies such as Central Narcotics Bureau to effectively monitor and deter consumption of drugs. More funds and manpower might have to be dedicated to better enforce compliance which takes a toll on government's budget. A country with huge budget deficit may find it not appropriate to impose a total ban due to high enforcement costs and may instead adopt measures such as indirect tax which provide additional tax revenue to support public education campaigns to tackle information failure.

Stand: Total ban is the most appropriate policy when consumption of demerit goods such as drugs generate such huge negative externalities in consumption that society is better off without it being consumed at all. Since there is larger deadweight loss due to total ban for certain demerit goods such as cigarette than what would have existed in the private market, other measures such as indirect tax and regulation are more appropriate than total ban.

Level	Knowledge, Application, Understanding & Analysis	
L3	For an answer that provides a well-balanced and comprehensive discussion on whether total ban is the most appropriate policy for different demerit goods with reference to both negative externalities in consumption and information failure.	8 - 10
L2	For an answer that shows an attempt to discuss total ban and other policies in terms of appropriateness with respect to different demerit goods. Answer may lack balance as it may have focused more on total ban OR other policies OR only considered appropriateness in terms of either negative externalities in consumption or information failure. Answer may be undeveloped.	5 - 7
L1	For an answer that shows some knowledge of policies to tackle market failure arising from demerit goods but did not address the stem of question in terms of whether total ban is the most appropriate policy.	1 - 4

Level	Evaluation	
E3	Well-reasoned judgements and a good summative conclusion.	4 - 5
E2	Some attempt at evaluation or a summative conclusion.	2 - 3
E1	Unsupported evaluative statement(s) or judgements.	1

Section B

- 4 As of 2018, Singapore's current account surplus stood at \$87.8 billion. For the Financial Year 2018, Singapore had a \$2.1 billion budget surplus.

Explain the possible causes of a country's current account surplus and budget surplus and discuss whether such surpluses are beneficial to Singapore's economy. [25]

Question Analysis

Command	Explain
Content	Factors/Reasons for CA Surplus and Budget Surplus
Context	Open

Command	Discuss
Content	Positive and Negative Effects of a CA Surplus and a Budget Surplus
Context	Singapore

Schematic Plan

Introduction: Explain current account surplus		Introduction: Explain budget surplus	
Factors/Reasons for a current account surplus		Factors/Reasons for a budget surplus	
Benefits of a current account surplus	Problems with a current account surplus	Benefits of a budget surplus	Problems with a budget surplus
Evaluative Conclusion			
Consider criteria to make a judgment on whether these surpluses are beneficial			

(Part 1)*Current account*

The current account records receipts from exports and payments for imports of goods (merchandise trade) and services, plus incomes flowing into and out of the country, plus net transfers of money into and out of the country.

When there is a surplus in the current account, the total currency flow into the economy due to export revenue, property income from abroad or unilateral inflow is more than the total currency outflow from the economy due to import expenditure, property income to abroad or unilateral outflows.

Several factors might have contributed to a country's **current account** surplus.

1. Growing Foreign Income/ Falling Domestic Income

A rise in the national income of trading partners will increase the demand for the country's exports.

For example, due to the economic recovery of the global economy in 2010, there was an increase in demand for Singapore's exports. The more income elastic the demand for exports, the greater will be the rise in Singapore's exports and export earnings.

Assuming both balance of trade and current account are in equilibrium initially, a rise in export earnings will bring about a balance of trade and current account surplus.

OR

A falling domestic national income may lead to lower demand for imports which improves the current account balance. The extent of the fall in imports due to a fall in the level of domestic income depends on the marginal propensity to import.

Assuming both balance of trade and current account are in equilibrium initially, a fall in import expenditure will bring about a balance of trade and current account surplus.

2. Increasing international competitiveness

A country may enjoy strong demand for its exports due to lower cost of production and higher efficiency than its competitors, thus leading to a surplus in the current account balance.

For example, Singapore enjoys comparative advantage in high value-added industries such as petrochemical and electronics due to its higher efficiency caused by efficient infrastructure and skilled labour. As such, there is a high demand for our high value-added exports which increases our export earnings and if inflows exceed outflows in the current account, a current account surplus results.

Consumers in a country with a lower domestic inflation relative to its trading partners will find its domestic goods relatively cheaper compared to imported goods. Thus, consumers will switch from imported goods to domestic goods.

At the same time, its exported goods will be relatively cheaper than its trading rivals and hence there will be a rise in quantity demanded for its exports. Assuming that the demand for its exports is price elastic, quantity demanded will rise more than proportionately to the price fall, thus causing its export revenue to rise. Given the fall in import expenditure and rise in export revenue is such that the inflow of money exceeds the outflow of money in the current account, there will be a surplus in the current account.

3. Under-valued exchange rate / Depreciation of currency

In a flexible exchange rate or managed float regime, when a country's currency depreciates (due to reasons such as outflow of short-term capital flows), this causes price of its exports in terms of foreign currency to be lower while price of imports would become relatively higher in terms of domestic currency.

Assuming initially that the balance of trade and the current account was in equilibrium, the rise in export revenue and fall in import expenditure will result in a balance of trade and current account surplus, assuming Marshall-Lerner condition (i.e. $PEDX + PEDM > 1$) holds.

Budget

The government budget lists the revenue and the spending of the government. A budget surplus occurs when the government revenue exceeds government spending.

Several factors might have contributed to a country's **budget** surplus.

1. Strong economic performance

An unplanned budget surplus may be recorded when the economy performs better than expected and tax receipts from personal income and corporate income tax increase. If there is a progressive tax structure, when national income grows and household incomes grow, personal income tax rates may increase as workers find themselves pushed into a higher tax

bracket. This would result in higher tax revenue. When AD is strong, firms also increase their production and profits and corporate income tax revenue would also increase. This would result in a budget surplus if the revenue exceeds government expenditure in that financial year.

2. Contractionary Fiscal Policy

A planned budget surplus may occur when the government is pursuing contractionary fiscal policy to contract the economy when it is deemed to be overheating. If there is demand-pull inflation, the government might reduce its expenditure by postponing infrastructure development. It might also reduce subsidies provided to households and firms to reduce C and I. As expenditure falls, a budget surplus might result.

(Part 2)

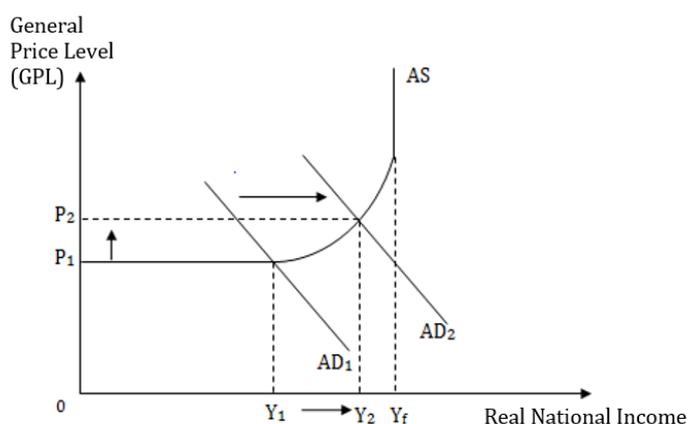
While many economies strive to achieve equilibrium in their current account and a balanced budget, surpluses in both Singapore's current account and budget might bring about some benefits.

Benefits of a current account surplus

Singapore's current account surplus can have an **expansionary effect** on the economy. If export revenue continues to rise faster than import expenditure, there would be a rise in AD since $(X-M)$ is a component of AD.

Assuming the economy is initially operating below full employment, this rise in aggregate demand, ceteris paribus, will cause a **rise in national output** from Y_1 to Y_2 and a **reduction in unemployment** due to higher output levels as illustrated in Figure 3. Eventually, the initial rise in net exports will result in a greater rise in national income through the multiplier process, leading to positive economic growth.

The rise in national income will induce a rise in consumption by households because household incomes have risen thus they have higher purchasing power. A higher level of consumption of goods and services could lead an **improvement in households' material standard of living**. More imports could also allow a greater variety of goods and services to be enjoyed by Singaporeans.



Problems with a current account surplus

However, if the current account surplus continues to grow and Singapore nears full employment, there could be **demand-pull inflation** as general price levels rise from P1 to P2.

If the balance of payments is also in surplus, there would be an **appreciation of the SGD**. This would not only hurt export competitiveness but might also **deter FDI** as investors find it more costly to invest in Singapore. This could potentially **slow down the increase in LRAS and potential growth** of Singapore, making it even more difficult to achieve price stability and sustainable economic growth.

If Singapore continues to enjoy a persistent current account surplus, this would mean a current account deficit for its trading partners. This may mean that the AD of trading partners might fall and their national incomes might fall. If they face a recession, they might not be able to import as much from Singapore as before which would then affect Singapore's AD and growth as well. This is known as the **beggar-thy-neighbour** effect. Trading partners might also **retaliate** through discriminatory protectionist measures such as import tariffs on exports from Singapore. Such measures would affect Singapore's exports, strain the political and trade relationships between the trading countries.

Benefits of a budget surplus

Singapore's accumulated budget surpluses are added to the government's reserves. These reserves can then be used on rainy days. For example, in 2008, during the global financial crisis, Singapore could **tap on its reserves to implement expansionary fiscal policy**. Tax rebates and subsidies were provided to firms and households which helped them to tide over the recession.

Another benefit of budget surpluses which were added to Singapore's reserves in its early years is that the **reserves were invested and contributions from these investments are now the largest contributor to government revenues** today. If Singapore did not have reserves to generate investment returns to spend from, Singapore would have had to more than double personal income tax, or Goods and Services Tax (GST), to raise the same amount of revenue. This would affect competitiveness of the economy.

Problems with a budget surplus

A budget surplus might indicate that the government is taxing more than necessary and withholding government expenditure. In the absence of concerns about demand-pull inflation, **an opportunity cost of this could be higher standard of living** for its residents. The higher taxes might deter consumption and investment which would lead to a smaller rise in AD and LRAS, resulting in slower economic growth.

However **in Singapore's case, if not for the investment returns from government reserves, there would be a budget deficit**. This indicates that the government expenditure remains high compared to the tax revenue collected. With Singapore's ageing population and growing infrastructural needs, the government continues to spend on building hospitals, schools, transport networks etc. Tax rates remain relatively low, compared to other countries, so as to attract investment. Hence, it is unlikely that the standard of living in Singapore is compromised because of a lack of government expenditure.

Evaluative Judgment

To conclude, Singapore's current account surplus is likely to be beneficial because Singapore's economic growth has largely been export-driven. Given Singapore's small domestic market, domestic demand is limited. Hence, with large volumes of exports, Singapore's AD is able to increase and high economic growth can be attained. **However, there is a need to ensure that there are sufficient supply-side policies** put in place for LRAS to grow in tandem with AD so that the economic growth can be non-inflationary and sustainable.

Singapore's budget surplus is also very beneficial as it allows Singapore to finance its spending on the increasing needs of an ageing population. This budget surplus also **does not have a contractionary effect** since tax rates are not high but rather, the investment returns from government reserves have helped to ensure that the budget is not in deficit. However, **Singapore should continue to exercise prudence in its fiscal policy** to ensure that it spends within its means. Its reserves should also not be tapped on unnecessarily so that they can continue to be invested to provide a steady stream of revenue to fund increasing expenditure.

Mark Scheme

Knowledge, Application & Analysis		
Level 3	<ul style="list-style-type: none"> • The answer demonstrates <i>excellent</i> knowledge, understanding and analysis of <ul style="list-style-type: none"> - Factors contributing to BOTH a current account surplus AND a budget surplus AND - Benefits and problems of BOTH a current account surplus AND a budget surplus to the Singapore economy • The answer demonstrates a <i>excellent</i> grasp of the question requirements. • The answer shows thorough knowledge and an excellent ability to explain all the required concepts with the use of appropriate examples, the benefits and problems, in a precise, logical and reasoned manner. • Given the time constraint, the answer could not be improved significantly 	18-20
	<ul style="list-style-type: none"> • The answer demonstrates good knowledge, understanding and analysis of <ul style="list-style-type: none"> - Factors contributing to BOTH a current account surplus AND a budget surplus AND - Benefits and problems of BOTH a current account surplus AND a budget surplus to the Singapore economy • The answer demonstrates a good grasp of the question requirements. • There is a reasoned (analytic) structure to the whole answer. 	15-17
Level 2	<ul style="list-style-type: none"> • The answer may be one-sided in the following ways: (For Part 1) <ul style="list-style-type: none"> - The answer explains factors contributing to either ONLY a current account surplus OR a budget surplus. (For Part 2) <ul style="list-style-type: none"> - The answer explains the benefits and problems of ONLY a current account surplus OR a budget surplus to the Singapore economy. - The answer explains ONLY the benefits OR problems of a current account surplus AND a budget surplus to the Singapore economy • The answer may be balanced and largely accurate but explanations may be undeveloped. • The answer uses examples but the examples could either be limited or inappropriate. • The answer may not have been applied to the Singapore economy 	12-14

	<ul style="list-style-type: none"> Ideas may not be well-organised in the answer. 	
	<ul style="list-style-type: none"> The answer may have explained either Part 1 or Part 2 well only OR The answer may have explained either Part 1 or 2 well with the other part undeveloped. The answer may be mostly relevant but explanations may be undeveloped. Ideas may not be well-organised in the answer. 	9-11
Level 1	<ul style="list-style-type: none"> Answer may show some knowledge of a current account surplus or a budget surplus OR Some knowledge of the benefits or problems of a current account surplus or a budget surplus. There may be basic errors or many errors The answer may have inadequate explanations. The answer may be mostly irrelevant or inaccurate 	5-8
	<ul style="list-style-type: none"> The answer may have few valid points The answer may be mostly irrelevant or inaccurate 	1-4

E 3 4-5	<ul style="list-style-type: none"> The answer synthesises economic arguments to arrive at well-reasoned judgement on whether a current account surplus and a budget surplus is beneficial to the Singapore economy. The answer critically evaluates alternative theories, contemporary issues, perspectives or policy choices.
E 2 2-3	<ul style="list-style-type: none"> The answer shows some attempt at evaluation or a summative conclusion The answer is relevant to the question but does not explain the judgement or base it on relevant analysis
E 1 1	<ul style="list-style-type: none"> The answer has unsupported evaluative statement(s) or judgements The answer lacks explanation

5 Stability in prices and low unemployment are two key macroeconomic aims of most governments.

(a) Explain the benefits of attaining the above aims. [10]

(b) In view of the possible conflict between the above aims, discuss the economic policies that a government might consider adopting to achieve them. [15]

(a)

Question Analysis

Command word	Explain
Content	Macro aims – stable prices, low unemployment
Context	Nil

Schematic Plan

Stable prices - Definition - Benefits of achieving stable prices Low unemployment - Definition - Benefits of achieving low unemployment
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Introduction

- Stable prices and low unemployment are two macroeconomic aims of a government. Achieving them brings about many benefits which usually lead to better standard of living for its people. Benefits of maintaining stable prices include making the economy an attractive investment destination and encouraging savings whereas achieving low unemployment could reduce social unrest and reduce government funds devoted to unemployment benefits.

Body (Stable Prices)

- An economy achieves stable prices when the general price level remains relatively unchanged over time or grows at a slow and predictable pace over time. Most economy would aim to achieve a low single digit inflation rate (e.g. 2% in the UK).
- Benefit #1 – Attractive investment destination
Investors, local and foreign, usually have more confidence in an economy with more price predictability. To maximise profits, investors will want to have a good gauge, especially over a near future, of their expected total revenue (expected price \times expected quantity of goods sold) and total cost (expected price of inputs required). With a profit potential, investors will then choose to invest in an economy. When that happens, Aggregate Demand of the economy will rise, more jobs will be created, more real income will be earned and households, on average, will earn higher income and enjoy a higher SOL. Furthermore, investment helps an economy achieve potential growth as LRAS increases.
- Benefit #2 – Encourages savings
Households need to save for various reasons. With mild and predictable changes in prices, households are willing to save due to the negligible ebbing of the real value of

their savings in the bank. Banks, when flushed with lots of cash, will therefore be competing to lend to investors at attractive rates. This will in turn boost the economy and bring higher SOL to its people.

Body (Low Unemployment)

- Low unemployment refers to a situation where a large proportion of the labour force are working. Typically, low single digit unemployment rates would be considered low.
- Benefit #1 – Less social unrest
Most workers exchange labour (time, effort) for income to care for one's family or oneself. Criminal activities usually correlates with unemployment rates, as unemployed workers with no income may be desperate to bring money home (South Africa's unemployment rate is 27% and ranks 2nd in Crime Rate Index of the world). When only a small proportion of the labour force remain unable to care for one's family, the crime rate tend to be low since most workers will be able to afford the basic necessities for his family or himself. Households will thus be able to enjoy a relatively high standard of living.
- Benefit #2 – Lower opportunity costs incurred
Achieving low unemployment means that a small government fund will be needed for unemployment benefits. This is especially true in countries where social welfare is a given and unemployment benefits are generous (e.g. Australia, the UK). Low unemployment exerts light burden on remaining portion of the working pool in terms of tax paid and, hence, allows government to charge low personal and corporate income taxes to make the economy more attractive to foreign talents and corporations. This will in turn boost economic growth in the country and bring higher SOL.

Conclusion

In addition to the benefits brought up above, there are other benefits when a government achieves stable prices and low unemployment. Though each government may have competing aims at times, the attainment of both stable prices and low unemployment would bring direct and significant benefits to the economy.

Level	Knowledge, Application, Understanding & Analysis
L3 (8 – 10)	For an answers that explained, using economy analysis, at least three benefits that achieving the two goals may bring. While not necessary, provision of real-world examples will help to score top marks.
L2 (5 – 7)	For an answer that provided a balanced (3 benefits) but weakly explained/elaborated response to the question. Answer reveals certain gaps in the understanding of how these two macroeconomic aims are desirable.
L1 (1 – 4)	For an answer that provided incidental response or one that was fraught with errors. Answers included mainly statements of outcomes rather than explanations of outcomes.

- (b) In view of the possible conflict between the above aims, discuss the economic policies that a government might consider adopting to achieve them. [15]

Question Analysis

Command word	Discuss – present both sides
Content	Policies to achieve macroeconomic aims
Context	Nil

Schematic Plan

2 macroeconomic aims: stable prices, low unemployment

Choose to explain policies that cover different goals (e.g. policies to deal with Dd-pull inflation, cost-push inflation, structural U, Dd-deficient U, frictional U)

A suggested approach is the following:

Dd-pull inflation (choose 1) + Limitations/Disadvantages

- CFP, CMP
- SSP to increase LRAS

Cost-push inflation + Limitations/Disadvantages

- SSP to increase SRAS

Low unNt (choose 1) + Limitations/Disadvantages

- EFP, EMP (Dd-deficient)
- SSP (Structural, Frictional)

Synthesis & Conclusion

Introduction

- To reap the benefits of having attained the above two macroeconomic aims, the government may need to implement discretionary policies. To achieve price stability, demand management or supply-side policies may be used. Depending on the causes of unemployment, various policies are at the disposal of the government to achieve low unemployment rates.

Body #1 – To reduce dd-pull inflation

- **Contractionary Fiscal Policy**

Excessive rise in Aggregate Demand due to the rise in its components may lead to demand-pull inflation. This occurs when the economy is producing near or at the full employment level of output where resources become extremely scarce. Hence, the government can reduce such excessive rise in Aggregate Demand by raising both personal and corporate income tax rates. Doing so will reduce the personal and corporate disposable income respectively, reducing the purchasing power of households and firms and hence, reducing their ability to consume and invest. AD will thus fall, leading to a fall in general price level, bringing forth price stability in the economy.

- **Limitation/Disadvantages**

Adopting a contractionary demand-side policy necessarily leads to fall in real national income. Curbing household and firm spending leads to unplanned building up of inventories which in turn causes firms to cut output to maximise profits. Workers get dismissed and consume even less than before, sparking off the multiplier process in a downwards spiral towards lower equilibrium real national income. **Thus achieving price stability, in this instance, comes at the expense of achieving low unemployment.**

This policy takes a long time to produce the desired result, as changes in tax rates face implementation (debates/discussions among government authorities) and response (households and firms experience rise in tax rates in subsequent year of assessment) lags. During such lags, the economy will have to continue to suffer from the ills of inflation.

Body #2 – To reduce cost-push inflation

- **Supply-side Policy to increase SRAS**

Rise in imported cost of factor input (e.g. fuel/crude oil) could lead to a fall in SRAS. Given unchanged AD in the economy, general price level will rise, giving rise to cost-push inflation. To achieve price stability, the government could provide subsidies to firms to offset, at least partially, such rise in cost of production. One example of such subsidies is the utilities or rental subsidies to firms to reduce the rise in overall cost of production.

As SRAS increases, national output and hence demand for labour increases. In this instance, both price stability and low unemployment can be achieved together. This is therefore a good economic policy that can be employed.

- **Limitation/Disadvantages**

This can be done only if the government has sufficient funds or, if already in budget deficit, is willing and able to borrow. Should the government run out of funds and borrowing cost is high due to the poor track record (e.g. Italy and Greece), it would be difficult to achieve price stability in the near term.

Body #3 – To reduce demand-deficient unemployment

- **Expansionary Monetary Policy**

If an economy is facing demand-deficient unemployment, the government could increase AD by reducing interest rates. The lower costs of borrowing would incentivise households to borrow to purchase big ticket items like cars, and firms to borrow to invest. Since $AD=C+I+G+(X-M)$, increases in C and I would lead to an increase in AD and hence NY. As demand for labour increases, unemployment rate falls.

However, achieving low unemployment would conflict with achieving price stability as increases in AD near Y_f would lead to an increase in GPL.

On the other hand if I increases substantially, there might be increases in LRAS. This would help mitigate the increases in GPL brought about by the increases in AD. This would then be advantageous as both price stability and low unemployment would then be achieved simultaneously.

- **Limitation/Disadvantages**

If the prevailing interest rate is already very low, it might not be possible to reduce interest rate anymore.

Falling interest rates could also lead to short term capital outflows (hot money outflows) which might worsen the capital and financial account and hence BOP.

Body #4 – To reduce structural unemployment

- **Re-training of retrenched workers/upgrade skills of current workers**

As an economy restructures in order to be more competitive in the increasingly globalised world, there will be a portion of the labour force whose skills will become obsolete and thus face retrenchment. The government may set up skill-training agencies to equip such workers with relevant skills (e.g. data analytic, hospitality management) so as to be employable by the burgeoning sectors in the economy. The provision of opportunities to constantly upgrade the skills of the labour force will go a long way in ensuring the labour force remaining employed, thus reducing the likelihood of structural unemployment in the economy.

At the same time, as productivity increases, LRAS also increases. This helps to bring down general price levels. In this instance, both price stability and low unemployment can be achieved together. This is therefore a good economic policy that can be employed.

- **Limitation/Disadvantages**

Provision of training for workers facing structural unemployment may face resistance for various reasons – time, age, pride. Consequently, unemployed workers may delay or abort any intention to go for training. For example, recently retrenched white-collar workers (e.g. directors/senior managers) may find it difficult to pick up new skills (e.g. taxi-drivers, customer service) after having been in their core business for a long period of time. Hence, it will be difficult to achieve low unemployment in the immediate period, let alone at the same time with stable prices.

Evaluation/ Conclusion

- In conclusion, a combination of policies seems necessary for the government to achieve both aims. With dedicated strategies to address specific causes of the macroeconomic issues, the conflict that may possibly arise could then be dealt with. For example, while adopting contractionary fiscal policy does help with controlling inflation rates, demand-deficient unemployment will rise. Hence, the government ought to expand the economy's productive capacity to reduce the need to contract the economy in order to achieve low inflation rate. In so doing, the economy will not need to face unnecessarily higher unemployment rate.
- In addition, while trying to achieve full employment by expanding the AD, the short term impact of demand-pull inflation is necessary. Suppose the rise in AD generates supply-side effect in the long term, such demand-pull inflation may be negated over time. A more timely planned boost in AD could be designed to allow the economy to enjoy continuous rise in LRAS over the long term so as to achieve full employment with minimal inflationary pressure experienced by the economy.

Level	Knowledge, Application, Understanding & Analysis
L3 (8 – 10)	Well-developed answer that covered policies to achieve both aims, while acknowledging the possible conflicts among them. Detailed analysis of how each policy works was provided and minimal errors, if any, were spotted.
L2 (5 – 7)	Suitable polices were brought up to address both aims. Explanation demonstrated a basic grasp of the macroeconomic issues (e.g. did not differentiate between the different types/causes of inflation or unemployment) and policies are only briefly explained. Conflicts between aims may have been hinted at and not well analysed. Only one aim is addressed: max 5m.

	If completely no hint of conflicts at all – max 6m.
L1 (1 – 4)	Answer did not address question requirement. Weak explanation of how policy achieves one macroeconomic aim is provided. Answer contained significant content/conceptual errors (e.g. use of expansionary policy to address dd-pull inflation).
E3 (4 – 5)	Reasoned judgement based on sound economic analysis/justification.
E2 (2 – 3)	Judgement provided but accompanied by weak substantiation or one not based on economic arguments.
E1 (1)	Unsubstantiated judgement.

6 In recent decades, globalisation has transformed the world, boosting economic growth and connecting developed and developing countries. However, there are signs of reverse globalisation as trade patterns are changing and capital flows and immigration are slowing down.

(a) Explain the determinants of an economy's pattern of trade. [10]

(b) Assess the effects of globalisation on the standard of living in a developing country like China. [15]

Command word	Explain
Content	Factors that determine Economy's pattern of trade
Context	Open

Pattern of Trade

Demand Factors	Supply Factors
Consumer Tastes & Preferences	Comparative Advantage
Changes in Income	Transport Costs
Trade Agreements & Restrictions	Off-shoring and outsourcing

Introduction

The pattern of trade of a country refers to the composition and volume of a country's exports and imports as well as the destination of its exports and the source of its imports.

Body

The pattern of trade of an economy is influenced by both demand and supply factors.

Comparative advantage (SS-side factor)

One factor that determines an economy's pattern of trade is the **comparative advantage**. According to the Theory of Comparative Advantage, a country should specialise in the good it has comparative advantage in. A country has comparative advantage in the production of a good if it can produce it at a lower opportunity cost than its trading partners. The comparative advantage of a country is in turn based on its **factor endowment, technological advancement and government policies**.

Singapore's trade pattern in terms of the goods that are exported and imported has been reflective of our **factor endowment**. Due to its limited land size, Singapore imports goods that are land-intensive in production, such as food. In its early years post-independence, Singapore possessed a relative abundance of low-skilled labour, thus the country produced and exported labour-intensive lower value added goods such as textiles and toys. As Singapore's workforce became more highly education, its factor endowment shifted to a relative abundance of high-skilled labour. Correspondingly, the country focused on producing and exporting high value added products such as financial services.

Additionally, **technological advancements** in a country may also allow countries to gain comparative advantage. China's rapid advancement in technology has allowed for them to produce some of the manufactured goods at a lower opportunity cost than other countries, thus allowing for them to export manufactured goods to other countries as they have gained a comparative advantage in the production of manufactured goods.

Government policies to encourage the development of certain industries can also change the economy's pattern of trade. China's government policies in subsidising firms in its manufacturing industry to innovate and develop new technology advancement has helped to change the economy's pattern of trade from being an exporter of cheap labour-intensive manufactured goods to being an exporter of high-end manufactured goods.

Transport Cost (SS-side factor)

Another factor that determines the pattern of trade would be transport costs. Transport costs can play a major role in influencing a country's choice of major trading partners.

Neighbouring countries tend to have large volumes of trade with one another. Some firms may want to locate their production nearer to their key markets to better serve their customers as well as to reduce transport costs. This helps to explain the huge trade volume between Singapore and Malaysia. Canada and USA also have a huge trade volume despite the two countries having largely complementary industries.

Off-shoring and Outsourcing (SS-side factor)

With differences in resource endowments, some firms may shift some of their production activities overseas to benefit from the lower relative factor prices in foreign countries that arise due to differences in opportunity cost.

For example, many MNCs set up their production of high technology components in countries like Singapore and locate the production of labour intensive intermediate products to countries such as Myanmar, Vietnam and Cambodia. Off-shoring and outsourcing thus plays a role in determining the type of goods the country exports.

Consumer Taste and Preferences (DD-side factor)

The consumption pattern of a country can affect its demand for imports, thereby influencing the pattern of trade of a country. Even if Singapore has the same PPC as another country (and thus identical patterns of opportunity cost in production), Singapore may still export the good if the demand for the good in the other country is higher than in Singapore.

In addition, Singapore may import differentiated products due to its consumers' demand for variety of the same product. For example, Singapore's consumers may prefer to consume a variety of wine from Europe, Australia and the USA. Thus, the import of differentiated products is determined by consumers' tastes, even if there are differences in the cost of production across the countries.

Change in Income (DD-side factor)

The economic growth and development of particular countries and regions also affects patterns of trade as fast developing countries tend to see a growing increase in both imports and exports. As a country's income increases, its demand for luxury goods may increase and volume of such imports would tend to rise. China has seen rising affluence and changing lifestyles. The higher income group has changed the consumption pattern in favour of high-end luxury goods such as Gucci, Louis Vuitton leather products and also Mercedes and BMW cars.

Trade Agreements & Restrictions (DD-side factor)

The presence of protectionist measures or the presence of Free Trade Agreements may determine the trading partners of a country as well as the type and volume of goods and services to import or export.

Bilateral and regional free trade agreements such as the ASEAN Economic Community (AEC), North America Free Trade Agreement (NAFTA) and the EU Customs Union have led to trade creation between member countries, thereby changing the direction of patterns of trade of member countries.

Likewise, the existence of trade barriers would also affect where countries would export to. If another country has placed trade restrictions such as tariffs on Singapore's exports, it may result in Singapore not exporting / exporting less to that country, thus distorting the trade pattern.

Conclusion

Thus the above suggests the factors that determine the pattern of trade of an economy.

	Knowledge, Application / Understanding and Analysis	
L 3	Well-developed answer that explain the factors that determine an economy's pattern of trade, with good use of concept of comparative advantage and other relevant economic concepts, and good use of relevant examples.	8 – 10
L 2	Answer that explains the factors that determine an economy's pattern of trade, using relevant economic concepts and some relevant examples but is not well-developed.	5 – 7
L 1	For an answer that shows some basic but largely unexplained knowledge of pattern of trade.	1 – 4

Command word	Assess
Content	Effects of globalisation Standard of living
Context	Developing country - China

Globalisation

Positive Effects	Negative Effects
Higher material SOL Higher non-material SOL	Lower non-material SOL

Introduction

Globalisation is the phenomenon of integration of markets in the global economy or international integration in the commodity, capital and labour markets. It results in an increasing interdependence of countries worldwide through increasing volume and variety of cross-border transactions in terms of goods and services and also freer flows of international capital, spread of technology as well as labour movement between countries.

There are benefits and costs arising from globalisation affecting material and non-material standard of living (SOL). Material SOL refers to the amount of goods and services available for consumption to each person in the country while non-material SOL refers to the quality of life in terms of health, literacy, social aspects etc.

The impacts of globalisation on the standard of living of a country would vary with different economies depending on the nature and size of the economy as well as the state of development.

Body

Positive effects of globalisation on a developing country (China)

The Theory of Comparative Advantage suggests that countries stand to benefit if they specialise in the goods which they have comparative advantage. For a developing country like China, they are likely to have comparative advantage in the production of labour-intensive goods such as clothing and shoes due to them having a lower opportunity cost in the production of these goods relative to their trade partners. This difference in opportunity costs arises due to the differences in factor endowment, with China having an abundant supply of labour.

(Through trade in goods and services)

If China, according to the Theory of Comparative Advantage, were to specialise in the production of labour-intensive goods and trade with their trade partner, this would allow China and their trade partner to benefit as this would lead to increased world output and allows both countries to consume outside their PPC. Due to the greater amount of goods and services that can be consumed as a result of this, **material standard of living in China is likely to increase.**

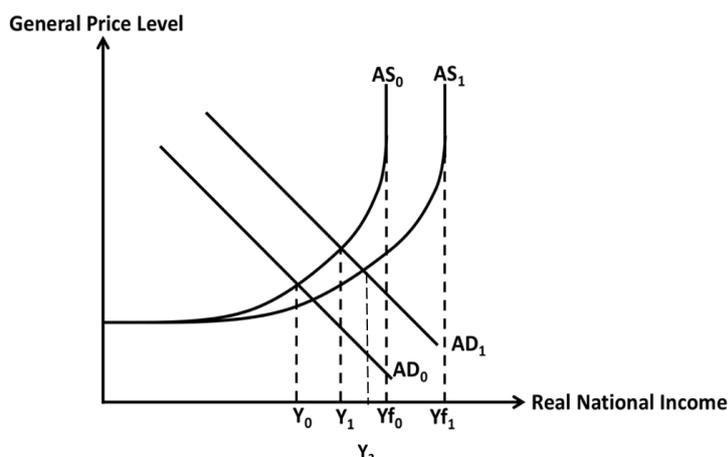
Greater economic integration through globalisation also allows developing countries like China to gain access to larger export markets, enhancing growth with an increase in demand of exports and exports quantity. The increase in exports would lead to an increase in the

aggregate demand (AD) and brings about actual economic growth for the economy, assuming *ceteris paribus*.

(Through capital and technological transfer)

Globalisation also brings about greater investments into China due to the lower cost of production in China. This would lead to a rise in foreign direct investments (FDI) and increasing AD. Assuming China's economy is below full employment, the inflows of FDI would increase the level of investment expenditure (I) in China and bring about a rise in AD from AD_0 to AD_1 . This increase in AD will lead to a multiplied increase in real national income from Y_0 to Y_1 and a rise in employment in China. Hence, there are more goods and services available for consumption and greater accessibility to them, leading to a **rise in material SOL** for a developing country like China.

In the long run, increase in investments on capital goods and technological transfer increases the quantity of factors of production and leads to a rise in the productive capacity and thus a rise in the long run aggregate supply (LRAS) curve from AS_0 to AS_1 . This leads to an increase in real national income from Y_1 to Y_2 and also brings about potential growth of the economy from Y_{f0} to Y_{f1} and hence **improving the material SOL** for China.



The higher economic growth experienced by China will generate greater tax revenue due to rising incomes (\uparrow income tax) and profitability (\uparrow corporate tax).

This tax revenue that is generated from the higher economic growth can be spent on infrastructure development such as improvements to roads and highways, improvement in the access and quality of education and healthcare which ultimately would lead to **improvement in the non-material SOL** of China. This positive effects of globalisation has seen China developed over the past decades and allow them to continue to do so in the years ahead.

Negative effects of globalisation on a developing country (China)

Globalisation has been linked to rising income inequalities and this is evidenced by the widening rich-poor gap in China. This is the case as higher FDI inflows tend to raise the demand for higher-skilled workers who are limited in supply and thus causes their wages to rise. On the other hand, the less-skilled workers would tend to have to compete with the other cheaper labour either from the rural areas of China, or the neighbouring countries of China, thus depressing their wages. Additionally, workers who are in the export sector stand to benefit more from globalisation compared to those who are in the domestic sector. The

widening income gap here would thus lead to a **worsening of the non-material SOL** of China.

With globalisation, there is also an increase in the production of goods and services for trade purposes as well as rising FDI which would lead to greater use of resources. This gives rise to negative externalities like pollution, global warming arising from greenhouse emissions and environmental degradation, thereby **lowering non-material SOL** of China further.

(Through labour flows)

Lastly, China may also suffer from a 'brain drain' as their highly skilled or well-educated labour would be attracted to other countries by better wages or working and living environment and thus leaving the country for better opportunities abroad. When this happens, China may see a fall in quantity and quality of labour resulting in a fall in productive capacity, LRAS and also experience a fall in real national income, leading to negative economic growth. This would **impact the material SOL of China adversely**.

Synthesis

Overall, it can be said that globalisation as a whole brought about greater benefits than costs, thus leading to an overall improvement to the standard of living in a developing country like China. Factors such as the state of development of a country plays a huge role in determining whether there are to be net gains or net costs from globalisation.

Developing countries like China typically gain in terms of the higher material and non-material standard of living brought about by greater trade in goods and services as well as the technological and capital transfers. However, this gain comes at the expense of environmental degradation and rising income inequality which leads to the worsening of the non-material standard of living.

The overall impact of globalisation on the standard of living of a country would also depend largely on the ability of the government to implement policies that would maximise the benefits and minimise the costs of globalisation.

	Knowledge, Application / Understanding and Analysis	
L 3	Well-developed answer that assesses both the positive and negative effects of globalisation and the impact on both material and non-material standard of living on a developing country like China, with good use of relevant economic concepts and the use of relevant examples.	8 – 10
L 2	For an undeveloped answer that assesses both the positive and negative effects of globalisation and the impact on standard of living on a developing country like China, with an attempt to make use of relevant economic concepts and an attempt to use relevant examples. For a well-developed answer that assesses either the positive or negative effects of globalisation and impact on standard of living on a developing country like China, with some use of economic concepts and framework to support the analysis.	5 – 7
L 1	For an answer that shows some basic but largely unexplained knowledge of the effects of globalisation on the standard of living on a developing country like China.	1 – 4
Level	Evaluation	
E3	Well-reasoned judgements and a good summative conclusion.	4 - 5
E2	Some attempt at evaluation or a summative conclusion.	2 - 3
E1	Unsupported evaluative statement(s) or judgements.	1

