

2019 A Level Suggested Answers

You should seek to attempt the Qn Analysis, identify the relevant points and construct the coherent arguments (selectively) before referring to this set of suggested answers in order to maximise your learning.

Essay 1

According to the Competition and Consumer Commission of Singapore (CCCS), the takeover of Uber by Grab in Singapore has led to 'a substantial lessening of competition'. This has made it harder for new competitors to enter the ride-hailing market.

Source: *Adapted from Channel NewAsia*, 5 July 2018

(a) Explain one reason why consumers might be better off and one reason why consumers might be worse off from Grab's takeover of Uber. [10]

Question Analysis

Approach	Command Word	Explain: 1) One reason why consumers might be better off 2) One reason why consumers might be worse off
	Question Type	How characteristics/strategy of firms affect impacts on consumers
	Start Point	Grab taking over Uber (Merger/Acquisition)
	End Point	Consumers are better off or worse off in terms of consumer surplus, consumer choice – quality and variety
Content & Context	Content	Market Structure – Monopoly/Oligopoly Internal economies of scale
	Context	Ride-hailing market

Sample Essay

Introduction

The takeover of Uber has transformed the ride-hailing market in Singapore to a less competitive one. As such, the characteristics and strategies of Grab would differ from before and this would have an impact on consumer's welfare in terms of consumer surplus, which is the difference between the amount consumers are willing and able to pay and the amount they actually. It would also impact consumer choice, which includes variety and quality of service provided.

P1: Consumers are better off – Higher Consumer Surplus

Grab's takeover of Uber will benefit consumers in terms of passing off cost savings to consumers in terms of lower prices, hence increasing their consumer surplus. Grab will now be providing ride-hailing services for ex Uber customers, which means that they have scaled up their operations. As such, Grab is able to reap internal economies of scale (IEOS), which refers to unit cost reductions that accrue to a firm as a result of expanding the firm's scale of production. Grab can now capitalise on marketing economies in advertisement. As the only ride-hailing firm in Singapore, it can now advertise its services across the entire island, which gives them the ability to ask for discounts from advertising companies for their bulk purchase. At the same time, with a higher capital, they are at less risk of defaulting loans. Commercial banks in Singapore will be more confident of Grab's prospect and hence may offer Grab lower interest rates for loans. Both these instances result in cost savings for Grab.

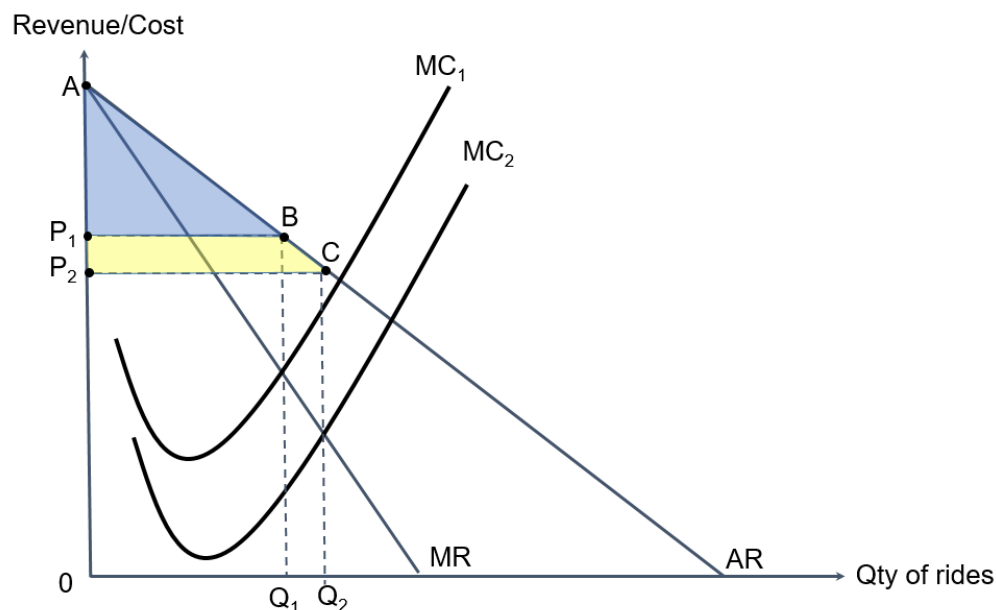


Fig 1: Increase in Consumer Surplus

As seen in Figure 1, Grab initially produces ride-hailing services at the output level Q_1 at price level P_1 where marginal cost (MC_1) intersects marginal revenue (MR) to maximise profits. By reaping higher IEOS, it would lead to a fall in marginal cost (MC) from MC_1 to MC_2 . Hence, Grab will now maximise profits where MR intersects MC_2 , resulting in a new profit maximising output Q_2 . Grab would then pass off the cost savings to consumers in terms of lower prices, P_2 . As a result, consumer surplus has increased from area AP_1B to AP_2C , making consumers better off.

P2: Consumers are worse off – Less choice and no improvement in quality of service

Grab's takeover of Uber will substantially weaken competition, making consumers worse off as they would now have less choices and they may not face an improvement in quality of ride-hailing services. As Grab has increased market power for ride-hailing services, it would have the ability to earn even higher supernormal profits in the long run. Therefore, there is no incentive for them to innovate and improve their services as they already have the majority of market share, in the process becoming dynamically inefficient. Also, since there are fewer alternative provider of ride hailing services, consumers have less choice and continue subscribing to Grab's services and

make do with whatever that is available. For example, Grab may not have the incentive to improve their app algorithm to better match drivers and riders and hence consumers may face a longer wait time. The quality of the service provided would therefore stagnate and hence consumers are worse off from the takeover.

Level Descriptors

Level	Descriptors	Marks
L3	Displays full slew of skills across AO1, AO2 and AO3: <ul style="list-style-type: none"> Well-developed explanation of how consumers are better off AND worse off from Grab's takeover in terms of consumer surplus, variety and quality Clear and coherent analysis, grounded by economic concepts, frameworks and principles Good use of relevant examples 	8-10
L2	Displays AO1 and AO2 skills: <ul style="list-style-type: none"> Under-developed explanation of how consumers are better off AND worse off from Grab's takeover in terms of consumer surplus, variety and quality. Well-developed explanation of how consumers are better off OR worse off from Grab's takeover in terms of consumer surplus, variety and quality. Limited use of examples. 	5-7
L1	Uneven display of AO1 and AO2 skills: <ul style="list-style-type: none"> Smattering of points Many conceptual errors Fails to address question requirement 	1-4

- (b) Discuss the potential benefits and problems that are likely to be experienced by new competitors considering entering the ride-hailing market dominated by Grab. [15]

Question Analysis

Approach	Command	Discuss Balanced answer + evaluation
	Start point	"new competitors entering the ride-hailing market dominated by Grab"
	End Point	Potential benefits and problems experienced by new entrants
	Content	<u>Market structures</u> Contestable markets Behaviour of a monopoly: Strategies – Limit pricing; Product differentiation and innovation Cost / revenue concepts Impact of firm's strategies on other firms
Content and Context	Context	Ride-hailing market dominated by Grab; Singapore

Introduction

Clarify "ride-hailing market dominated by Grab" and Grab's objectives → Monopoly; entry deterrence (SR) and profit-maximisation (LR)

Clarify "benefits and problems" → potential benefits in terms of revenue and problems such costs as a result of the nature of the market and strategies adopted by Grab to prevent the entry of new competitors.

Approach: Revenue vs. costs experienced by new competitors who are considering entering the ride-hailing market dominated by Grab and evaluate by weighing the potential benefits and problems.

Body

P1 Potential benefits (High revenue compared to \$0 previously)

Ride-hailing mobile apps → Increase in convenience due to (1) reduction in waiting time and (2) cash-less / digital payment → High DD / AR → New competitors would expect to earn high revenue

Potential benefits (Low costs)

Contestable market - low barriers to entry: new competitors do not face much difficulties in entering the ride-hailing market and they enjoy the same level of access to the same resources as Grab.

Low barriers to entry in terms of entry and exit costs – primarily dependent on contract labour (drivers) with no specialised skills which is readily available, easy and cheap to develop mobile app for ride-hailing, little / no advertising costs required

Little / no difficulties to enter the market - Grab does not have a significant advantage when consumers make an automatic association of ride-hailing with Grab. Thus, consumers do not have inherent loyalty / preference for any ride-hailing firm.

Same level of access to resources that Grab has - enables new competitors to be able to produce ride-hailing service at costs comparable or lower than those of Grab's.

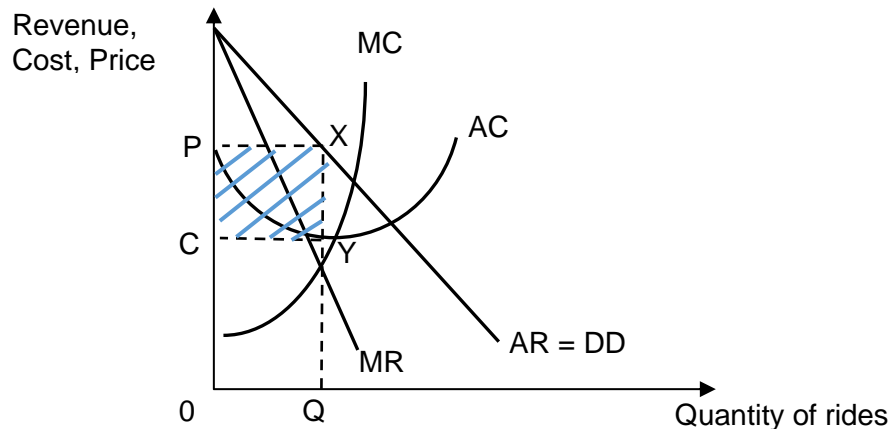


Figure 1: New competitors earning supernormal profits

Link

With the takeover of Uber by Grab in Singapore, Grab's ability to reap supernormal profits attracts new competitors to enter the ride-hailing market. With increasing popularity and convenience of ride-hailing services in Singapore, this means that revenue will remain high while costs of entering is kept low, as seen in Figure 1 above. Assuming insignificant changes in costs, **new competitors will benefit by entering the ride-hailing market as they would be able to retain supernormal profits in the long run** as illustrated by shaded area CPXY.

P2a **Potential problems (low revenue) as a result of Grab's pricing strategy**

Limit pricing adopted by Grab to safeguard its market share / position makes it a problem for new competitors to enter the ride-hailing market as revenue may be low.

Explain / Elaborate

Limit pricing - practice of charging a price below its profit-maximising price, in order to deter entry, especially as the ride-hailing market is highly contestable.

For limit pricing to be effective, Grab may reduce the price of its ride-hailing services to the point where new competitors will not be able to make any supernormal profit upon entering the market. To preserve its market position and deter new competitors from competing away its supernormal profits, Grab is able to adopt limit pricing due to the ability to tap on its previous supernormal profits earned in the long run. This price is often set below the new competitor's AC, thus resulting in low revenue earned by new competitors.

Link

Thus, due to the inability to make at least normal profits as a result to Grab's pricing strategy, new competitors will find it unprofitable to charge at a price below their AC to enter the ride-hailing market.

Intermediate evaluation: However, not all new competitors would find it a problem if Grab adopts limit pricing. For instance, when Gojek entered Singapore's ride-hailing market, it was able to charge a price lower than Grab's. This was made possible due to the fact that Gojek was already the dominant player in Indonesia's ride-hailing and delivery market then, thus allowing it to tap on its supernormal profits earned to match Grab's low price.

P2b **Potential problems (high costs) as a result of Grab's non-pricing strategies**

In order to continue dominating the ride-hailing market in Singapore, Grab may also adopt non-price strategies such as product differentiation, innovation and advertising, which makes it difficult for new competitors to enter as high costs is involved.

Explain / Elaborate

Innovation and R&D - The ability to retain supernormal profits in the long run allows Grab to invest in innovation and research and development (R&D), given that the ride-hailing market is highly contestable. Investment in app development enhances mobile app user experience and allows Grab to constantly expand its range of everyday services it offers through partnerships and collaborations with various businesses and merchants. Examples include groceries and food delivery, insurance and movie ticket purchasing and hotel bookings.

Product differentiation – By offering new services such as GrabPet, Grab is able to capture an even greater market to maintain its dominant position. Collaboration with merchants also allows Grab to differentiate its service with new competitors - GrabRewards enhances consumers' loyalty

Consequently, Grab's non-pricing strategies via product differentiation and innovation increases its demand and AR, reduces PED and AC at the same time → Existing Grab customers will be less likely to switch to competitors' services as they find Grab's service more comprehensive and its app more user-friendly → Reduces PED and XED value of its services → Reinforces Grab's market dominance

Hence, the above non-pricing strategies adopted by Grab allows it to establish a strong brand name which is a barrier to entry. New competitors entering the ride-hailing market would face high barriers to entry such as high start-up costs. To compete effectively with Grab, new competitors would have to invest in innovation and R&D prior to entering the market to ensure that its app is more user-friendly, collaborate with merchants to enhance its services, advertise to establish brand loyalty and would need to be able to differentiate their products from Grab upon entering the market to attract existing Grab customers to switch over.

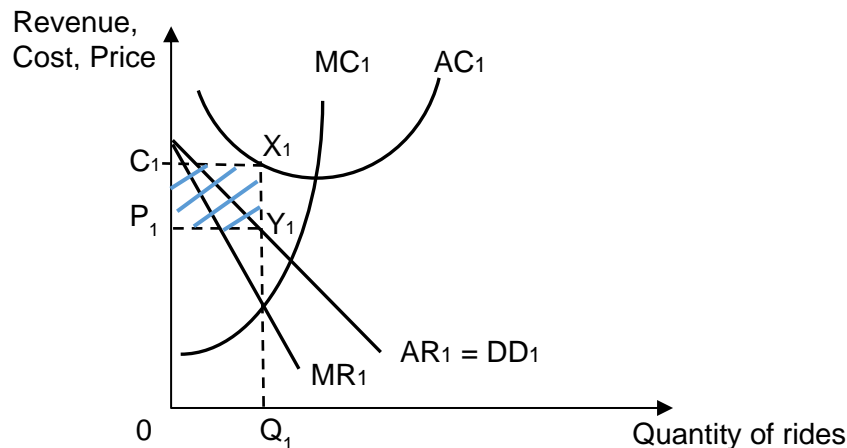


Figure 2: New competitors earning subnormal profits

Link

The potential problems of low revenue and high costs faced by new competitors as a result of Grab's non-pricing strategies will lead to them earning subnormal profits $P_1C_1X_1Y_1$ as illustrated in Figure 2.

Evaluation

[Stand + Criterion]

In conclusion, the potential benefits and problems experienced by new competitors entering the ride-hailing market dominated by Grab varies and depend on many factors.

With its conclusion that the takeover of Uber by Grab has led to 'a substantial lessening of competition', CCCS has proposed solutions to ensure that the ride-hailing market remains contestable. This would mean that with CCCS' intervention, new competitors may still find it more beneficial and face less problems when entering the ride-hailing market as barriers to entry are reduced.

[Final insight]

However, with the ride-hailing market being highly contestable, Grab would very likely continue to protect its market dominance by building up real and perceived barriers through successful advertising and building up strong brand loyalty. In this way, even when new competitors enter the ride-hailing market, consumers may be slow to react as tastes, habits and preferences need some time to change. Unless the new competitors have sufficient resources to engage in pricing and non-pricing strategies to compete with Grab to successfully capture Grab's customers, potential benefits experienced by these new competitors may not be significant.

In addition, especially for new and smaller competitors in the ride-hailing market, it is doubtful that they can immediately duplicate the expertise and knowledge learned through years of experience by Grab. It is also unrealistic to assume that the new competitors will be able to access such knowledge through "learning by doing" or "learning through experience". Such institutional knowledge may not even be explicitly known to Grab for such learning has already been

internalised into its policies, practices and work culture. This means that the costs may not be kept low for these new competitors.

Level	Knowledge, Understanding, Application, Analysis	Marks
L3	<ul style="list-style-type: none"> Addressed both benefits and problems faced by new competitors entering the ride-hailing market dominated by Grab 2-sided, balanced discussion Accurate and conceptually sound using cost / revenue concepts Clear elaborations that focus on linking to new firms Exemplification within context of ride-hailing market in Singapore Coherent flow and organisation 	8-10
L2	<ul style="list-style-type: none"> Attempted to address both benefits and problems faced by new competitors entering the ride-hailing market dominated by Grab 2-sided, balanced discussion Used cost / revenue concepts, but with some inadequacy and / or inaccuracy Some attempt to elaborate and to link to new firms Some exemplification within context of ride-hailing market in Singapore 	5-7
L1	<ul style="list-style-type: none"> Attempted to address the benefits or problems faced by new competitors entering the ride-hailing market dominated by Grab, but not both No, or conceptually inaccurate, use of cost / revenue concepts Lack of clarity, coherent flow and organisation 	1-4
Level	Evaluation	Marks
E3	Insightful judgment substantiated with analyses, including but not limited to the following considerations: <ul style="list-style-type: none"> Incumbent firms' reaction underlying assumptions government intervention 	4-5
E2	Judgment substantiated with analyses that were explained mostly in the body	2-3
E1	Unsubstantiated judgment	1

Q2 A firm in Singapore is facing an increase in demand for its goods which has led to an increased demand for labour. Its demand for labour is also inelastic. In addition, large number of its workers born in 1960s ('baby-boomers') have been retiring, reducing the number of workers available to the firm.

(a) With the aid of a diagram, explain how this firm's total expenditure on its workforce will have changed as a result. [10]

(b) Discuss whether making changes to the foreign worker levy is likely to be the most effective way the Singapore government can address the labour shortages experienced by such firms. [15]

2(a) Question Analysis & Suggested Answers

Approach	Command Word	Explain how: Provide economic reasons
	Question Type	Causes/factors
	Start point	<ul style="list-style-type: none"> Increase demand_{labour} [$PED_{labour} < 1$] Reduce in number of workers available [fall in SS_{labour}]
	End Point	Firms' [<i>Consumers of labours</i>] Total expenditure = Wage X Quantity of labour
Content and Context	Content	<ul style="list-style-type: none"> Demand/Supply analysis on Labour Market Wage adjustment process Application of PED analysis on extent of change on expenditure
	Context	Labour market

Intro

- In order to derive outcome on firm's total expenditure on workforce, we will be analysing demand and supply changes on the labour market with the application of price elasticity of demand for labour [PED_{labour}].

Body#1: Increase in demand for labour

- Derived demand for labour increases due to rise in demand for final goods and services as stated in the preamble.
- This will lead to rightward shift of the demand curve for labour from DD_{L0} to DD_{L1} as shown on Figure 1 below, ceteris paribus.
- This will lead to increase in equilibrium wage from W_0 to W_1 and equilibrium quantity of labour hired from L_0 to L_1 .
- Hence, firm's total expenditure on the workforce will increase from $OL_0E_0W_0$ to $OL_1E_1W_1$ as shown on Figure 1 below.

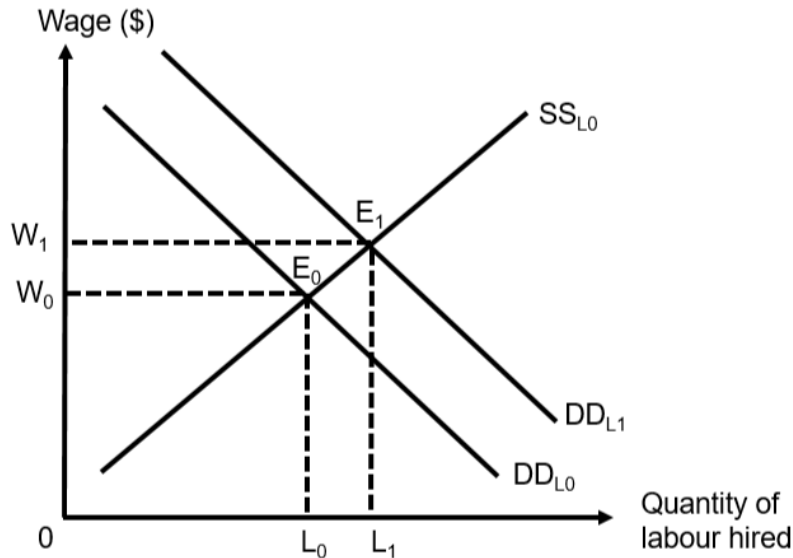


Figure 1: Increase in Firm's expenditure for workforce due to increase demand

Body#2: Decrease in supply for labour

- Supply for labour decreases due to mass retirement of 'baby-boomers' as stated in preamble.
- This will lead to leftward shift of the supply curve for labour from SS_{L0} to SS_{L1} as shown on Figure 2 below, ceteris paribus.
- This will lead to increase in equilibrium wage from W_0 to W_1 and fall in equilibrium quantity of labour hired from L_0 to L_1 .
- The demand for labour is likely to be relatively price inelastic with $|PED_{labour}| < 1$ as stated in the preamble. This could be due to the nature of this firm's production processes in being labour-intensive [this firm could likely be operating in a food and beverage sector] and difficult to substitute these labour [eg. Chefs, waitress, cashiers] with machineries.
- Hence, an increase in equilibrium wage from W_0 to W_1 will lead to a less than proportionate fall in equilibrium quantity of labour hired from L_0 to L_1 .
- Hence, firm's total expenditure on the workforce will increase from $OL_0E_0W_0$ to $OL_1E_1W_1$ as shown on Figure 2 below.

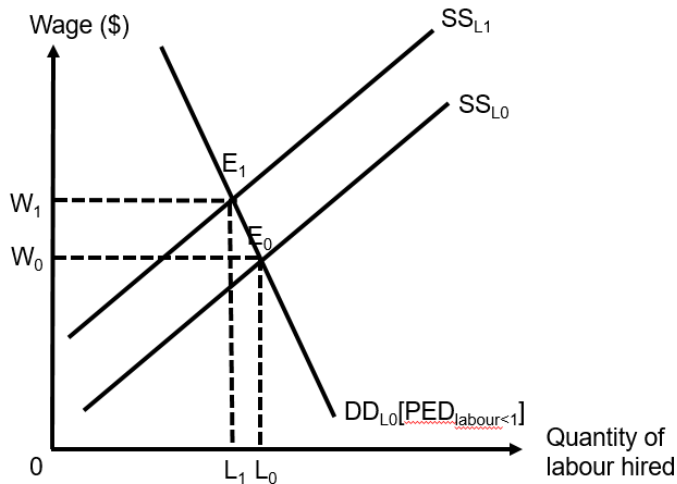


Figure 2: Increase in Firm's expenditure for workforce due to fall in supply

Body#3: Combined shifts

- Demand for labour will rise and supply for labour will fall simultaneously.
- The rise in demand should be greater than the fall in supply for labour.
- Reason: Supply of labour may not fall as significantly as retired 'baby-boomers' can still be rehired as contract or part-timer staff. Also, the firm always have the options to hire students, who do not mind a lower wage. Hence, the fall in supply of labour may not be as significant.
- The combined shift in demand and supply will hence result to a shortage of labour at distance $L_{ss}L_{dd}$ as shown on Figure 3 below.
- Wage adjustment process: Shortage leads to upward pressure on wages. As wages rise, quantity demanded of labour falls along DD_{L1} , while quantity supplied increases along SS_{L1} . This happens until new equilibrium wage W_2 is reached at new equilibrium point E_2 .
- Overall: equilibrium wage increases and equilibrium quantity rises from L_0 to L_2 . Total expenditure on firm's workforce increases significantly from $OL_0E_0W_0$ to $OL_2E_2W_2$.

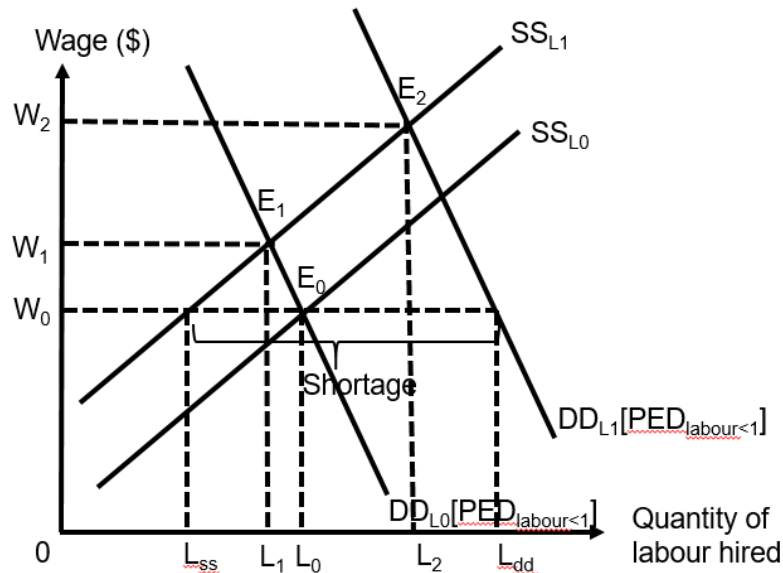


Figure 3: Overall increase in Firm's expenditure on workforce when both demand and supply change simultaneously

Conclusion

In conclusion, the rise in demand for labour and fall in supply of labour will cause the firm to experience an increase in expenditure on workforce.

Mark Scheme

Level	Knowledge, Understanding, Application, Analysis	Marks
L3	Well-elaborated explanation with appropriate diagrams as an analytic tool to explain why firms' total expenditure on workforce rise. Good application of the price elasticity of demand to show the effect of the shift in the supply curve of labour.	8-10
L2	Under-developed explanation and/or unclear diagrams to explain why firms' total expenditure rise.	5-7
L1	Smattering of points. Lack use of economic concepts or conceptually inaccurate. Lack of clarity, coherent flow and organisation	1-4

2019 Essay Question 2

b) Discuss whether making changes to the foreign worker levy is likely to be the most effective way the Singapore government can address the labour shortages experienced by such firms.

[15]

Question Analysis

Approach	Command Word	Discuss <u>Balanced answer</u> Thesis: Changes to the FWL is the most effective policy Anti-Thesis: Changes to the FWL is not the most effective policy. Other policies will be more effective. <u>Evaluation</u>
	Start Point	<ul style="list-style-type: none"> • Changing FWL • Other policies
	End Point	<ul style="list-style-type: none"> • Reduction of Shortage in Labour market
Content and Context	Content	<ul style="list-style-type: none"> • Labour Market
	Context	Singapore

Suggested Answer and Mark Scheme

Introduction

- State that there is a shortage in labour in Singapore cause by a rise in demand or fall in supply
- Set direction that the Singapore government needs to manage the shortage so that firms will be able to produce more goods and services.

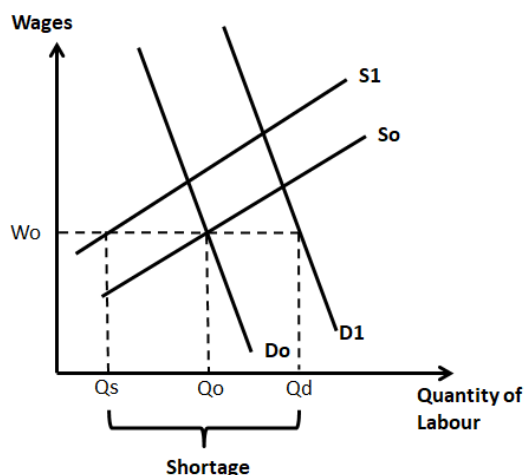
Body

Point

The rise in demand and fall in supply for labour will lead to a shortage for labour.

Explain/Elaborate

- As the demand for labour is derived from the demand for goods, the rise in demand for the latter will lead to a rise in demand for the former.
- Supply for labour falls as large numbers of workers born in the 1960s are retiring. The fall in birth rates during the past years has also resulted in the lack of new workers replacing these retiring ones.
- The rise in demand and fall in supply will result in a simultaneous shift of the demand and supply curves (D_0 to D_1 , S_0 to S_1).



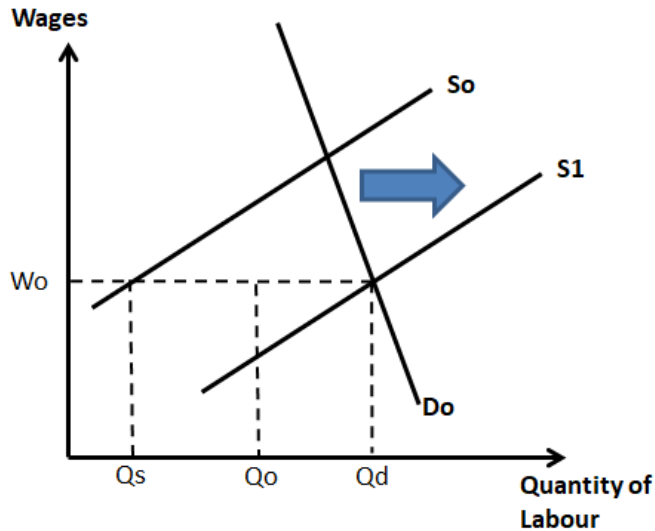
Link

At wage rate W_0 , quantity demanded (Q_d) is greater than quantity supplied (Q_s). This created a shortage. As wages is rigid due to contractual agreements, the government will therefore need to implement policies to address the shortage.

Thesis: A fall in the foreign worker levy (FWL) could help address the labour shortage issue faced by firms.

Explain/Elaborate

FWL is a type of indirect tax on the employment of foreign labour paid by firms to the Singapore government. With a fall in the foreign worker levy, firms will incur lower cost in hiring labour. This will increase the supply curve from S_0 to S_1 . Quantity demanded will be equal to quantity supplied of labour, thus solving the shortage.



Anti-Thesis 1: Limitations of reducing FWL

- With cheaper labour available, firm may cut back on labour training and more use of more expensive capital equipment. For example, firms may not be willing to send workers for training as there will be loss of output during training. Furthermore, the procurement of sophisticated and high tech equipment might require high capital outlay thus limiting the effectiveness of this policy.

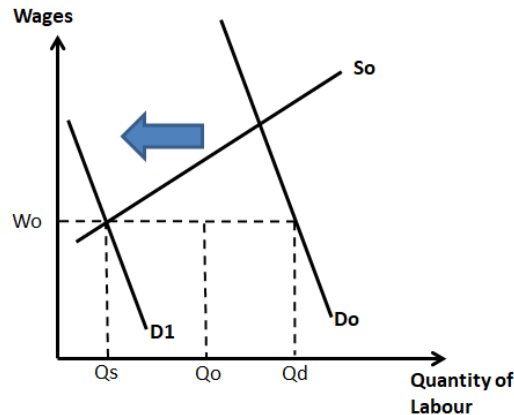
Anti thesis 2a: Singapore government may also subsidise training to improve labour productivity

Explain/Elaborate

- The government can provide subsidies to firms to send their workers for training. Instead of hiring more workers, firms will be more motivated to increase labour productivity by sending their workers for training.

Link

This will lead to a fall in demand for labour causing the demand curve to shift to the left from D_o to D_1 . Quantity demanded will be equals to quantity supplied of labour, thus solving the shortage.



Anti-thesis 2b: Singapore government may also subsidise automation to reduce the demand of labour so as to ease the shortage.

Explain/Elaborate

- The government could reduce the cost of automation and hi-tech capital equipment by providing a subsidy for firms to adopt them.
- As capital equipment is a substitute for labour. The fall in its cost (price) will lead to a fall in demand for labour as firms switch from using labour to a more capital intensive form of manufacturing.
- Capital deepening also occurs as there is an increase in the amount of capital per worker. With more and better capital equipment, workers are able to produce more units of goods and service within a specific period of time. This results in a rise in labour productivity. With greater labour productivity, less labour is required to produce a given amount of goods and services at a specific time period.

Link

This will lead to a fall in demand for labour causing the demand curve to shift to the left from D_o to D_1 . Quantity demanded will be equals to quantity supplied of labour, thus solving the shortage.

Intermediate EV: Limitations of subsidising automation

- Innovation and capital equipment requires high capital outlay which makes it difficult and not worthwhile for small medium enterprise to adopt therefore limiting the effectiveness of the policy.

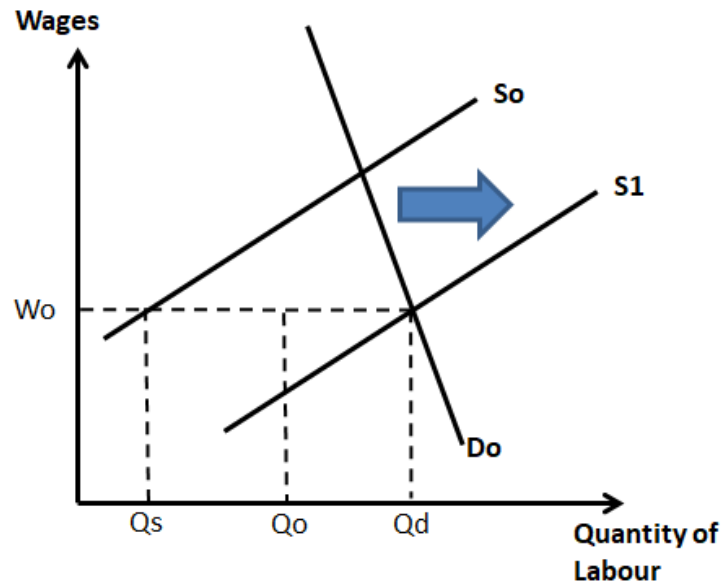
Anti-thesis 2c: The Singapore government may also adopt policies to increase the supply of labour such as increasing the re-employment age of retired workers.

Explain/Elaborate

- Currently, retired workers are able to be re-employed. Re-employment age currently is 67. This will be raised to 68 from 1 Jul 2022, and gradually to 70 by 2030. Benefits such as CPF contributions will be increased to re-employed workers as well.
- This policy will encourage retired workers to re-enter the work force.

Link

This will lead to a rise in supply for labour causing the supply curve to shift to the right from S_0 to S_1 . Quantity demanded will be equals to quantity supplied of labour, thus solving the shortage.



Intermediate EV: Advantages & Limitations of increasing reemployment age

- The injection of supply of retired workers into the labour force due to the re-employment scheme allows the government to immediately tackle the labour shortages faced by the firms.
- Many retired workers who are re-employed bring with them valuable work experiences which new workers lack. They are also able to pass on such experiences and knowledge to the new workers which could translate to higher productivity which further reduce the reliance of additional labour for firms.
- Better technology and process innovation in some sectors might hinder firms from re-employing retired workers as new skills might be require in order to utilise these workers. Firms might be less willing to retrain these workers as it is not worthwhile to do so given the short span of their re-employment.

Alternative policies to increase supply of labour: Policies to support working parents so that they will not leave the labour force to care for their children.

Evaluation

Stand:

In conclusion, subsidies on training and automation is likely to be the most effective way the Singapore government can address the labour shortages experienced by such firms in ther long run.

Explanation:

- The ageing population in Singapore is a severe problem and is unlikely to be eased anytime soon. Reducing FWL and allowing more foreign workers in the country can be a short term solution but it can create social stress such as xenophobia, which will lead to reduced non-material standard of living.

- With increasing automation around the work, subsidies on training also help our workers to possess the skills required by the sunrise industries, preventing structural unemployment in the long run.

Level	Knowledge, Understanding, Application, Analysis	Marks
L3	<ul style="list-style-type: none"> • Addressed market outcomes (Reduction of labour shortage) • At least 2 strategies • 2-sided discussion (HAL) • Exemplification within context of Singapore • Coherent flow and organisation 	8-10
L2	<ul style="list-style-type: none"> • Attempted to address market outcomes (Reduction of labour shortage) • 2-sided discussion (HAL) • Contains some inadequacy and/or inaccuracy 	5-7
L1	<ul style="list-style-type: none"> • No, or conceptually inaccurate, (e.g. use of DDSS framework) • Lack of clarity, coherent flow and organisation 	1-4

Level	Evaluation	Marks
E3	Insightful judgment substantiated with analyses, including but not limited to the following considerations: <ul style="list-style-type: none"> • long vs short term • intended vs unintended consequences • other factors • different contexts • underlying assumptions 	4-5
E2	Judgment substantiated with analyses that were explained mostly in the body	2-3
E1	Unsubstantiated judgment	1

Essay 3a

There was a serious outbreak of flu (influenza) across the world at the beginning of 2018. In many countries, vaccinations were provided free of charge to the most vulnerable people and various Health Authorities urged the elderly and children to get vaccinated as soon as possible.

- (a) Explain why vaccinations against infectious diseases, if left to market forces, might be allocated undesirably. [10]

Question Analysis

Approach	Command Word	Explain
	Question Type	Source of market failure
	Start point	Free market for vaccinations
	End Point	Undesirable allocation
Content and Context	Content	Market Failure – Merit Good Imperfect information Positive Externalities Inequity (Market dominance is also accepted)
	Context	Vaccinations against infectious diseases

Suggested Answer and Mark Scheme

Introduction

Source of market failure in vaccinations → information failure, positive externalities and inequity.

Outcome → resources are allocated undesirably

Body

P1 Point (Information failure leads to undesirable allocation of resources)

Information failure → consumers lack critical information to make rational decisions on choices and resource allocation → ignorant of the actual benefits of taking vaccinations.

Explain the cause of information failure

Consumers unaware → vaccinations can effectively prevent against infectious diseases with increased probability of survival to almost 100%

Consumers only know → vaccinations are necessary for babies and children → do not know that adults need vaccines as well as vaccines may require more than one dose for higher immunity

Explain Divergence

Consumers **underestimate their actual marginal private benefit** (MPB(Actual)) → MPB(Actual) to be higher than MPB(Perceived)

Draw Diagram

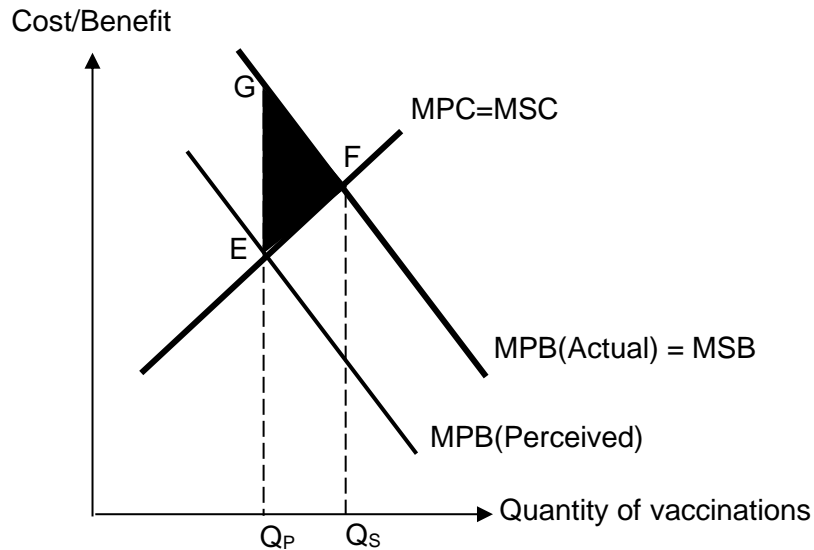


Figure 3: Incomplete information on actual MPB of vaccinations

Explain free market equilibrium output (Q_P) & Socially optimal output (Q_S)

Assuming no positive and negative externalities \rightarrow $MPB(\text{Actual}) =$ marginal social benefit (MSB), and marginal private costs = marginal social costs ($MPC = MSC$)

$MPC \rightarrow$ cost of vaccinations to the consumers, such as the vaccination fees

Due to incomplete information \rightarrow rational consumers will consume $Q_P \rightarrow MPB(\text{Perceived}) = MPC$.

Socially-optimal amount $\rightarrow Q_S$ where $MSB = MSC$.

Link

Explain allocative inefficiency by comparing Q_P and Q_S

under-consumption $\rightarrow Q_P < Q_S \rightarrow$ deadweight loss (area EFG) due to under-consumption of and under-allocation of resources to vaccinations \rightarrow allocative inefficiency \rightarrow resources are allocated undesirably.

P2 Point (Positive Externalities leads to undesirable allocation of resources)

Positive externality \rightarrow benefits enjoyed by third parties due to the consumption of the good or service.

Explain the MPB, MPC and MEB (third-party and the external benefit)

Private costs \rightarrow prices of vaccination, time taken to vaccinate and physical pain.

Private benefits \rightarrow lower chance of being infected with an infectious disease \rightarrow healthy and work productively \rightarrow earn higher income

Consumer does not take into account \rightarrow others around them such as his family, friends and colleagues (third parties) \rightarrow enjoy external benefits in terms of higher income when they also enjoy a lower risk of contracting the infectious

disease and hence will be healthy and productive at work → without having to pay for the vaccination.

Explain divergence

positive externality in consumption → $MSB > MPB$ → vertical distance equal to MEB
Assuming no negative externality → $MPC = MSC$

Draw diagram

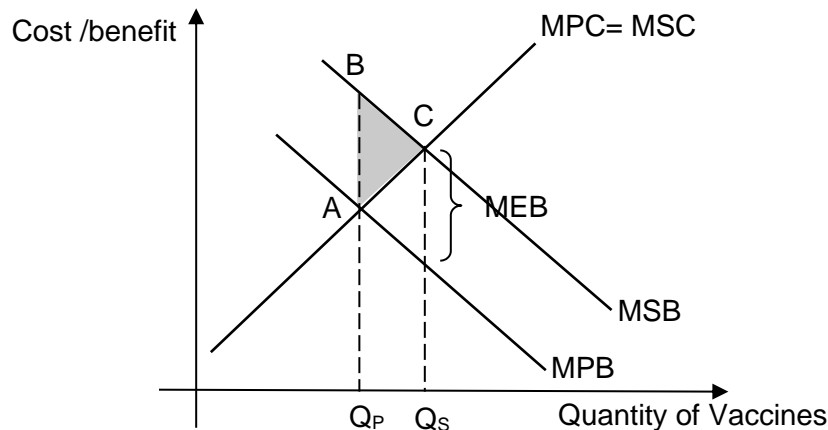


Figure 4: Positive externality in consumption of vaccines

Explain market equilibrium output (Q_P) & Socially optimal output (Q_S)

Consumer consume at Q_P where $MPB = MPC$

socially optimal output at Q_S where $MSB = MSC$

Link

- P3 $Q_P < Q_S$ → the consumer under-consumes vaccination → under-allocation of resources
Deadweight loss (area ABC) → allocative inefficiency → resources being allocated undesirably.

Point (Inequity as a reason for undesirable allocation of resources)

Besides allocative inefficiency, the market for vaccinations also fail as it gives rise to inequity.

Explain/Elaborate

Vaccinations → merit good → deemed socially desirable by the government → **essential good for everyone**, regardless whether the patient belongs to a low or high income group.

If left to the free market → price of vaccination may be too high ($PED < 1$) → making it **unaffordable to low income families** → **inequitable** (citizens do not have equal access to vaccinations)

Link

Allocated undesirably since only rich can afford it

Conclusion

Link to (b)

When left to market forces, vaccinations against infectious diseases will be allocated undesirably due to information failure, positive externalities and inequity. Thus, it is necessary for the government to intervene in this market to correct the market failure.

Level	Knowledge, Understanding, Application, Analysis	Marks
L3	<p>Well-elaborated explanation with appropriate diagrams as an analytic tool to explain why market for vaccinations will fail.</p> <p>Answers develop analytic explanation for any 2 of the 4 sources of market failure arising in the market for vaccinations (positive externalities, information failure, market dominance and inequity).</p> <p>Clear illustration of how each source would lead to undesirable outcomes and application to the market for vaccinations.</p>	8-10
L2	Under-developed explanation and/or unclear diagrams to explain why market for vaccinations will fail.	5-7
L1	<p>Smattering of points. Lack use of economic concepts (MPB/MPC/MSB) or conceptually inaccurate.</p> <p>Lack of clarity, coherent flow and organisation</p>	1-4

(b) Suppose the government decides to intervene in the market and subsidise vaccinations against infectious diseases.

Discuss whether government subsidy is the best policy to ensure vaccination are allocated desirably. [15]

Framework		Notes
Approach	Command word	Discuss - Two-sided answer with the need for evaluative statements and judgement
	Question Type	Policy assessment (HAL framework)
	Start Point	Government subsidy
	End point	Resources are allocated desirably
Content and Context	Content (Scope of coverage)	Government subsidy (includes full subsidy i.e. free provision) + 1 other policy (legislation or public education)
	Context	Vaccinations (against infectious diseases)

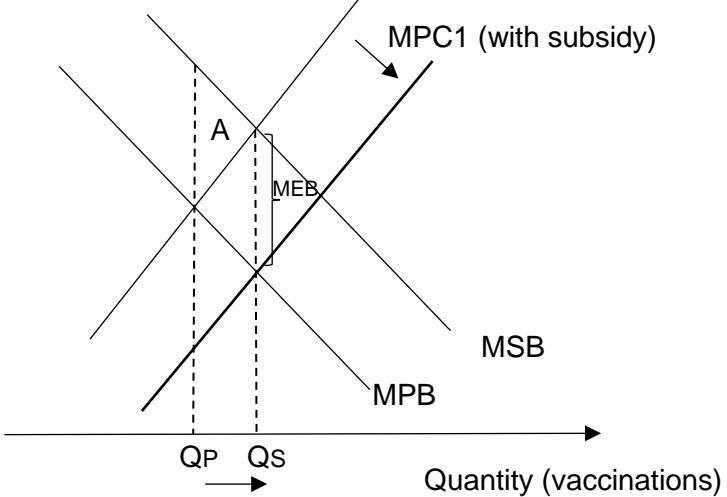
Planning	Organisation
Introduction	
Thesis - Govt subsidy is a good policy	How + Advantages of government subsidy:
Anti-thesis – Govt subsidy is not a good policy	Limitations of government subsidy (consider full subsidy i.e. free provision)
Anti-thesis – There are better policies	Public education is a better policy to overcome market failure: - How + Advantages
Conclusion	Summative evaluation

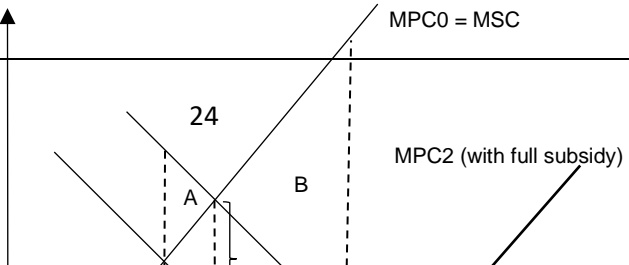
Introduction:

- The main aim of the government intervention in the market for vaccinations is to correct market failure resulting from positive externalities in consumption and information failure. The analysis in part (a) shows that there would be under-consumption of vaccinations if it were to be left to the free market. Inequitable outcomes may also result.
- Hence, government intervention would ensure a more desirable allocation of vaccinations to achieve allocative efficiency and improve equity. This would maximize society's welfare.
- Government subsidy is one policy the government can use as an intervention to overcome market failure. The government can also consider legislation and/or public education as alternative policies.

Thesis

Point	Government subsidy is a good policy to ensure vaccination are allocated desirably.
(How Policy Works) Explain Elaborate examples + / diagram	Government subsidy (equal to MEB at Qs) would be given to the producers per unit of production → lower the costs of production → increase profits and producer more willing and able to produce at every price level and raises supply → lower the price of vaccination → as consumer pays lower price of vaccination, this lowers consumer's MPC → This is illustrated in Figure 3 by a rightward shift of the MPC curve from MPC0 to MPC1 curve → Now, consumer equates MPB with MPC1 and thus increases consumption from QP to QS where MSB=MSC → eliminates deadweight loss area A, achieves allocative efficiency and overcomes market failure. <p style="text-align: center;"><u>Figure 3: Effect of government subsidy given to producer</u></p> <div style="display: flex; justify-content: space-between;"> Cost/Benefit ↑ MPC0 = MSC </div>

<p>(Advantages)</p>	 <ul style="list-style-type: none"> It is most likely that the price of vaccination will be high because PED value is less than one, given that it is a necessity. Hence, to increase revenue, producers would raise price to increase profits (as quantity demanded falls less than proportionately) → so government subsidy reduces the price of vaccinations → more affordable and accessible → benefit the low-income consumers (“the most vulnerable”) → more equitable outcome. Policy is flexible → able to adjust subsidy as the level of MEB falls. For example, initial stage vs later stage of vaccination programme (MEB will be smaller as more people are vaccinated), then can start to reduce subsidies <p>Link back to Q Government subsidy can ensure vaccination are allocated desirably.</p>
----------------------------	---

Anti-thesis	
<p>Point</p>	<p>However, there are some limitations of the government subsidy which makes it not a good policy to ensure vaccination are allocated desirably.</p>
<p>(Limitations)</p> <p>Explain</p> <p>Elaborate examples diagram</p> <p style="text-align: center;">+ /</p>	<ul style="list-style-type: none"> The effectiveness of subsidy in increasing consumption depends the price elasticity of demand for vaccinations. Given that such vaccinations are a necessity, the PED value is less than 1, that is, the demand for vaccinations is price inelastic. Consequently, high subsidy has to be given to increase consumption to the socially optimal level → this means high government expenditure and high opportunity costs incurred in terms of net benefit forgone in the next best alternative sector or group of economic agents → forgoing efficiency or equity somewhere else. The government has imperfect information to estimate the accurate amount of MEB → MEB is non-tangible and hard to quantify → for example, does the consumption of vaccination by an elderly or a child generates more positive externalities? → The government might tend to overestimate MEB and over-subsidised. Some governments might even provide full subsidy, that is free provision of the vaccinations. Figure 4 illustrates the side effect of free provision (the case of over-subsidy). It leads to overconsumption ($Q_F > Q_S$) and even greater deadweight loss (area A > area B). 

	<p style="text-align: center;"><u>Figure 4: Effect of government subsidy given to producer</u></p>
Link back to Q	Government subsidy would not necessary ensure vaccination are allocated desirably.

Anti-thesis	
Point	Public education is an alternative policy because it can target the root causes of both information failure and positive externalities in consumption.

<p>(How Works)</p> <p>Policy</p> <p>Explain</p> <p>Elaborate examples diagram</p>	<p>The government can provide information to correct MPB from MPB(Perceived) to MPB(Actual). It could disseminate accurate information on the benefits of vaccination against infectious diseases through public education and public campaigns. These can be done through advertisements on newspapers, TV, radio and the many different social media platforms or even through door to door visits to households with low literacy level. <i>Assuming the public education campaigns are successful,</i></p> <p>→ Amount of correct information and persuasion increases</p> <p>→ Consumers alter their perception → MPB(Perceived) moves down to MPB(Actual) → consume up to MPB(Actual)=MPC → thus achieving Qs where MSB=MSC.</p> <p>→ DWL is eliminated & AE achieved.</p> <p>The government could also correct positive externality with public education and moral suasion. This leads to consumers to internalise the positive externalities and increases MPB. Assuming consumers takes into account the external benefits = MEB → MPB ↑ to MPB' & coincides with MSB → ↑consumption to Qp' where MPB'=MPC</p> <p>→ achieve Qs where MSB=MSC.</p>
<p>(Advantages Limitations)</p> <p>Explain</p> <p>Elaborate examples diagram</p>	<p>The policy targets the root cause of information failure to help consumers make better informed decisions. Hence, public education is potentially effective due to possibly large outreach, especially when the rise of public awareness gained momentum and so eventually getting the public to internalise the external benefits when consuming vaccinations.</p> <p>However public education does not help to lower the prices of vaccinations. This would not to improve equity, making public education less desirable than subsidies.</p>
<p>Link back to Q</p>	<p>Public education could be a better policy than government subsidy to ensure vaccination are allocated more desirably because it can target both root causes.</p>

Conclusion / Summative evaluation	
<p>Make a stand</p>	<p>All in all, government subsidy is the best policy because</p>
<p>Justify stand (criteria)</p>	<p>it is more effective than public education to ensure vaccination are allocated more desirably, especially in the short term if the virus situation has led to public health crisis and requires immediate solution (time period).</p> <p>Furthermore, when it comes to infectious diseases like flu virus, the more important <i>root cause</i> of market failure is positive externalities in consumption, and not information failure. This is because many people would be able to grasp quickly about the true benefits of vaccinations consumed. Also, the government subsidy allows vaccinations to be more affordable and accessible for the most vulnerable groups and thus achieve a more equitable outcome. In contrast, public education assumes that consumers have the ability to buy vaccinations. This is why government subsidy is the best policy than public education.</p>

	<p>The rise in demand or MPB may also be to a small extent especially in the contexts of low-income countries and low-income groups of economic agents. In these contexts, their purchasing power might be low and hence would not be able to buy and access to vaccinations. Therefore, public education would not be able to boost demand or MPB for vaccinations and thus would not achieve resource allocation more desirably. In addition, public education would not improve the equitable outcome.</p> <p><Alternative criteria>: (Time period/ Limitation of public education) While public education is a better policy because it targets the root causes, unfortunately public education does not make a good and effective policy in the short term. Public education takes a long time period to achieve the desired outcome as the mindset of some individuals may be very difficult to change. Hence, public education is ineffective to allocate vaccination more desirably especially in the short term.</p>
Question assumption	However, whether government subsidy can be implemented is based on the assumption that the government has sufficient budget to finance the subsidy.
Propose something insightful	Finally, to ensure vaccination are allocated more desirably both in the short term and in the long term (assuming that the virus outbreak will be here to stay for many years), it is recommended that the government uses a combination of policies – subsidy and public education. The government subsidy might not be a sustainable policy if it requires the government to support the subsidy in the long term. With effective public education, consumers would understand the importance and thus are more willing to consume the vaccinations to stop the spread of the virus.

4. (a) Explain a possible demand side and a possible supply side reason for a rise in the rate of inflation. **[10]**

Question Analysis

Approach	Command Word	Explain
	Question Type	Causes
	Start point	To provide own reasons
	End Point	A rise in the rate of inflation
Content and Context	Content	Demand-pull inflation Cost-push inflation AD-AS analysis
	Context	Singapore's economy

Suggested Answer and Mark Scheme

Introduction

- Inflation is a sustained increase in the general price level of an economy.
- A rise in inflation rate happens when the GPL rises at a faster rate.
- The inflation in Singapore could be caused by demand-pull and cost-push factors.

Body

P1: Point

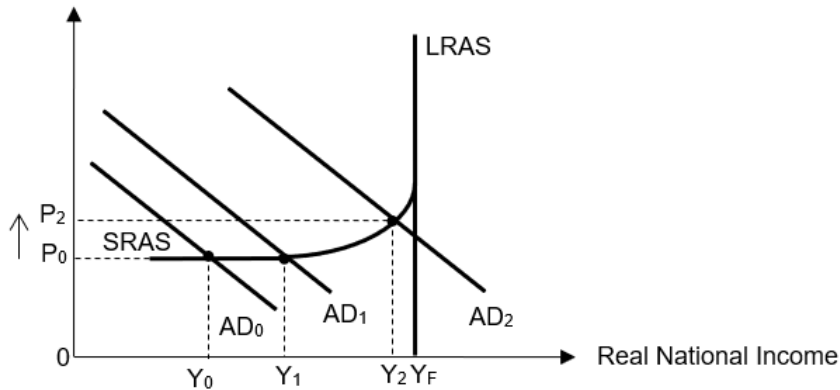
The rise in Singapore's inflation can be caused by a demand side factor like economic boom of its trade partners because Singapore is a small, open and trade-reliant economy with a 300% trade-to-GDP ratio.

Explain/Elaborate

Economic boom of trade partners → when trade partners have an increase in real national income, their purchasing power rises → a rise in demand for Singapore's exports causing an increase in export revenue → as Singapore is trade reliant, export is a significant component of GDP → Any rise in export revenue, assuming import expenditure unchanged, there will be a large increase in (X-M) → when (X-M) increases, AD will increase from AD_0 to AD_2 in Figure 1 → rising competition for the increasingly limited FOPs, assuming lack of spare capacity, GPL rises persistently from P_1 to P_2 , thus resulting in demand-pull inflation.

General
Price Level

Figure 1: Demand-Pull Inflation



Link

Therefore, an economic boom of Singapore's trade partners causes the demand-pull inflation in Singapore.

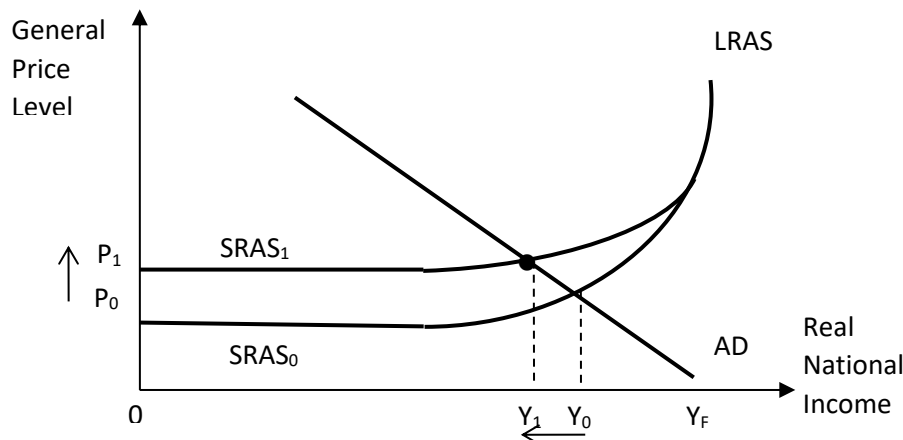
P2: Point

The rise in Singapore's inflation can be caused by a supply side factor like rising global oil prices.

Explain/Elaborate

As a small economy, Singapore lacks natural resources such as crude oil, a vital input to many production processes → the global prices of oil are rising → there is an increase in the cost of importing oil → Hence, an increase in global price of oil will cause an increase in the unit cost of production → this lead to a fall in SRAS from $SRAS_0$ to $SRAS_1$ as shown in figure 2. → with reference to figure 2, , feeding on to higher final prices of goods and services and hence the general price level increases from P_0 to P_1 . → Hence, there is a cost-push inflation.

Figure 2: Cost-push Inflation



Link

Therefore, a rise in global oil price causes cost-push inflation in Singapore.

(any other demand/supply side factors causing a rise in the rate of inflation in Singapore are acceptable)

Level	Knowledge, Understanding, Application, Analysis	Marks
L3	<p>For an answer that demonstrates knowledge, understanding, application and analysis:</p> <ul style="list-style-type: none"> • Excellent breadth that considers demand side and supply side factors. All points chosen should be of relevance and significance in answering the question. • Excellent depth in economic analysis that reflects the following in all explanations. • Accurate use of economic concepts, clear elaboration, and precise use of economic terminologies, language and phrasing. <p>The answer should also be supported by:</p> <ul style="list-style-type: none"> • Well-labelled and well-referred to diagram(s) / tool(s) of analysis drawn with precision (where appropriate). 	8-10
L2	<p>For an answer that demonstrates knowledge and understanding but lacks application and analysis:</p> <ul style="list-style-type: none"> • At least good breadth that considers both demand side and supply side factors. Most points chosen should be of relevance and significance in answering the question. • At least good depth in economic analysis that reflects the following in most explanations. • Accurate use of economic concepts, clear elaboration, and precise use of economic terminologies, language and phrasing. <p>The answer should also be supported by:</p> <ul style="list-style-type: none"> • Diagram(s) / Tool(s) of analysis that may not be well-labelled, may not be well-referred to and may not be drawn with precision (where appropriate). • AD-AS analysis 	5-7
L1	<p>For an answer that:</p> <ul style="list-style-type: none"> • Is irrelevant in analysis but may contain an introduction that addresses the question or contains no economic analysis but may contain a few statements that are relevant to the concepts required to answer the question. • Contains fundamental conceptual errors in analysis. 	1-4

4(b) Assess whether policies designed to prevent a large and continuing rise in inflation in Singapore are the most appropriate policies for all economies. (15)

Approach	Command Word	Assess whether
	Question Type	Policies
	Start point	<ul style="list-style-type: none"> • Policies implemented to prevent a large and continuing rise in inflation in Singapore
	End Point	<ul style="list-style-type: none"> • Appropriateness of policies for all economies
Content and Context	Content	<ul style="list-style-type: none"> • Inflation- cost-push and demand-pull inflation • Exchange rate, supply-side and contractionary fiscal policy.
	Context	<ul style="list-style-type: none"> • Singapore • All economies

Introduction

- Inflation is the sustained, inordinate and general increase in price level of an economy.
- Mild inflation of 1 to 3 percent is considered to be beneficial to the economy as it generates economic growth and is associated with low unemployment. Hence most economies will pursue policies to prevent a large and continuing rise in inflation.
- Inflation present in Singapore and all economies: Cost-push and demand-pull inflation.
- The governments will prevent such inflation by ensuring sustained growth where actual growth will be complemented with potential growth, and ensuring low rise in cost of production in the country.
- Policies designed to prevent large and continuous rise in inflation in Singapore:
 - ➔ Exchange rate (appreciation)
 - ➔ Short run and Long run Supply-side policies
- Singapore is highly dependent on imported resources and given the small and open nature of Singapore's economy, it is imperative that a strong Singapore dollar policy be maintained to keep out imported inflation. However, it cannot work alone but a policy mix of supply-side policies need to be used to prevent a high inflation.
- These policies implemented in Singapore will be most appropriate for all economies which possess the same characteristic traits as Singapore's economy: small and open, lack of natural resources and as a developed economy.

Body paragraph 1: Appreciation of exchange rate

Thesis

Singapore government appreciates its currency to curb inflationary pressures in 2 ways, stemming from cost-push and demand-pull inflation. This policy can be appropriate for other economies which are small and open and do not possess natural resources to lower imported inflation.

Analyse how it works to mitigate cost-push inflation

- A strong Singapore dollar policy is maintained to prevent imported inflation in Singapore. Since imports in Singapore are usually necessities and raw materials, a stronger exchange rate would lower imported inflation.
- A stronger exchange rate will result in a fall in price of imported resources and goods and services. Price of locally produced goods and services that make use of the imported factors of production will be lowered through the lowered costs of production. With lower imported prices for goods and services, it also means there is more competitive pressure on domestic firms to keep their prices low.
- Hence, as shown in figure 1, a lower cost of production from lower priced imported resources will result in SRAS to increase from SRAS₁ to SRAS₂, leading to actual growth from Y₁ to Y₂. There would be an overall fall in the general price level from P₁ to P₂.

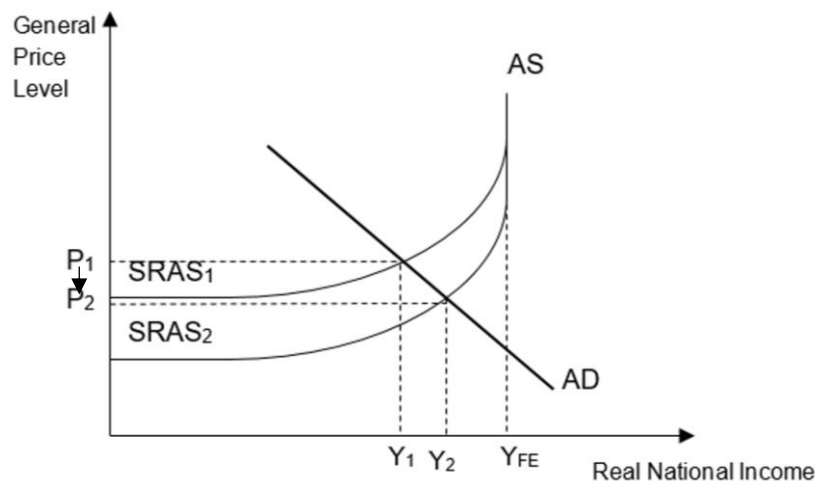


Figure 1

- This reduces cost-push inflation and maintains price stability. Given that Singapore suffers largely from imported inflation, this policy is critical.
- In general, for small and open economies and those that acquire large amount of imported inputs in its production, they will benefit from similar use of the appreciation policy to prevent a large and continuous rise in imported inflation from higher global prices.

Analyse how it works to mitigate demand-pull inflation

- Next, a stronger exchange rate would result in domestic goods and services being less competitively priced in foreign markets. This would reduce the quantity demanded for Singapore's exports from the rest of the world.
- Domestic demand will also be reduced by the substitution effect as lower prices for the imports decreases the demand for locally made goods, causing C to fall. This will dampen the high consumer spending.
- With appreciation, P_x rises and hence Q_d for exports will fall. At the same time, P_m falls, leading to Q_d for imports to increase. Assuming Marshall-Lerner condition holds since the PED for Singapore exports is in itself more than 1 due to the availability of many close substitutes, leading to $PED_m + PED_x > 1$, $(X-M)$ will decrease, leading to a worsening trade position. Refer to figure 2, assuming that Singapore is initially facing large and high inflation, there will be demand-pull inflation at P_2 . Since $AD = C + I + G + (X-M)$, with a fall in $(X-M)$ and C , there will be a fall in AD from AD_2 to AD_1 and this will reduce demand-pull inflationary pressure in the economy by reducing GPL from P_2 to P_1 .

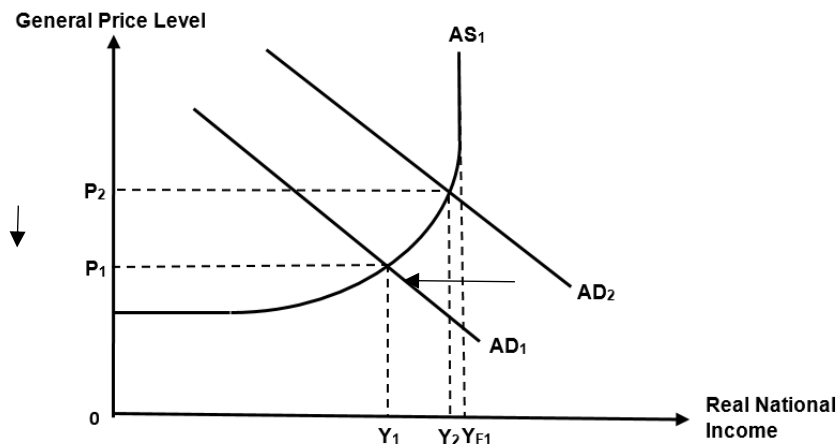


Figure 2

- Given that Singapore is a small and open economy which is highly trade dependent, this will be an effective policy.
- In general, for economies which are open and have high dependence on trade for its economic growth such as Hong Kong, it will be appropriate to use similar policies on exchange rate as Singapore. This will prevent a large and continuous rise in demand-pull inflation.

Anti-thesis

1. However, the import content of domestically produced goods is very high in Singapore and the external sector is significant in our economic growth. **Appreciation as an exchange rate policy will not be appropriate for large and less open economies** that do not depend highly on imported resources or are less open to trade. One such country is USA which is self-sufficient in most resources and highly dependent on domestic consumption instead.

Such economies will instead conduct active interest rate policy, rather than exchange rate policy (recall the Trilemma issue).

- USA's source of demand pull inflation is likely to be caused by an increase in domestic consumer expenditure, which takes up about 70% of USA's economy. Hence an appreciation would not be targeting the root issue, rendering effectiveness of exchange rate policies to be limited. This explains why they use interest rate policy instead.
2. To appreciate the currency, the government will need to purchase the domestic currency in the foreign exchange market, to increase the demand for the currency. This can only be feasible if the country has enough available foreign exchange reserves like Singapore to purchase the domestic currency. Without adequate foreign reserves, exchange rate will not be an appropriate policy for these economies to prevent a large and continuing rise in inflation.
- Eg. during the 1997 Asian Financial Crisis, the Thai government was unable to sustain intervention by buying up Thai Baht in the foreign exchange market through selling its foreign reserves. This was due to its lack of foreign exchange reserves.

Body paragraph 2: Supply-side policies

Thesis

Singapore government adopts short run and long run supply-side policies to curb cost-push and demand-pull inflation respectively. These policies can be appropriate for developed economies similar to Singapore, which utilises its resources rather efficiently, producing at near full employment. They will also be appropriate for economies which face a shortage of labour, resulting in cost-push inflation.

Supply-side policy affecting SRAS - Analyse how it works

- In the short run, the Singapore government may control the rise in labour wages or prices to curb cost-push inflation. This is especially so since Singapore is facing an ageing population, which has reduced the domestic labour supply significantly.
- One short run supply-side policy Singapore does to curb cost-push inflation is through the National Wages Council (NWC), which recommends wage guidelines to commensurate with productivity growth and economic conditions. This helps to maintain wage costs and prevent cost-push inflation.
- Furthermore, foreign labour is also allowed to work in industries such as construction and healthcare. As foreign workers usually demand lower wages, this helps in cutting production cost, mitigating cost-push inflation. Refer to Figure 1 above, these short run supply-side policies will decrease production cost, increase SRAS from SRAS1 to SRAS2, lowering general price level from P1 to P2.

Supply-side policy affecting LRAS - Analyse how it works

- The Singapore government also implements long run supply-side policies to prevent large demand-pull inflation.
- Through upgrading of skills via schemes such as the Skillsfuture, the productivity of workers can be increase.
- With a more productive workforce, the total output generated per unit time would increase, which would lower the average costs of production. This means that the firms would be able to produce more units of goods and services, at a lower unit labour cost of production, assuming same wage rate. This represents a higher profit margins for the firms and the incentives for the firms to increase their production.
- These policies increases the economy's productive capacity, referring to figure 3, AS increases and shift to right outwards from AS₁ to AS₂, increasing the level of potential output.
- Demand-pull Inflation can be kept under control from P₁ to P₂, assuming AD remains the same.
- Overall, developed economies which are facing high wage cost or are often operating at near or at full employment will benefit from similar supply-side policies used in Singapore.

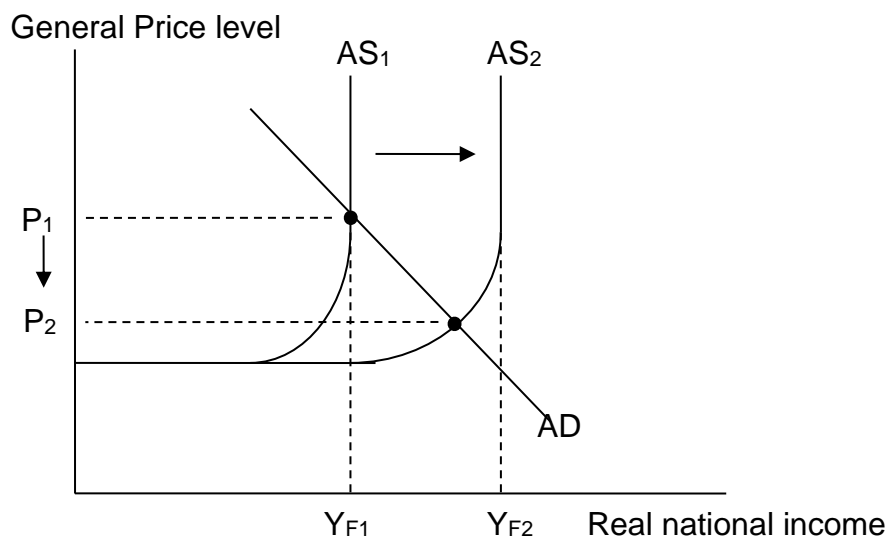


Figure 3

Anti-thesis

1. As explained earlier, Singapore's ageing population is one of the root causes of wage cost-push inflation in Singapore. Thus, supply-side policies through a more liberal foreign labour policy and NWC guidelines will help to manage excessive wage increases and cost-push inflation. However, for many developing countries such as Vietnam, they are not facing the problems of an ageing population. In contrast, cost push inflation in these developing country might be due to reasons like high factor prices from domestic supply disruptions, or excessive bureaucratic red tape. Supply-side policies adopted by Singapore will hence not be as appropriate for such economies since the root causes of the problem are different.

2. Supply-side policies implemented to boost training and productivity in the long run may also not be suitable for many economies. Fiscal budget health is a determinant to the feasibility of implementing such policies to prevent high inflation. In the event of a large and high inflation, a large budget has to be committed to the supply-side policies to ensure that the productivity is able to increase substantially to mitigate that. Besides, even if capital productivity can be increased readily, labour productivity increase may not materialise till a long time later due to the receptivity of training by the workers. The knowledge and avail skills of labour, might not be suitable for an effective increase in productivity.

Evaluation

Stand: Appropriate if the economies have similarity in the source of inflation, structure of economy (developed, small, open and dependent on imported resources), and the degree of control in exchange rate policies as Singapore.

- **For small and open economies** that are highly dependent on trade, sources of inflation are largely from external factors, resulting in imported inflation and net exports induced demand-pull inflation. **Exchange rate policies used in Singapore will be appropriate for similar economies as it tackles the external sector** of the country, which will help curb the demand-pull inflation. Imported inflation will also be effectively tackled. The policies designed to prevent large and continuing rise in inflation are intended with these sources of inflation in mind.

Otherwise, such in the case of USA, which is less open and dependent on trade and imported resources, other policies such as monetary policy centred on interest rate will be more appropriate and effective to tackle the domestically driven demand.

- However with globalisation, most countries regardless of size and development trade due to trade pacts or comparative advantage. Hence, policies in Singapore will be appropriate regardless of openness of the economies.
- Ultimately, besides the characteristics of the economy, a large consideration as to whether the policies are most appropriate to all economies is highly dependent on the objectives of the government. There is possible conflict between external and internal objectives. While the demand-pull and cost-push inflation might improve with the adoption of similar policies as Singapore, the economy may have to incur severe economic costs in terms of higher unemployment and slower economic growth in order to reduce the inflation. In this case, whether the policies are most appropriate will be dependent on the government's objectives then.
- With sustained economic growth being the key to fulfilment of other objectives of a country, such as higher material standard of living, supply-side policies adopted by Singapore will be most appropriate for developed economies in the longer term to prevent large rise in inflation as they would have been producing at near full employment.

Level	Knowledge, Understanding, Application, Analysis	Marks
L3	<p>For an answer that shows well-developed explanation of policies designed to prevent a large and continuing rise in inflation in Singapore, and how they may or may not be most appropriate for all economies.</p> <ul style="list-style-type: none"> • Relevant, clear and accurate economic analysis, grounded by economic concepts, frameworks and principles • Supported by relevant diagrams, clear and accurate analysis • Supported by relevant examples, clear and accurate application 	8-10
L2	<p>For an answer that shows under-developed explanation of policies designed to prevent a large and continuing rise in inflation in Singapore, and how they may or may not be most appropriate for all economies.</p> <ul style="list-style-type: none"> • Relevant economic analysis, but lacking clarity and accuracy at times • Relevant diagrams, but lacking clarity and accuracy at times • Relevant examples and application, but lacking clarity and accuracy at times 	5-7
L1	<p>For an answer that shows limited knowledge of policies designed to prevent a large and continuing rise in inflation in Singapore, and how they may or may not be most appropriate for all economies.</p> <p>Listing of points, or unexplained statements</p> <ul style="list-style-type: none"> • Basic or many conceptual errors • Fails to address question requirement 	1-4
Level	Evaluation	Marks
E3	<p>Insightful judgment substantiated with analyses, including but not limited to the following considerations:</p> <ul style="list-style-type: none"> • underlying assumptions • nature of Singapore's economy-small and open • state of Singapore's economy • government objectives 	4-5
E2	Judgment substantiated with analyses that were explained mostly in the body	2-3
E1	Unsubstantiated judgment	1

5 There is potential for governments to achieve both inclusive growth and sustainable growth.

(a) Explain what is meant by inclusive growth and sustainable growth. [10]

Question Analysis

Approach	Command Word	Explain what is meant by
	Question Type	Characteristics, Causes ≠ Policies
	Start point	N.A.
	End Point	Attainment of inclusive growth and sustainable growth
Content and Context	Content	<ul style="list-style-type: none"> • Sustained growth + Equitable distribution • Sustained growth + Environmental sustainability
	Context	Generic (use own examples)

Suggested Answer

Introduction

- **State essay approach:** This essay aims to explain the meaning and causes of inclusive growth and sustainable growth, using the AD/AS analysis. As sustained growth is the basis for both inclusive growth and sustainable growth to occur, the essay will first explain what sustained growth is and how it occurs.

Body

P1

- For inclusive growth or sustainable growth to be achieved, there must be sustained growth in the economy. Sustained growth is achieved when both actual growth and potential growth are achieved.
- **Explain when actual growth is achieved and how it is measured:** Actual growth occurs when there is an increase in real national output or income, due to either an increase in AD or increase in SRAS. For instance, Singapore enjoys rising

export revenue (X) due to rising demand for our exports arising from rising incomes in countries we export to. This is because Singapore's exports – for example, refined oil and pharmaceuticals, are normal goods ($YED > 0$). Referring to Figure 1, the increase in X causes AD to increase from AD1 to AD2, resulting in **a multiplied rise in real national income from Y1 to Y2, thus signifying actual growth. Typically, the GDP growth rate measures actual growth.**

- **Explain when potential growth is achieved and how it is measured:** Potential growth occurs when there is an increase in capacity of the economy to produce, due to increase in quantity or quality of resources, and improvement in the state of technology. For example, Singapore constantly adopts better technology through innovation and R&D effort, which allows for higher productivity (more output per unit input) and **hence higher productive capacity. LRAS thus increases from AS1 to AS2, signifying potential growth.**
- Both actual growth and potential growth constitute towards Singapore's attainment of sustained growth.

P2

- **Define:** Inclusive growth refers to a rate of growth that is not only sustained over a period of time, but is also broad-based across economic sectors, and creates productive employment opportunities for the majority of the country's population.
- **Explain when inclusive growth is achieved and how it is measured:** Inclusive growth is thus achieved when there are both sustained growth and **an equitable distribution of employment opportunities and of income.**
- An equitable distribution of employment opportunities occurs when structural changes in the economy arising from an improvement in production processes using technology which replaces manual labour, are accompanied by adequate education and training for the workers with increasingly obsolete skills. If low-income workers in low-skilled jobs or retrenched workers can be equipped with relevant knowledge and skills to take up higher-skilled jobs, sustained growth can be said to provide quality or productive employment opportunities for everyone.
- Moreover, where low-skilled workers can transit into higher-skilled jobs, income gap between low- and high-skilled workers can also narrow. This is because higher-skilled jobs are likely to be in higher demand and pay higher wages. Hence, **the lower the Gini coefficient**, where 0 signifies perfect income equality and 1 signifies perfect income inequality, the greater the achievement of inclusive growth.

P3

- **Define:** Sustainable growth refers to the rate of economic growth that can be maintained without creating other significant economic problems such as depleted resources and environmental problems for future generations.

- **Explain when sustainable growth is achieved and how it is measured:** Sustainable growth is thus achieved when there are both sustained growth and **environmental sustainability over time**.
- For there to be environmental sustainability, there must be a reduction in pollution and a more sustainable use of scarce resources. The increase in production levels due to rising AD must not lead to rising levels of pollution where waste materials are released into the air, land or water bodies. The increase in derived demand for factors of production when AD increases should also be calibrated such that limited factors of production are use productively/efficiently to minimise wastage.
- Hence, one way to measure the attainment of sustainable growth is through the **Green GDP which takes into account resource depletion and environmental degradation**.

Conclusion

- **Link to part (b):** In conclusion, inclusive growth and sustainable growth are part of governments' macroeconomic goal on economic growth. They can be achieved through the use of various policies.

Mark Scheme

Level	Knowledge, Understanding, Application, Analysis	Marks
L3	Full display of AO1, AO2 and AO3 skills: For an answer that shows a well-developed explanation of the concepts of inclusive growth and sustainable growth, using relevant economic analysis (e.g. AD/AS framework).	8-10
L2	Uneven display of AO1, AO2 and AO3 skills: <ul style="list-style-type: none"> • Answer lacks depth of analysis (i.e. limited effective use of relevant economic analysis). • Or, Answer lacks scope in explaining only either inclusive growth or sustainable growth. 	5-7
L1	Limited display of AO1 and AO2 skills: Answer is descriptive or a mere listing of points, and/or contains major conceptual errors on concepts of inclusive growth and sustainable growth.	1-4

b) Discuss the extent to which it is possible for a small, open economy such as Singapore is able to achieve both inclusive and sustainable growth. [15]

Question Analysis

Approach	Command Word	Discuss the extent to which it is possible
	Question Type	Factors affecting attainment of both inclusive and sustainable growth
	Start point	<i>Singapore's constraints</i> Vs <i>Singapore's policies</i>
	End Point	Attainment of inclusive growth and sustainable growth
Content and Context	Content	<ul style="list-style-type: none"> • Sustained growth + Equitable distribution • Sustained growth + Environmental sustainability
	Context	Singapore

Suggested Answer

Introduction

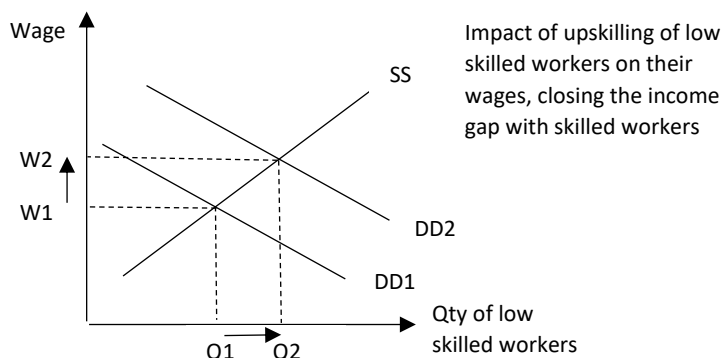
State essay approach: Singapore possessed a small population size, and its population consists of a large proportion of middle-income households, the size of market impedes future growth. In addition, the island nation has a lack of factor endowment besides its labour force, therein lies a key constraint in attaining sustainable growth. The essay shall proceed to examine policies Singapore government can adopt to achieve sustainable and inclusive growth and the constraints it faces.

Thesis: Singapore's constraints hindering the attainment of inclusive & sustainable growth

- **P1: Small market size as a constraint**
 - Explain how small market size **limits the extent to which C and I can increase** to fuel actual growth.
 - A **slower rate of growth** will serve restricts Singapore's ability to **attain sustained growth** → which suggests that **inclusive and sustainable growth cannot be attained**
- **P2: Open economy as a constraint**
 - Explain how open economy makes an economy **vulnerable to external shock**, especially if the economy is **reliant on import for factors of production**
 - Susceptible to external shocks → **contagion effect** → recession in trade partners → causing a fall in (X-M) and therefore AD → **affects actual growth** → **cannot attain inclusive and sustainable growth**
 - Reliant on imported factors of production → subjected to **import price-push inflation** → **erodes price competitiveness of exports** → (X-M) may be negatively affected → fall in AD → **cannot attain inclusive and sustainable growth**.

Anti-thesis: Singapore's policies can help to attain inclusive and sustainable growth

- **P3: Supply-side policy to help attain inclusive and sustainable growth**
 - SS policy like **education and upskilling can improve skills of labour force**, which is the only resource Singapore possess.
 - SSP will require substantial Govt expenditure which raises AD, leading to **actual growth** first
 - Improve in skills leads to improve efficiency in production → lowers unit costs of production → **reduce wastage of resources** → improving quality of FOP expands productive capacity (ability to produce more goods and services even with same qty of FOP) → **potential growth** → **conserve resources for future generation** → **sustainable growth**
 - With **improved skills and efficiency**, workers previously at risk of being structurally unemployed (in the sunset industries) can not only remain employed (rise in Q1 to Q2) but also will command **a higher wage (W1 to W2)** → potential for increased skills and wages is greater for lower-skilled workers → higher wages allow for **narrowing of income gap** → **inclusive growth**.



Evaluative Conclusion

Stand: All in all, it is possible for Singapore to attain sustainable and inclusive growth despite the constraints.

Justifications: The question is, whether our economy can keep up with the rapid development and how receptive are we in adapting to these changes, especially external development. While the government is putting in place viable policies to maintain the relevance of our economy to our trade partners, we have to consider whether the policymakers are responsive to these changes and whether policies can be changed easily, and of course, whether the population are able to adapt.

Further insights: While it seems the Singaporean labour force are better equipped than most of its counterparts, it is important to note that the wealthier households will have more opportunities and resources to better position themselves to enjoy more of the fruits of growth than the lower-income households. While Singapore government can tax the rich to give to the poor, there is a limit of how much such policy can be done, before the poor becomes overly reliant, or the rich flee to other safe havens.

Mark Scheme

Level	Knowledge, Understanding, Application, Analysis	Marks
L3	Full display of AO1, AO2 and AO3 skills: For an answer that uses appropriate analysis to discuss constraints Singapore faced and the policies the government can put in place to attain inclusive and sustainable growth.	8-10
L2	Uneven display of AO1, AO2 and AO3 skills: <ul style="list-style-type: none"> • Answer lacks depth of analysis (i.e. limited effective use of relevant economic analysis). • Or, Answer lacks scope in explaining only either constraints or policies. 	5-7
L1	Limited display of AO1 and AO2 skills: Answer is descriptive or a mere listing of points, and/or contains major conceptual errors on constraints and/or policies to achieving inclusive and sustainable growth.	1-4

	Evaluation	Marks
E3	For an answer that arrives at an analytically well-reasoned judgment about whether the policies will overcome the constraints and thereafter, the possibility of attaining the objectives of inclusive and sustainable growth.	4-5
E2	For an answer that make some attempt at a judgment about whether the policies will overcome the constraints and thereafter, the possibility of attaining the objectives of inclusive and sustainable growth.	2-3
E1	For an unsupported statement about whether the policies will overcome the constraints and thereafter, the possibility of attaining the objectives of inclusive and sustainable growth.	1

2019 A levels Essay 6

Globalisation has been a major influence on Singapore's economic performance. The uncertainty and instability around the world in recent years could threaten the economic benefits that globalisation brings.

- (a) Explain two different factors that have enabled globalisation to occur. [10]
- (b) Assess whether current global economic developments will have a positive [15] or negative impact on Singapore's future economic performance.

Suggested Answer (a)

	What are the implications of these words? What comes to your mind?
Command Words: Explain	Provide possible reasons with economic analysis
Content Words: Globalisation	Greater interconnectedness between countries, Increased trade flows, capital flows, technological transfers, factor mobility between countries
Context: World, Singapore	Use various countries as examples, include Singapore
Type of question	Causes
End point	Two different factors enabling globalisation to occur

INTRODUCTION

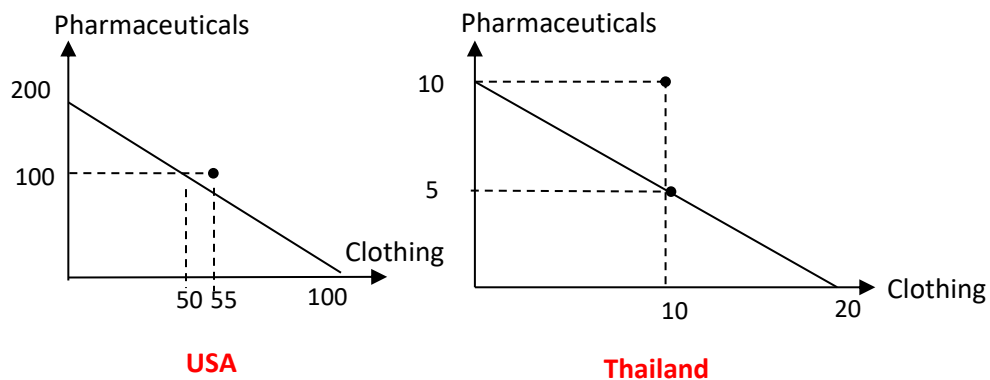
- Globalisation has resulted in greater interdependence among economies as national markets become increasingly interconnected. It refers to the integration or interconnectedness of national economies through trade of goods and services, capital flows such as foreign direct investment, labour flows such as migration, technological transfers and knowledge and increased competition. The factors towards globalisation include the rising free trade according to the theory of comparative advantage, improvement in technology and government policies. Two factors will be explained below.

BODY [Suggestion: Focus on #1, #2 OR #3]

#1. Rising free trade according to theory of comparative advantage has resulted in greater interconnectedness among economies

- According to the Theory of Comparative Advantage, trade between nations is beneficial to all if each specializes and trades according to its comparative advantage. A country has a comparative advantage over another in the production of a good if it **can produce it at a lower opportunity cost** i.e. if it has to forgo less of other goods in order to produce it.

- The underlying causes of comparative advantage can be due to differences in factor endowments/factor costs among countries. Differences in factor endowments or the level of technology can give rise to differences in the relative prices of factors of production between countries. This causes differences in the opportunity costs of producing the goods.
- Such differences in opportunity costs imply a need for international specialisation, i.e. the specialisation of goods produced in a country based on its lower opportunity costs.
- Hence, many developing countries such as Thailand, will produce land- or labour-intensive low value-added manufactured goods (e.g. textiles and clothing) while most developed countries such as US will produce capital-intensive high value-added goods (e.g. pharmaceuticals, high-tech machinery).
- With no trade, each country's consumption is limited by its ability to produce i.e. production and consumption can only occur at any point on its production possibility curve (PPC). **With specialisation and trade based on a favourable terms of trade (the rate of exchange), both Thailand and US can consume at points beyond their PPCs as shown in the diagrams above, achieving higher levels of welfare for society.**



- Hence, this gain from free trade according to the theory of comparative advantage will motivate countries to trade, **resulting in increased trade flows and contribute towards greater interconnectedness among economies.**

#2. Improvements in transportation technology have increased trade flows/capital mobility/labour mobility/, technological transfers and knowledge and hence greater interconnectedness among economies

- Improvement in **transportation technology**, has contributed to the **increase in transport networks**, resulting in greater efficiency and a fall in transport costs.

- For example, shipping costs have fallen due to the use of containerisation, which is the transportation of cargo in containers with standardised handling equipment and without the need to rehandle the contents. This saves time, manpower and infrastructural costs. Consumers can now obtain a wider range of goods and services at lower prices.
- Hence, the fall in transport costs has **resulted in higher trade volume**, while the setting up of global supply chains has also **increased long term capital flows** in the form of foreign direct investment (FDI) and hence is a major driver of **greater interconnectedness** among economies
- **Improvements in information and communication technology (ICT)** such as the introduction of Internet and e-commerce have contributed to **digital communication** and resulted in cheaper and more efficient communication as well as **technological transfers and knowledge**.
- The phenomenal growth of e-commerce via the internet has enhanced the flow of information (e.g. consumers can go online to shop for almost any products), and facilitated cross border business transactions. This is because the cost of online marketing is a very small fraction compared to the cost of using traditional methods of marketing. This has resulted in **increased trade flows**.
- In addition, improvements in telecommunication technology have also lowered the costs to workers who seek employment abroad as labour can be outsourced. Improvements in communications also allow firms to hire foreign talent more easily, facilitating the geographical **mobility of labour**, whilst allowing workers overseas to communicate more cheaply and easily with their colleagues and family.
- Such geographical mobility helps to attract workers to countries that require their expertise or effort and at the same time bring in workers to seek work in other countries, hence facilitating greater interconnectedness among economies through increased **migration and labour flows**.

#3. Government policies have motivated the increase in increased trade flows, capital, labour mobility, increased technological transfers and knowledge and hence greater interconnectedness among economies

- Lastly, governments' recognition that trade will bring about benefits to the economy, according to the theory of comparative advantage, has led to the removal of barriers to trade, **enlarging markets and thus resulting in greater trade flows**.
- Governments are increasingly more open to trade, helped by the World Trade Organisation (WTO), in allowing more forums for countries to meet and negotiate for the reduction of barriers to international trade. Such liberalisation policies also include efforts to allow greater and **freer flow of capital, especially long-term capital (or FDIs)** which help to finance firms and development projects in the recipient countries as well as earn profits for the financing firms and countries. More open migration policies have also resulted in **more labour flows**.
- There were many other global institutions that were set up to facilitate the conduct of international trade and greater interconnectedness such as the World Bank, the

International Monetary Fund (IMF) as well as the Organisation for Economic Cooperation and Development (OECD).

CONCLUSION

- In summary, above are two major factors that continue to drive greater interconnectedness among economies.

Level descriptors

Level	Out of 10 marks	Descriptors
Level 3	8-10	Displays full slew of skills across AO1, AO2 and AO3: <ul style="list-style-type: none"> • Thorough knowledge displayed by explaining how different factors, which includes applying the Theory of CA, lead to greater interconnectedness among economies. • Clear and coherent analysis, grounded by economic concepts, frameworks and principles • Good use of relevant examples
Level 2	5-7	Displays AO1 and AO2 skills: <ul style="list-style-type: none"> • Answers are relevant to question but undeveloped explanation of different factors giving rise to greater interconnectedness (globalisation) • Limited use of examples.
Level 1	1-4	Uneven display of AO1 and AO2 skills: <ul style="list-style-type: none"> • Smattering of points • Many conceptual errors • Fails to address question requirement

6b

Question Analysis

Approach	Command Word	Assess
	Question Type	Impacts – positive and negative
	Start point	Current global economic developments
	End Point	Impacts on Singapore's future economic performance – positive and negative
Content and Context	Content	Impacts on Singapore's future economic performance – positive and negative <ul style="list-style-type: none"> • Actual economic growth • Potential economic growth • Low unemployment • Low inflation • Healthy balance of trade surplus
	Context	Current global economic developments <ul style="list-style-type: none"> • US-China trade war • UK Brexit from EU • Hong Kong protests

Suggested Answer and Mark Scheme

	Introduction
	<ul style="list-style-type: none"> • Define the command word: The current global economic developments can have both positive and negative impacts on Singapore's future economic growth. The overall impact, whether it would be more positive than negative or vice versa, depends on several factors: assumptions made, nature of Singapore's economy, time period or state of Singapore's economy. • Define the context: The current global economic developments could include US-China trade war, Hong Kong protests and UK Brexit from EU.

	<ul style="list-style-type: none"> • Define the content: The positive and negative impacts on Singapore's future economic performance could be on Singapore's actual economic growth, potential economic growth, low unemployment, low inflation and healthy balance of trade surplus.
	Body (Negative Impacts)
P1	<p><u>Point</u> The current global economic developments will have a negative impact on Singapore's balance of trade. It will decrease Singapore's X revenue and hence likely eventual fall in Singapore's trade surplus, ceteris paribus.</p> <p><u>Explain/Elaborate</u> US, China and Hong Kong are within the top five export markets of Singapore. Hence any uncertainty and economic slowdown/recession in these three countries would cause X revenue of Singapore to fall, and hence fall in Singapore's trade surplus.</p> <p>US-China trade war → two big nations imposed tariffs on imports from each other → raised the price of exports of US to China, and price of exports of China to US → given that $PED_x > 1$ (since there are domestic substitutes) → Qd of both US and China exports fell more than proportionate → fall in X revenue for both US and China → fall in AD → AD shifts left → multiplied fall in RNY for both US and China</p> <p>Hong Kong protest → fall in consumer and investor confidence → fall in C and I → fall in AD → AD shifts left → multiplied fall in RNY for Hong Kong</p> <p><u>Impact on Singapore</u> Multiplied fall in RNY in US, China and Hong Kong → fall in purchasing power of foreign consumers → fall in DD for Singapore's X → fall in P_x and Q_x → fall in Singapore's X revenue → fall in Singapore's trade surplus, ceteris paribus</p> <p><u>Link</u> Therefore, the current global economic developments such as US-China trade war and Hong Kong protests will have a negative impact on Singapore's balance of trade. It will decrease Singapore's X revenue and hence fall in Singapore's future trade surplus (future worsening in Singapore's trade balance), ceteris paribus.</p>
P2	<p><u>Point</u> The current global economic developments will have a negative impact on Singapore's actual and potential economic growth. It will decrease our FDI and hence fall in real national income and limits potential economic growth.</p> <p><u>Explain/Elaborate</u> US, Hong Kong and China are also top sources of FDI into Singapore. → economic slowdown/recession in US, Hong Kong and China → fall in investor confidence → reduce FDI inflow into Singapore or withdraw FDI from Singapore → fall in I → fall in AD → AD shifts left (Figure 1 from AD to AD1) → multiplied fall in RNY → fall in actual economic growth (Figure 1 from Y_f to RNY)</p>

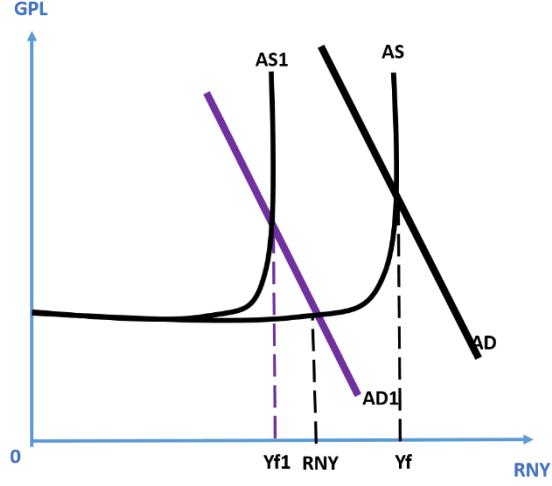
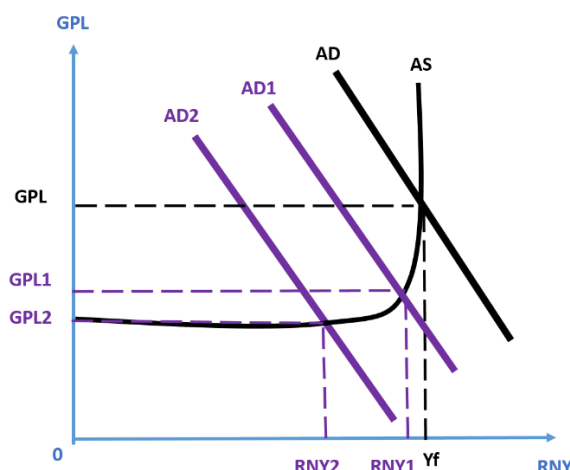
	<p>Withdraw FDI from Singapore → fall in physical resources e.g. machinery, infrastructure, technology and foreign talents and labour → fall in productive capacity → fall in LRAS → LRAS shifts left (Figure 1 from AS to AS1) → fall in Y_f → fall in potential economic growth (Figure 1 from Y_f to Y_{f1})</p> <p>Figure 1: Fall in Actual and Potential EG</p>  <p><u>Link</u> Therefore, the current global economic developments such as US-China trade war and Hong Kong protests will have a negative impact on Singapore's balance of trade.</p> <p>It will decrease Singapore's X revenue and hence likely future worsening in Singapore's trade balance, ceteris paribus.</p>
P3	<p><u>Point</u> The current global economic developments will have a negative impact on Singapore's low unemployment and low inflation. It will decrease our AD and hence rise in demand-deficient unemployment and deflation.</p>
	<p><u>Explain/Elaborate</u> US, China and Hong Kong are our top export markets and top FDI sources. → fall in X revenue and fall in FDI → fall in AD → AD shifts left (Figure 2 from AD to AD1) → multiplied fall in RNY → firms' will have unplanned rise in inventories → cut back on production → retrenched workers → rise in demand-deficient unemployment (Figure 2 gap between Y_f and RNY_2)</p> <p>Rise in demand-deficient unemployment → fall in consumer and investor confidence → fall in C and fall in I → continuous fall in AD (Figure 2 from AD1 to AD2) → multiplied fall in RNY → firms' will have unplanned rise in inventories → persistent fall in GPL to clear unplanned rise in inventories (Figure 2 from GPL to GPL1 to GPL2)</p>

Figure 2: Rise in DD-Deficient UNN and Deflation



Link

Therefore, the current global economic developments will likely have a negative impact on Singapore's low unemployment and low inflation. It will decrease our AD and hence rise in demand-deficient unemployment and deflation in the near future.

Body (Positive Impacts)

P4 Point

The current global economic developments may also have positive impact on Singapore's balance of trade. It will decrease Singapore's M expenditure and hence rise in Singapore's trade surplus, ceteris paribus.

Explain/Elaborate

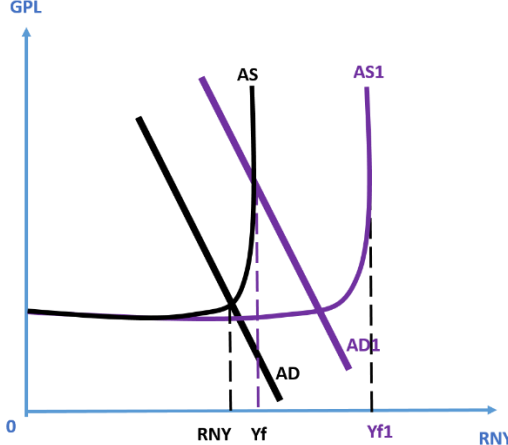
US and China are one of Singapore's top import sources. → Both countries face high import tariffs from each other → need to find alternative export markets to generate X revenue → increase exports to Singapore → increase in supply of imports from US and China → lower price of imports for Singapore → $PED_m < 1$ (since Singapore lacks natural resources and are dependent on imports) → Qd rises less than proportionate → Singapore's M expenditure falls → rise in Singapore's trade surplus, ceteris paribus

Link

Therefore, the current global economic developments may also have positive impact on Singapore's balance of trade. It will decrease Singapore's M expenditure and hence rise in Singapore's trade surplus, ceteris paribus.

Additional Point: Students could also link this point to lower imported inflation. As we import raw materials and semi-finished goods, it lowers our imported cost of production. This raises firms' profit and encourages firms to increase production. This will lead to rise in SRAS → SRAS shifts down → fall in GPL and rise in RNY.

Fall in GPL → fall in Px → $PED_x > 1$ (since there are other countries exporting Singapore's top exports such as refined petroleum and pharmaceutical products) → Qd rises MTP → rise in X revenue.

P5	<p>Point The current global economic developments may also have positive impact on Singapore's economic growth and employment. It will increase our FDI and hence rise in real national income and create potential economic growth. It will also create employment.</p>
	<p><u>Explain/Elaborate</u> China economic slowdown and Hong Kong protests → reduces investor confidence in China and Hong Kong → divert FDI to Singapore which is in a good geographical location to access to Asian and ASEAN markets and relatively more stable politically and economically → rise in I → rise in AD → AD shifts right (Figure 3 from AD to AD1) → multiplied rise in RNY (Figure 3 from RNY to Yf)</p> <p>Rise in AD → firms have unplanned fall in inventories → firms increase production → hire more labour → increase employment → fall in demand-deficient unemployment</p> <p>Rise in I → firms invest in capital and labour → rise in productive capacity → rise in LRAS → LRAS shifts right (Figure 3 from AS to AS1) → rise in Yf → create potential economic growth (Figure 3 from Yf to Yf1)</p> <p>Figure 3: Economic Growth and Employment</p>  <p><u>Link</u> Therefore, the current global economic developments may also have positive impact on Singapore's economic growth and employment. It will increase our FDI and hence rise in real national income and create potential economic growth. It will also create employment.</p>
	<p>(5m) EV on whether overall impact is positive or negative</p>
	<p>For evaluation, the overall impact of the current global economic developments on Singapore future economic growth is likely to be positive because:</p> <p>-Nature of Singapore economy: Singapore is dependent on trade and FDI for growth, and the Singapore government has always been actively establishing free trade agreements worldwide, not limited to US, China and Hong Kong. Negative impact can be mitigated through Singapore's foreign trade and investment policies. The loss of</p>

	<p>X revenue and FDI from US, China and Hong Kong can be compensated by other trading partners. Singapore could strengthen their free trade agreements with the ASEAN region, neighbouring countries such as Australia and New Zealand, as well as other emerging countries such as India and South America.</p> <p>-State of Singapore economy: Singapore has a good track record of being politically, economically and socially stable. More importantly, it has proven itself to be able to manage and recover from any crisis swiftly e.g. 2009 global financial crisis. Hence with global economic uncertainty, foreign investors would look actively for alternative investment destinations which provide long-term stability and profitability. Hence Singapore is a good and natural choice, given its stability and connectedness with global markets, be it in terms of trade relations, transport, communications, labour or technology flow.</p>

Level	Knowledge, Understanding, Application, Analysis	Marks
L3	<p>For an answer that shows well-developed explanation of current global economic developments and how it impacts on Singapore's future economic performance, including both positive and negative impacts</p> <ul style="list-style-type: none"> • Relevant, clear and accurate economic analysis, grounded by economic concepts, frameworks and principles • Supported by relevant diagrams, clear and accurate analysis • Supported by relevant examples, clear and accurate application 	8-10
L2	<p>For an answer that shows under-developed explanation of current global economic developments and how it impacts on Singapore's future economic performance, including both positive and negative impacts</p> <ul style="list-style-type: none"> • Relevant economic analysis, but lacking clarity and accuracy at times • Relevant diagrams, but lacking clarity and accuracy at times • Relevant examples and application, but lacking clarity and accuracy at times 	5-7
L1	<p>For an answer that shows limited knowledge of current global economic developments and/or impacts on Singapore's future economic performance</p> <ul style="list-style-type: none"> • Listing of points, or unexplained statements • Basic or many conceptual errors • Fails to address question requirement 	1-4
Level	Evaluation	Marks
E3	<p>Insightful judgment substantiated with analyses, including but not limited to the following considerations:</p> <ul style="list-style-type: none"> • underlying assumptions • nature of Singapore's economy • short vs long-term • state of Singapore's economy 	4-5

E2	Judgment substantiated with analyses that were explained mostly in the body	2-3
E1	Unsubstantiated judgment	1