Q1. With effect from 1 July 2022, the Malaysian government has decided not to float the price of chickens, instead a new price ceiling has been implemented. This decision was made to safeguard the interests of Malaysian families so that they are not burdened by rising prices and cost of living.

Source: Channelnewsasia, 24 June 2022

(a) Suppose the Malaysian government decides to remove the price ceiling in the market for chickens.

Following the removal of price ceiling, explain how the price mechanism will allocate the scarce resources and how consumer and producer surplus will change. [10]

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**Introduction**

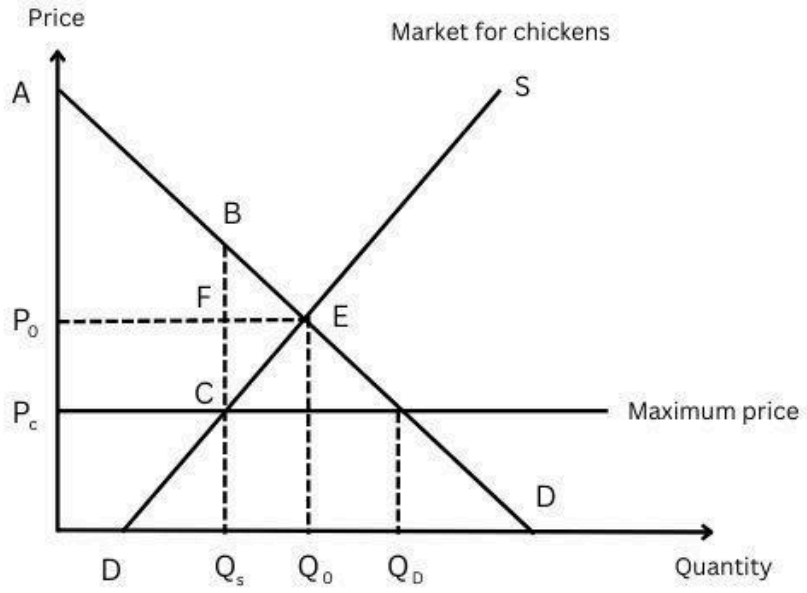
The price mechanism is the system where the forces of demand and supply determine the prices of goods and services, and the changes in prices cause changes in resource allocation. The price mechanism is the invisible hand that allocates scarce resources, based on the self-interest of consumers and producers, to result in the right mix of goods and services for society, i.e., allocative efficiency.

The Malaysian government has intervened in the market prior to July 2022 and has imposed a price ceiling – this is a legally established maximum price to prevent prices from rising above a certain level, and it is set below the market equilibrium price.

**R1: To explain how the removal of price ceiling will affect the shortage and price of chickens, changing the allocation of scarce resources**

Initially, the price of the chickens in Malaysia is Pc, which is the maximum price set by the government. At Pc, the quantity demanded is Qd, and quantity supplied is Qs, so a shortage of Qs – Qd arises.

Diagram 1:



Should the Malaysian government remove the price ceiling, the price is allowed to increase from Pc, and the initial shortage would cause an upward pressure on the price as consumers try to outbid one another for the limited quantity of chickens.

As price increases, quantity demanded of chickens fall as consumers' ability and willingness to purchase chickens fall due to income and substitution effect (*Note: the terms income and substitution effect are optional / good to know*). Hence price mechanism serves as a **rationing function** as those consumers who are not willing and/or not able to pay for the chickens at the higher price will be rationed out of the market. This addresses the resource allocation question of 'for whom to produce'.

At the same time, when price increases, the quantity supplied increases since it is more profitable for firms to produce. Hence price mechanism serves as a **signaling function**, as the higher price signals to potential producers to enter the chicken market. Price mechanism also serves as an **incentive function**, as the higher price motivates the chicken producers to increase output due to the possibility of higher revenues and profits. This addresses the resource allocation question of 'what and how much to produce'.

The price will keep increasing until the shortage is cleared. Eventually, the market returns to equilibrium where the equilibrium price is at P0, and the equilibrium qty is at Q0. The quantity supplied increases from Qs to Q0 following the removal of price ceiling, implying that more resources have been allocated to the production and consumption of chickens.

At the market equilibrium, allocative efficiency is achieved, which refers to the situation in which the society produces and consumes a combination of goods and services, in this case chickens, that maximises society's welfare.

**R2: To explain how the removal of price ceiling may affect consumer surplus and producer surplus**

Prior to the removal of the price ceiling, the consumer surplus which is the difference between the maximum amount that consumers are willing and able to pay for a given quantity of chickens and what they actually pay was ABCPc, while the producer surplus which is the difference between the amount received by producers for selling chickens and the minimum price that producers are willing and able to accept for supplying the good was PcCD.

With the removal of price ceiling, the price increases from Pc to the eq. price, P0. The quantity supplied and quantity consumed increases from Qs to Q0. Since producers benefits from selling a higher quantity at a higher price, producer surplus increases from PcCD to P0ED.

The effect on consumer surplus is indeterminate. The increase in price may increase consumer surplus for those who were willing to pay the higher price but were unable to do so under the price ceiling. However, some consumers who were able to purchase the good or service at the lower price ceiling may now find it more expensive and may no longer be able to afford it. This would decrease their consumer surplus.

The impact on consumer surplus thus depends on the relative PED and PES values. If the loss of consumer surplus due to the price increase (P0FCPc) is greater than the gain in consumer surplus due to the increase in quantity consumed (BFE), the consumer surplus decreases from ABCPc to AEP0.

| Knowledge, Application, Understanding, Analysis | | |
|---|---|---|
| L1 | - Descriptive response without application of economic tools<br>- Many glaring conceptual errors | 1-4 |
| L2 | - Developed but one-sided explanation on either of the requirements<br>- Underdeveloped explanation of both requirements eg: not including the explanation of the functions of price mechanism while explaining the effect of price change on resource allocation. | 5-7 |
| L3 | - An analytical response without gaps in explanation on both requirements – including analysis of how the removal of price ceiling would affect the market outcomes (i.e., price and qty), how the price change affects the allocation of resources and distribution of output, which will also include the functions of price mechanism, and how the consumer surplus and producer surplus will be affected. | 8-10 |

(b) Discuss the appropriate measures that the Malaysian government can adopt to ensure the affordability of chickens. [15]

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**Introduction**

In a free market, the equilibrium price of chickens will be determined by forces of demand and supply. Due to demand or supply factors such as rising incomes or rising cost, the eq. price of chickens may rise, making it less affordable for Malaysian households, which would mean there is an inequitable distribution of chickens.

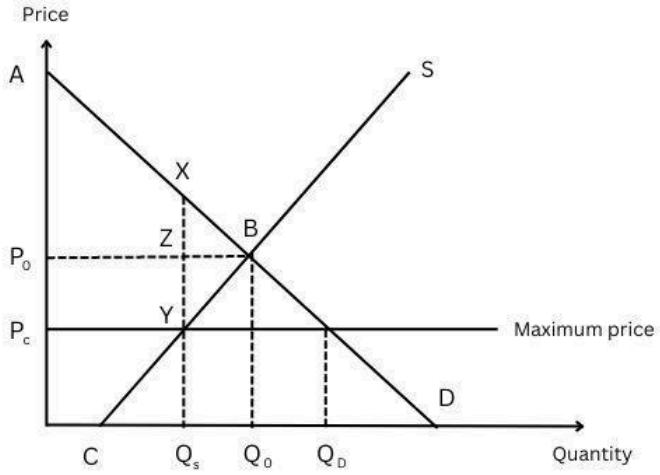
The government's objective is to bring down the price of chickens, so that it will be more affordable for Malaysian households, and this may promote equity.

To promote equity, the government may impose a price ceiling like the one prior to 1 July 2022, and provide subsidies.

**R1: To explain how the imposition of price ceiling may ensure the affordability of chicken**

Initially, equilibrium price of chickens and equilibrium qty of chickens, P0 and Q0 respectively determined by forces of demand and supply.

Diagram 2:




The Malaysian government may deem the eq. price, P0 to be too high, and may impose a maximum price of Pc, which is set at a price level below P0. At a lower price, more consumers especially the low income will be able to afford chickens, hence this promotes equity, i.e., fairer distribution of chickens

*Note: given that the government's goal is to make chickens affordable, analysing the impact on consumer surplus is unnecessary

EV: to consider the limitations or the constraints of imposing price ceiling to increase affordability

- However, the imposition of price ceiling to increase the affordability of chickens may create a shortage in the market (Qd – Qs). That means resources are allocated in an

inefficient manner. There will be a welfare loss of Area XBY because the social surplus decreases from Area ABC to Area AXYC.

EV: to apply PED or PES to consider the extent of the shortage

- Prior to July 2022, the government has decided to impose a price ceiling on chickens, which may suggest that chicken is a staple food for most Malaysian households, hence the government has intervened to make it affordable. So, it is likely that PED of chickens in Malaysia is less than 1. When price decreases from P0 to Pc, quantity demanded is likely to increase by less than proportionate, hence the shortage will be less severe. Hence, price ceiling might be an appropriate measure. Furthermore, to prevent a shortage the Malaysian government may use a non-price rationing system, where each household is given a specific quota to purchase the chickens each week.

EV: consider the unintended consequences on other stakeholders

- However, the policy of price ceiling to increase affordability comes at the expense of the producers of chickens. The producer revenue decreases from P0 x Q0 to Pc x Qs, and the producer surplus decreases from P0BC to PcYC. This might not be fair for the chicken producers in Malaysia. Hence a more appropriate measure might be indirect subsidies.

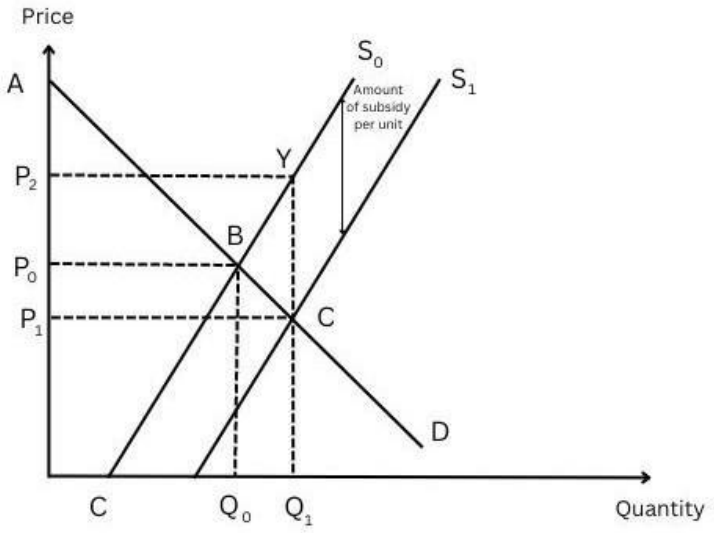
*Note: evaluating the effect on producer surplus is relevant because the question concerns the 'appropriateness' of the measure, and considering unintended consequences can be one of the key criterion

**R2: to explain how the government may provide subsidies to increase the affordability of chickens**

Indirect subsidies are monetary grants given by the government to the producers of chickens, to partially offset their cost of production to encourage more production.

Indirect subsidies will be given to the chicken producers in Malaysia. For every unit of chicken produced, the producers will receive an amount of subsidy. This helps to partially offset the cost of production, which increases the profitability and hence the supply of chickens increases, shown by rightward shift of supply curve from S0 to S1

Diagram 3:




At initial eq. price, P0, there will be a temporary surplus which puts a downward pressure on the price of chickens. As price of chickens decreases, quantity demanded increases as more consumers are willing and able to purchase the chickens, at the same time, quantity supplied decreases due to lower profitability. The price will keep decreasing until the surplus is cleared. Eventually, eq. price decreases from P0 to P1, and at this lower price, it is more affordable for Malaysian households, hence promoting equity.

EV: to consider the limitations or the constraints of imposing subsidies to increase affordability

- However, like the policy of price ceiling, the provision of indirect subsidies may create inefficiencies. The sum of the gain in producer surplus (Area P2YBP0) and the gain in consumer surplus (P0BCP1) is less than the total government expenditure to finance the subsidies (P2 – P1) x Q1. Hence there will be a welfare loss of Area BYC.

EV: Comparative analysis of both policies

- However, subsidies might be a better policy than price ceiling, as it does not hurt the domestic chicken producers. Rather, the producers will earn more revenues from (P0 x Q0) to (P2 xQ1), and there is a gain in producer surplus from P0BC to P2YC.

EV: But, the provision of subsidies may put a strain on the government's budget.

- To finance the subsidy, the government incurs an expenditure of (P2 – P1) x Q1. There will be an opportunity cost incurred by the government, since the monies used to finance the subsidy could have been used in other areas like provision of healthcare and education.

Conclusion:

The appropriateness of the measures depends on:

- Ability of the government to finance the subsidy – if the Malaysian government faces budget constraints, and has incurred persistent budget deficits, subsidies might not be an appropriate measure.
- Significance of the unintended consequences – As mentioned earlier, since PED of chickens likely to be less than 1, the price ceiling is unlikely to cause a severe

shortage. Price ceiling can be used as a short-term measure to at least bring down the price with certainty.

| **Knowledge, Application, Understanding, Analysis** | | |
|---|---|---|
| L1 | - Descriptive response without application of economic tools such as DD-SS<br>- Glaring conceptual errors | 1-4 |
| L2 | - Developed but one-sided explanation on either of the requirements<br>- Underdeveloped explanation of both requirements eg: gaps in explanation of how policy works to reduce price and increase affordability | 5-7 |
| L3 | - An analytical response without gaps in explanation on both requirements – with explicit link to affordability and equity. | 8-10 |
| **Evaluation** | | |
| E1 | - A brief evaluation attempt is made in the form of simple evaluative statements that are not explained. Eg: response evaluated that provision of subsidies may put a strain on government's budget, but does not elaborate further on the implications | 1-2 |
| E2 | - Some attempt to evaluate each policy, but no summative conclusion/recommendation provided eg: response evaluated that one of the constraints of using a policy of price ceiling is that a shortage may arise, but does not elaborate and provide recommendation on how to resolve the unintended consequence, or | 3-4 |
| E3 | - Both requirements are evaluated, and a summative conclusion/recommendation is provided using evaluation criteria such as resolving unintended consequences, significance of the constraints, comparative analysis of policies | 5 |

**2** Introduced in 2015, all Singaporeans aged 25 years and above received an opening credit of $500 in their SkillsFuture account. Singaporeans can make use of these credits to deepen existing skills or reskill into new areas outside of their current field.

Source: SkillsFuture website

**(a)** Explain why a government may need to intervene in the market for skills training. [10]

**(b)** Discuss whether the provision of subsidies is the best policy to address the market failure in the skills training market. [15]

**a) Explain why a government may need to intervene in the market for skills training. [10]**

**Question Analysis for part (a)**

| | |
|---|---|
| **Focus (F):** | Provide explanation to illustrate how can skills training cause positive externalities in consumption and imperfect information in consumption & thus cause market failure |
| **Skill (S):** | "Explain" requires economic reasoning, analysis and diagrammatic illustration of how skills trainings cause resources to be allocated undesirably and thus welfare loss to society. |
| **Context (C):** | Skills Training market, no specific country |

**Suggested answer for part (a)**

| | |
|---|---|
| **1. Introduction:** identify the sources of market failure and unpack key terms in question | ● Market failure occurs when the price mechanism, operating without any government intervention, fails to allocate scarce resources efficiently to maximise society's welfare. Market failures provide one of the major justifications for government intervention in the economy.<br>● Source of market failure for skills trainings<br>o **Positive externalities in consumption**<br>o **Imperfect information in consumption** |
| **2a. Body:**<br>Explain positive externalities | <u>Positive externalities in consumption</u><br>● Positive externalities arise when the production or consumption of a good generates benefits to a third party not involved in the production and consumption of the good, and the third party does not pay for the benefit enjoyed.<br>● In the case of the consumption of skills trainings, it generated positive externalities in consumption. Once a consumer (labour) is trained, he would possess specific skills learnt from the trainings. Others, such as firms (3rd parties) who employed the trained labour will thus benefit from improvement in the firm's productivity, (e.g. producing more outputs with same number of employees). |
| Explain the divergence between private benefits and social benefits. | ● As market decisions made by economic agents are guided by the **pursuit of self-interest**. In deciding whether to be pursue skills trainings, and consumer (labour) will only take into account his private marginal cost (MPC) and private marginal benefit (MPB).<br>● MPB: Additional gain in wages earned as a skilled labour<br>● MPC: Additional cost includes time spent in one's pursue of skills training, or the skills training course/ workshop fee |

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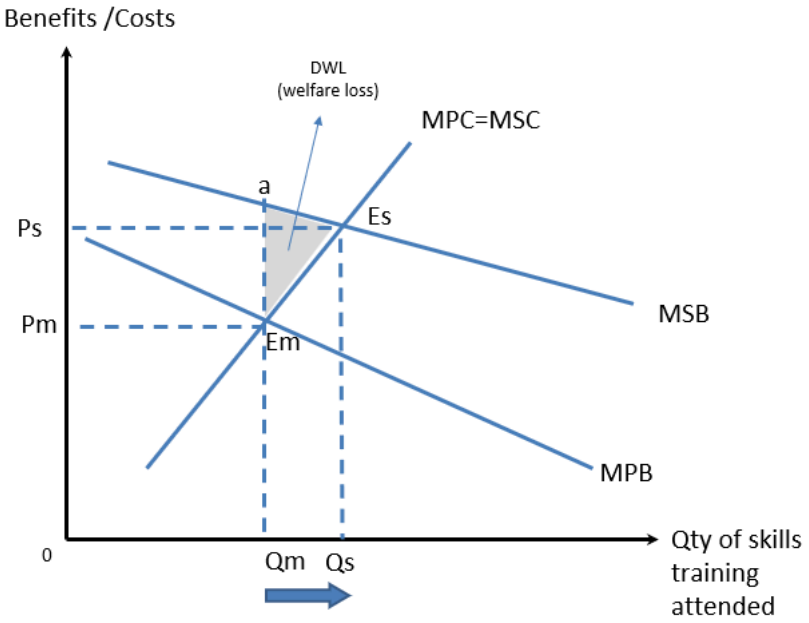
| As well as the market equilibrium | • Based on the price mechanism, the market equilibrium level of skills training consumed is where marginal private cost (MPC) equates to the marginal private benefit (MPB), (I.e. MPB = MPC). □ market equilibrium output, Qm.<br><br>• However, this consumer (labour) would not consider the positive externalities that could be generated from his skills training on the third parties. In this case, consumer (labour) who are went for skills training will create a more productivity working environment in the workplace, firms may benefit from more high production, or better-quality goods/ services produced, eventually raising the profit margin for firms. The more consumers (labour) who attended skills trainings, the higher the chances of third parties (such as firms) benefitting from higher labour productivity. (I.e. the marginal external benefits, MEB >0).<br>• Hence, there is a divergence between the marginal social benefit, MSB and marginal private benefit, MPB, where MSB lies above that of MPB. This is so as societal benefits account for the private benefits and external benefits (I.e. MSB= MPB + MEB) and since MEB > 0, thus MSB > MPB. |
| Explain under-allocation of resources in comparing the market equilibrium to the social optimal outcome. | • Assuming that there is no external cost in the consumption of skills trainings, MPC thus equates to MSC (i.e. MPC = MSC).<br>• As such, at the market equilibrium Qm, **society values the skills trainings more than what it would cost to society. (I.e. at 0Qm, MSB > MSC).**<br>Thus, at market equilibrium, resources are not allocated efficiently to achieve the socially efficient level which should be at 0Os where MSB equates to MSC (I.e. MSC = MSB).<br><br>  <br><br><br>• By price mechanism, thus there will be under-allocates of resources into the market of skills training i.e. too little skills trainings attended when left by market to allocate resources.<br>• There is an **under-consumption** of skills trainings resulting in the welfare to society not being maximized. Society could have gain welfare equivalent to area EmEsA (shaded area) if they increase quantity of skills trainings attended to Qs. Therefore, government intervention is justified in |

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| | the case skills trainings to increase the consumption to the socially optimum level of output (i.e. 0Qs). |

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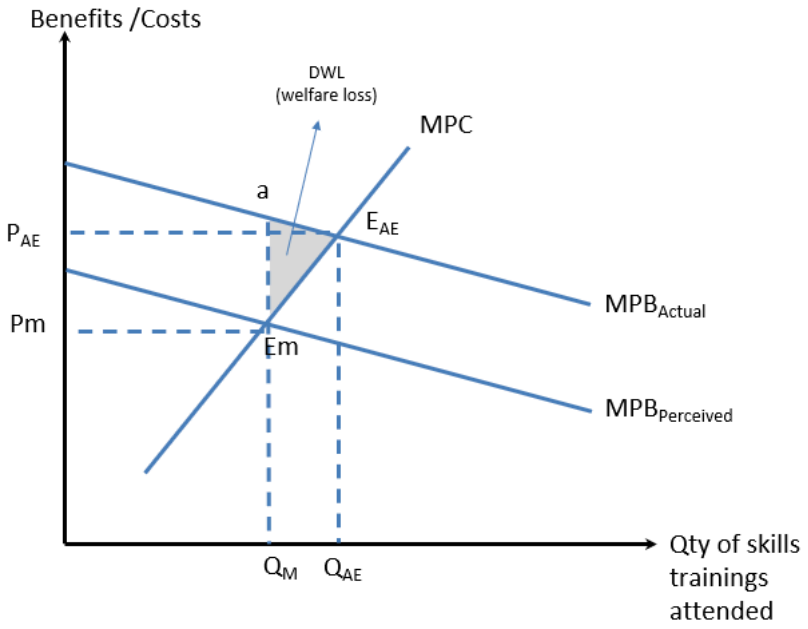
| **2b. Body:** Explain imperfect information | **<u>Imperfect information</u>**<br>● In this case, consumers (labours) may be **unaware of the true benefits** to themselves should they opt to attend skills training.<br>o This could be because they have **insufficient information** on the benefits of attendings skills trainings and so made inaccurate decision. For instance, they may not be aware the additional amount of wage increment one may get after undergoing skills training or the likelihood of promotion.<br>o Thus, Consumers (labours) underestimated the actual private benefits **to themselves**.<br>● Hence, the consumer's perceived benefits of skills training being lower than the actual benefits. (MPB perceived < MPB actual)<br>● The market equilibrium consumption level is therefore at $Q_M$ where MPB (perceived) = MPC, while the allocative efficient consumption level is at $Q_{AE}$ where MPB (actual) = MPC.<br>● Hence, as $Q_M$ is lower than $Q_{AE}$ (the allocative efficient consumption level), there is a potential welfare gain of area AEsEm if consumption was increased by $Q_MQ_{AE}$.<br>● Therefore, there is an under consumption of skills training consumed by $Q_MQ_{AE}$<br>  <br> |
| **3. Conclusion:** | ● Society as a whole could be made better off if more labour attend skills training to the allocative efficient level, $Q_{AE}$. Thus, there is under consumption of skills trainings due to the presence of positive externalities and imperfect information, government intervention is justified to intervene to ensure resources allocated desirably. |

**Marking scheme for Q 2a**

| Knowledge, Application, Understanding and Analysis | | |
|---|---|---|
| **L3** | ● For a clear & thorough explanation of how skills training causes market failure by relating to positive externalities (in consumption) and imperfect information (in consumption).<br>● Good use of diagrams. *(encouraged to draw for both sources of market failure respectively)*<br>● Contextually accurate and focused with sound application to skills training market.<br>● Answer is supported with a cohesive diagrammatic analysis. | 8-10 |
| **L2** | ● For an answer that shows understanding of market failure and an application of theory to explain why market fails but insufficiently developed<br>● Only 1 economic justification explained (either positive externality or imperfect information).<br>● some accurate reference to the context of skills training market<br>● Answer may be supported with diagram but limited explanation and reference to it. | 5-7 |
| **L1** | ● For an answer that shows descriptive knowledge of market failure in relation to positive externalities/ imperfect information or answer with conceptual errors.<br>● Answer has incidental/ no reference to the context of skills training. | 1-4 |

**b) Discuss whether the provision of subsidies is the best policy to address the market failure in the skills training market. [15]**

**Question Analysis for part (b)**

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|---|---|
| Focus (F): | A comparison of subsidising skills trainings to other polices on whether it is the best form of govt intervention to deal with the various causes of market failure arising from the market of skills trainings. |
| Skill (S): | "Discuss" requires a balanced argument and a reasoned judgement |
| Context (C): | Skills training market |

**Suggested answer for part (b)**

| | |
|---|---|
| **1. Introduction:** Identify the issue and possible government measures Explain the purpose of government intervention. | • *Issue: under-consumption of skills training in free market due to*<br>  o *High external benefit generated in the consumption of skills training – positive externality in consumption*<br>  o *Imperfect information - insufficient and inaccurate information*<br>• *Possible government intervention:*<br>  o *subsidy*<br>  o *public education*<br>• *Purpose of government intervention: resource allocation to be allocative efficient to society*<br><br>Subsidy is a form of government intervention due to the high external benefit to society and imperfect information which will cause skills training to be under-consumed. Through government intervention, government hopes to reduce imperfect information and under-consumption due to ignorance of external benefits and encourage the consumption of skills training to the socially optimum level of output. While many governments would use subsidy, there are other measures such as compulsory consumption and public education used to ensure the consumption is at an allocative desirable level. |
| **2a. Body:**<br><br>Explain how subsiding skills training works and relate to the purpose of government intervention | **1. Subsidy to consumers (labour)**<br>• *Subsidy to consumers (labours)  lower out of pocket expenses that consumers pay for the skills trainings  fall in their MPC  MPC shift rightward  subsidies will thus lower the price consumers pay for skills training from $P_M$ to $P_{subsidy}$. More consumers will be able to attend skills training as it is more affordable, causing output to also increase from $Q_M$ to $Q_S$. The new market equilibrium is now at MPCsub = MPB, the new market output hence coincides with the socially optimal output Qs.*<br>  o The subsidy or voucher given is meant to lower the price which consumers (labour) pay to encourage a higher consumption level. The amount of subsidy is usually based on the value of the external benefits (MEB) generated at the socially optimal level of output, Qs.<br>  o E.g.: Besides the $500 top up to Singaporeans SkillsFuture account for skills upgrading in 2015, in 2024, additional subsidy such as the SkillsFuture Mid-Career Enhanced Subsidy (for Singapore Citizens aged 40 and above) was implemented where it can cover up to 90% of the course fee. It recognises that mid-career Singaporeans may face greater challenges in undertaking training, hence provides additional subsidies to encourage them to upskill and reskill to adapt to changing job requirements.<br>*Note to student: At this output, Qs, the producers of skills training (will receive a unit price of Ps (as $P_s = P_{subsidy}$ + subsidy of $E_{m2}E_S$ from* |

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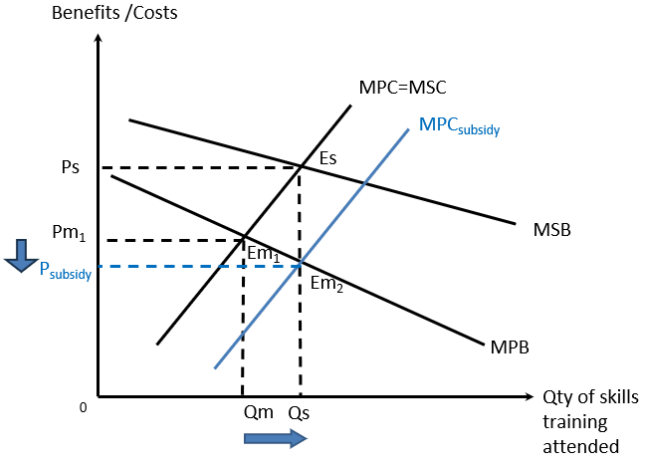
| | *government), where consumers only pay $P_{subsidy}$, hence skills trainings becoming more affordable.*<br>  <br><br>*(Note: Alternative answer on **subsidy given to producers; education institutions conducting skills training can also be accepted.** Students need to however explain how the subsidies to producers can lead to the lowering of skills training fee before linking to MPC concept to address under-consumption of skills training.)* |
| **Evaluation & transition statement**<br><br>**Identify when subsidy may be effective** – | **Strengths:**<br>□ **Reach specific target beneficiaries directly and achieving unintended positive outcomes such as reducing income inequity -** the grants and subsidies provide assistance directly to targeted beneficiaries (subsidy given to consumers). This can also improve the income distribution between the higher and lower skilled labour when lower skilled labour upskilled which enable to take on high-skilled jobs which may offer higher wages too.<br>However, even with the subsidy provided to consumers, there may still be some poorer consumer (labour) who may still find the subsidised skills training course fee unaffordable. Hence, government may need to consider how else to better make skills training more affordable for such individuals. This may require government to offer other forms of financial assistance such as the application for scholarship or education loan scheme to provide a more comprehensive financial support.<br><br>**Limitations:**<br>□ **Government budget constraints -** High government expenditure is required to finance the subsidy as well as build physical infrastructure such as education institutions to support the skills training programme. Thus, not all governments may have the financial capability to finance this measure □ may result in government raising taxes (e.g. corporate tax and income tax) or reallocate funds away from other public projects to finance the subsidy. □ This is **especially so for poor and developing countries with more limited tax revenue** □ extent of subsidies may be less □ therefore, even with subsidies, it is still unable to reach the social optimal level.<br><br>□ **Insufficient information to determine amount of optimal subsidy -** It may be difficult to measure or value the exact external benefit of consuming a good that generates positive externalities (indicated by $E_SE_{M2}$ in the diagram.<br>However, such limitation may be minimised overtime as government review the measure to adjust the subsidy amount to correct the market |

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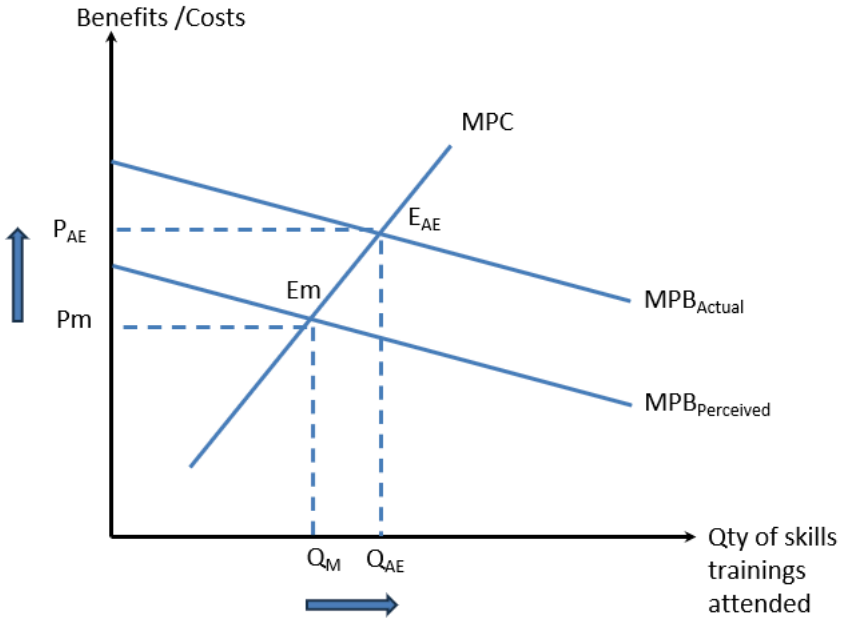
| | failure. Take Singapore for example, in 2015, subsidy given to each Singaporean labour was only $500. Across the years, government has reviewed its measure and enhanced the effectiveness of the measure by offering more subsidy through SkillsFuture Top-Ups.<br><br>**Transition statement:**<br>While subsidy can help to ensure that skills training can be more affordable, it may not be the most effective measure in achieving allocative desirable if consumers (labour) are unaware of how important skills trainings can be for themselves. Thus, subsidy alone is not enough as consumers (labour) might still **under consumed skills training due to imperfect information**. There is a need to complement subsidy with public education to increase address insufficient and inaccurate information. |
| **2b. Body:**<br><br>Explain how public education works to correct the causes of market failure | **<u>3. Public Education (Campaigns, advertisements to inform people the importance of skills training)</u>**<br>Government could reduce imperfect information through campaigns and advertisement to educate people the benefits of skills trainings. This aims at getting people to understand the need to go for skills training, thus increasing qty of skills trainings consumption.<br>If consumers are aware of the actual benefits of attending skills training, there will be no difference between actual and perceived benefits/costs. This will ensure consumption at the allocative efficient level, $Q_{AE.}$<br><br>  <br> |
| **Evaluation**<br>Consider if subsidy is the **best** form of government intervention by comparing it with public education | **Strength:**<br>✔ Tackles the problem of imperfect information. It reduces the chance of poor decision being made due to imperfect information and increases the demand for skills training.<br>✔ This may be important for countries facing income inequality issue, where consumers (labour) who may lack the knowledge about the true benefits of attending skills training for themselves, such as the job |

| | |
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| | opportunities that they will be available for them, helping them to break out of the poverty cycle**.**<br><br>**Limitations:**<br><br>- Uncertain in the policy outcome as mindset take times to change.<br>- Without support of firms (esp. for lower-skilled jobs), consumers (labour) may still choose not to take on skills trainings as consumers (labour) may incur significant opportunity cost should they attend trainings instead of working to draw current (low) wages. There is no assurance of success even in the longer term and the market may still fail to achieve the allocative efficient outcome in such circumstances. |
| **3. Conclusion:** | ● In dealing with the market failure of under-consumption of skills trainings, **subsidy may be the best form of government intervention to ensure affordability** and hence encourage greater consumption for skills training.<br>o This is especially so at the initial phrase where PED for skills training is elastic. By ensuring skills training affordability, it can bring about a more than proportionate increase in the qty demanded for skills training (i.e. more individuals may be swayed into consuming skills training if course fee is reduced).<br>● However, subsidy may not be the best form of government intervention to **deal with the market failure due to imperfect information.**<br>o Government should use **public education to create a mindset change** towards skills trainings, this would thus lead to one viewing skills trainings as essential at some point of one's career.<br>● In instances where there are **multiple sources of market failure**, government may be better off considering a **multi-pronged approach** by using both measures, subsidy as well as public education. By doing this, government can better achieve allocative efficiency in the market for skills training. |

**Marking scheme for Q 2b**

| **Knowledge, Application, Understanding and Analysis** | | |
|---|---|---|
| **L3** | ● A thorough and detailed analysis of how subsidy and one other policy is used to correct the market failure.<br>● The tools of analysis is clear, diagram is strongly encouraged (with complete labelling)<br>● Minimal conceptual inaccuracies.<br>● Examples provided are relevant and appropriate. | 8-10 |
| **L2** | ● An incomplete analysis of how subsidy works to address market failure (capped marks)<br>● OR incomplete analysis of subsidy and one other policy are used to correct the market failure.<br>● The tools of analysis is somewhat clear but incomplete, diagrams are not effectively used in the answers.<br>● Several conceptual inaccuracies.<br>● Examples are relevant but may not be the most appropriate. | 5-7 |
| **L1** | ● An answer that provides a mere listing of the measures to solve market failure but not in depth/ weak with significant errors on conceptual explanation. | 1-4 |

| | | |
|---|---|---|
| | ● An answer that uses the inaccurate economics framework or wrong tools of analysis. | |
| **Allow up to 5 additional marks for Evaluation** | | |
| **E3** | ● Provided reasoned judgment with justifications through the strengths & limitations of the policies<br>● Assessment supported by sound economic analysis in discussing whether subsidy is the best form of government intervention by <u>comparing it with other</u> measures (summative statement). | 4-5 |
| **E2** | ● Some attempts at providing a reasoned judgement with justification, coherence in presenting the limitations of the policies<br>● Synthesis provided attempts to address the question but lacks some gaps in terms of coherence | 2-3 |
| **E1** | ● Simplistic evaluative statements that listed the limitations of policies<br>● Does not have a synthesis / overall conclusion | 1 |

**3** In July 2023, Grab announced it was acquiring Singapore's third-largest taxi operator Trans-cab, which has a fleet of more than 2,500 vehicles. The acquisition would have covered Trans-cab's taxi and car rental business, maintenance workshop and fuel pump operations.

The Straits Times, 25 July 2024

**(a)** Explain how the market structure in which Grab operates is likely to influence how prices and output are determined. [10]

**(b)** Discuss whether Grab's acquisition of Trans-cab will benefit or disadvantage the consumers in Singapore. [15]

2021 Q3 – govt intervention onto consumers

**a) Explain how the market structure in which Grab operates is likely to influence how prices and output are determined. [10]**

Question analysis:

| | |
|---|---|
| Command Word | "Explain" – requires student to explain the characteristics of the market structure (likely to be oligopoly) and apply it to the context of the ride-hailing market. They should also show the relationship between these characteristics and pricing, output behaviour of the oligopolistic ride-hailing market. |
| Context | Ride-hailing market |
| Concept | Characteristics and how that affects price and output determination |

Introduction:

Singapore's ride hailing market is considered to be operating in **an oligopolistic market structure**. These are based on the different characteristics such as barriers to entry, size and number of firms. These characteristics in turn, affect how pricing and output decisions are made.

Requirement 1: Explaining the characteristics of the ride-hailing market to conclude the oligopolistic market structure

The barriers to entry of the car-sharing market can be **high**. The **cost barrier to entry** can be high due to **high fixed costs** to set up an app for the private transport services. A ride-sharing app must offer a user-friendly experience to both the driver and the passenger, as well as efficiency usage without lags or errors.

- For instance, the app must enable easy ride booking/ cancellation/ pre-scheduling booking features, real-time tracking, multiple pick-up & drop-off locations, support

multiple payment options, in-app chat or call option as part of the customer support services, and even SOS Panic Button to earn users' trust.

Given the high fixed costs, firms in this industry would benefit from **internal economies of scale** which allows the firms to spread their costs over a large output. This means that the existing firms are able to charge their services at a **lower price**, that can **deter the entry of new firms** since they are unlikely able to price their services at a lower price. Moreover, given that the dominant firms have been in the market for some time, **contrived barriers such as brand loyalty** have been established, making it difficult for a new incumbent firm to penetrate.

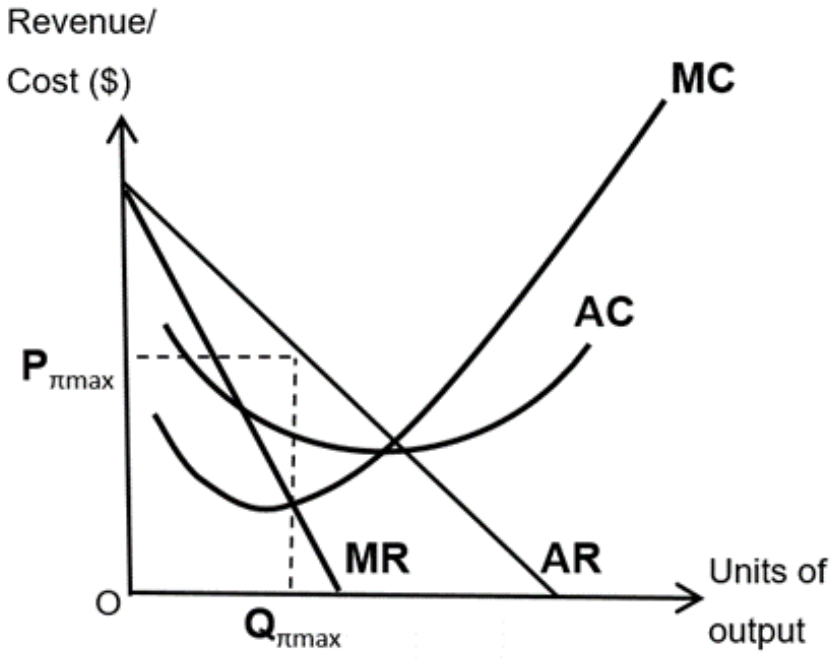
As such, this high barriers to entry has resulted in a **small number of firms** in most countries. For instance, in Singapore the main ride-hailing firms are Grab, GoJek, Ryde, ComfortDelgro etc. This suggest that **each firms can have a substantial market presence with strong market po**wer. With only a few substitutes in the market, **demand for ride-hailing services would likely be price inelastic.**

Requirement 2: Explaining how economic theory suggests how price and output will be determined in the ride-hailing market

- *Explain how the profit maximizing price and output is determined*

The objective of the firms in the ride-hailing market would be to **maximise profits**. To do so, the firm would produce an output level of Qπmax where **MC = MR,** as seen in the diagram below.

**MC = MR is the profit maximising condition** because when output is smaller than Qπmax, the marginal revenue is larger than the marginal cost, hence it is beneficial for the firm to continue raising its production to gain profits. Conversely, if the firm produces at any output that is higher than that at MC = MR, its marginal cost is greater than the marginal revenue, leading to a net loss. Thus, the firm will stop raising production when marginal cost is equals to the marginal revenue, giving rise to the maximum profit level.



- *Explain how prices are determined using the AR curve – students may also bring in the unique characteristic of oligopolistic "mutual interdependence" characteristic that leads to price rigidity*

The price will be determined by the AR curve at that given output level of Qπmax because AR curve represents all points which consumers are willing and able to pay. Thus, the price is set at Pπmax. As the demand for each firm is price inelastic, this profit-maximum price would be expected to be **relatively higher than the monopolistic competitive firms. (or higher than the marginal cost).**

An important factor that determines prices are mutual interdependence between the firms. As all firms provide similar services and have market power which is quite evenly split, each firm would be very conscious of rival firm's actions. For example,

- if Grab were to lower prices, the other firms would likely follow suit to prevent consumers from switching over, making demand price inelastic. This would lead to a less than proportionate increase in Qty demanded for Grab's service.
- If Grab were to increase prices, it is unlikely that firms would follow as consumers would rather stick to other ride-hailing firms, making demand price elastic. This would lead to a more than proportionate decrease in Qdd for Grab's service.

In either case, revenue would fall. Thus, firms would tend to stick to price leading to rigid and stable prices in the ride-hailing market.

*Other acceptable responses include: Explain how market dominance influences pricing strategy such as limit and predatory pricing*

Ride-hailing firms could also want to capture a larger market share by setting up contrived barriers such as predatory or limit pricing. Limit pricing is when the dominant firms set a price below profit maximizing price and sometimes below average cost, to prevent new entrants into the market. Predatory pricing is when dominant firms set prices below average cost to drive other firms out. These are pricing strategies that the dominant firms could adopt to secure larger market share and higher profits in the long run.

| **Knowledge, Understanding, Application and Analysis** | | |
|---|---|---|
| *Level* | *Descriptors* | *Marks* |
| L3 | ● Answer is well developed and explains BOTH the characteristics of the market structure of ride-hailing markets and price and output decisions by firms<br>● Clear and accurate use of economic analysis with diagrams<br>● Relevant examples are provided. | 8-10 |
| L2 | ● Answer is underdeveloped in explaining BOTH the characteristics of the market structure of ride-hailing market and price and output decisions by the oligopolistic firms.<br>OR | 5-7 |

| | | |
|---|---|---|
| | ● Answer is well developed but only explains EITHER the characteristics of the market structure of ride-hailing market OR the price and output decisions of firms.<br>● Clear use of economic analysis with few inaccuracies<br>● Some use of examples. | |
| L1 | ● Answer is irrelevant in many parts<br>● Limited use of economic analysis or has major inaccuracies<br>● Limited use of examples | 1-4 |

**(b)** Discuss whether Grab's acquisition of Trans-cab will benefit or disadvantage the consumers in Singapore. [15]

**b) Discuss whether Grab's acquisition of Trans-cab will benefit or disadvantage the consumers in Singapore. [15]**

Question analysis:

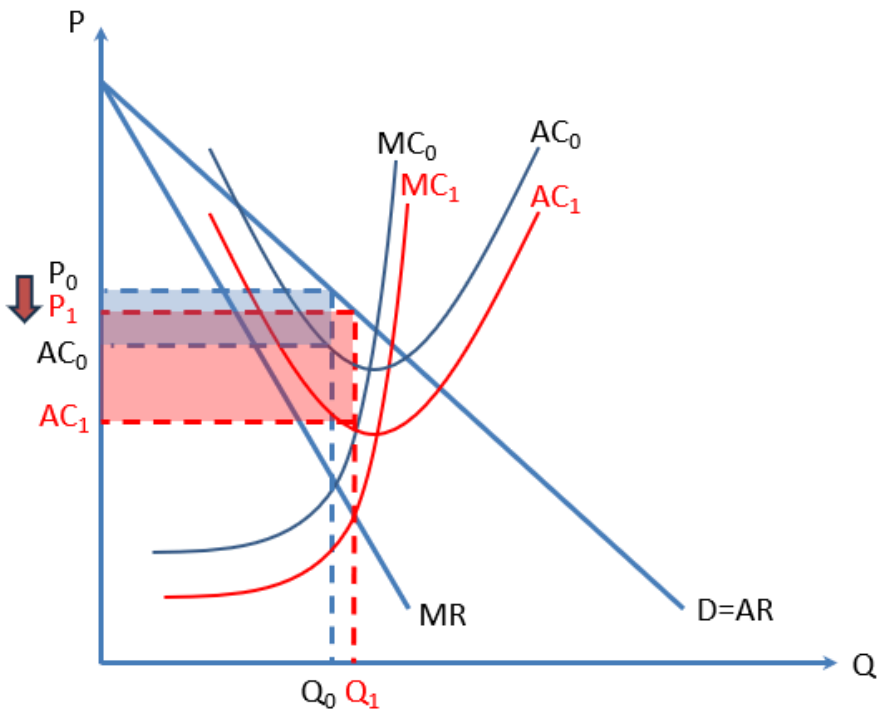
| | |
|---|---|
| Command Word | "Discuss" – requires student to analyse and evaluate firm's strategy, in this case Grab's acquisition can benefit or disadvantage the consumers in the ride-hailing market. |
| Context | Singapore's ride-hailing market |
| Concept | Firm's strategies and market structure |

Introduction:

Given that there are a few number of large firms in an oligopolistic market structure where each firm has significant market share and are less likely to compete on price (as explained in part a). Firms are likely to compete through non- price strategies, in this instance, Grab's attempt to use acquisition (of Trans-cab) to expand its market dominance and thus market share in Singapore's ride-hailing market. While the acquisition can lead to greater market share for Grab in Singapore ride-hailing market, its potential benefits and disadvantages for consumers can be debatable.

Requirement 1: Grab's acquisition may benefit the consumers in the ride-hailing market by resulting in lower prices and higher quality of services.

One of the most possible benefits of Grab's acquisition of Trans-cab is the potential for **lower prices/ fares as firm enjoys lower average cost through higher internal economies of scale**. With a larger market share, Grab may enjoy greater internal economies of scale (iEOS), lowering average cost as output expansion occurs (i.e. quantity of ride hailing services increases), lowering MC and AC from $MC_0$ and $AC_0$ to $MC_1$ and $AC_1$). Assuming firms pass the cost- savings to consumers, at profit- maximizing level, where MC= MR, the **market equilibrium price is lower than before acquisition (Po to $P_1$), leading to higher consumer surplus**. For instance,




- Grab may be able to enjoy **Risk-bearing economies of scale.** Acquisition of Trans-cab would enable Grab to diversify their products to spread out risks as losses incurred by one product can be offset by profits earned from another product. In the process of diversification, Grab may also enjoy risk-bearing economies of scale such as venturing into car rental business, car workshop maintenance and fuel pump operations services.
- Grab may also be able to enjoy **administrative economies of scale** as output expansion allows Grab to spread its overhead costs involving the employment of management and specialized staff, such as the app- designing team/ talents, customer-supporting team etc. Thus administrative cost per unit of output is lowered as specialization allows staff to raise their productivity where output per worker increase. Hence, the administrative cost is spread over larger output, reducing its average costs.

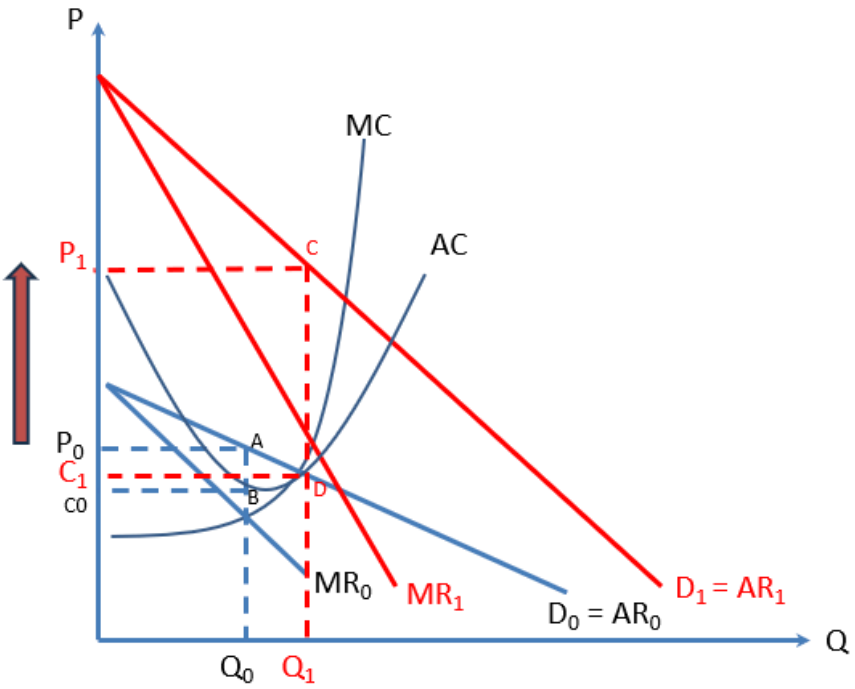
Another potential advantage of the firm merger through acquisition of Trans-Cab by Grab include the **improvement of service quality.** Grab could leverage on Trans-cab's existing infrastructure and customer base to enhance its services. For example, by combining the two companies' networks, Grab might be able to offer shorter wait times and more reliable pickups, through the acquisition, it would enable Grab to have access to a fleet of more than 2,500 vehicles. Ultimately this would **improve consumer welfare.** At the same time, with the acquisition of a larger consumer base, Grab is likely able to enjoy higher DD=AR, hence greater profits. This translates to higher financial ability to innovate their services, which leads to greater consumer's welfare.

Evaluation: Whether Grab can enjoy iEOS also depends on the likelihood of the acquisition leading to **Internal Diseconomies of Scale. Internal Diseconomies of Scale refers to the cost increases, or cost disadvantages, due to expansion of the firm.** Internal

Diseconomies of Scale leads to **rising average cost as the firm continues to expand (rising LRAC)**. The firm is considered to have over-expanded such that greater complexity in management results in rising costs. For instance, acquisition may fail if there is poor communication and integration, as well as unresolved cultural differences between two firms. As the firm grows larger and hire more workers, this could result in workers to feel more isolated and less appreciated. This could lead to lower staff morale, leading to falling productivity and an increase in per unit labour cost hence increasing average cost of production. If these issues are not addressed, Grab may not experience cost efficiency, making a merger or acquisition hard to succeed as Grab may not experience rise in its profit margin.

Requirement 2: Grab's acquisition may disadvantage the consumers in the ride-hailing by

While the acquisition of Trans-cab could bring about benefits to consumers, there are also potential drawbacks that can disadvantage the consumers. One major concern is the **reduction in competition**. With fewer independent ride-hailing companies operating in Singapore, consumers may have limited options as Grab would enjoy **larger market power and hence dominance the market of ride-hailing**, leading to price elastic of demand to be more inelastic (i.e AR and MR is relative more gentler). In addition, as Grab's market share is likely to increase due to larger consumer base, it can also lead to higher AR and MR (i.e rightward shift in $MR_0$ and $AR_0$ to $MR_1$ and $AR_1$). With **higher price- controlling ability** by Grab, at the profit-maximizing output level where MC= $MR_1$, consumers would have to pay **higher fares (Po to $P_1$)** for ride-hailing services. This suggest that acquisition can lead to a situation where Grab has more control over pricing, potentially resulting in higher fares as level of market competition decreases. Consumers might pay high prices, leading to inequitable outcome as the poor / lower-income consumers are likely to be more affected by the higher transport prices since they tend to spend a larger proportion of their income on it.



Another potential disadvantage could be the lack of competition that might arises as firm dominate the market. In the case if the acquisition of Trans-Cab by Grab takes place, it would result in the already dominating firm; Grab further solidifying it position as the firm with the higher market share. Thus, Grab may become dynamic inefficiency due to the lack of incentive to engage in process or product innovation.

Evaluation:

The acquisition could like to **unintended negative consequence on the economy**, in this case the risk of higher unemployment should **firm restructure, leading to potential job losses**. While the merger may lead to operational efficiencies, it could also result in job redundancies. If Grab decides to consolidate operations or streamline its workforce, there is a risk that some staff may lose their jobs. This could have a negative impact on the livelihoods of individuals and families in the transportation sector.

Summative conclusion:

The acquisition of Trans-cab by Grab presents a complex picture with both potential benefits and disadvantage for Singaporean consumers. While the merger could lead to lower fares and improved service quality, there is also a risk of reduced competition and potential job losses.

Ultimately, the impact of this acquisition on consumers will **depend on how Grab manages its market power and prioritizes the needs of its customers**. It is also essential for **regulators or watchdogs** such as Competition and Consumer Commission of Singapore (CCCS) **to monitor the situation closely** and ensure that the acquisition does not result in unfair practices that may eventually harm consumers.

Nonetheless, given the nature of **Singapore's small domestic market, the likelihood of a large firm facing internal disEOS due to firm's over-expansion as well as the risk of a large firm; such as Grab gaining substantial market power and thus monopolizing the ride-hailing market can be high,** and hence the acquisition of Trans-Cab by Grab may **potentially disadvantage rather than benefit consumers**.

| **Knowledge, Understanding, Application and Analysis** | | |
|---|---|---|
| *Level* | *Descriptors* | *Marks* |
| L3 | ● Answer is well developed and balanced, clearly explaining how consumers are impacted in both positive and negative ways.<br>● Clear and accurate use of economic analysis (e.g. price, consumer surplus, quality)<br>● Relevant examples are used to substantiate arguments. | 8-10 |
| L2 | ● Answer is well developed but only explains one sided (either positive or negative way)<br>OR<br>● Answer is underdeveloped but explain the two sided impact on consumers<br>● Use of economic analysis with several inaccuracies<br>● Some use of examples to substantiate arguments. | 5-7 |

| | | |
|---|---|---|
| L1 | ● Answer is irrelevant in many parts<br>● Limited use of economic analysis or has major inaccuracies<br>● Limited use of examples to substantiate arguments | 1-4 |
| **Evaluation** | | |
| *Level* | *Descriptors* | *Marks* |
| E3 | An evaluative discussion with sound conceptual substantiation, ending with a reasoned judgment on the overall impact on the consumers – whether positive or negative to what extent | 4-5 |
| E2 | Some attempts of judgement, but some lack of substantiation (e.g. the extent of impact) | 2-3 |
| E1 | Incidental evaluative comments with a lack of overall judgement | 1 |

**4 (a) Explain two reasons why changing the exchange rate can be more effective than changing the government spending to address high inflation in Singapore. [10]**

| Question Analysis | |
|---|---|
| Command word | "Explain"<br>● Start: Appreciate exchange rate<br>● End: how the GPL can be reduced via the fall in AD or the increase in SRAS<br>● No evaluation needed |
| Concept | ● High inflation  sustained increase (at a fast rate) in GPL<br>● Monetary policy – exchange rate<br>● Characteristics of Singapore – small and open economy |
| Context | Singapore |

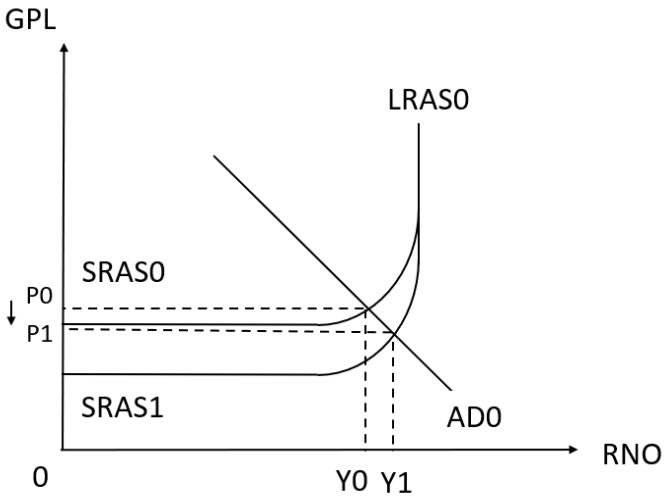
Note to students:

To score analytically for this question, you are required to explain the key characteristics of Singapore and explain how the monetary policy tool of exchange rate is much more effective to address inflation in Singapore. This means that you are to link to how the changes in AD / AS due to appreciation of SGD can help to reduce GPL. The focus is on reduction in GPL, rather than the impact on RNO / RNY.

**Requirement 1:**
Contractionary monetary policy in terms of **appreciating** the Singapore dollar (SGD) is **more effective** than reducing government spending to overcome high inflation in Singapore because it **reduces imported cost-push inflation.**

Given Singapore's **limited natural resources, it relies heavily on imported factors of production**. This implies that **rising prices of imports is one of the largest causes of inflation in Singapore**.

Explain how an appreciation of SGD can help with imported inflation:
Appreciating the SGD reduces the price of imports in local currency SGD, ceteris paribus. This **lowers the unit cost of production** in Singapore, increasing the willingness and ability of firms to produce, increasing the SRAS (from SRAS0 to SRAS1).



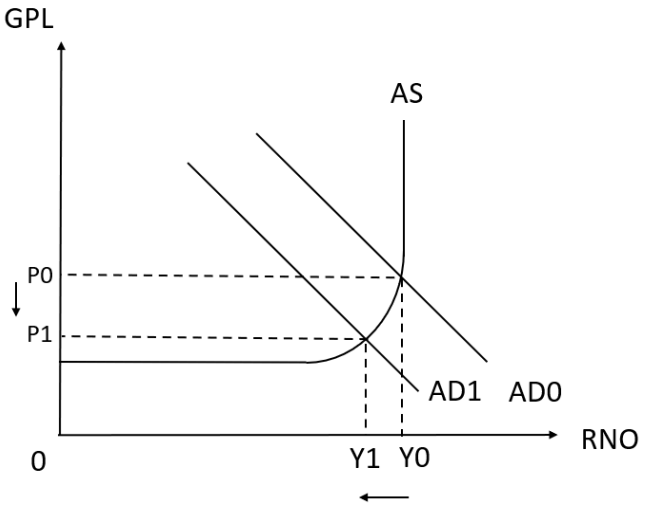

Assuming that the economy is operating <u>below the full employment output</u>, firms pass on the cost savings down to consumers in terms of lower prices, causing GPL to fall from Po to P1. This overcomes imported cost push inflation.

(For analytical reasoning – students are encouraged to provide some reasoning why exchange rate is better than changing govt spending). *Reducing government spending <u>has no direct effect on controlling the price of imported resources</u> since it involves changing the government spending and direct tax rates, hence cannot overcome cost-push imported inflation, which is extremely significant for Singapore.*

**Requirement 2:**
Contractionary monetary policy in terms of **<u>appreciating</u>** the Singapore dollar (SGD) is **more effective** than reducing government spending to **overcome high demand-pull inflation** in Singapore because it targets the **biggest component of AD** – export revenue**.**

Since Singapore has a **small domestic population**, it is **heavily reliant on the export revenue** as its growth engine. This means that the **component of X-revenue takes up the largest proportion** of its GDP. In comparison, its **domestic C, I and G are relatively smaller as a proportion of its GDP**. While reducing government spending would allow AD to fall, it will **not** be as significant as reducing export revenue (X).

<u>Explain how an appreciation can help with demand-pull inflation:</u>
In the short term, an appreciation causes the **price of Singapore's exports to be more expensive in terms of foreign currency**. This causes trading partners to **switch to cheaper substitutes, reducing the demand for Singapore exports** and hence export revenue, which significantly reduces AD in the short term, ceteris paribus.




Assuming that the economy is currently near or at full employment, this causes an unplanned rise in inventory stocks, signalling to firms to reduce output. Thus, **derived demand** for factors of production will **fall**, reducing the competition for the limited scarce resources, hence **bidding down prices of factor inputs and lowering unit cost of production. The cost savings are passed on to consumers as lower GPL seen from the fall in P0 to P1, alleviating demand-pull inflation.**

*Note to students: R1/R2 should*

- *Recognise that <u>contractionary</u> policies must be used to overcome high inflation.*
- *Identify and explain how the characteristics of Singapore economy make government spending (G) less effective than appreciating the SGD (the answers should not merely state but a comparison should be made)*
- *Explain how appreciating the SGD addresses both cost-push and demand-pull inflation*

| **Level** | **Descriptors** | **Marks** |
|---|---|---|
| L3 | ● Analysis are complete and accurate<br>● Characteristics of Singapore economy explained<br>● Tools of analysis like a diagram is well drawn and effectively explained in the answers | 8-10 |
| L2 | ● Analysis are incomplete and contain several inaccuracies<br>● Characteristics of Singapore economy are either unexplained (merely stated) or completely absent in the explanations<br>● Tools of analysis like a diagram is incomplete and / or not used in the explanation. | 5-7 |
| L1 | ● Generally irrelevant answer.<br>● Severe conceptual mistakes.<br>● Lacking economic analysis and concepts | 1-4 |

**(b) Discuss whether inflation or deflation is a more serious concern to a government. [15]**

| Question Analysis | |
|---|---|
| | "Discuss"<br>● Start: inflation/ deflation problem<br>● End: harmful consequences on either the economy, economic agents or conflicts with other macroeconomic objectives that are concerning to government.<br><br>Evaluation: which is more harmful and therefore a more serious concern to the government based on certain assumptions and premise |
| Concept | ● Unpack the definitions of inflation and deflation<br>● Consequences of inflation and deflation |
| Context | General – open context<br><br>Students are encouraged to come up with the contexts to support their justifications and evaluations. |

**Requirement 1: High rates and unstable inflation is a concern to the government due to its adverse impact on the standard of living of its citizens and its impact on the economy such as BOT.**

Inflation refers to a sustained rise in the general price level in the economy. While a low and stable inflation rate is generally good for an economy, **high and unstable inflation rate** could result in the **rise in GPL to exceed the rise in income of households.** This is likely to occur when the economy continues to experience an increase in AD **near the full employment level**. This is also more likely to occur for **fixed-income earners or retirees**.

- As a result, households could experience a **fall in real income and hence purchasing power.**
- This causes households to **consume fewer and worse quality of goods and services, reducing their tangible aspect of well being, and hence material standard of living.**

Additionally, if this **reduces household access to healthcare or nutrition, it could also reduce the quality of health, leading to more illnesses and a lower life expectancy**. If the lower purchasing power reduces access to education, it could deter some students from further studies, lowering the average years of formal education. Coupled with lower life expectancy, this could lower the HDI value, ceteris paribus, which suggests a lower non-material standard of living.

High and severe rates of inflation makes the country's exports less price competitive in relation to other countries, and hence, contribute to the lower demand for the country's exports. This reduces the country's export revenue and if the country is already in a BOT deficit, this means that the BOT deficit will worsen and the country may end up borrowing

from other countries to finance its spending on imports. This leads to national debt and hence a concern to the governments.

Note to students: You are encouraged to write at least 2 possible negative consequences due to high inflation to score well at the A-levels.

Other acceptable answers include
(i) Uncertainty from high and unstable inflation, fall in business and consumers' confidence  fall in consumption and investment expenditure, hence AD  negative economic growth via the reverse multiplier process and its negative consequences.

(iii) High inflation tends to worsen income / wealth inequality. High income / wealthy households are also disproportionately owners of capital, land, property or financial assets. Income from such assets have traditionally kept pace with the rate of inflation because they are able to renegotiate rents based on inflation. Hence, high inflation is likely to increase the income of the rich more than the income of the poor, whose income is mostly from wages for labour. This could widen the income gap, which could increase the Gini Coefficient, reflecting a rise in non-material standard of living.

**Evaluation of R1:**
However, if the rate of inflation is gradual / moderate and the economy is operating below the full employment output, inflation could be a sign of a rising AD and associated with higher RNO and real household incomes. In such cases, inflation is likely to increase standard of living instead. Therefore, not all types of inflation is a concern to the government.

**Requirement 2: High rates of deflation is a concern for a government as it may cause negative actual economic growth and increase demand deficient unemployment.**

Deflation refers a sustained fall in the general price level in the economy. High rates of deflation can be harmful as it usually occurs when the **AD is falling and the economy is producing far below the capacity**. In this case, the fall in AD results in an **unplanned rise in inventory stocks**, signalling **firms** to **decrease output** and hence, RNO falls, resulting in negative economic growth. Furthermore, this also **reduces the derived demand for factors of production** (e.g. labour), causing firms to **hire fewer and fire more workers**, **increasing demand-deficient unemployment.**

The fall in derived demand for factor payments also **reduces factor payments**, resulting in a fall in household income, **reducing purchasing power**, and inducing a fall in C by the amount equal to Marginal Propensity to Consume (MPC) x the magnitude of the fall in income. This causes AD and RNO to fall again. This process repeats itself until RNO falls by a multiplied amount equal to (1 / mpw x original fall in AD). Furthermore, this continuous fall in GPL may lead to consumers and firms withholding consumption and investment spending as they expect prices to fall even further, which contributes to the sustained fall in AD, worsening the economic growth of the country.

Note to students: You are encouraged to write at least 2 possible negative consequences due to deflation to score well at the A-levels.

Other acceptable answers include
(i) Deflation **increases the real value** of debt payments, which may force some firms and consumers to **default on loans**, raising the general level of financial uncertainty in the economy. Firms may choose to defer potential investments (I falls)  contributes to the fall in AD and hence, impact on negative economic growth.

(iii) Deflation creates pessimism in the country  weakens confidence levels and its negative impact on AD and hence, RNO.

**Evaluation of R2:**
However, not all types and causes of deflation is a concern to the government. If the deflation is a result of a significant fall in unit cost of production or advancements in technology (expansion in LRAS), consumers and firms may instead be more optimistic about the future outlook of the economy and the country is able to achieve potential economic growth.

**Evaluative Conclusion:**
In conclusion, whether or not inflation or deflation is harmful to the economy depends on the **state of the economy**, **magnitude and the persistence** of the inflation or deflation.

For **developed countries when they are producing very near to full employment**, it is likely that the **inflation is a more severe problem than deflation**, as it is more likely that the inflation rate is high and likely to be persistent, unless the government is able to put in place certain measures to address the problem. For developing countries when they are currently producing far below the full employment, it is likely that the **deflation is a more severe problem than inflation as it is likely to be associated with a fall in AD.**

In general, as long as the **inflation or deflation rates is very high and very persistent, the adverse effects discussed are likely to be more severe** and hence, more of a concern.

| Level | Descriptors | Marks |
|---|---|---|
| L3 | ● Analysis are complete and accurate – focusing on the negative consequences of both inflation and deflation<br>● Tools of analysis like a diagram is well drawn and effectively explained in the answers | 8-10 |
| L2 | ● Analysis are incomplete and contain several inaccuracies<br>● Tools of analysis like a diagram is incomplete and / or not used in the explanation. | 5-7 |
| L1 | ● Generally irrelevant answer.<br>● Severe conceptual mistakes.<br>● Lacking economic analysis and concepts | 1-4 |

**Evaluation:**

| Level | Descriptors |
|---|---|
| E3 | A well supported conclusion of whether inflation or deflation is more harmful with insightful justifications (more than 1 criteria) that considers all arguments of the essay holistically. |
| E2 | A conclusion of whether inflation or deflation is more harmful with ONE appropriate criteria and / or valid reasoning. |
| E1 | An attempt to conclude whether inflation or deflation is more harmful that is unsupported or unconvincing. |

**5 (a) Explain why a government should avoid a large and persistent balance of trade surplus and deficit. [10]**

| Question Analysis | |
|---|---|
| Command Word | "Explain"<br>● Start: BOT surplus & deficit<br>● End: Negative consequences, and hence a concern for the government<br>● No evaluation needed |
| Concept | ● Unpack BOT surplus and deficit<br>● Harms of BOT surplus and deficit |
| Context | General |

**Introduction:**
The balance of trade (BOT) is the difference between a country's export revenue (X) and import expenditure (M). Most countries aim for either BOT small surplus (X > M) or a BOT equilibrium, where the X = M.

**Requirement 1: Governments tend to avoid a large and persistent BOT deficit because it could lower the standard of living (SOL) for future generations.**

| Note to students:<br><br>You are encouraged to provide at least more than 1 negative consequences due to a large and persistent BOT deficit. |
|---|

A large and persistent BOT deficit implies that a country's X-revenue keeps falling and M-expenditure keeps rising. This suggests that the AD is likely to fall. **If the country is producing far below the full capacity**, this may lead to negative economic growth due to the reverse multiplier process. In this case, the fall in AD results in an **unplanned rise in inventory stocks**, signalling **firms** to **decrease output** and hence, RNO falls, resulting in negative economic growth. Furthermore, this also **reduces the derived demand for factors of production** (e.g. labour), causing firms to **hire fewer and fire more workers**, **increasing demand-deficient unemployment.**

The fall in derived demand for factor payments also **reduces factor payments**, resulting in a fall in household income, **reducing purchasing power**, and inducing a fall in C by the amount equal to Marginal Propensity to Consume (MPC) x the magnitude of the fall in income. This causes AD and RNO to fall again. This process repeats itself until **RNO falls by a multiplied amount** equal to (1 / mpw x original fall in AD).

A BOT deficit implies a country's X < M. If a country does not have sufficient foreign reserves, it may have to **borrow from trading partners to finance the BOT deficit** to manage the fluctuations in its exchange rate, assuming the country is in a fixed or managed float exchange rate regime. A large and persistent deficit makes this more likely and

**increases the size of the foreign debt**. This increases the principal sum and interest payments that have to be **repaid in future**. A government may be forced to raise taxes (e.g. personal income tax) for future generations to raise enough revenue to pay its debts, reducing household disposable income and the purchasing power of the future generation. This could r**educe the quantity, quality and variety of goods and services that can be enjoyed in future**, reducing their tangible aspect of well being, and hence material SOL of the future generation.

Additionally, if this reduces household access to healthcare or nutrition, it could also **reduce the quality of health**, leading to more illnesses and a lower life expectancy. If the lower purchasing power reduces access to education, it could deter some students from further studies, lowering the average years of formal education. Coupled with lower life expectancy, this could lower the HDI value, ceteris paribus, which suggests a lower non-material standard of living of the future generation.

Note to students:

(i) A BOT deficit could lead to a currency depreciation. Link to the effects of a depreciation such as increase COP and decrease in SRAS. This is especially harmful for import reliant countries with lack of natural resources.

(ii) A large and persistent BOT deficit may lead to poorer quality / lower access to better quality imports □ worsens SOL for the residents

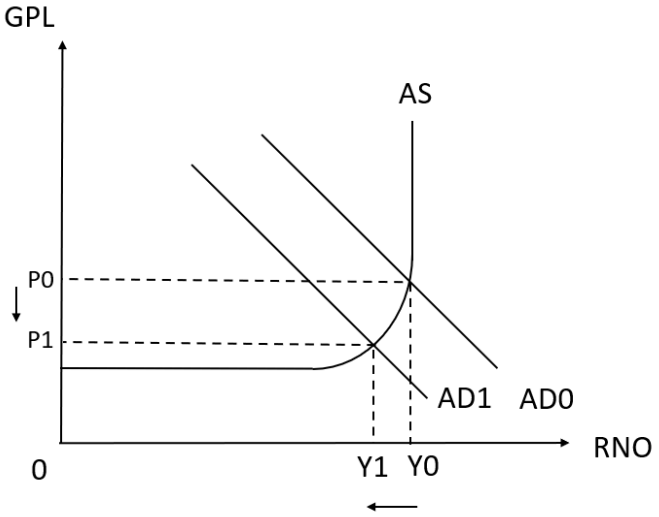
**Requirement 2: Governments tend to avoid a large and persistent BOT surplus because it may have negative impact on other macroeconomic objectives.**

A large and persistent BOT surplus implies a country's X-revenue is always larger than the M-expenditure greatly. For countries that are very near to the full capacity, this large and persistent BOT surplus suggests that the AD is rising but there is limited spare capacity. As AD increases, results in an **unplanned fall in inventory stocks**, signalling **firms** to **increase output**. However, this also **increases the derived demand for factors of production** (e.g. labour), causing firms to **hire more workers**, but due to the **limited spare capacity**, the increase in demand for resources lead to **higher factor payments**, hence increasing unit cost of production of firms. This leads to higher GPL as the **firms pass on the higher COP** to the consumers via a higher GPL, **leading to demand-pull inflation.** This could also trigger a **wage-price spiral,** as workers demand for higher wages to cope with the increasing GPL as incomes remain stagnant. This may cause an increase in the cost of production for firms, further increasing the GPL as they pass this increase in costs to households.

**Note to students: You are encouraged to use the point below to explain the -ve consequences of BOT surplus – this is part of the globalisation and international trade topic. While this point may not be so commonly explained, this is a good point for you to include when explaining the impact of BOT surplus.**

A large and persistent BOT surplus could invite trading partners to adopt protectionism (e.g. tariff) to either reduce their import spending or protect their own export revenue and

domestic consumption. A tariff, a unit tax may be levied on the country's foreign imports, will raise the price of the exports for the country experiencing a BOT surplus. Assuming its goods are not unique and there are substitutes available from other trading partners, the demand for its exports will be price elastic [|PEDx|>1]. The rise in price will result in a more than proportionate fall in quantity demanded for its exports, causing the export revenue to fall. This will reduce AD (AD0 to AD1), ceteris paribus.




The fall in AD results in an unplanned rise in inventory stocks, signalling firms to decrease output. Assuming the economy is operating below the full employment output, RNO falls, resulting in negative economic growth. Furthermore, this also reduces the derived demand for factors of production (e.g. labour), causing firms to hire fewer and fire more workers, increasing demand-deficient unemployment. The fall in derived demand for factor payments also reduces factor payments, resulting in a fall in household income, reducing purchasing power, and inducing a fall in C by the amount equal to Marginal Propensity to Consume (MPC) x the fall in income. This causes AD and RNO to fall again. This process repeats itself until RNO falls by a multiplied amount equal to (1 / (1-MPC) x original fall in AD).

Note to students:

(i) A BOT surplus could lead to a currency appreciation affecting price competitiveness of its exports. Students should not be in a circular argument, for example, a trade surplus leads to a appreciation, hence qty dd of export decreases, trade deficit, negative growth. For this point to be analytical, students should be explaining the context where only a few industries are causing the huge trade surplus, and the appreciation of currency affects many other uncompetitive industries in the country.

| **Level** | **Descriptors** | **Marks** |
|---|---|---|
| L3 | ● Analysis are complete and accurate – focusing on the negative consequences of both BOT deficit and surplus | 8-10 |

| | | |
|---|---|---|
| | ● Tools of analysis like a diagram is well drawn and effectively explained in the answers<br>● Answers provide some relevant examples of countries | |
| L2 | ● Analysis are incomplete and contain several inaccuracies<br>● Tools of analysis like a diagram is incomplete and / or not used in the explanation. | 5-7 |
| L1 | ● Generally irrelevant answer.<br>● Severe conceptual mistakes.<br>● Lacking economic analysis and concepts | 1-4 |

**(b) Discuss the policies the Singapore government can adopt to maintain a healthy balance of trade. [15]**

| Question Analysis | |
|---|---|
| Command word | "Discuss… the policies"<br>● Start: Policy that can achieve healthy BOT position<br>● End: healthy BOT position (to link to small surplus either by raising X-revenue or reducing M-expenditure)<br>● Evaluation: limitations of each policy and which is better |
| Concept | ● Unpack healthy BOT<br>● Policies to achieve healthy BOT |
| Context | Singapore |

**Introduction:**
A healthy BOT typically refers to a slight BOT surplus that is not too large or persistent. Singapore tends to be rather small in domestic size and market given our population and land size, we are reliant on export growth and imported resources for production. This means that to achieve BOT healthy position, the Singapore government has to ensure export-competitiveness as well as cut down import-spending.

**Requirement 1:** Assuming Singapore is experiencing a BOT deficit, the government can adopt an **expenditure-switching policy** such as an expansionary supply side policy **to improve exports' competitiveness and hence, reducing the BOT deficit by increasing X-revenue.**
**(Also accept any policies that seek to enhance X-competitiveness)**

The Singapore government can **increase the number of signed Free-Trade Agreements** with other countries like Africa. The FTAs expand the number of exports market that Singapore can sell the goods to without any trade barriers, **increasing the demand for Singapore's exports**. This increases the total export-revenue that Singapore can earn. This may also help to diversify where Singapore can export to and import from. For example, if the price of a particular commodity from one trading partner has increased due to a shortage, this could cause M to increase greatly, harming Singapore's BOT. If Singapore was able to import a similar good from another trade partner at a lower price, this would minimise the impact of the increase in M. If Singapore experiences a fall in demand for its exports in one trade partner, it could focus on developing its industries to cater to another country, minimising the fall in X.

At the same time, the government can increase **spending on research and development to spur process innovation, so as to maintain or improve Singapore's comparative advantage (or to improve the price competitiveness and/or quality of our exports).** For example, Singapore has developed niche and high value markets to increase its X. Some examples include oil refinement, financial services, pharmaceuticals etc.

- Doing so **increases efficiency and productivity in methods of production**, allowing firms to **use fewer factors of production to produce the same level of**

**output**. This **reduces the unit cost of production**, increasing willingness and ability of firms to produce, increasing SRAS (SRAS0 to SRAS1). To remain competitive, **firms pass down cost savings to consumers as lower GPL**, both for domestic goods and good for exports. The fall in the price of Singapore's exports implies **improved price competitiveness.** Assuming the demand for Singapore's exports is price elastic [|PEDx| >1] given there are substitutes from other trading partners, the fall in price will **result in a more than proportionate rise in quantity demanded**. This results in the revenue gained from greater units sold to exceed the revenue lost from lower prices. **Export revenue will ultimately increase.**

- Meanwhile, the more efficient production method may also **improve the quality of the exports**  **increases the demand for our exports**  hence, increase the total export-revenue.
- At the same time, the lower price of domestically produced goods and services would cause consumers to switch to cheaper local goods instead of the more expensive imports assuming XED > 0, causing the **demand for imports to fall**, this **reduces import expenditure.**

The rise in X and fall in M means the BOT (X - M) can improve. If the BOT was originally in a deficit, this may allow the BOT to improve to a slight surplus.

**Evaluation of R1:**

- **FTAs does not guarantee** that there will be higher demand for Singapore's exports as it is also depending on the **quality of the exports and the foreign consumers' tastes and preferences.**
- Given the **uncertain nature of research and development**, process innovation is **not guaranteed**. Also, it generally takes a **long time** for meaningful improvements in methods of production to be developed. This implies the price competitiveness of Singapore's exports are likely only to improve in the long run, limiting the effectiveness of this policy on BOT in the short run.

**Requirement 2: Assuming Singapore is experiencing a BOT deficit, the Singapore government can adopt an appreciation of our SGD to mitigate cost-push inflation and hence, improving our exports-competitiveness.**

**Singapore's currency is appreciated  foreign imported FOPs are cheaper** in local $$  lower unit COP  higher SRAS due to higher willingness and ability to produce more  **pass on the lower COP to consumers in terms of lower GPL  improve X-price competitiveness**  increase the attractiveness of our exports and hence, more foreign consumers are willing and able to buy from Singapore. Assume that the PEDx > 1, quantity demanded for Singapore's X increases more than proportionately when the price of X falls  **gain in revenue greater than the loss in revenue, overall total X-revenue increases.**

This means that if the original BOT position was in deficit, this could have improve the BOT position to a healthy surplus.

*Note to students: Answers which explain how Singapore can use appreciation to reduce X or depreciation to improve the competitiveness of Singapore's X are not the most accurate, as these policy directions are not the intention of Singapore's XR policy. Its main stance is*

*always a slow gradual appreciation to reduce imported costs, boosting competitiveness of its exports.*

**Evaluation:**

- This policy requires Singapore government to have sufficient foreign reserves to manipulate the currency appropriately. Therefore, it **may not be sustainable for Sg's government to continuously intervene in the long-run** if the country has lost its comparative advantage.
- The effectiveness of this policy is only applicable to Singapore since we are heavily reliant on imported FOPs due to our lack of natural resources. **However, in times of deep worldwide recession**, this policy may **not be effective** as the appreciation of SGD may also reduce the export-competitiveness since foreign consumers find our Sg's exports more expensive to them. And in times of recession, the willingness and ability to pay for goods and services is already low, hence leading to a larger fall X-revenue instead.

**Note to students:**
**This is also an acceptable response although Singapore government rarely uses this move to control our BOT position.**
**The use of expenditure reducing policy such as a contractionary fiscal policy.**

The government can reduce government expenditure (G), which is a direct component of AD. The government can also raise personal income tax, reducing household disposable income, their purchasing power and hence consumption expenditure (C). They can also raise corporate income tax, reducing the after-tax profits of firms and hence lower expected returns to investment. This would reduce investment expenditure (I). The fall in G, C and I will reduce AD (AD0 to AD1), ceteris paribus.

This will cause an unplanned rise in inventory stocks, signalling firms to reduce output. If the economy is operating below the full employment output, RNO would rise. This implies less economic activity, reducing the derived demand for factors of production, reducing factor payments and household income.

If Singapore's imports are normal goods, YED > 0, the demand for imports will fall, reducing import expenditure. Assuming export revenue remains constant, the BOT (X - M) will improve. Given the BOT was originally in deficit, this will allow the BOT to be in equilibrium or a slight surplus.

**Evaluation of this point:**
If the economy is operating below the full employment output, a contractionary policy may result in a slowdown or even fall in RNO, which may reduce household incomes, increase demand deficient unemployment, and lower material standard of living. While contractionary policies could be effective, it may not always be appropriate due to the trade offs between other macroeconomic aims.

**Evaluative conclusion:**
Given the nature of the Singapore's economy which is rather small and open, it is imperative that Singapore maintains a healthy BOT position to achieve our macroeconomic objectives.

Since Singapore has a **healthy government budget and foreign reserves**, manipulating our **Singapore's currency** is the most crucial tool to help maintain our health of BOT, and the government has **more direct control** over this. At the same time, Singapore government continues to forge strong relationships with many countries, so that we can leverage on the larger foreign markets to sell our domestic goods and services. **In the long term, the most effective approach will be to continuously expand our country's capacity and innovation capabilities.** This is because it does not just enhance the competitiveness of the goods and services and hence, allow us to maintain our comparative advantage, it can also help Singapore to achieve sustained economic growth as well.

| **Level** | **Descriptors** | **Marks** |
|---|---|---|
| L3 | ● Analysis is complete and accurate – focusing on at least 2 policies to maintain a healthy BOT position.<br>● Clear links to improve X-revenue and/or reduce M-expenditure<br>● Well-contextualised to Singapore's context | 8-10 |
| L2 | ● Analysis are incomplete and contain several inaccuracies<br>● Minimal or incidental contextualisation to Singapore | 5-7 |
| L1 | ● Generally irrelevant answer.<br>● Severe conceptual mistakes.<br>● Lacking economic analysis and concepts | 1-4 |

| Level | Descriptor |
|---|---|
| E3 | A well supported conclusion of which is the most effective or appropriate policy with insightful justification that considers all arguments of the essay holistically. |
| E2 | A conclusion of which is the most effective or appropriate policy to achieve a healthy BOT position using appropriate at least 1 criterion and / or valid reasoning. |
| E1 | An attempt to conclude which is the most effective or appropriateness policy to achieve a healthy BOT. |

Q6. “Nowadays, one country cannot go alone. This is a global village. Some problems may remain, but it can be solved amicably and bilaterally, through discussion.”

Source: Bangladesh’s Prime Minister Sheikh Hasina, World Economic Forum, 2019

(a) Explain how the imposition of tariffs might reduce one form of unemployment while increasing another. [10]

Introduction

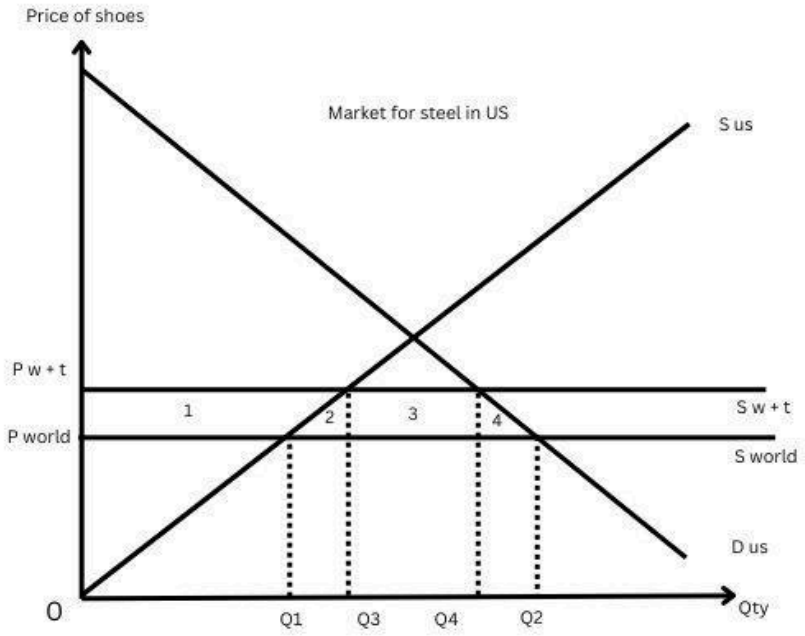
Tariffs is a type of trade protection measure, which is a tax on imported good or service to restrict imports.

The imposition of tariffs may affect unemployment rate – and unemployment refers to a situation where people of working age who are seeking for work but cannot find one (i.e., without a job)

**R1: To explain how the imposition of tariffs might reduce structural unemployment**

Consider the steel market in US, with free trade, the world supply, Sw determines the world price, Pw. At Pw, the domestic quantity supplied of steel was at Q1 while the domestic quantity demanded of steel was at Q2. The amount of steel imports was Q2 – Q1.

Diagram 1




In 2018, the US government accused some countries like China and Mexico for unfair trade practices which have hurt their domestic producers. The US government imposed tariffs on some goods like steel imports. With the tariffs, the world supply of steel decrease from Sw to Sw+t. This increases the domestic quantity supplied from Q1 to Q3, while the domestic quantity demanded decreases from Q2 to Q4. The amount of steel imports decreases from (Q2 – Q1) to (Q4 – Q3).

Since the domestic quantity supplied of steel increases, the steel producing firms in US increase demand for factors of production such as labour. This creates more jobs for the steel workers in US, hence reducing structural unemployment, as previously the influx of cheap imports may have reduced the domestic production of steel in US, which resulted in layoffs and the steel workers were not able to find jobs in other sectors due to a mismatch of skills.

Hence the imposition of tariffs on steel imports may help reduce structural unemployment.

**R2: to explain how the imposition of tariffs may increase demand deficient unemployment due to beggar-thy-neighbour effect or retaliation by trading partners**

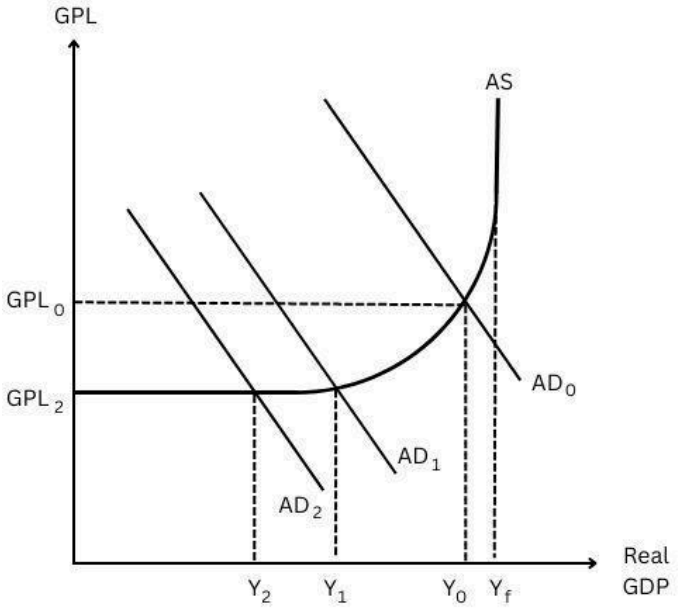
The imposition of tariffs may cause demand deficient unemployment as AD may fall in the long term. This might be due to beggar-thy-neighbour effect or retaliation by trading partners.

When US imposes tariffs on imported goods and alleviates its own economic problem, it worsens the economic problems of its trading partners. The trading partners of US will experience a decline in export sales and hence export revenue (X), and especially if US is a key export market. Assuming import expenditure (M) is constant, net exports (X-M) of US trading partners may decrease significantly, reducing AD. This may cause a slowdown or contraction of the economies of US' trading partners. With the falling incomes of foreign households, the demand for US exports fall, assuming US' exports are normal goods. X decreases.

Furthermore, should trading partners start to retaliate and impose retaliatory tariffs on US goods, US' X falls further

Assuming M constant, (X-M) decreases. US' AD decreases, as illustrated by a leftward shift of AD curve from AD0 to AD1.

Diagram 2:




The fall in AD will cause firms' inventories to rise, so firms reduce production of goods and services in the next production cycle. Real GDP decreases from Y0 to Y1. As firms demand for less factors of production such as labour, unemployment rate increases. The economy operates away from full employment level, Yf. Implying that demand-deficient unemployment

has increased.The fall in autonomous spending will further cause multiple rounds of reduced induced spending, since one's man spending is another man's income. AD falls further, causing further contraction of the economy. As firms demand for less factors of production, unemployment increases further.

Hence the imposition of tariffs may lead to higher demand deficient unemployment.

| **Knowledge, Application, Understanding, Analysis** | | |
|---|---|---|
| L1 | - Descriptive response without application of economic tools such as DD-SS, and AD-AS to analyse how imposition of tariffs may affect different types of unemployment.<br>- Glaring conceptual errors | 1-4 |
| L2 | - Underdeveloped explanation of both requirements of how imposition of tariffs affects structural and demand-deficient unemployment eg: response has missing link between falling AD and increasing unemployment, or did not explain in detail how the imposition of tariffs would affect the price and quantities<br>- Developed but one-sided explanation on either of the requirements | 5-7 |
| L3 | - An analytical response without gaps in explanation on both requirements – including the analysis of how tariffs works to reduce imports, and making explicit links to different types of unemployment | 8-10 |

(b) Discuss whether globalization will have an overall positive or negative impact on a developing country like Bangladesh. [15]

Introduction

Globalisation is the growing economic inter-dependence (or interconnectedness) of countries, through increasing volume and variety of cross-border transactions, in goods and services (i.e., trade), in flows of capital (both short term capital and long-term capital), and in labour migration.

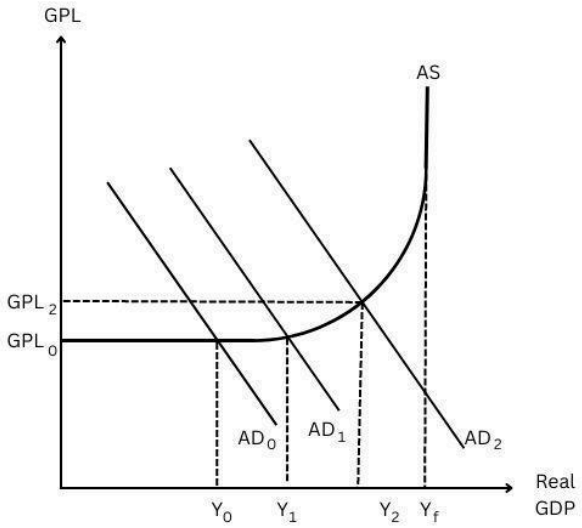
The increased inter-connectedness of countries will affect a developing country like Bangladesh in terms of its macroeconomic performance, as well as its stakeholders such as domestic producers (in terms of producer surplus), domestic consumers (in terms of choice, and consumer surplus)

**R1: To explain the positive impacts of globalisation on a developing country**

<u>Possible macro effects</u>

With the increased interconnectedness of countries in terms of trade flows, there will be greater access to larger and more affluent export markets such as US and EU since member countries in a free trade agreement would reduce or eliminate trade barriers such as tariffs on Bangladesh's exports. The demand for Bangladesh's exports increases, increasing export revenue (X), assuming import expenditure (M) constant, net exports (X-M) increases and AD increases.

In addition, with the increased interconnectedness of countries in terms of capital flows, possibly due to negotiation and rectification of new free trade agreements where barriers to investments are removed such as regulations and red-tape, hence greater inward foreign direct investments. Foreign firms (MNCs) build up their production facilities and acquire more capital goods such as machines and building, hence investment expenditure (I) increases, resulting in an increase in AD
Diagram 3:




The increase in AD is illustrated by a rightward shift of AD curve from AD0 to AD1. There will be an unplanned decrease in firms' inventories, so firms increase production of goods and services. Real GDP increases from Y0 to Y1, contributing to actual growth, assuming that there is spare capacity in the economy, where initial AD curve cuts AS curve at Keynesian range. As firms demand for more factors of production, demand-deficient unemployment decreases. The rise in autonomous spending (from Y0 to Y1) will stimulate multiple rounds of induced spending, because the rise in production due to the rise in autonomous spending will result in firms demanding for more factors of production, and with more incomes paid to households, purchasing power increases which includes induced spending, there will be multiple rounds of induced spending and this will end when sum of withdrawals = initial injections □ AD increases further from AD1 to AD2 □ contributing to greater growth (i.e., real GDP increases from Y1 to Y2) and employment.

Hence globalisation may help Bangladesh achieve internal stability.

EV: for developing countries like Bangladesh, where there are high poverty rates and income inequality, domestic demand is unlikely to be able to help drive growth and employment. So globalisation is likely to bring extensive benefits to these economies as exports will be an important driver for growth. Also, since these countries usually have a lack of infrastructures, the inward FDIs would likely help develop necessary infrastructures such as roads in the country, and they tend to bring with them technical and managerial expertise as well as new production technologies which are transferred to the local workforce, which helps contribute to a stronger macroeconomic performance.

*Note: Examiners should be aware that candidates may take a different approach which, if appropriate, should be rewarded. Other possible macro benefits may include: improvement in BOT due to increase X, sustained growth due to inward FDI.*

<u>Micro effect</u>

Globalisation may also lead to lower prices for consumers, and this may help improve consumer surplus and hence consumer welfare.

With globalisation where there is increased interconnectedness of countries in terms of trade flows, Singapore can import more goods and services from overseas as trade barriers will likely be removed or reduced

With reference to the diagram in part (a), assuming initially Bangladesh imposes tariffs on imports, with free trade i.e., the removal of tariffs, world supply increases from Sw+t to Sw , decreasing world price from Pw+t to Pw (i.e., consumers in Bangladesh will be able to enjoy products at lower prices, because Bangladesh will be able to import goods from countries with comparative advantage. The domestic quantity demanded increases from Q2 to Q4. Hence there is a gain in consumer surplus by Area 1+2+3+4

*Note: Examiners should be aware that candidates may take a different approach which, if appropriate, should be rewarded. Other possible positive micro effects may include:*

*Consumers may also enjoy g/s at lower prices, because globalisation increases the level of competition due to increased presence of foreign firms and cheaper and higher quality imports which may incentivise firms to innovate to increase productivity OR higher revenues for domestic firms as they can export to other export markets, and/or enjoy lower average cost due to internal economies of scale.*

**R2: To explain the negative impacts of globalisation on a developing country**

Macro effects

Due to the increased inter-connectedness of Bangladesh with the rest of the world in terms of trade flows, Bangladesh is likely to be very vulnerable to external shocks, both demand side and supply side.

The recent global recession caused by global health pandemic had resulted in falling incomes of economies of Bangladesh's trading partners. This reduces the demand for Bangladesh's exports decreases, assuming YED of Bangladesh's exports > 0 (i.e., normal good), export revenue (X) decreases. Assume import expenditure (M) constant, (X-M) decreases and AD decreases. There will be an unplanned rise in firms' inventories, resulting in lower production, so real GDP decreases (i.e., negative economic growth). As firms demand for less factors of production such as labour  rise in demand-deficient unemployment  as explained earlier, through the multiplier process, real GDP will decrease by a larger proportion than the initial fall in autonomous spending

Bangladesh may also be susceptible to imported inflation. The recent supply chain disruptions due to measures imposed by other governments to curb spread of Covid 19 virus has led to a prices of imported factor inputs due to shortages. Hence there is a rise in unit cost of production, reducing profitability for most firms decreases. When SRAS decreases  shortages at prevailing prices in most markets, and firms pass on the cost increases  GPL increases (i.e., cost push inflation)  as GPL increases, due to the international trade effect, wealth effect and interest rate effect, AD decreases (i.e., movement along AD curve)  real GDP decreases

EV: consider government policy responses to address negative impacts

However, the governments of developing countries may diversify its economy to mitigate the undesirable consequences of over-reliance on other countries. This can be done by increasing economic co-oporation with a diversified range of countries by having preferential trading arrangements to reduce or eliminate trade barriers between them. This reduces the risk of not being able to acquire essential imports if trade is disrupted.

Globalisation may also involve an increase in international migration of labour including human capital. Developing countries may suffer from brain drain which refers to a loss of human resources as high skilled workers search and migrate for better prospects in other countries.

EV: Significance of the costs

Especially for developing countries where there is already a limited supply of highly educated and skilled labour, brain drain will have severe negative impacts on the economy as LRAS decreases due to a decrease in quantity and quality of labour, resulting in a decrease in productive capacity. This may hinder the achievement of long term economic growth for developing countries.

*Note: Examiners should be aware that candidates may take a different approach which, if appropriate, should be rewarded. Other possible negative micro effects may include: relocation of pollutive industries by MNCs to developing countries resulting in pollution and hence lower non-material SOL*

Conclusion:

Globalisation is a double-edged sword. While it is a source of progress especially for developing countries, it has also caused many unintended consequences on its economy and stakeholders. If the government is able to adopt effective policies to increase the benefits and reduce the costs of globalisation, globalisation should have an overall positive impact on developing countries like Bangladesh.

| **Knowledge, Application, Understanding, Analysis** | | |
|---|---|---|
| L1 | - Descriptive response without application of economic tools such as AD-AS to analyse the effects of globalisation<br>- Glaring conceptual errors | 1-4 |
| L2 | - Underdeveloped explanation of both requirements<br>- Developed but one-sided explanation on either of the requirements<br>- Developed and two-sided explanation on both of the requirements but response lacks scope. i.e., response did not consider the effects of more than one aspect of | 5-7 |

| | | |
|---|---|---|
| | globalization (i.e., increased trade flow, labour flow and capital flow) and did not consider both micro and macro effects.<br>- Developed and two-sided explanation on both of the requirements but did not apply the context of developing countries. | |
| L3 | - An analytical response without gaps in explanation on both requirements<br>✔ With good scope – consideration of both micro and macro effects of globalization, and the consideration of effects of more than one aspect of globalisation<br>✔ Response considers the context of developing countries | 8-10 |
| **Evaluation** | | |
| E1 | - A brief evaluation attempt is made in the form of simple evaluative statements that are not explained. Eg: | 1-2 |
| E2 | - Some attempt to evaluate the significance of the benefits and costs of globalization in the context of developing countries, or recognizing that government policies may help mitigate the inevitable unintended consequences of globalization | 3-4 |
| E3 | - Both requirements are evaluated, i.e., significance of benefits and costs of globalization in the context of developing countries is considered, and a summative conclusion/recommendation is provided. | 5 |