2016

Catholic Junior College
H2 Economics / 9732

Preliminary Examination
Mark Scheme
Paper 2

Question 1

(a) Based on economic theory, explain how society deals with scarcity. [10]

Question Interpretation

Command Word	• "Explain how" – to elaborate in detail, the processes that lead to eventual effects/outcomes
Content:	• Central Problem of Economics - Scarcity • Rational decision-making by Consumers (to maximise satisfaction) & Producers (to maximise profits) using Marginalist Principle • Price adjustment process in Price mechanism
Context:	• Give examples of decisions made by consumers and producers

Suggested Answer

Introduction

The central problem of economics is scarcity whereby the limited resources are unable to fulfil the unlimited wants of economic agents in the society. This situation necessitates choice making where rational decisions are made by consumers and producers.

Consumers and producers will make rational decision based on the marginalist principle: Consumers choose how much to consume to maximize satisfaction; Producers choose how much to produce, how to produce and which goods to produce to maximize profits.

The interactions between consumers and producers give rise to the market forces of demand and supply, where the price mechanism in the free market will help to allocate the resources efficiently. In this essay, we will be exploring how all these will be achieved in the society.

Body Paragraph 1 – Consumers' Perspective

P: In order to decide on how much good to consume, consumers will try to maximize the welfare (consumer surplus) / satisfaction from the consumption of the good.

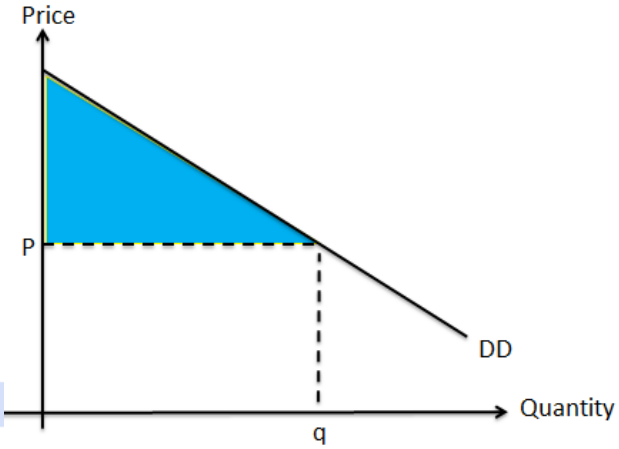


Figure 1: Demand Curve of a Consumer

E: Consumers buy an additional unit of the good (for eg, a plate of chicken rice) if the satisfaction derived is greater than (or equal to) the price (P) he/she has to pay for the good (marginal cost).

E: According to the law of diminishing marginal returns, as the consumers consumes greater quantity of a good the marginal satisfaction (or marginal benefit, MB) keeps falling and hence the willingness to pay additional price falls. This also explains the downward slope of the demand curve.

E: At any quantity lesser than q, the consumer's MB (measured by the demand curve) is higher than the MC (measured by the market price, P) they are paying. Therefore it is optimal for them to increase consumption until MB=MC, i.e. until q. This is where MC=MB and the consumers have the greatest consumer surplus as illustrated by the shaded area on the diagram. Thus given price, P, consumers will decide to consume up to q.

E: This is also the same for quantity beyond q, where the MC is more than the MB for consumption of additional plate of chicken rice, thus consumers will decrease consumption till q to maximize their consumer surplus.

L: The similar principle also helps the producers to decide how much of the goods to produce using the scarce resources in order to maximize their profits.

Body Paragraph 2 – Producers' Perspective

P: Firms aim to maximize profits and they will allocate scarce resources to achieve that by using the marginalist principle.

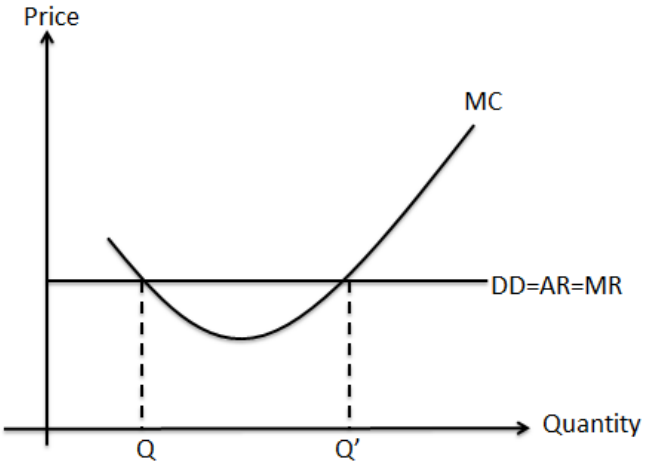


Figure 2: PC Firm Profit Max Condition

E: Using an example of an ice cream stall in a perfectly competitive industry, when producers are thinking of selling an additional cup of ice cream, they consider the additional revenue (marginal revenue, MR) they can earn from selling an additional cup. However, the firm also incurs a marginal cost (MC) of selling that additional cup of ice cream.

E: Thus, as long as the marginal revenue of selling an additional cup of ice cream exceeds the marginal cost, the producers' profits will increase and the firm should continue to sell more cups of ice cream. They will reach the maximum profit when the marginal revenue of the last cup of ice cream sold is exactly equals to the marginal cost, MC=MR.

E: The marginalist principle also helps producers to decide how much to produce. When the price of a good increases, the new P becomes greater than MC, profits will increase by producing more, which explains the upward slope of SS curve.

L: The interactions of consumers and producers in the free market will give rise to the forces of demand and supply. The price mechanism will act as a signal in allocating scarce resources efficiently.

Body Paragraph 3 – Price Mechanism in allocating resources

P: Combining the self-interest driven decision making consumers and producers, resources in a perfectly free market are said to be allocated efficiency when there are no shortage and surplus.

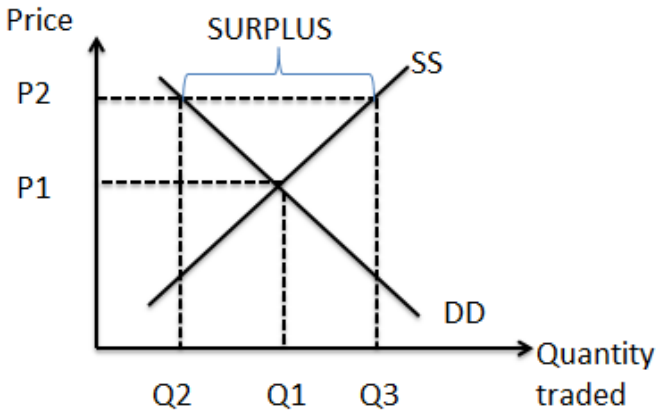


Figure 3: Price Mechanism in a Free Market

E: Imagine an initial disequilibrium at P2. There is a surplus created as Q3 > Q2. This exerts a downward pressure on price. As prices fall, there is a fall in MC (from consumers' point of view) from consuming an additional unit as compared to MB (i.e. MC<MB at Q2) and therefore consumers should increase consumption from Q2. Similarly, as prices fall, there is a fall in MR received (from producers' point of view) from producing an additional unit as compared to MC (i.e. MR<MC at Q3) and therefore producers should cut back on production from Q3. Eventually, this price adjustment process, aided by marginalist thinking will eliminate the surplus and create a new equilibrium at P1 and Q1, where consumers and producers maximize their consumer and producer surplus respectively.
L: This leads to efficient allocation in the free market.

Conclusion
In conclusion, the rational decisions by producers and consumers creates the forces of demand and supply, which then enables the free market to allocate a scare resource so that any shortage or surplus is eventually eliminated. This will help to address scarcity as wastage of resources is prevented, where the both the consumer and producer surplus is maximized.

LORMS

Level	Descriptors	Marks
L3	For a well-developed answer that demonstrates scope and detailed economic explanation of how the marginalist principle framework is being applied by consumers AND producers in maximising their satisfaction (CS) and profits (PS) respectively. Explanations of how the price mechanism allocates scarce resources efficiently are also well developed. Clear reference of the above concepts made to the relevant diagrams.	7 - 10
L2	For an under-developed answer that demonstrates a narrow scope and weak economic explanation of how the marginalist principle framework is being applied by consumers AND/OR producers in maximising their satisfaction (CS) and profits (PS) respectively. (Either consumers OR producers ONLY, Max 6m) Explanations of how the price mechanism allocates scarce resources efficiently are missing or under- developed. (No	5 - 6

	mentioning of price mechanism: Max 6m) Reference of the above concepts made to relevant diagrams is unclear.	
L1	For an answer that shows some knowledge of the concepts of scarcity and marginalist principle and how they are applied in the context of consumers and producers. Answer is lacking in economic analysis. No reference to relevant diagrams in explanations.	1- 4

(b) The free market should always be left alone. Comment. [15]

Question Interpretation

Command Word	• Comment - Requires multiple perspectives on issue(s). Usually involves using a TAS framework
Content:	• Conditions for Price Mechanism to allocate resources efficiently • Sources of Market Failure • Government Intervention & Government Failure
Context:	• Give examples in the context of sources of market failure – for eg: consumption of alcohol in negative externalities.
Approach:	To develop the thesis of the essay by explaining the conditions where price mechanism will lead to efficient outcomes. Next, identify and explain 2 sources of market failure where price mechanism will no longer be able to allocate resources efficiently. These situations necessitate intervention by the government to improve resource allocation. Lastly, students are expected to make a justified stand of the question and provide additional perspectives.

Suggested Answer

Introduction

Free market uses the price mechanism to allocate resources to their various uses (i.e. to decide what, how much to produce, how to produce) and as a rationing device (i.e. to decide for whom to produce).

The price mechanism will achieve efficiency in resource allocation only if the conditions of a perfect market are met (e.g. a perfectly competitive market, no externalities). Otherwise some form of government intervention is necessary to achieve efficiency in resource allocation. Efficient allocation of resources occurs the limited resources of a country are allocated in accordance to the desires of consumers.

In this essay, we will seek to explore if the free market ought to be always left alone without government intervention by considering whether resources will be allocated efficiently.

Thesis: Price mechanism in a free market may achieve efficiency in resource allocation, assuming that the conditions necessary hold true.

E: The price mechanism is a system of price signals that is sent between consumers and producers. Consumers send to and receive price signals (prices of goods and services) from producers in the goods market.

E: Price mechanism ensures allocative efficiency as it assumes that both the firms and households are rational and aim to maximise their benefits when making a decision. Goods and services are therefore produced according to consumers' willingness and ability to buy, thus it reflected consumers' preferences. The demand curve is equal to the marginal benefit curve i.e. the (private) benefit of the additional unit, while the supply curve is equal to the marginal cost curve i.e. the (private) cost of the additional unit. With the assumptions that in a perfect market where there are no externalities and sources of market failure, the demand curve is also equal to the marginal social benefit while the supply curve is equal to the marginal social cost of society.

E: Therefore, with reference to Figure 4, the market equilibrium, where demand meets supply, is also where marginal social benefit meets marginal social costs. At this point, net social benefit is maximised, meaning this is the allocative efficient outcome.

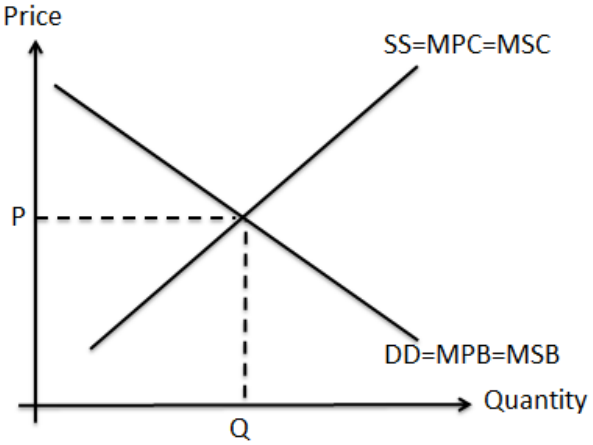


Figure 4: Perfect Competitive Market

OR The price mechanism will ensure that any shortages or surpluses are eliminated and the equilibrium price and quantity is achieved. At the equilibrium, DD=SS and P=MC/MSB=MSC. With P=MC→ it means that there is no under or over allocation and the right amount of the goods have been produced.

E: Hence, in theory, assuming a perfect market with the no sources of market failure, allocative efficiency can be achieved as the price mechanism ensures that resources are allocated to produce the right quantity according to the desires of the society.

L: But in reality, this might not be the case as various sources of market failure will not enable the price mechanism to allocate resources efficiently.

Antithesis: Price mechanism in a free market will not achieve efficiency in resource allocation in reality; some form of government intervention will be necessary [Any 2 sources of market failure]

P: However, the conditions of a perfect market cannot be met in a real world context. Without perfect information, it is not possible to expect price mechanism to achieve efficiency in resource allocation.

E: In addition, other forms of market failure occur due to existence of externalities, public goods, merit and demerit goods, imperfect market structure etc. When a market fails to achieve allocative efficiency and resources are not allocated efficiently, market failure occurs. Thus, the price mechanism in the free market will no longer allocate resources efficiently.

Antithesis Paragraph 1: Negative Externalities

P: Price mechanism does not take into account external cost or benefit in the consumption/production of certain goods.

E: When negative externalities are present, there is a divergence between a consumer's MPC vs the society's MSC, and therefore when the consumer uses the marginalist principle to consume at where MPC=MPB, it is not allocatively efficient.

E: In a free market economy driven by self-interest, firms will produce at the point whereby **MPB=MPC**, where their net private benefit is maximized – at Q_f in Figure 5. In this example, private costs borne by the firm will include labour costs, overhead costs and equipment. Private benefit accrued to the firm is the revenue they are able to enjoy. For simplicity we assume there are no external benefits in the production of power (MEB = 0), hence MSB=MPB. External costs such as environmental pollution during the production of power, as well as the adverse health impacts of people who live nearby, are not taken into account.

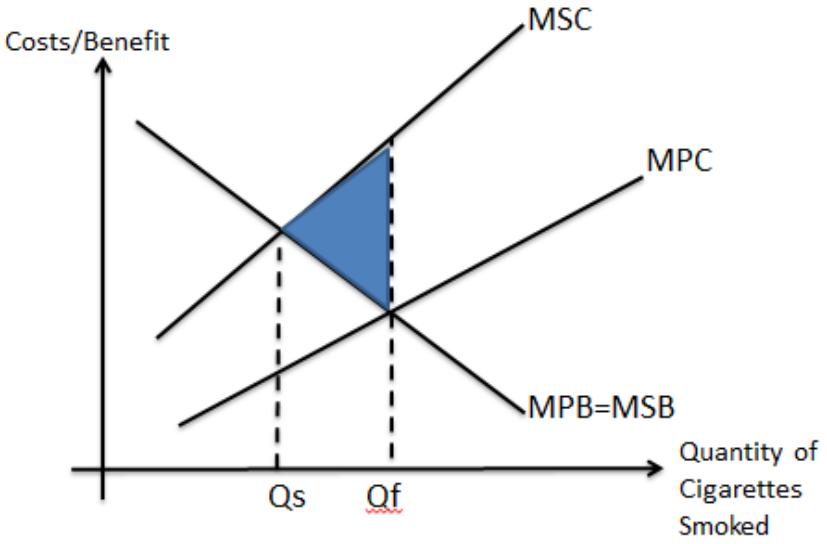


Figure 5: Negative Externalities in Cigarettes Consumption

E: Therefore, this leads to a divergence between MSC and MPC in Figure 5, where MSC is higher than the MPC of running power plants at all levels of production. This means that the socially efficient equilibrium is at MSB = MSC, and the socially efficient quantity should be Q_s. Therefore, there is **overproduction** of power by the amount Q_sQ_f under free market forces. As a result of this overproduction by the amount of Q_sQ_f, MSC exceeds MSB over this output and a deadweight loss to society results. This is given by the shaded area in the diagram. The market fails as a result and the government could improve resource allocation through the use of taxes or legislation.
L: Besides the presence of externalities, public goods will also lead to market failure.

Antithesis Paragraph 2: Public Goods

P: Due to the non-excludable and non-rivalrous characteristics of public goods, consumers may not voice their demands or producers may not be willing to produce such goods. Thus, markets of such goods are missing although the entire society will be better off if there is provision.

E: Since consumers can consume a public good (for eg, national security) without paying for it (in effect acting as a *free rider*), there is no feasible way of excluding non-payers from

enjoying the benefits of the good (non-excludability). Consumers would not be willing to pay for the good. There is no effective demand. Hence, in a free market, private firms will not produce national security as the firms are unable to derive the effective demand for it since no consumers will reveal their willingness and ability to pay for national security.

E: To achieve allocative efficiency, MSC = MSB. Since marginal social cost of providing national security to an additional person is zero (non-rivalry), price must be zero if the economy is to allocate resources efficiently. No private producer will be willing to provide national security for free for the sake of allocative efficiency. As the private firm is unable to effectively charge a price for the product (non-excludability in consumption feature) and the price should be zero from the society's point of view (non-rivalry in consumption feature), no private firm will provide national security.

E: Thus in the market of public goods, government will need to supply these goods through direct provision in order to improve resource allocation.

L: The presence of market dominance in an imperfect market structure will also lead to market failure.

Antithesis Paragraph 3: Market Dominance
P: Due to imperfect knowledge and barriers to entry, price mechanism may fail to work efficiently in some markets.

E: When there is monopoly power, for example De Beers group in the market for diamonds, the monopolist will pursue their own self-interest by maximizing their profit at where MR=MC (according to the marginalist principle. Profit motivated producers (for eg: a monopolist) may choose to restrict the output (Q) and charge a higher price (P), leading to inefficient allocation of resources (P>MC) as illustrated in Figure 6.).

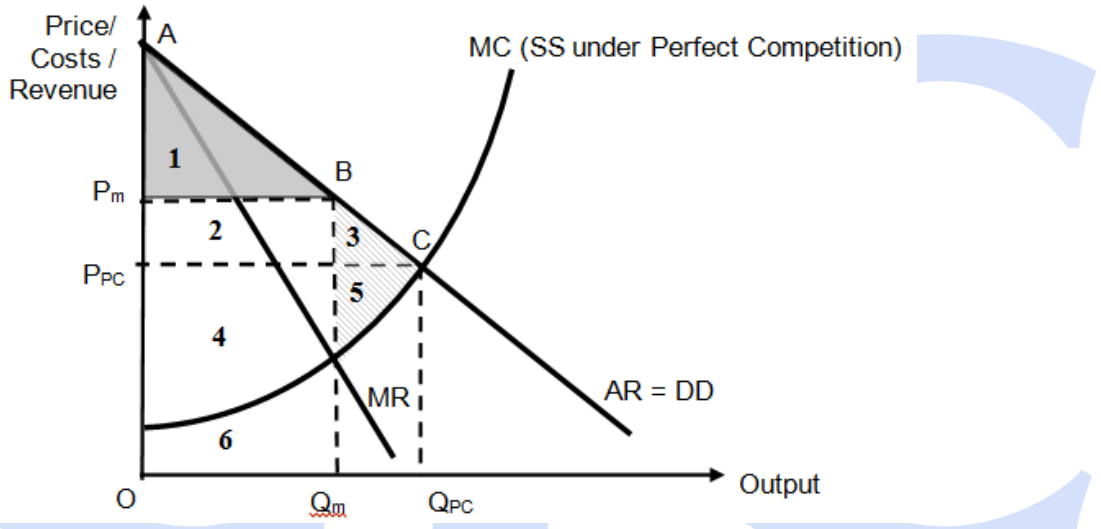


Figure 6: Market failure due to market dominance

E: Under perfect competition, the equilibrium price and output occurs at P_{PC} and Q_{PC} respectively, whereby market demand intersects market supply. Consumer surplus is shown by areas 1+2+3 and producer surplus by areas 4+5. Total surplus is maximised at this output Q_{PC}.

E: The monopolist (De Beers) demand curve would be the former market demand curve AR, while the monopolist's marginal cost curve would be the former market supply curve MC (assuming that there are no economies of scale). The monopolist maximises profit by producing at the point where MC=MR, thus resulting in the equilibrium price and output of Pm and Qm respectively.

E: At the new level of output Qm, producer surplus is areas 2+4 (note that area 2 has been transformed from consumer surplus previously under perfect competition to producer surplus now). Consumer surplus falls drastically to area 1. Total surplus under monopoly is areas 1+2+4. Monopolisation of the industry has resulted in a loss of surplus of areas 3+5. This is known as the deadweight welfare loss to society. Society's welfare is not maximized.
E: Therefore, under imperfect markets, firms are able to dictate prices, and if left entirely to the price mechanism may lead to a misallocation of resources. Hence government will need to set competition laws for the market to work

Synthesis

Price mechanism will lead to an efficient allocation of resources only under several strict assumptions, which usually do not hold in reality. Therefore, the free market should not always be left alone under such conditions where sources of market failure are present.

This means that there is usually room for government intervention to improve resource allocation. However, there is always a possibility of government failure since the government may also suffer from imperfect information. If government intervention results in a worse outcome as compared to the original market failure, the free market may be better off left alone.

LORMS

Level	Descriptors	Marks
L3	For a well-developed answer that demonstrates scope and detailed economic explanation of the role of price mechanism in achieving efficient resource allocation in theory and but not in reality due to the various forms of market failure. The answer illustrates an ability to recognise the underlying assumptions and conditions for efficiency to be achieved. At least 2 sources of market failure are well elaborated with appropriate diagrams.	9 - 11
L2	For an undeveloped explanation that explains the concepts of efficiency and inefficiency due to market failure without referring to the role of price mechanism. OR An answer that explains the role of price mechanism in terms of resource allocation without reference to efficiency. Expect an explanation of why efficiency in resource allocation cannot be achieved in reality due to various forms of market failures. Reference of the above concepts made to relevant diagrams is unclear. Max 8: Only 1 source of market failure is well elaborated.	6 - 8

L1	For an answer that shows some knowledge of concepts of efficiency, and/ or price mechanism or / and market failure without explanation. Answer contains several conceptual errors. No reference to relevant diagrams in explanations.	1- 5
E1 (1 – 2)	Stand with no/weak justification.	
E2 (3 – 4)	Stand with good justification	

Question 2

Domestically, rising costs and competitive prices offered by regional rivals are eroding Singapore's appeals as a medical tourism hub. At the same time, incomes in Asia, where a large portion of the clients come from, has suffered from the slowdown in China's economy.

Source: Perspectives@smu

Using economic analysis, discuss the impact these events are likely to have had on consumers' expenditure on medical services in domestic and foreign markets. [25]

Command: Discuss the impacts on domestic (Singapore) and foreign (Malaysia, Korea, Thailand) medical services markets. The discussion stems from changes in circumstances such as the reduction of prices by rivals, rising incomes in Asia and rising costs in Singapore.
Content: Demand and Supply, PED, YED, XED and TE.
Context: Medical services market in Singapore and foreign countries.

How to attempt this question:
Firstly we need to establish:

1. How the rising costs will affect supply of medical services in Singapore. Relate change in supply to impact on consumer expenditure i.e. total expenditure with the use of price elasticity of demand concept.

2. How the fall in prices of substitutes (rival prices) will affect demand for medical services in Singapore. To bring in cross elasticity concept here.

3. How the fall in income levels will affect demand for medical services in Singapore with the use of income elasticity concept.

4. Relate above change in demand in point 2 and 3 to impact on consumer expenditure i.e. total expenditure.

5. How will the simultaneous shifts of demand and supply above affect the Singapore medical services market in terms of equilibrium price and quantity and total expenditure.

6. How the fall in income levels will affect demand for medical services in foreign countries with the use of income elasticity concept. Relate this change in demand to impact on consumer expenditure.

Suggested Answer
Introduction
In economics, the market for a particular good can be analysed using the concept of demand & supply. A market is defined as a convenient arrangement whereby buyers and sellers can negotiate in order to exchange (buy and sell) goods, services, or factors of production at an agreed price.

Demand is defined as the amount of a good or service that consumers are both willing and able to buy at each possible price during a given period of time, ceteris paribus. Supply is defined as the amount of a good or service that producers are both willing and able to sell at each possible price during a given period of time, ceteris paribus

The price elasticity of demand (PED) measures the degree of responsiveness of quantity demanded of a good to a change in its price, ceteris paribus. The cross elasticity of demand (XED) measures the degree of responsiveness of demand of one good to a change in the

price of another good, ceteris paribus. The income elasticity of demand (YED) measures the degree of responsiveness of demand of a good to a change in income, ceteris paribus.

With an increase in costs, it will decrease the supply of goods/services. The competitive prices of rivals will cause demand for Singapore goods to fall and falling incomes in Asia will have an adverse impact on demand for normal goods and increase demand for inferior goods/services. Thus given the circumstances in the preamble there will be changes in both demand and supply of the various markets for medical services. This essay will use the concept of demand, supply & elasticity to determine how the price, quantity and total expenditure for various products (namely domestic and foreign medical services) will be affected.

Body

Singapore Medical Services Market

$DD_{s'pore\ med\ svcs}$ fall

Singapore and foreign medical services are substitutes. Substitutes in consumption are goods that can be used in place of one another for the satisfaction of a particular purpose/want i.e. goods which are alternatives for each other. For e.g. they are deemed as substitutes as they render similar services to satify similar medicals needs of people. Their cross elasticity of demand would be **positive**. This means that an *increase in price* of one good brings about an *increase in demand for its substitute*. In the context of competitive prices offered by foreign medical services i.e. decrease in price of foreign medical services, the demand for Singapore medical services will decrease and the total expenditure (TE) on Singapore medical services will fall.

However the extent of the fall in TE depends on whether Singapore and foreign medical services are close or weak substitutes.

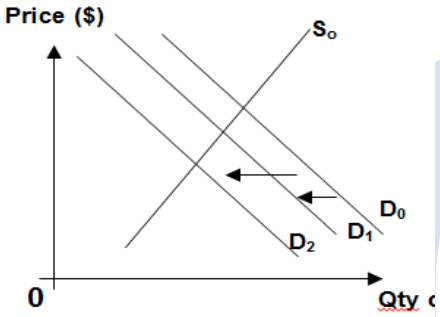


Figure 1: Market for Singapore Medical Services.

If the quality of services offered by foreign rivals are much lower compared to Singapore's medical services i.e. in terms of quality of after-care and use of latest medical technology it will be deemed as a weak substitute. So in the case where rivals were to lower prices the demand for Singapore's medical services will decrease but to a less than proportionate extent from D_0 to D_1 (As seen in Figure 1). Consequently the equilibrium price and quantity will fall. As total expenditure is equal to price x quantity, total expenditure on Singapore medical services will fall. However this fall will not be as large as compared to a fall in TE if the goods were close substitutes as close substitutes would have seen the demand fall to D_2 instead.

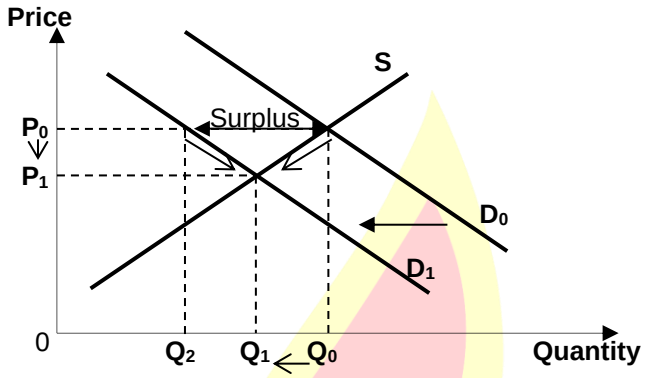


Figure 2: Decrease in Demand

A decrease in demand from D_0 to D_1 in Fig 2, ceteris paribus, creates surplus of Q_0Q_2 at the initial price P_0. A surplus drives the price down which in turn causes Q_d to rise and Q_s to fall according to the Law of Demand and Supply respectively. The adjustment process continues until the new equilibrium P_1 and Q_1 is reached where Q_d equals to Q_s.A fall in demand for a good, ceteris paribus, will cause a fall in both equilibrium price and equilibrium quantity. The total expenditure falls from area P_oQ_o to area P_1Q_1.

Falling incomes in Asia will also cause TE for Singapore medical services to fall since medical services are generally considered to be normal goods with YED > 0. However the extent of fall in TE depends on whether Singapore medical services are regarded as luxury items or necessity items. Fall in incomes will mean consumers have less ability to buy goods and services which will lead to a fall in demand for normal goods. Singapore medical services can be viewed as a normal good i.e. an increase in income will lead to an increase in demand for the goods ceteris paribus and vice versa. The impact of falling incomes in Asia will be as seen in figure 1 where demand falls from D_o to D_1 or D_2.. In either case this will lead to a fall in equilibrium price and quantity and a fall in total expenditure.

The extent of the fall in TE will be large for luxury items as income elasticity of demand will be greater than 1. This means for a given fall in income there will be a more than proportionate fall in demand from D_o to D_2. Medical services like cosmetic surgery for beauty enhancements would fall into the category of luxury items. So such services will see a large fall in demand and consequently large falls in TE. However if the good is considered a necessity e.g. Skin grafting surgery for burn victims, it will have income elasticity of demand which will be greater than 0 but less than 1. Such medical services will not see such a large drop in demand from a fall in income levels and thus TE will fall to a lesser extent for such goods.

$SS_{s'pore\ med\ svcs}$ fall

Besides demand forces, there are supply forces at play in the case of medical services in this context. Domestically rising costs possibly from higher rental for office space and the shortage of labour will cause the supply of Singapore medical services to fall. This is because the cost of production in the provision of the above service will rise with e.g. rising input cost which will mean producers will be less willing and able to produce at every price level, causing the supply to fall from S_o to S_1 as seen in figure 3.

The impact on TE will depend on the price elasticity of demand (PED) for Singapore medical services. Price elasticity of demand for Singapore medical services can be both price inelastic and price elastic. For e.g. demand for heart surgery and cancer treatments will be considered price inelastic as there will be little substitutes for such services besides traditional medicine treatments and alternative therapies. Such services will see a less than

proportionate fall in quantity demanded from Q_o to Q_{in} to a rise in prices P_o to P_{in}. This implies that the fall in total expenditure due to a fall in quantity traded will be less than the rise in TE due to the rise in prices. Overall TE will rise for consumers of such services. However if the service is for facial reconstruction or body enhancements then demand is most likely to be price elastic as the proportion of income spent on such services will be very large. As such the rise in prices P_o to P_e will trigger a more than proportionate fall in quantity demanded, Q_o to Q_e leading to an overall fall in TE by consumers of such goods.

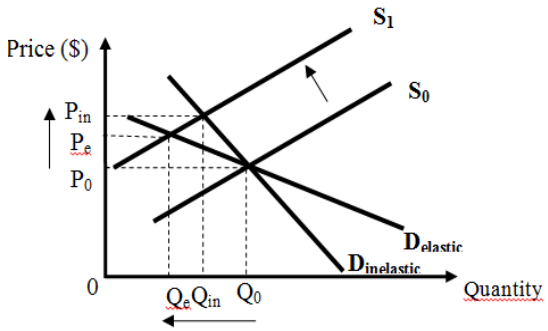


Figure 3: Market for Singapore Medical Services.

Combine SS & DD Effects

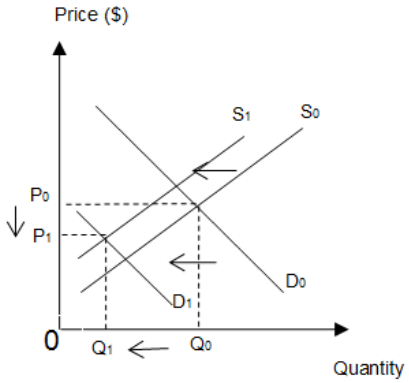


Figure 4: Market for Singapore Medical Services.

When the demand and supply changes are taken into account the combined shifts are represented in figure 4. Demand will shift more than supply as there are more demand factors at work compared to supply. As seen in Figure 4, price will ultimately fall from P_0 to P_1 and quantity will fall from Q_0 to Q_1.

The overall effect on consumers in the form of total expenditure depends on the type of medical service in question. In the case of goods with price inelastic demand e.g. heart surgery the fall in supply would cause TE to rise but the fall in demand from falling incomes and substitution to foreign goods will see the TE fall. So the overall impact on TE is indeterminate. However in the case of goods with price elastic demand e.g. cosmetic surgery TE will fall due to changes in demand and supply as analysed earlier. This means overall TE will fall for these services.

Foreign Medical Services Market

$DD_{foreign\ med\ svcs}$ rises

Falling incomes in Asia will cause TE for foreign medical services to rise. This is based on the assumption that foreign medical services in the South East Asian region e.g. Indonesia

and Cambodia will be considered inferior goods compared to services offered in Singapore (YED<0). Hence the fall in incomes will mean there will be a rise in demand for foreign medical services. Thus Indonesians who may have opted to come to Singapore for an eye surgery will now choose to stay in Indonesia to get the same medical procedure done as there is a general fall in income levels in Asia. With reference to figure 5 this would be represented by a rise in demand from D_o to D_1. Hence there is a rise in equilibrium price and quantity and a rise in total expenditure P_oQ_0.

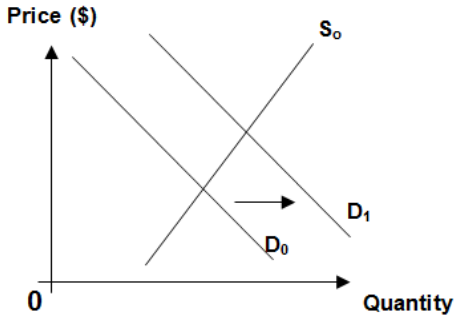


Figure 5: Market for Foreign Medical Services.

Conclusion

To conclude, the impact of the contexts given in the preamble would impact consumer's expenditure differently for Singapore medical services and foreign medical services. In summary impact on consumer expenditure for Singapore medical was either a fall in TE or indeterminate while in the case of foreign services it was an overall rise in TE. The impact on consumer expenditures for medical services depended not only on the demand and supply factors that were taking place. The impact was also determined by price elasticity, cross elasticity and income elasticity of demand. However these impacts may well turn out differently if the ceteris paribus conditions did not hold or the assumptions about the two markets were different e.g. foreign medical services may not be inferior after all hence TE may fall overall.

LORMS

Level 1	Low	The answer is mostly irrelevant and contains only a few valid points made incidentally in an irrelevant context.	1-5 marks
	High	The answer shows some knowledge e.g. understanding and explanation of the various causes of demand and supply, but does not indicate that the meaning of the question has been properly grasped. Basic errors of theory and/or and inadequate development of analysis may be evident. Answers that are not answered in context to Singapore and no use of examples related to medical services.	6-9 marks
Level 2	Low	The answer shows the ability to identify facts, some ability at graphs, fair ability to apply theory to the situations. E.g. Ability to explain various outcomes/shifts for two markets. Elasticity concepts were used with little development.	10-11 marks
	High	The answer has a more thorough relevance to the question but the theory is incompletely explained. Some of use of elasticity concepts within the answer will fall into this category. Total expenditure is covered with some development.	

Level 3	Low	A good knowledge of facts and theory of the question, clear evidence of the ability to use facts and theory with accurate reference to the question that may have presented the candidate E.g. Students are able to explain in depth the various shifts in DD and SS as well as identification of use of 3 elasticity concepts, PED, YED and XED. Both markets are well analysed. Candidates are also able to comment on the direction and extent impact on the consumers of the two markets. Candidates are able to combine impacts from single shifts to arrive at a conclusion on overall impact on consumer expenditure from the simultaneous shifts.	15-17 marks
	High	A thorough knowledge of facts and theory with an excellent ability to describe and explain this in a precise, logical and reasoned manner. The ability to query some of the assumptions is present. Illustrations and examples appropriate to the material discussed are introduced as further evidence of the ability to recognise the principles of the question and their application to relevant current situations.	18-21 marks
Evaluation	E1	Mainly unexplained judgements	1-2 marks
	E2	Justified and well explained statements	3-4 marks

Question 3

Singapore Airlines, caught between the rapid emergence of airlines from the Gulf countries (for example, Emirates) and low cost Asian rivals, is attempting to revive growth by cutting prices.

Source: CNBC

a) Using appropriate examples, explain the various internal economies of scale enjoyed by an airline company. [10]

Command Words:

a)'Using appropriate examples'- just stating the examples are not enough. The question requires you to make use of the examples to develop the points

b) 'explain'- give detailed analysis of

Content: Various (more than 1) Internal Economies of Scale: cost savings resulting from EXPANSION of a firm. You need to clearly explain what the expansion is in terms of. The answer requires the use of a diagram that shows how LRAC falls (movement along the curve) with increase in output.

Context: Airline company

Approach:

• Explain what it means for an airline company to expand.

• Followed by this, explain 3 sources of IEOS, using examples, which can result from such an expansion.

•Explain using a diagram how LRAC is lowered when there is such an expansion.

Introduction

Internal economies of scale (IEOS) are the cost savings a firm experiences as it increases its scale of production/operation. Thus, as the scale of production/operation increases, the long run average cost will fall (as the total cost is spread over a larger range of production/operation).

Body

Paragraph 1

There are different types of IEOS that an airline company can enjoy when they expand their scale of operation. Expansion of scale of operation in this case may refer to the number of passengers they carry, the number of flights they operate or even the number of airports they serve/fly to.

Paragraph 2

There are IEOS from organizational economies. As an airline company grows its operation, there is greater flexibility to employ specialists to be in-charge of customer service management, sales and advertisement, human resource management, training of the crew, finance etc. This will help the airline company to achieve higher managerial efficiency and lower average cost of operation.

Paragraph 3

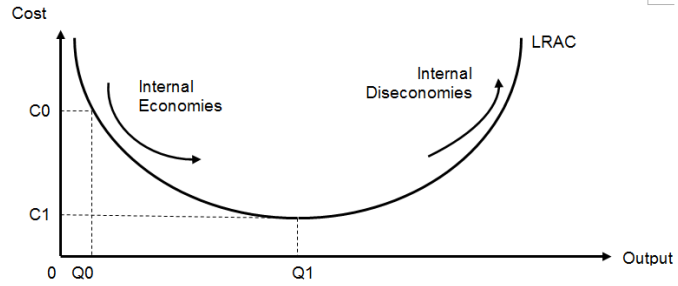
There are IEOS from spreading overheads and indivisibilities. As an airline embarks on R&D for more fuel efficient planes or better quality of in-flight experience, they will incur significantly large costs of embarking on such investments. Similarly, for each airline company the fleet of aircraft constitutes a huge fixed cost. An airline company also has to incur high start-up cost in terms of the technology required, routes to be chosen and setting up of the facilities (especially in terms of logistics) at different airports. Thus, all these

investments in fixed costs tend to be viable and cost efficient only with a large scale of operation (such that the long run average cost is lowered with increase in scale of operation).

Paragraph 4
There are financial IEOS that can be enjoyed by an airline company. An airline company may have to obtain funds from financial institutions to carry out their operations and research projects. The larger the scale of operation (for example, SIA or Emirates which not only have aircrafts with large (passenger/seat) capacity but also serves many airports), the lower is the interest rate on loans. This is because the scale of operation directly affects their credit worthiness as a borrower (less risk of default). Thus, a lower interest rate will help to lower the average cost of the firm. Similarly, the administering of the interest rate can be spread over a large scale of output which will lower long run average costs.

Additional point that can also be used
Commercial IEOS- An airline company may want to invest in advertisement to attract many tourists and gain market share both in the domestic market as well as the international market. As the advertisement cost can be considered to be a fixed cost, the average cost of advertising will be lower for SIA which has large scale of operation over long run.
(*any 3 of the above IEOS*)

The IEOS enjoyed by a firm can be shown using a LRAC curve. As the airline company expands/has a higher scale of operation from Q0 to Q1, the long run average cost falls from C0 to C1. [diagram must be used]



Conclusion
Thus, an airline company will enjoy different IEOS from large scale of operation and move down along the LRAC. However, the assumption is that the company will choose to operate on the LRAC at any given level of operation. It is important to note that as the airline company keeps expanding their scale, they may incur higher long run average cost after expanding beyond a certain scale of operation (i.e. internal diseconomies of scale).

LORMS		
Levels	Descriptors	Marks
L3	Answer explains at least 3 reasons/sources of IEOS very well in the context of an airline company and there is clear link made to cost advantage. Examples have been used consistently to support these explanations. The answer is able to explain that the IEOS can be enjoyed only with expansion of a firm and thus, uses relevant example of such expansion in the context of an airline company. Diagram for IEOS has been used to support the explanations.	7-10
L2	Answer explains some reasons/sources of IEOS but they may not be always supported with examples in the	5-6

	context of an airline company. Te reasons of IEOS are clearly linked to the cost advantage enjoyed by a company. The answer may not have made explicit reference to the expansion of an airline company to explain the IEOS. Attempts made to draw a diagram to support the explanations.	
L1	Answer lists different reasons/sources for IEOS without adequate explanation in the context of an airline industry. The reasons for IEOS are not clearly linked to cost advantage enjoyed by the company. The answer may contain some error and diagram has not been used to explain IEOS.	1-4

b) Given the market structure that Singapore Airlines is operating in, discuss if the business strategy used is the best way to survive the threats in the airline industry. [15]

Command Words:
a)Discuss if- requires multiple perspectives
b)'best'- requires comparison with two other strategies by using a criteria

Content:
a)'Given the market structure'- identify and justify of the market structure using characteristics
b) 'business strategy' to survive- behavior of market structure (different ways of competition)

Context:
a)Singapore Airlines
b)current threats

Approach
•Identify and justify the market structure that Singapore Airlines is operating in and analyse the current threats
•Identify the 'business strategy' based on preamble as price competition
•Set criteria to decide what is 'best'
•Thesis: Given the market structure, price competition is a good strategy to survive the threats based on the criteria – show how the strategy helps Singapore airlines to meet the criteria and respond to the threats
•Anti-Thesis 1: Given the market structure, price competition is not a good strategy to survive the threats based on the criteria- show how the strategy may actually worsen the problems for Singapore Airlines
•Anti-Thesis 2: Given the market structure, other strategies are better to survive the threats based on the criteria- show two other relevant strategies that can be used by Singapore Airline
•Synthesis

Introduction
The market structure that Singapore Airlines (SIA) is operating in is oligopoly. This is due to the high BTE in the form of huge start of cost especially, in terms of investing in the fleets of aircrafts. This results to very few dominant firms in the market who capture a significant market share. This allows the firms to enjoy long run supernormal profit.
However, with the entry of new competitors in the market as mentioned in the preamble, the market share of Singapore Airlines may fall and due to the availability of substitutes including the low cost carriers, PED>1 [*AR may fall and become more price elastic*]. Thus, with this new threat of competition, over time, SIA may face a declining profit level. To revive their growth and profit, SIA is engaging is price-cutting strategy which is a form of price competition. Profits can be defined as the excess of total revenue over total costs.
It is important to examine if this strategy is the best strategy for SIA, assuming that their main goal is to effectively revive and sustain their profit levels.

Note: identification and explanation of the industry as a monopolistic competition market structure is also accepted but the analysis must match the identification

Body
Thesis: Given the market structure**,** price competition is a good strategy to survive the threats based on the criteria set

- SIA can give discounts to attract more customers to avail their services. The fall in price should increase the quantity demanded of their services. This is especially if

SIA is engaging in predatory pricing to keep threats of competition from Emirates and low cost carriers at bay.

- It is important to note that given that PED<1 in the oligopolistic market structure that they are operating in, the total revenue may fall initially as quantity demanded rises less than proportionately, however, as they reduce substitutability and regain their market share, they can increase price to increase total revenue. Temporarily, they may be earning sub-normal profit, but as they may have accumulated long run super normal profit, they may be able to survive the short run fall in profit levels. Moreover, the IEOS enjoyed by SIA is significantly large as mentioned in part a, thus, they may still be able to break even while charging lower prices.
- Thus price-cutting strategy may be effective for SIA especially to preserve market share and revive profit. This is true assuming that the price cuts are not matched by the rivals.

Anti-Thesis 1: Given the market structure, price competition is not a good strategy to survive the threats based on the criteria

- SIA is operating under oligopolistic market structure as explained before. This means there is existence of mutually interdependent behavior. Thus, a price-cut by SIA may be followed by Emirates for the long haul flights and by low cost carriers for the short haul flights, especially on routes served by both of these airlines. They can do so by announcing special offer price or discounts. Due to the presence of few dominant firms, there is a presence of very high degree of rival consciousness, whereby, an increase is price is not followed by rivals but a reduction in price will make the rivals to follow suit. This makes the PED<1 below the price-output combination decided in the market. And a fall in price will only increase quantity demanded less than proportionately as competitors are also offering lower prices.
- Thus, as SIA cuts price and other rivals follow, there will be an aggressive price war which ultimately results to lower total revenue of all firms [as fall in price leads to less than proportionate rise in quantity demanded, total revenue falls]. Assuming total costs don't change, this will lower the profit level of SIA.
- Due to the characteristic of mutual interdependence, prices tend to be stable in oligopoly and so, it may not be a prudent decision for SIA to engage in price-cutting as it is not a sustainable policy and may not be effective in reviving growth/profit.

Anti-Thesis 2: Other strategies (non-price competition) may be better for SIA to revive their growth and profit.

- **Advertising** (or product differentiation by adding in-flight services like free WiFi etc.) could be a better alternative. SIA is already very well known for its safety, on-time arrivals and departures as well as comfort. However, they can still continue engaging in advertising to create brand loyalty among the customers. This helps to increase AR and make PED<1 (and XED<1 as well) such that they can charge higher price to increase TR. Assuming that the rise in TR exceeds the advertisement costs, profits will increase. Such brand loyalty will also increase the BTE making PED even more inelastic, and help them to preserve market share and long run profit. This is also a feasible strategy considering the accumulated long run super normal profit.
- **Business partnership** with other airlines and expanding regional network to tap on to the growing economics in the neighbouring economies may be a possible solution (for example, AirVistara in India). This will help them to increase AR and increase profit (Assuming rise in TR > rise in cost). It is safe to assume that expanding into the regional markets, especially the developing ones, will help them to also enjoy lower labour cost required to run the various services of an airline company. Thus, overall profit levels will increase.
- **Introducing low cost services** especially for short-haul travels [to compete with the low cost airlines] like Scoot or Silk Air to achieve market share even in the low

cost segment and increase AR to increase profit. By such diversification, they can also ensure that they are more equipped to at least maintain their profit level, even if demand falls in the market they have traditionally served.

- **Cost Reduction** can also be a feasible strategy. Considering the dominance that Singapore Airlines has had, it is expected that they have past supernormal profits that they can use to invest in more fuel efficient aircrafts. This will help them to lower the fuel cost and as Profit= TR- TC, lowering of their total costs, will also help them to increase profit. However, as TR is already expected to fall because of the threat of competition in the market, the lowering of TC may not lead to a rise in profit, but may only allow to at least not reduce the profit significantly or maintain the current profit levels.

Synthesis : Price-cutting is not the best strategy over long run as it may lead to a price war, given the nature of the industry. However, if they really want to engage in price war temporarily, they may have to cut cost simultaneously to be able to survive the price-war. Given their IEOS, it may be feasible for SIA to use price-cutting as a strategy for a short period of time. However, due to the nature of the industry non-price competition may be more preferred over the long run.

LORMS		
Levels	Descriptors	Marks
L3	A well balanced answer that presents different perspectives to analyze if price-cutting is the best strategy and compares it to other strategies. These analyses are clearly grounded on the aim of reviving growth and profit in the context of the market structure identified and the threats faced by SIA. Different strategies analyzed are linked to either TR or TC to explain the outcome on profit. Examples have been used to support the explanations. Diagrams have been used to aid the explanations.	9-11
L2	Answer attempts to present different perspectives to analyze if price-cutting is the best strategy in the context of the market structure identified. However, these analyses may not be well linked to reviving growth and/or profit of SIA. As a result, there was no/inadequate link made to TR and TC in the analysis. There may not be enough comparison made to other strategies. Some attempts have been made to use examples.	6-8
L1	Answer is largely one-sided with insufficient analysis on price-cutting strategy. These analyses are not based upon any identified market structure and/or a specific objective of SIA. As a result, the link to TR and/or TC has not been made. Examples have not been used to support the explanations.	1-5

E1: 1-2	Stand with some justification
E2: 3-4	A well-justified stand.

Question 4

Assess the importance of external stability in achieving an improvement of standard of living for different economies. [25]

Command Word	Assess: evaluate the significance of external stability based on different criteria and relative to other factors
Content Required	Macroeconomic Indicators and Problems, Standard of Living (Material & Non-Material)
Context	"different economies" e.g. Small & open versus Large & less open Developed versus Developing
Approach	1. Candidates should first establish what external stability implies about the BOP and exchange rates and its impact on SOL. 2. Before T/AT arguments are made, candidates should come up with possible comparisons of 'different economies' as suggested above. 3. T/AT arguments will hence be made based on criteria such as the characteristics and nature of different types of economies. i.e. each point should be contextualised to the type of economy and linked to standard of living. 4. T/AT arguments should also distinguish between material and non-material SOL. 5. Overall synthesis made

Introduction

Establishing external stability w.r.t indicators

Internal stability: low inflation rate, sustainable rise in GDP, sustained periods of low unemployment

External stability: no excessive BOP deficit/surplus leading to stable exchange rates

Standard of living: Material SOL in terms of ability to consume g/s; non-material SOL in terms of inequality, quality of education and healthcare etc.

Different economies: *developing/developed; small & open VS large & less open*

Body

Explain how external instability leads to decrease in SOL

Persistent trade imbalances

1. Persistently large Trade surpluses => inflationary impact on economic growth => overheating => decrease in real GDP growth rate -> negative impact on employment, income levels and hence SOL
2. Persistently large Trade deficits => deflationary impact on economic growth => economic slow-down -> negative impact on employment , income levels and hence SOL
3. Ideally neither persistently large trade surpluses nor trade deficits is good for the economy. Both are likely to result in negative impact on economic growth and hence SOL.

Currency volatility

1. Depreciation => cost push inflationary pressures -> decrease in AS due to increase in COP -> undermine the confidence of foreign investors; capital flight ->negative impact on economic growth, employment, income and hence SOL
2. Appreciation => erodes export price competitiveness -> negative impact on economic growth, employment and income and hence SOL.
3. Ideally neither sharp nor sudden depreciation or appreciation to prevent negative impact on economic growth and hence SOL

4. Currency volatility is harmful to external trade and investment – Exposes traders, investors, tourists and travellers to too much exchange rate risks and uncertainties ie sudden and unexpected losses due to unfavourable exchange rate movements.
   For example, a SG exporter receiving payment in a foreign currency (e.g. US$) could easily end up with unexpected losses due to adverse currency movements when converting his sales proceeds into the domestic currency. Assuming the exporter marked up (profit-margin) is 10% in SGD, a depreciation of the foreign currency proceeds e.g. US$ by say 10% would have wiped out the entire profit-margin -> Negative impact on economic growth and therefore SOL

Overall: Stability increases predictability – facilitates investments, resource allocation decisions and therefore sustainable growth

Thesis Point 1: External stability is more important to small and open economies
SOEs such as SG is more vulnerable to external shocks. Trade constitutes more than 100% of GDP. The total trade to GDP ratio = 400%.

Hence ensuring external stability is a major priority to protect the economy from external shocks. For e.g., SG ensures exchange rate stability through a gradual appreciation of the SGD to curb imported cost push inflation, while ensuring export competitiveness is not eroded over time as the economy moves up the value chain, producing exports whose demand is price inelastic. External stability allows an increase in (X-M) and FDI and hence increases in AD and NY, employment and material SOL in the LR.

Anti-Thesis Point 1: External stability is less important to large economies
In contrast, USA has a relatively large domestic sector or consumption to drive growth and act as a buffer to insulate the economy from external shocks. In the USA, consumption constitutes 70% of GDP. E.g. an appreciation of USD may lead to a fall in (X-M) assuming MLC holds. However, this can be offset by an increase in domestic consumption. Likewise, reduction in FDI or capital outflows can be offset by an increase in domestic I and C (via a fall in i/r due to capital outflows).

Hence, the macroeconomic priority in America is to focus on stimulating their domestic economy so as to raise SOL e.g. use of counter cyclical fiscal stimulus and monetary stimulus such as QE or quantitative easing.

The relative importance of internal and external stability is determined by whether an economy is able to withstand external shocks. Although there are economies that are more open than others, in a globalised world, trade can potentially become a more important engine of growth for most economies and hence none can truly be totally immune from negative impact of external shocks. However, large economies are able to offset the impacts from external shocks by rebalancing its economy to rely on internal demand, whereas small economies rely more on external stability to minimise impacts of external shocks.

Thesis Point 2: External stability is more important to developed economies
Most developed economies are faced with the following trends

- The demographic of an ageing population and/or
- Production situated at the top of the supply chain/value add chain and hence relying on developing lower-cost economies for factor inputs/intermediate goods.

External stability is important as with an ageing population, domestic demand will decline and become a less significant engine of growth. External stability in terms of trade flows and

exchange rate stability will ensure a sustainable export led growth and hence an increase in NY, employment and material SOL.

Producers in developed economies are exposed to exchange rate risks as most of their factor inputs or intermediate goods are imported. Exchange rate stability will ensure less volatile changes in costs of production, which can impact investment decisions, AD, NY, employment and material SOL.

Anti-Thesis Point 2: External stability is less important to developing economies
Developing economies may have to accept some volatility in its BOP as the economy develops through foreign aid, international loans and imports of capital goods. Developing countries may have to import a large amount of capital goods in the initial stages of its development, leading to BOP deficits. Although these may be offset by inflows of foreign aid and international loans, these have to be repaid eventually, leading to outflows in the current account. Despite this volatility, the increase in quantity/quality of capital leads to increases in AS, increase in domestic and foreign consumption also leads to increases in AD. NY, employment and material SOL increases.

Anti-Thesis Type 2: External stability may not lead to improvements in non-material SOL

1. Focusing on external sources of growth via trade and FDIs might be harmful to attaining a clean and liveable environment.

In China, Negative externalities like pollution have brought harmful effects to the quality of the environment because it is the so-called “factory of the world”. Over the last decade China’s key focus was on rapid economic growth driven by exports and FDI inflows. Whilst materially it can be said the SOL in China has jumped significantly. For instance, China has grown to become the second largest economy in terms of size of GDP. However, it came at a heavy price in terms of high level of pollution from factories and motor vehicles.
e.g. Out of the world’s 20th most polluted cities, the top 16 came from China. Not uncommon to see many parts of China covered by smog including Beijing. Rapid urbanization also brought harmful effects on its environment e.g. building of the 3 Gorges Dam to provide electricity. It is not external stability that determines the long run improvement in SOL but rather, the adoption of growth strategies that are green or sustainable that determines the impact on the environment and hence impact on non-material SOL.

2. Focusing on external sources of growth may worsen non material SOL because it accentuates income inequality.

This is especially for open economies and city states that attract foreign talent and enterprises. Relatively open and cosmopolitan cities states like SG and HK have one of the highest Gini-coefficent or level of income inequality. Such high and worsening income disparities can lead to social tension and social divisiveness which could eventually derail growth. It can be argued that in the case of Singapore, income inequality has risen due to the over-reliance on the import of cheap foreign labour, which led to depressing wages of unskilled labour. The constant need to move up the value chain in order to maintain export competitiveness also meant a bias towards skilled labour, whose wages have risen faster than unskilled labour.

Hence, the priority is to focus on reducing income disparity through the use of government transfers (e.g. workfare income supplement; subsidies for lower income for health-care; housing etc) and tax (e.g. more progressive income tax. In SG, studies done have revealed that 80% of income taxes collected comes from the top 20% of income earners). ***Mini synthesis/ evaluative comment:*** As explained in Thesis Point 1, external ability may lead to LR increases in material SOL for small and open economies, but may be derailed by

decreasing non material SOL due to rising income inequality. Negative side effects of relying on external sources of growth will have to be prevented or mitigated in order to sustain long run improvements in SOL.

Overall synthesis

In a globalized world as more and more countries tap on external sources of growth by opening up their economies to trade, FDI and inflow of foreign talent and manpower, invariably their growth and hence SOL would be more vulnerable to external instability or shocks. Therefore, it can be said that the importance of external stability will increase.

However, external stability in itself does not ensure that the fruits of growth are shared equitably between foreign and local firms/residents, skilled/unskilled labour. An improvement in SOL is only sustainable if governments are aware of the trade-offs made when deciding its growth strategies – between different segments of the population and between material and non-material SOL – and devise policies to prevent or mitigate such negative side effects.

Mark Scheme	
L3: 19-21	Excellent and well-balanced analysis showing good understanding of the requirements of the question. Demonstrate ability to integrate the 3 key issues clearly into a coherent structure, hence developing scope in terms of different economies AND different aspects of external stability AND material vs non-material SOL.
15-18	Able to focus clearly on the link between external stability (both exchange rate and trade stability) and (material and non-material) SOL. Adequate scope and depth. However, lacking in terms of good overall structure. Contextualisation of different types of economies is appropriate but mundane.
L2: 13-14	Able to focus on the link between external stability and SOL with much more depth and clarity. However, discussion is incomplete which lack of scope or some major issues omitted. Analysis is well developed but one sided OR two sided but underdeveloped. Arguments are based on trade instability AND exchange rates instability linked to either material SOL OR non-material SOL but not both. Arguments are based on trade instability OR exchange rate instability linked to both material AND non-material SOL.
10-12	Able to focus on the link between external stability and SOL, however lacking generally in depth and scope. Analysis is one sided such as either focus is on trade instability or exchange rates instability but not both and focus is on material SOL or non-material SOL but not both.
L1: 6-9	Weak link between external stability and SOL. For example, some reference to external stability and SOL, but lacking in coherence and depth. Too sketchy and superficial
1-5	Mostly irrelevant or out of focus – unable to link external stability to SOL. Major conceptual errors.
E2: 3-4	Judgment supported by analysis Pretty strong conclusion demonstrating clear understanding of characteristics/nature of

	economies and material/non material SOL.
E1: 1-2	Unexplained judgment Conclusion that is either missing or not supported by analysis. Unexplained stand.

Question 5

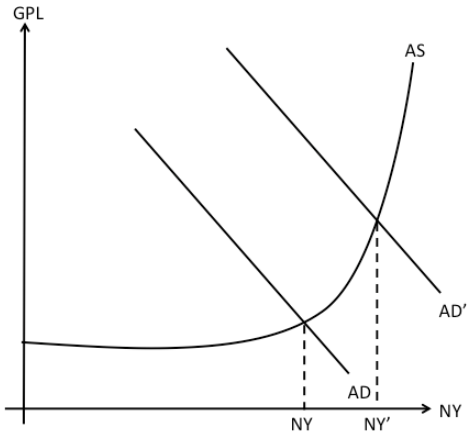
(a) Explain what determines the effectiveness of fiscal policy in achieving economic growth in Singapore. [10]

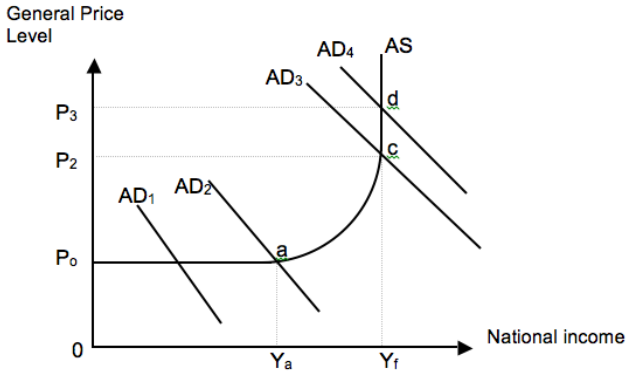
Question Analysis

Command Word	Explain what – candidates will need to *identify* and *elaborate* in detail certain *factors*
Content	Effectiveness of fiscal policy, increasing national income
Context	Singapore
Approach	Candidates will need to explain in detail <u>three</u> factors that will affect the effectiveness of fiscal policy in increasing national income in Singapore. Since the context is Singapore, the key factor limiting the effectiveness of fiscal policy – the size of the multiplier – must be explained as one of the factors. The other two factors can be any reasonable factors that would foreseeably affect the extent to which national income can be increased in Singapore.

Suggested answer

Introduction	Fiscal policy is defined as the use of either government expenditure (G) or taxation (T) to influence the level of economic activity in an economy. An expansionary fiscal policy can increase national income and thereby achieve economic growth. This can be done by either increasing G or decreasing T – when G is increased, for example, by spending on improving infrastructure in Singapore, such as the expansion of the Downtown Line, this will increase AD since G is a part of AD. Similarly, when income and corporate taxes are reduced, this increases disposable income for consumers, as well as after-tax profits for firms, such that they have more funds available for re-investment. This may also increase consumption and investment levels, similarly increasing AD. When AD increases from AD to AD' as shown in the diagram, this results in a multiplied increase in national income through the multiplier process – where the initial spending by the government, or firms, leads to additional rounds of spending which generates additional income for other parties in the economy. National income thus increases from NY to NY'.

	 However, the effectiveness of fiscal policy depends on several factors, which I will explain in this essay: first, the size of the multiplier; second, the amount of spare capacity available; and finally, consumer and investor confidence.
Body	In Singapore, the effectiveness of fiscal policy largely depends on the size of the multiplier. The multiplier (k) shows the relationship between an initial change in spending and the final rise in GDP, and is influenced by the marginal propensity to withdraw (MPW), which comprises the marginal propensity to save (MPS), the marginal propensity to import (MPM), as well as the marginal propensity of taxation (MPT). $$k = \frac{1}{mpw}$$ The larger the MPS, MPM and MPT, the smaller the multiplier, and the smaller the final effect on national income (effect). $$k \times \Delta AD(cause) = \Delta Y(effect)$$ This is because with a larger MPW, this means that with every additional round of spending that is triggered by the initial spending (for e.g. due to an increase in G), less of the additional income received is being passed on to create more rounds of spending. Therefore, the final increase in national income will be smaller than if the MPW were smaller. In Singapore, the government does not put emphasis on using fiscal policy to influence AD, income and employment. This is due to our high marginal propensity to import (MPM) due to our lack of resources and high marginal propensity to save (MPS) due to our Central Provident Fund (CPF) structure. This means that our marginal propensity to withdraw (MPW) is high and thus our multiplier effect is small. Thus, any autonomous change in AD due to fiscal policy will only lead to a small change in equilibrium income levels. Therefore, the size of the multiplier determines the effectiveness of fiscal policy in achieving economic growth in Singapore.
	Furthermore, the availability of spare capacity the economy also affects

	the effectiveness of fiscal policy in Singapore. Spare capacity refers to the availability of unemployed resources. An increase in AD as a result of an expansionary fiscal policy will lead to an increase in NY only if the economy has sufficient spare capacity. Between a and c section of the AS curve, firms are operating closer to capacity. A rise in AD (e.g. from AD2 to AD3) increases output and employment with general price levels starting to rise. Increasing output may require that less efficient standby machines and plants are used and less efficient workers are employed. Thus, the cost per unit of additional output increases due to the utilisation of less efficient resources. Therefore prices must rise to act as a signal for firms to increase supply. The AS curve is vertical from point c to d indicating the economy has reached full employment. Over this "classical" range, any increases in AD (e.g. from AD3 to AD4) will not lead to a rise in real GDP as nothing more can be produced. The excess demand will cause the general price level to rise with no increase in output.  This is particularly true in the context of Singapore, where it is likely that we are operating at the intermediate range of the AS curve, given our tight labour market and limited resources available. Therefore, the availability of spare capacity determines the effectiveness of fiscal policy in achieving economic growth in Singapore.
	Finally, consumer and investor confidence also affects the effectiveness of fiscal policy in achieving economic growth in Singapore. This is because if expansionary fiscal policy is conducted through the lowering of income and corporate taxes, this may not necessarily lead to an increase in consumption and investment levels since these are tempered by consumers' and investors' expectations. If consumers and investors are less confident as they have a poorer future economic outlook, they may choose to reduce consumption and investment even if income and corporate tax rates were lowered. This will lead to a fall in AD and subsequently a fall in NY.

	For example, as a result of the 2008 sub-prime crisis that originated in the United States and ultimately caused a recession in Singapore in 2009, it could be said that consumers and investors may be more wary and uncertain about Singapore's economic future. Therefore, consumer and investor confidence determine the effectiveness of fiscal policy in achieving economic growth in Singapore.
Conclusion	In summary, there are in total three factors that have been explained to show how they determine the effectiveness of fiscal policy in achieving economic growth in Singapore. These factors may influence the Singapore government's decision about whether to use fiscal policy. In part (b), we will explore how other factors may also determine policy decisions in Singapore. *NB: Any other relevant factors that may affect the effectiveness of FP in increasing NY are also acceptable.*

LORMS

L3	Candidate is able to identify three factors (including size of multiplier) that will affect the effectiveness of fiscal policy in achieving economic growth in Singapore. The explanations of these three factors in affecting effectiveness of FP are detailed and supported with relevant and well-referenced diagrams. Examples are used in support of factors highlighted, and these examples tend to be current, relevant, and useful.	7 - 10
L2	Candidate is able to identify two factors (including size of multiplier) that will affect the effectiveness of fiscal policy in achieving economic growth in Singapore. However, the explanation of these factors in affecting effectiveness of FP may be brief, undeveloped and/or inaccurate. There is some use of diagrams, although they may not be well-referenced. Examples tend to be stated and not used well. If size of multiplier is not stated as one of the factors (max 5 – L2)	5 - 6
L1	Candidate may have only identified one factor that will affect the effectiveness of fiscal policy in achieving economic growth in Singapore. There may be gross errors and/or omissions made in the explanation of how this factor affected the effectiveness of FP. OR Candidate may have merely listed factors affecting effectiveness of FP. These factors may or may not be relevant in answering the question.	1 - 4

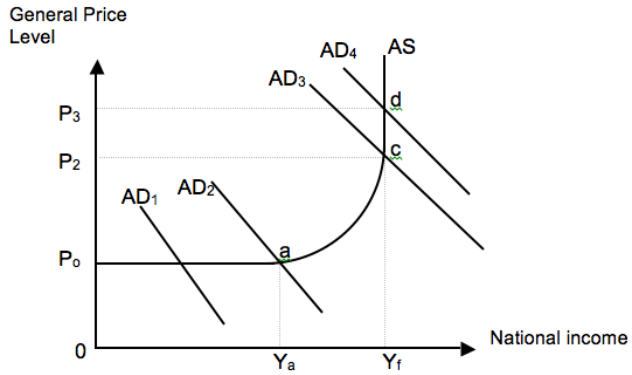
(b) Discuss whether conflict in macroeconomic objectives is the most important factor in determining policy decisions in Singapore. [15]

Question Analysis

Command Word	Discuss whether – candidates will need to explain multiple perspectives
Content	Conflicts in macroeconomic objectives, other factors that affect policy decision making in Singapore
Context	Singapore
Approach	• Thesis: Conflict in macroeconomic objectives is a factor in determining policy decisions in Singapore. • Anti-thesis: Other factors also affect policy decisions in Singapore. • Synthesis: Justify which is the most important factor in determining policy decisions in Singapore, using an explicit criteria.

Full answer

Introduction	Governments have to make decisions about which economic policy to use, such as fiscal, monetary, or supply-side policies, in order to achieve the four macroeconomic objectives of high and sustained economic growth, low inflation, low unemployment, and a favorable balance of payments. However, while all governments have these four aims, it is unlikely that these aims can **all** be achieved by any one policy at the same time, as the use of one policy may result in trade-offs between macroeconomic objectives. Therefore, in policy decision-making, governments may have to consider the trade-offs involved before deciding whether they should or should not go ahead with that policy. This makes conflicts in objectives one important factor in determining policy decisions in Singapore. However, there may also other factors that determine policy decisions in Singapore, and these include: current economic conditions, as well as the nature of the economy. In my essay, I will show how all of these factors may determine policy decisions in Singapore, before ranking them to explain which factor is likely to be the most important in the Singapore context, using a criteria.
Thesis	Conflict in macroeconomic objectives is a factor in determining policy decisions in Singapore. This is so for the case of fiscal policy. Due to conflicts in the objectives of full employment and price stability when fiscal policy is used, the use of expansionary fiscal policy tends to be avoided. This is because when there is an increase in G as governments spend on building infrastructure to boost economic activity, there is an increase in AD from AD3 to AD4 and hence an increase in real NY from Ya to Yf. As more resources are employed, the economy operates closer to full employment, Yf. However the economy will also face demand pull inflation from P2 to P3 as demand rises and bids up costs of factors of production, as seen in the figure below.



As mentioned earlier in part (a), since Singapore has limited spare capacity, it is likely that Singapore will face this conflict.

Therefore, if the Singapore government wants to achieve simultaneously the objectives of full employment and price stability, it is likely that they will avoid using fiscal policy. Hence, the conflict in objectives does determine policy decisions in Singapore.

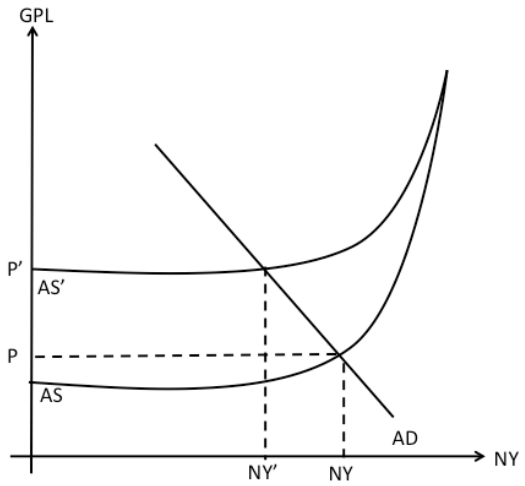
This is true also for the case of exchange rate policy. Due to conflicts in the objectives of achieving a favorable BOP and achieving price stability when the exchange rate is depreciated, depreciating the exchange rate is avoided.

In the event of an unfavourable balance of payments (BOP) due to a deficit in the current account, currency depreciation can help to resolve the situation. This is because a depreciation would help decrease the price of exports in terms of foreign currency and increase the price of imports in terms of domestic currency.

As export price competitiveness increases, the quantity demanded for exports and hence export revenue increases. At the same time as imports become more expensive, consumers switch to purchasing domestic goods instead.

Assuming that Marshall Lerner condition holds i.e. IPEDx + PEDmI >1, BOT improves since net exports increase. As BOT is part of a country's balance of payments, an improvement in BOT will lead to an improvement in BOP.

However, if the economy is import-reliant, the depreciation of the currency could lead to imported inflation as the prices of imported raw materials increase. This causes the AS to fall in the SR and the general price level to increase, as seen in the diagram below. Thus a healthy BOP is achieved at the expense of price stability.

	 An example of this would be Singapore, where imported inflation is likely to happen if the currency depreciates, since we are highly dependent on imported factor inputs, given that we have close to zero natural resources. This explains why Singapore is reluctant to depreciate its currency even when its BOT is worsening. Hence, this shows that conflict in objectives does determine policy decisions in Singapore in terms of the way a policy is carried out.
Anti-thesis	However, other factors also determine policy decisions in Singapore and are likely to be just as important as the conflict in objectives. One factor could be the current economic conditions faced by an economy. As mentioned earlier, the 2008 sub-prime crisis that originated in the United States and ultimately caused a recession in Singapore in 2009 and spurred the Singapore government into action by releasing a resilience package that increased government spending. It was determined that the unprecedented severity of the global financial and economic crisis justifies a draw from Singapore's past reserves. While the expansionary fiscal policy may result in conflicts in objectives as mentioned earlier, it is likely that in this case, the immediate economic concerns of a faltering world economy and an imminent recession overrode the concerns of conflicting aims between achieving economic growth and price stability. Another factor determining policy decisions in Singapore is also the small and open nature of our economy. This means that we heavily utilizes exchange rate policy, have given up control over interest rates (and the use of interest rate policy) and is also focused on implementing supply-side policies. Singapore’s small size and lack of natural resources means that most of our basic necessities and raw materials have to be imported. Furthermore, if we produce solely for the domestic market, our relatively smaller market would limit economic growth. These result in a very open trade policy with few import restrictions. Singapore’s total trade (X+M) is about three times that of GDP. Given Singapore’s small size, it does not influence world prices and is a price taker. Producers and consumers in Singapore have to accept prices dictated by global supply and demand conditions. As a result, the exchange rate directly

	affects the prices we pay. In addition, the direct effect of exchange rate fluctuations on our inflation works through the high import content of Singapore's consumption and production of goods and services. Managing the exchange rate is thus the most effective way of maintaining price stability in a small, open economy like Singapore. It is relatively controllable by the central bank and bears a stable and predictable relationship with the objective of monetary policy, which is price stability. The importance of external demand also means that traditional monetary policy instruments such as money supply or interest rate, which largely affect domestic demand, have a smaller influence on the overall level of economic activity and, therefore, inflation in Singapore. With a small domestic market and being highly export-oriented, Singapore is more dependent on external rather than domestic demand. If the Singapore dollar were to appreciate too quickly, her exports and hence AD would plummet, hence potentially triggering a recession. Given Singapore's high dependence on both imports and exports, it makes more sense for MAS to manage Singapore's exchange rate rather than domestic interest rates as the former has a greater impact on maintain macroeconomic stability compared to the latter. Therefore, the decision ultimately to *use* exchange rate policy, and *how we use* this policy is more affected by the nature of our economy, rather than the conflicts in objectives. Maintaining a gradual and modest appreciation of the SGD may have a trade off between price stability and a favorable balance of payments, but the nature of our economy dictates that no other policy can help to maintain price stability in Singapore, and therefore this is an important factor in determining policy decision.
Synthesis	The criteria used to judge which factor is the most important in determining policy decisions would be how *relevant* the factor is to the Singapore context. In this aspect, it is likely that the conflict in macroeconomic objectives is **not** the most important factor in determining policy decisions in Singapore. The nature of the Singapore economy may be the most important factor. This is because the nature of our economy determines the *feasibility* of the use of certain policies – even if the use of these policies may result in conflict in objectives, it may be less important given that the nature of the Singapore economy has already dictated the use of exchange rate policy as the main policy instrument, and that other policies such as the interest rate policy (even if it avoids the conflicts in objectives) is not feasible in the context of Singapore.

LORMS

L3	Answer is two-sided. Candidate is able to demonstrate how conflicts in objectives **as well as** *at least two other* factors may affect policy decisions in Singapore. Candidate is able to explain in detail how conflicts in objectives may arise with the use of certain policies and therefore affect policy decisions in	9 – 11

	Singapore. These explanations are well-developed and supported with diagrams which are useful in illustrating the conflicts. Candidae is able to explain in detail at least two other factors that affect policy decisions in Singapore. These explanations are well-developed and supported with current and relevant examples set in the Singapore context which are able to illustrate how these factors affect policy decisions.	
L2	Answer is two-sided. Candidate is able to demonstrate how conflicts in objectives **as well as** *one other factor* may affect policy decisions in Singapore. Candidate is able to explain how conflicts in objectives may arise with the use of certain policies and therefore affect policy decisions in Singapore. These explanations are done with some degree of accuracy but may not have been well-developed. Diagrams are present but not used well in support of answer. Candidae is able to explain one other factor that affect policy decisions in Singapore. The explanation is similarly brief and may not have been supported with current and relevant examples set in the Singapore context.	6 – 8
L1	Answer is one-sided. Candidate may have only considered how conflicts in objectives OR other factors affect policy decisions in Singapore. The explanation of either factor is very brief and undeveloped. There are no diagrams illustrated nor examples used in support of answer. Low L1 Answer may be largely irrelevant. Any relevant points made tend to be incidental rather than purposeful.	1 – 5
E2	There is a justified stand provided and the justification is based on an identified criteria to determine the most important factor in affecting policy decisions in Singapore.	3 – 4
E1	There is a stand made but this may have been unjustified. There is a justified stand provided but the justification is mostly rehashed based on what has been presented in the answer.	1 – 2

Question 6

To what extent is there a greater need for smaller countries to be globalised? [25]

Command words:	'To what extent" – provide thesis and antithesis on the issue and making a judgement of how much it is valid.
Content:	"greater need… to be globalised" – International economics (globalisation).
Context:	"Smaller countries" – countries of varying sizes.
Approach:	1. Reasons for greater need for smaller countries to globalise. 2. Reasons that smaller countries may be harmed when globalised. 3. Reasons for greater need for larger countries to globalise. 4. Reasons for globalisation that is independent of size of county.

Outline of answer:	
Introduction	Define globalised, overview of essay
Paragraph 1	Greater need for smaller countries to globalise – Increasing export revenue
Paragraph 2	Greater need for smaller countries to globalise – Decreasing cost of production and diversity of sources of resources
Paragraph 3	Greater need for smaller countries to globalise – Higher diversity in goods and services
Paragraph 4	Smaller countries not necessarily have a greater need to globalise – Gains not necessarily associated with size of country (Principle of CA)
Paragraph 5	Smaller countries not necessarily have a greater need to globalise – Smaller countries may lose out in globalisation
Paragraph 6	Smaller countries not necessarily have a greater need to globalise – Some large countries have more to gain from globalisation
Conclusion	Stand and justification as to the extent smaller countries have greater need to globalise.

Note: For this question there is an <u>explicit need</u> to define what 'smaller countries' mean, as well as to compare smaller countries with larger countries, particularly in the thesis, to JUSTIFY why there is a greater need for smaller countries to be globalized. The highlighted portions in the answer below shows the direct comparison between smaller and larger countries.

<u>Introduction</u>

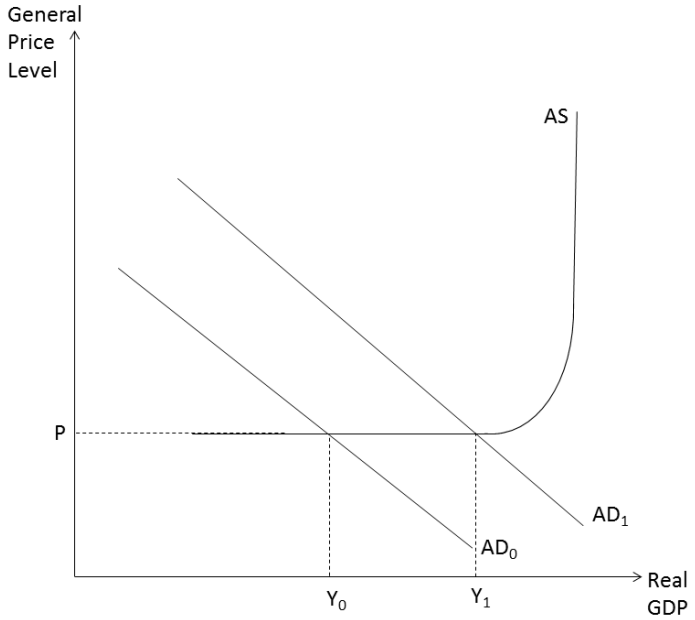
Globalisation refers to the increasing integration and interdependence of the world's economies arising from increased trade and greater international mobility of factors like capital, labour and enterprise. Countries were getting more globalised but the recent trend suggested that some countries, especially the larger ones, tend to move away from globalisation. This essay will explore the extent to which smaller countries have a greater need to globalise compare to larger countries.

<u>Thesis</u>

1) Small countries have greater need for globalisation to increase export revenue

There is greater need for smaller countries to globalise to increase their national income through export revenue. Small countries have smaller domestic market/demand compared to larger countries. Globalisation allows small countries to tap into the world market for their exports. With the greater market, there will be more people buying the products of a smaller country thus higher income for small countries due to contribution from exports. E.g. Singapore, given a population size of about 5 million, can tap into markets in other countries

that are many times larger than the 5 million people market. With reference to the diagram below, assuming that AD0 (AD=C+I+G) represents the AD of a small country that was not globalised, the income level will be at Y0. With globalisation and export revenue, the AD curve will be at AD1 (AD=C+I+G+X-M) which will increase the national income to Y1. Thus an increase in national income with export revenue through globalisation.



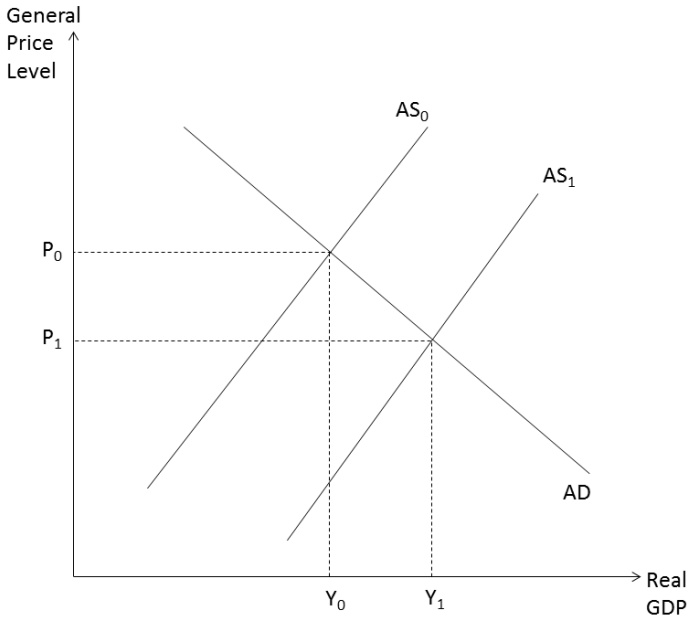
However, with globalisation there are also imports which will substitute domestically produce goods. Citizens in smaller countries may buy imported goods in place of domestically produced ones, and if the amount is large enough, it may reduce domestic C so much that the increase in X is negated.

2) Decreasing cost of production and diversity of sources of resources

Globalisation can help solve the resource constraints of smaller countries. Small countries tend to have less resource (e.g. labour and land) compared to large countries. E.g. Land and labour sizes of Singapore is very limited. With low levels of resource available, price of these resources will be higher thus cost of production will also tend to be higher. By tapping into the world for resources, can increase the supply of resources thus reducing the price. E.g. allowing inflow of labour into Singapore economy has helped to drive down the cost of labour in sectors like construction and hospitality. [May illustrate with FOP DDSS diagram]

The increased market size for firms in smaller countries also allows them to reap EOS thus reducing their COP. E.g. With larger market, firms can purchase their FOP in bulk thus enjoying bulk purchase discount (marketing EOS). By virtue of larger domestic market size, firms in large countries already have the potential to reap EOS.

The increase in FOP and reduction in COP will increase the AS thus reducing GPL and increasing NY. When AS increase, AS curve shifts to the right from AS0 to AS1, which will result in GPL falling from P0 to P1 and NY increasing from Y0 to Y1.



3) Higher diversity in goods and services

Not only there is an increase in the quantity of goods for consumption, there is also greater diversity for consumers in smaller countries when the country globalise. Given the limited resources available in small countries, there is also less ability to diversify the production of goods and services. By widening the import sources, smaller countries can import different types of goods and services to cater to different tastes and preferences. E.g. Given the land size, fishes cultivated in Singapore are only the ones that can be cultivated in captivity, but globalisation allows Singapore to import ocean caught fishes.

However, the diversity of goods may not be peculiar to smaller countries but also countries will different climate. Certain goods can only be produced in specific climate thus with globalisation, larger countries can also enjoy products that their country cannot produce because of climate. For example, tropical fruits can only be grown in the tropics and larger countries in the temperate will be able to enjoy these fruits too although they cannot produce these fruits in their countries.

Antithesis

1) Gains not necessarily associated with size of country (Principle of CA)

Smaller countries not necessarily will have more gain than larger country. According to the principle of CA, if countries specialise in producing what they have comparative advantage in (lower O/C), and these countries embark in mutual trade, they will all be able to produce and consume more. Countries have CA in producing certain goods for many reasons: Abundance in labour or land thus CA in producing labour or land intensive goods; abundance in capital or technology thus CA in producing capital or technological intensive goods. Abundance of labour and land is usually associated with large countries that are developing, thus there are also a lot for large countries to gain from globalisation/trade. E.g. China is a very large developing country and it has gained a lot from globalisation by specialising and exporting labour intensive goods.

2) Smaller countries may lose out in globalisation

Smaller countries may lose out in globalisation because of the TOT. The distribution of gains based on principle of CA depends largely on the TOT. If the TOT is favourable to a country, that country will have greater gains from the exchange (i.e. they will be able to exchange less for more). Small countries because of the limited volume in production will tend to have less bargaining power thus may have less favourable TOT. Leading to having to produce much more to exchange for less of other's goods. In addition, the lack of volume also makes small countries to be price taker in the world market thus subject to world price fluctuations.

3) Some large countries have more to gain from globalisation

Large countries can also gain from globalisation because of increased employment. When large developing countries have abundant labour but insufficient demand to employ all, excess labour (unemployed labour) can be employed in other countries because of globalisation. E.g. countries like Bangladesh, China, India and the Philippines have large number of citizens working abroad. This will increase their income level and improve the BOP.

Conclusion

While it is true that large countries can gain from globalisation, the gains for smaller countries are more significant because their survival depends on these gains or are imperative to them. Therefore, it is to a large extent that large countries have less need for globalisation.

Levels	Level Descriptors	Marks
Higher L3	Answer is able to address question requirements of 'to what extent' fully. Extensive use of theoretical knowledge and concepts to analyse. Good use of examples to illustrate key ideas and is consistently done. A coherent argument can be seen throughout the essay	18-21 Marks
Lower L3	Answer is able to address question requirements of 'To what extent'. Use of theoretical knowledge and concepts to analyse is evident. Good use of examples to illustrate key ideas and is consistently done. Good use of examples to illustrate key ideas. A coherent argument can be seen to some extent.	15-17 Marks
Higher L2	Answer is able to address question requirements of 'to what extent' to some extent. Use of theoretical knowledge and concepts to analyse but may not be developed well. Some use of examples to illustrate key ideas, but not all are done well. A generally coherent argument can be seen.	12-14 Marks
Lower L2	Answer is able to address question requirements of 'to what extent' to some extent. Use of theoretical knowledge and concepts to analyse but may not be pervasive or developed well. Some presence of examples to illustrate key ideas, largely stated only. An argument can be seen, but it lacks general coherence.	10-11 Marks
Higher L1	Answer is unable to address question requirements of 'to what extent'; one sided essay. Some attempts to use economic analysis, but may contain conceptual errors. Absence of examples or examples are merely stated incidentally. No argument can be seen, and points are largely in isolation of argument.	6-9 Marks
Lower L1	Answer is unable to address question requirements of 'to what extent'; one sided essay. No economic analysis is used. Conceptual errors are evident. Absence of examples. Incidental points on advantages and disadvantages of globalisation/protectionism.	1-5 Marks

Evaluation		
E2	Evaluative comments are clearly stated and well justified using good economic logic.	3-4
E1	Evaluative comments are present but not well justified	1-2