H1 Economics 8819

2015 JC2 Prelim Exam

Answer Package

Case Study Questions & Essays

CSQ 1 Suggested Answer Scheme

(a) (i) Describe the trend in sugar prices between 2010 and 2015. [2]

Overall [1m]
The trend of sugar prices is generally decreasing.
Refinement [1m]
There is an increase in sugar price in 2011.
OR Sugar price is highest in 2011.

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(ii) Account for the overall trend in (ai) [4]

The favourable seasonal weather condition for sugar leads to an increase in the supply of sugar from S_1 to S_2. [Evidence & Knowledge]

It is stated in extract 1 that there is "rising population, rising levels of incomes – real income and shift in emerging markets toward urbanization". Hence this leads to an increase in demand from D_1 to D_2. [Evidence & Knowledge]
The above explanation will get a maximum of [3m].

When the increase in supply is more than the increase in demand, price will fall from P_1 to P_2, thus accounting for the decrease in sugar prices. [1m]

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(b) (i) Using a diagram, explain the economic case for the imposition of a sugar tax to curb obesity. [4]

Answers that identify the source of market failure due to negative externalities or imperfect information are accepted.

Market Failure due to Negative Externalities
1. Divergence (MEC associated with obesity e.g. burden on healthcare system)
2. Evidence from extract 4: "Burden of diabetes and heart disease"
3. Overproduction/overconsumption of unhealthy food and drinks (QsQf from the diagram)
4. Deadweight loss, as seen in shaded area from diagram
5. Diagram (answer must refer to the diagram)

Points 1 to 4 will gain a maximum of 3m and *point 5 will be allocated 1m.*

Market Failure due to Imperfect Information
1. Divergence (perceived MPC vs actual MPC associated with obesity e.g. burden on healthcare)

2. Evidence from extract 4: “Burden of diabetes and heart disease”
3. Overproduction/overconsumption of unhealthy food and drinks (QsQfperceived from the diagram)
4. Deadweight loss, as seen in shaded area from diagram
5. Diagram (answer must refer to the diagram)

Points 1 to 4 will gain a maximum of 3m and *point 5 will be allocated 1m.*

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(ii) Discuss whether a tax is the most appropriate policy to tackle the ills of obesity. [8]

Question Analysis

Command	Discuss - to provide at least 2 different perspectives of the issue.
Content	Market Failure and Government Intervention - Policies to rectify negative externalities
Context	Obesity due to high sugar intake in various countries such as the UK
Approach	Students need to discuss whether the sugar tax is the most appropriate policy to tackle the ills of obesity. TAS Structure ▪ Thesis: Sugar tax is an appropriate policy to tackle the ills of obesity – explain how the sugar tax works and weigh the pros and cons. ▪ Anti-Thesis: There are other appropriate policies (regulation, ban, moral suasion…etc.) that can tackle the ills of obesity. Synthesis: Weigh all 3 policies and come to a justified conclusion, with linkage back to the question.

Essay Outline

Introduction	▪ Define market failure ▪ Context of the essay – Sugar tax as a policy to tackle obesity in various countries e.g. UK ▪ Overview of the essay
Body	Thesis ▪ Tax and how it works in increasing the MPC (effective in solving negative externalities/ imperfect information) ▪ Limitations of a tax Anti-Thesis ▪ Other policies (refer to extract 3 & 4) – Regulation

	(restrict the added sugar in food) and moral suasion (increase information) ▪ Limitations of each relevant policy
Conclusion	Synthesis ▪ Make and justify a stand – Tax can be or not be the most appropriate policy depending on the scenario – SR vs LR, different countries etc. ▪ A combination of policies works better – explain how the policies complement each other when used together.

Suggested Answer

In this question, from extract 3, we see that a country like UK wants to implement a sugar tax policy to tackle the ills of obesity as aforementioned in part (b), due to the presence of negative externalities which is a source of market failure. In this answer, I will discuss as to whether such a tax is the most appropriate policy in tackling the ills of obesity.

When the government implements a policy of sugar taxes to tackle the ills of obesity, the MPC increases to MPC*, where MPC*=MPC + tax and the tax per unit = MEC at Qs. This is shown in figure 1, where the MPC curve shifts to the left to MPC*. The new equilibrium will then be at MPC*=MPB, where Qs, the socially optimal output level, is achieved, hence the overconsumption of food high in sugar is reduced, and deadweight loss is eliminated, thus tackling the ills of obesity. The policy of taxation is beneficial to the government as it will obtain greater government revenue where it can spend on improving infrastructure…etc. Taxes are also easy to implemented and still allow free market forces to operate –consumers who can afford to pay the taxes will still continue to consumer such processed food, whereas those who can no longer afford to pay the taxes to stop consuming the processed food. Unfortunately in reality, it is very hard for the government to identify the MEC at Qs, hence under-taxation would still present the problem of overconsumption and deadweight loss will still exist. Over-taxation might lead to under-consumption and a whole new deadweight loss will be present. Moreover, such processed food with high sugar content might be very addictive and hence the demand for such foods will be relatively more price inelastic. Thus, a very large amount of taxes need to be implemented in order for the quantity demanded to drastically be reduced. As such, the policy of taxes might not be the most appropriate policy to tackle the ills of obesity.

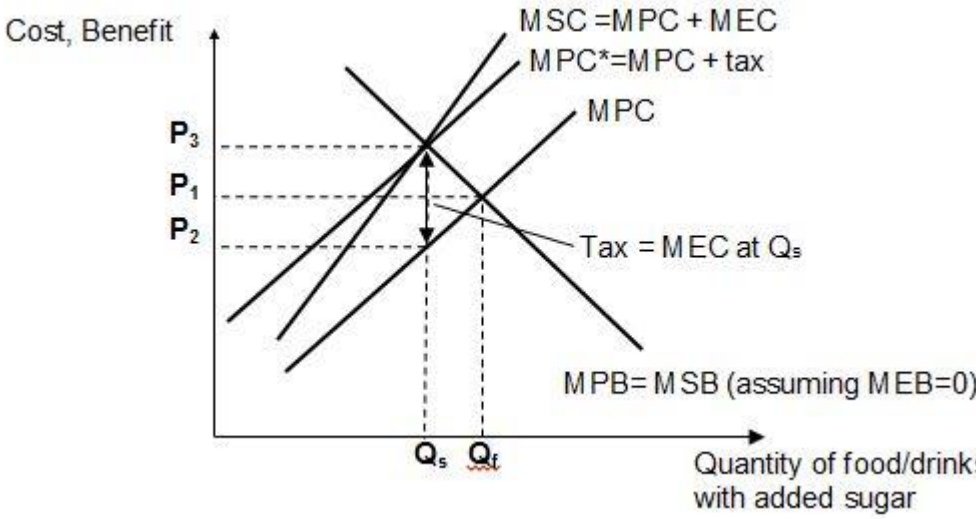

Figure 1: Tax on Sugar

An implementation of a regulation, such as limiting the availability of ultra-processed foods and sweetened soft drinks, would also be appropriate in tackling the ills of obesity. By reducing availability of unhealthy processed foods, this will help to reduce the overconsumption problem mentioned in part b, thus achieving Qs, the social optimal output level and hence the deadweight loss will be eliminated. A regulation can be easy to implement, however such a regulation could be seen as a blunt tool, as compared to taxation or moral suasion, and the cost of monitoring and enforcing will be high. Such a regulation could also lead to people 'smuggling' into the country/creation of black markets to solve possible shortages.

Moral suasion could also be an appropriate policy to help tackle the ills of obesity. Educational campaigns will help to correct consumers' imperfect information with regards to the actual MPC of consuming processed foods with high sugar levels/educate them about the external costs, MEC. As such, through moral suasion, the negative externalities will be internalised, and Qs the social optimal output level will be achieved with the elimination of the deadweight loss. In the long run, this policy is very appropriate as the people willingly reduce their consumption of such processed food, thus tackling the ills of obesity. On the other hand, such a policy will take a long time to come into effect, as compared to taxes or regulation, as it takes time to change people's perspectives and change their eating habits. Moreover, such a policy does not guarantee results as it depends on consumers' initiatives to change their dietary habits, rather than an enforcement of policy like taxation or regulation.

To conclude, a tax alone is definitely not the most appropriate policy to tackle the ills of obesity. For best and most appropriate results, it is

recommended that the government implements the tax for short-run effectiveness due to the immediacy of the policy implementation. The government can then channel the tax revenue collected into educational campaigns to educate the society about the ills of obesity in hopes that the external costs will be internalised/the imperfect information will be corrected for long-run effectiveness. Should the PED of such foods be relatively price inelastic, regulations as mentioned in the seven-point plan, such as limiting the availability of ultra-processed foods and sweetened soft drinks or reducing added sugars in food by 40% can also be implemented alongside the tax and moral suasion for guaranteed best results. This will then ensure that the ills of obesity will best be tackled most appropriately both in the short run and long run.

Marks Scheme

Level	Description	Marks
2	Provided a well-balanced 2-sided answer with sufficient elaboration and use of analytical framework, with evidence.	4—6
1	Only considered a one-sided effect of taxes OR A two-sided descriptive answer that merely listed and lacked economic analysis, with little or no use of evidence.	1—3
E	Overall stand on the issue with/without justifications based on economic analysis.	1—2

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c) Explain why consumers have to bear a greater burden of the sugar tax. **[4]**

- PED of sugar is inelastic as only a small portion of income is spent on sugar. [1m]
- PES of sugar is elastic as sugar is a manufactured product or preservative. [1m]
- Hence, PED is more inelastic relative to PES. [1m]
- Diagram illustrating consumers bearing a greater burden of sugar tax. [1m]

(d) Discuss the impacts of the 'reform of the EU Common Agricultural Policy (CAP)' on developing and developed countries. **[8]**

Question Analysis

Command	Discuss – to provide at least 2 different perspectives of the issue.
Content	'Impacts of… on developing and developed countries' – something to do with interconnected nature of economy → quite open.

Context	'Reform for EU CAP' – EU cap is a quota imposed on domestic producers (Extract 5) and a 'push for reform of EU CAP' is the end of the quota. (Extract 5).
Approach	Students need to discuss the impacts of the reform on CAP. Since context specifies developing and developed countries, you will need to discuss impacts on both developed (EU) and developing (ACP). Since the command word is 'discuss', the TAS will also need to be included. As it is a [8m] question and not a 15m essay, answer will need to show 3 points out of the following 4 to give you a TAS structure: • Positive impact on LDC • Positive impact on DC • Negative impact on LDC • Negative impact on DC

Note that EU will represent the DC while ACP or any other reference to developing countries in extract will represent the LDC.

Some Possible Impacts

EU (DC)	ACP (LDC)
With the removal of EU CAP ➔ increase in domestic production of sugar ➔ increase in domestic supply of sugar ➔ fall in price of sugar ➔ increase in consumer surplus (+) ➔ increase in quantity of sugar ➔ increase sugar consumption ➔ worsening obesity and market failure (-)	With the removal of EU CAP ➔ less demand for land in developing countries ➔ reduce land grabs ➔ allowing small scale producers to survive (+) BUT can erode of livelihood as dependent on the sugar trade (-)
With the removal of EU CAP ➔ EU becomes a net exporter ➔ increase in export earnings ➔ increase in (X-M) ➔ increase in AD ➔ increase in GDP ➔ increase in actual economic growth (+) ➔ increase in employment (+) ➔ improve in BOT/BOP (+) ➔ increase in inflation (-)	With the removal of EU CAP ➔ lose preferential access to EU ➔ decrease in exports earnings ➔ decrease in (X-M) ➔ decrease in AD ➔ decrease in GDP ➔ decrease in actual economic growth (-) ➔ decrease in employment (-) ➔ worsen in BOT/BOP (-) ➔ lower inflation (+)

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Suggested Answer

<u>Introduction</u>

Currently, there is a quota on EU domestic sugar production. The shortfall in local demand is met by developing countries. A reform of the Common Agricultural Policy (CAP) will lead to an end of the quota. According to

Extract 6, large sugar producers in EU are the most competitive producers. Thus, a reform of CAP is likely to lead to many changes in the world market for sugar. This essay serves to discuss the impacts of the reform on developing and developed countries.

Body

EU stands to gain from the reform of CAP. Because of the reforms, EU domestic sugar producers will now be able to increase production of sugar. As they are the most competitive sugar producers, they will likely move from being a net sugar importer to a net sugar exporter, as reported in Extract 5. As a result, this will increase their net exports, a component of aggregate demand (AD), and increase the AD as well. Through the multiplier process, the increase in net exports will lead to an increase in incomes, as seen in the graph below.

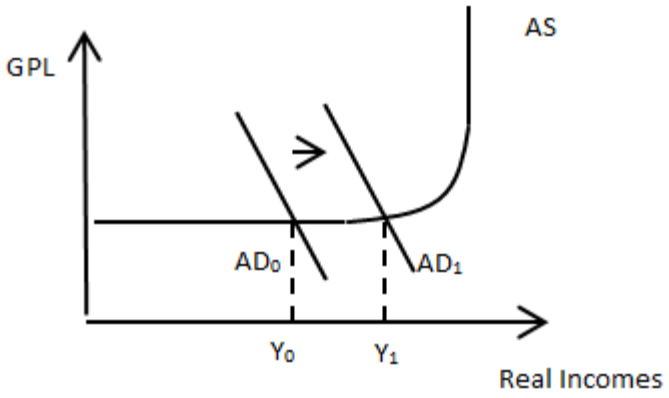

Figure 1

As a result, EU will see higher incomes due to the reform of CAP.

However, this might not be entirely good for EU. According to extract 6, EU sugar prices will fall and conform to the world prices. This will lead to increase consumption of sugar and sugar related foods. In UK for example, the consumption of sugar has risen and obesity and other sugar related issues have risen due to rising sugar consumption. Hence, a fall in sugar price will actually lead to a worsening of the market failure associated with the consumption of sugar. (for H2, I would probably add the market failure graph here).

For developing countries, this reform of the CAP might not be a bad thing. Although this will mean that it will lose export revenue and affect the livelihood of many people, there could be some positive outcomes. Because of the CAP, there has been an increase in large scale deals in developing countries. These deals often occur at the expense of smaller farms, as seen in extract 6. Large firms will end up exploiting the land,

small producers and create problems for domestic producers. A reform of the CAP will see a fall in demand for sugar production in developing countries, leading to a fall in demand for land and less exploitation of workers and land in developing nations.

Conclusion

Overall, a reform in CAP will likely be positive for EU as a developed country with better sugar production, and while CAP can have positive effects on developing countries, it is likely that its overall effects on developing countries will be negative. However, the effects are only temporary. With the removal of protectionist measures, the market can then work to reallocate resources efficiently. In the long run, the developing countries could develop comparative advantage in sugar production as they continue to mechanise and develop. This might mean a reversal of the effects.

Marks Scheme

Level	Description	Marks
2	Well-developed answer that provides sufficient economic elaboration on the issue. Well-developed means 3 points out of the following 4: • Positive impact on LDC • Positive impact on DC • Negative impact on LDC • Negative impact on DC To achieve top marks, answers must also use an economic framework (DDSS, market failure or ADAS). If ONLY positive or negative impacts considered, marks will be capped at 4.	4-6
1	1 sided discussion, either in terms of analysing impacts on developed or developing countries ONLY.	1-3

Evaluation

Level	Description	Marks
1	Overall stand on the issue. For 2m, an economic justification is needed. Stands can include: magnitude of impact, outcomes of impacts, the reform's relative importance to each country etc.	1-2

CSQ 2 Suggested Answer Scheme

(a) (i)	**Using Table 2, compare the real GDP growth rates of India and China from 2013 to 2015.**	**[2]**
	Suggested Answer: Real GDP growth rates of both India and China is positive [1] but India's real GDP growth rate is rising while China's real GDP growth rate is declining. [1]	
(ii)	**Using Extract 8, account for India's growth rate.**	**[4]**
	Suggested Answer: Observation: India's growth rate is rising and projected to rise further in the future. Any 2 Reasons behind India's faster growth rate - Lower commodity prices (evidence), (India may be importing more commodities), lower COP AS shifts right, higher GDP (knowledge) - Lower interest rates (evidence); sparking faster AD growth, higher GDP (knowledge), - Steady inflow of foreign investment (evidence); higher AD, higher GDP (knowledge) - Prevent Rupee from rising (evidence) to maintain/increase export competitiveness, hence higher AD, higher GDP (knowledge) 2m for each point: knowledge & evidence needed for full credit.	
(b)	**Using Tables 3 and 4, explain one possible reason for the difference in the ranking of India.**	**[2]**
	Suggested Answer: Observation: India's ranking rose from 5th position in table 2 to 4th position in table 3. [1] OR India & Vietnam swopped places. Reason: This may be due to lower cost of living in India. After accounting for PPP, Indian citizens would be able to enjoy a larger basket of goods and services. [1]	
(c)	**Explain why China should 'look into boosting social safety nets'.**	**[4]**
	Suggested Answer: • Consumers need to feel that they are taken care of by the state and be more inclined to spend rather than save. • This will help to fuel consumption and drive economic growth as AD rises (knowledge) rather than have the economy be over-reliant on an 'investment binge' (evidence) • Lower savings as opposed to high savings rate (evidence) is preferred as there will be lesser withdrawals from China's circular flow of income. • Given that MPS is part of the multiplier, if MPS becomes smaller, then the multiplier value can grow and any rises in AD will bring about a larger increase to China's national income. (knowledge)	

Examiners' Comments:
Most students were able to relate the boosting of social safety nets to impact on consumption, AD and economic growth. Evidence was also used to support this government's stance. However, few students were able to pick out the impact on the country's savings and link it to the level of withdrawals on the economy.

(d) Discuss the impacts of China's 'growth-at-all-costs strategy' on her economy. [6]

Suggested Answer:

Thesis: Positive impacts of China's 'growth-at-all-costs strategy' on the economy.

- Evidence: Table 2 on China's growth rate. Knowledge: This strategy has been propelling China's growth in national income well so far. (AD rising via export led growth), providing jobs for China's population (reduction in unemployment)
- Evidence: It has put China on the world map for being it low cost, cheap labour advantages. Knowledge: China possessing CA in manufacturing, AS shifts right, falling prices
- Helps bolster Chinese firms to better compete with MNCs in their own domestic markets as well as international ones.

Anti-thesis: Negative impacts of China's 'growth-at-all-costs strategy' on the economy.

- Evidence: Extract 8 "wrought damage on the environment". Knowledge: higher growth will lead to market failure without government intervention as firms strive to up production increase profits without care for environment. Also lead to fall in non-material SOL and lower quality of life.
- Evidence: Growth was 'propped by surge in investment in infrastructure and real estate that led to dangerous debt levels'. Knowledge: Such growth was overheating the economy and is fuelled by credit. This will lead to demand pull inflation.
- Evidence: Imbalance of economy fuelled more by investment. Knowledge: Not sustainable with 'issues of wasteful spending and mountain of debt'. Growth was not channelled into proper areas (quality of growth/composition of GDP growth argument)

Level	Description	Marks
1	For identification and explanation of only positive or negative impacts on China's economy. Did not bring in any macroeconomic objectives or standard of living.	1 – 3
2	For identification and explanation of both positive and negative impacts on China's macroeconomic objectives. Reasoned stand as to the overall impact on China.	4 – 6

(e) Explain Singapore's stance on maintaining a strong dollar to retain price stability. [4]

Suggested Answer:

- To correct imported inflation: a strong dollar helps to maintain the prices of imported goods and services and counter imported food inflation (evidence) which is helpful to Singapore, a resource poor country.
- To correct demand pull inflation: a strong dollar would raise the relative price of

	exports from Singapore, and lower the relative price of imports. This would result in a fall in net exports, leading to a fall in AD which can help to resolve demand pull inflation evident in the rise to MAS core inflation (evidence), in Singapore. • To correct cost push inflation: a strong dollar helps to lower prices of imported inputs, lower costs of production and result in production of cheaper final goods and services in Singapore.	
(f)	**Assess the view that 'an almighty lift from non-electronic exports' is needed for Singapore's economy.**	**[8]**
	Suggested Outline: **Current economic conditions prevailing in SG economy:** Evidence: Extract 9: Slower than expected export demand hence export revenue expected to dip by 1.1%. (Knowledge) With export revenue falling, Singapore's economic growth is likely to slow or fall, AD falling. Evidence: Extract 9: Economic restructuring and tighter foreign worker policies expected to drive up costs of production, AS may fall (knowledge). Challenges: Sustained Economic Growth **Thesis: Why an almighty lift from non-electronic exports is needed for Singapore's economy** - A rise in non-electronics exports will help fill the gap left by the fall in manufacturing exports, this will help to maintain AD and national income. (AD rising back to normal position) - **Anti-thesis 1: Why an almighty lift from non-electronic exports is insufficient for Singapore's economy** - However, evidence show that this area is also not performing well, 'pharmaceutical exports' have also been poor. - Furthermore, the main issue is that export demand is not picking up as it should as recovery in US is 'less import intensive'. **Anti-thesis 2: Other factors may need to be considered besides an almighty lift from non-electronic exports** - Singapore management of her policies may be crucial in driving sustained economic growth, such as the stricter foreign worker policies. It can improve labour productivity in the long run but may lead to firms suffering losses in the short term. Hence government may need to offer subsidies to firms and retraining for the workers. **Synthesis: Arrive at a reasoned conclusion as to whether such a method will indeed benefit Singapore.** - An almighty lift in non-electronic exports may be needed to provide that push in AD for Singapore's economy but needs to be supported by sound government policies as well. **Introduction: Highlight the Current Challenges faced by Singapore:** According to extract 9, Singapore was faced with slower than expected export demand with export revenue expected to dip by 1.1%. With export revenue falling, Singapore's economic growth is likely to slow or fall, with her AD falling. The impact on national income would be significant given Singapore's export oriented economy. Furthermore,	

the government is embarking on economic restructuring and tighter foreign worker policies as evidenced in extract 9. This is expected to drive up costs of production and AS may fall. Hence the main challenge to Singapore would be how to sustain her economic growth.

Body

An almighty lift from non-electronic exports is needed for Singapore's economy. A rise in non-electronics exports will help fill the gap left by the fall in manufacturing exports, this will help to maintain AD and national income, hence protecting economic growth.

However an almighty lift from non-electronic exports may be insufficient for Singapore's economy because evidence showed that this area is also not performing well. In extract 9, 'pharmaceutical exports' have also been poor. Furthermore, the main issue is that export demand is not picking up as it should as recovery in US is 'less import intensive'. Therefore exports revenue will still be slow and decline, Singapore's AD will continue to fall and Singapore may enter into a recession with her national income falling.

Other factors are needed for Singapore's economy. Singapore's management of her policies may be crucial in driving sustained economic growth, such as the stricter foreign worker policies. It can improve labour productivity in the long run but may lead to firms suffering losses in the short term. Hence government may need to offer subsidies to firms and retraining for the workers.

Conclusion (Time & Space)

Whether or not Singapore's economy will benefit from an almighty lift from non-electronic exports depends on the impact on Singapore's national income and supporting policies the government would also be pursuing. It would be a sound policy with short term positive effects but in the long term, this needs to be considered with other government policies as well so that economic growth can be achieved both in the short and long term.

Level	Description	Marks
1	For superficially explaining how an almighty lift from non-electronic exports will help Singapore's economy without bringing in macroeconomic objectives and/or standard of living.	1 – 3
2	For a thorough explanation and evaluation of how an almighty lift from non-electronic exports will help the Singapore's achieve her macroeconomic objectives. A reasoned judgement of whether the above will benefit Singapore or not.	4 – 8

Essay Question 3 Suggested Answer Scheme

3 (a) Explain why government intervention in the case of positive externalities may not lead to efficient allocation of resources. [10]

(b) Discuss whether positive externalities, rather than any other potential market failure, is the main reason for government intervention. [15]

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3 (a) Explain why government intervention in the case of positive externalities may not lead to efficient allocation of resources. [10]

Question Analysis

Command	Explain why: Using relevant economic facts, describe clearly and in detail, the reasons contributing towards said circumstances.
Content	Positive externalities; government intervention for positive externalities; government failure; efficiency concepts (AE/PE)
Context	Positive externalities; government intervention. No specific context –use relevant context for relevant government intervention
Approach	Students have to concentrate on the area of positive externalities, and present an answer to provide clear reasons as to why government intervention to correct the market failure, due to presence of positive externalities, will not lead to efficient allocation of resources.

Essay Outline

Introduction		▪ Definition: Efficient allocation of resources ▪ Contextualisation: Explain briefly how positive externalities lead to partial market failure, and hence the need for government intervention in the first place. ▪ Overview of the essay: Government Interventions (Subsidies, Direct Provision, Moral Suasion)
Body	**Para 1**	▪ Explain how the government implements subsidies to solve the market failure problem arising from presence of positive externalities. ▪ Explain how government failure in the implementation of subsidies leads to inefficient allocation of resources. » Over/under-estimation of MEB (= subsidies) which will lead to inefficient allocation of resources (information failure)
	Para 2	▪ Explain how the government directly provides for the good to solve the market failure problem arising from presence of positive externalities. ▪ Explain how government failure in the implementation of direct provision leads to inefficient allocation of resources. » Direct provision –takes up a large proportion of government revenue which might cause a reallocation of resources from

		other sectors where there are large opportunity cost; cannot accurately identify Qs (information failure); could lead to overconsumption because good is provided for free.
	Para 3	▪ Explain how the government implements subsidies to solve the market failure problem arising from presence of positive externalities. ▪ Explain how government failure in the implementation of subsidies leads to inefficient allocation of resources. » Moral suasion: rely on voluntarism to achieve Qs
Conclusion		Thus, although government failure is never avoidable, we can do our best to minimise the effects of government failure on the inefficient allocation of goods.

Detailed Answer

Allocative efficiency is the situation in which the society produces and consumes a combination of goods and services that maximises its welfare. It is achieved when goods and services wanted by the economy are produced in the right quantities – where there is an efficient allocation of resources. Market failure exists in the case of positive externalities due to the presence of marginal external benefits, where there is a divergence between marginal private benefits and marginal social benefits. Hence in the free market equilibrium, goods with positive externalities, for example healthcare services, will be under-consumed and hence deadweight loss will be present. Where allocative efficiency is not achieved due to market failure, there will be a need for the government to intervene. However, due to imperfect information, the government faces significant challenges in estimating the real costs of the market failure. As a result, policy implementations are often made with imperfect information and uncertainty, and therefore not lead to an efficient allocation of resources. This essay will serve to focus on 3 government intervention methods, namely subsidies, direct provision and moral suasion.

In order to solve the under-consumption present in healthcare, the government can decide to subsidize healthcare services for all citizens. As seen in figure 1, an implementation of the subsidy would cause MPC to be lowered, where MPC shifts to the right to MPC*. The new MPC* = MPC + Subsidy, where subsidy per unit = MEB at Qs = P3P2. The consumer will still maximise one's net private benefits and consume healthcare services at MPC*=MPB at Qs, hence the under-consumption is resolved and deadweight loss will be eliminated.

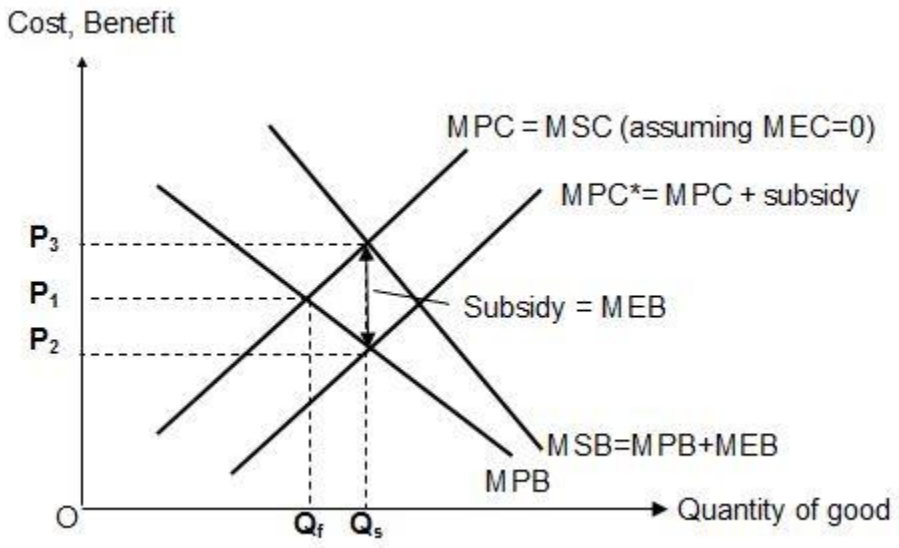

Figure 1: Subsidies

Unfortunately, in reality, government failure exists. The subsidy = MEB at Qs = P3P2 is very hard to estimate. This may lead to over-subsidisation where over-consumption of healthcare services will result, for example clinics and hospitals will therefore be overcrowded and thus emergency responses will become less efficient or may also lead to under-subsidisation, where under-consumption of healthcare services and the deadweight loss will still be present, leading to inefficient allocation of resources. In addition, providing subsidies for all citizens can be very draining on the government, leading to a lot of red tape and bureaucracies which will further lead to inefficient allocation of resources.

Alternatively, the government can also intervene in the case of healthcare services, by directly providing the good for free. By targeting the social optimal output level, this direct provision will ensure that Qs is achieved and ensure that under-consumption and the deadweight loss are eliminated. When healthcare services are provided for free, consumers' MPC will now be zero and hence consumers will now maximise their net private benefits where MPC=MPB=0. With reference to figure 2, consumers will now consume at Q', which is greater than Qs. This over-consumption results in a greater deadweight loss as represented by area A, as compared to the deadweight loss that resulted in the free market equilibrium without government intervention, as represented by area B. Since deadweight loss area A is larger than deadweight loss area B, this shows that government intervention in fact leads to greater inefficient allocation of resources.

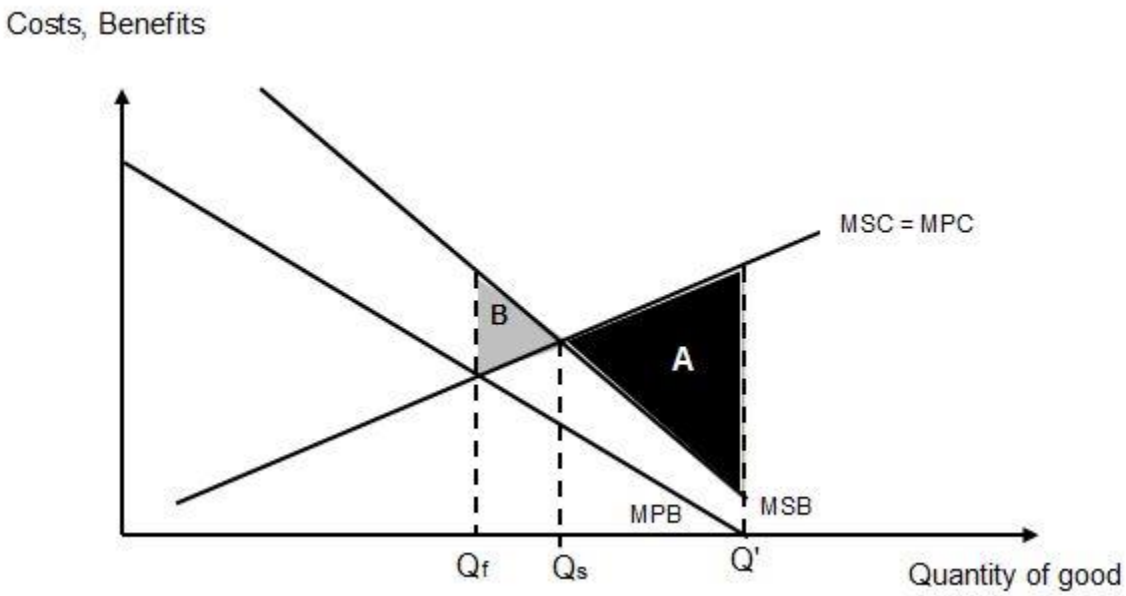

Figure 2: Overconsumption of a zero-priced good (Direct Provision)

The government can also engage in moral suasion, to educate the public about the positive externalities present in healthcare services. With moral suasion, consumers will then be able to internalise the positive externalities, and thus consumers' MPB will now be equal to MSB and hence consume at Qs, the socially optimal output level where under-consumption is corrected and the deadweight loss eliminated. Due to government failure, the government again may have imperfect information with regards to where Qs is, and how much moral suasion to engage in. The government is unable to guarantee 100% results with moral suasion. Due to time lags, for example the time taken to recognise the market failure problem to the time it takes to decide and implement the policy, it can also affect the efficiency of results and lead to inefficient allocation of resources. In addition, moral suasion can be a rather costly method, where the government may have to reallocate resources away from other sectors into healthcare services, which may lead to further inefficient allocation of resources.

To conclude, as seen in the government intervention methods aforementioned, the presence of government failure in the case of positive externalities, will therefore not lead to an efficient allocation of resources.

Knowledge, Application, Understanding and Analysis		
L3	A thorough knowledge of facts and theory with excellent analytical ability to describe and explain in a precise, logical and reasoned manner. Accurate use of facts and theories regarding government intervention methods dealing with positive externalities, substantiated with good diagrams and examples.	**8 — 10**
L2	Answer shows ability to identify the government failure when intervening with regards to the partial market failure due to presence of positive externalities.	**4 — 7**

	Undeveloped explanations of facts and theory, with some ability at graphs, and some application to examples.	
L1	Answer did not address question or address in an incidental manner. The answer is mostly irrelevant and contains only a few valid points made about the source of market failure with little or no elaboration, disregarding the context of government failure when intervening. None or very little applications made to examples.	**1 — 3**

3 (b) **Discuss whether positive externalities, rather than any other potential market failure, is the main reason for government intervention.** **[15]**

Question Analysis

Command	Discuss whether: Provide relevant arguments for and against an issue. Generally, the issues raised have some normative aspect, or have unspoken assumptions that can be challenged. Come to a judgment after reviewing the issue.
Content	Sources of market failure (Any 3) » Positive & negative externalities » Imperfect information (merit/demerit goods) » Public goods » Income inequality
Context	Positive externalities, amongst other sources of market failure. No specific context –use relevant contexts for the relevant sources of market failure.
Approach	Students must compare across all sources of market failure to decide is positive externalities is the main reason for government intervention.

Essay Outline

Introduction		▪ Definition: Market Failure ▪ Overview of the essay
Body	**Thesis 1**	Explain how positive externalities leads to partial market failure and hence why the government needs to intervene to correct it.
	Anti-Thesis 1	Merit and demerit goods provide greater impetus for government intervention due to presence of imperfect information as well.
	Anti-Thesis 2	Explain how public goods, because it leads to complete market failure due to missing market signals (no effective demand and producers having an inability to charge a price), requires government intervention no matter what and hence is the main reason for government intervention.

Conclusion		Compare across all 3 sources of market failure, and make a stand with justification, providing insights.

Detailed Answer

Market failure occurs when free markets fail to bring about an efficient allocation of resources where marginal social benefits do not equal marginal social costs. It can also occur due to inequitable distribution of income. In this essay, we will discuss whether positive externalities is the main reason for government intervention, where we will be comparing across various sources of market failure, namely positive externalities, imperfect information and public goods.

In the case of positive externalities, the government will intervene due to the presence of market failure. With reference to figure 3, in the free market equilibrium, the consumer will maximise net private benefits where MPC=MPB at Qf. The MPC of consuming healthcare services for example would be the cost of the medical services like vaccinations and medicine that one has to take. The MPB of healthcare services would be the healthier and sick-free lifestyle that one enjoys. We assume that there are no external costs, hence MPC=MSC. Due to the presence of positive externalities, there is a divergence between MPB and MSB, where MSB is larger than MPB for all output levels due to the presence of MEB. An example of MEB would be the greater protection from sicknesses and lower spread of diseases that the consumer's loved ones will enjoy and benefit from, when the consumer consumes healthcare services. The socially efficient equilibrium is at Qs, where MSC = MSB. Since Qs is greater than Qf, there exists an under-consumption of QfQs, thus resulting in a deadweight loss which is represented by the shaded area in figure 3. As such, in the case of positive externalities, partial market failure exists and hence there will be a need for the government to intervene to correct this market failure and achieve allocative efficiency.

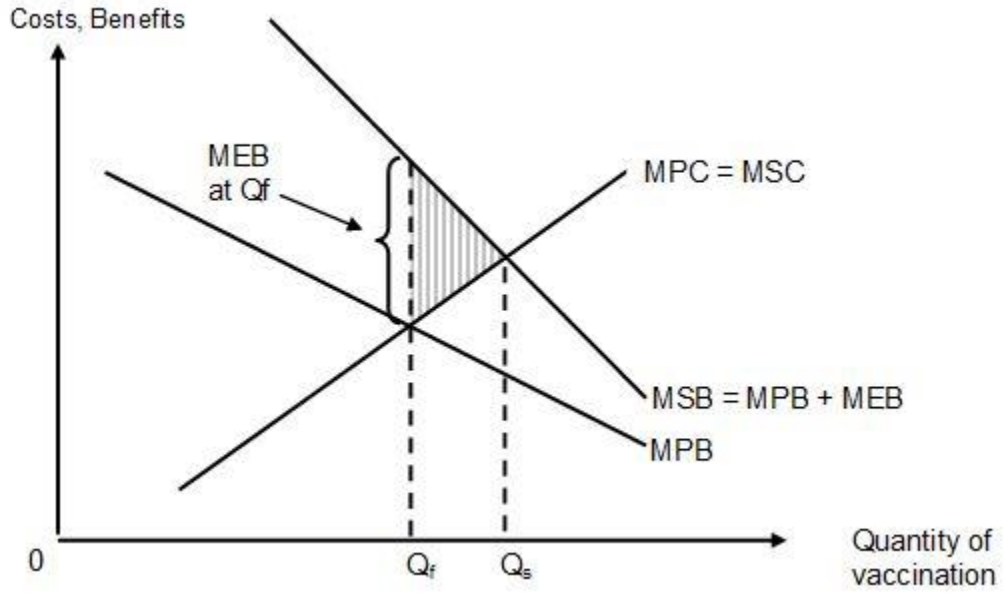

Figure 3: Presence of Positive Externalities

However, merit goods might provide greater impetus for government intervention. Education, for example, is considered by the government to be socially desirable and under-consumed due to

the presence of not just positive externalities, but also imperfect information. As seen in figure 4, the perceived MPB is lower than that of actual MPB due to the presence of imperfect information, where some families, especially the lower income ones, may think that pursuing a university education is less important than finding a job to help contribute to the monthly household income. As such, one would then consume where perceived MPB meets MPC at perceived Qf which is even lower than that of the actual Qf. This leads to an even greater under-consumption of merit goods, leading to a greater deadweight loss of Areas A and B, as compared to the original deadweight loss aforementioned, of area A. This therefore provides a more urgent need for government intervention than merely goods with positive externalities.

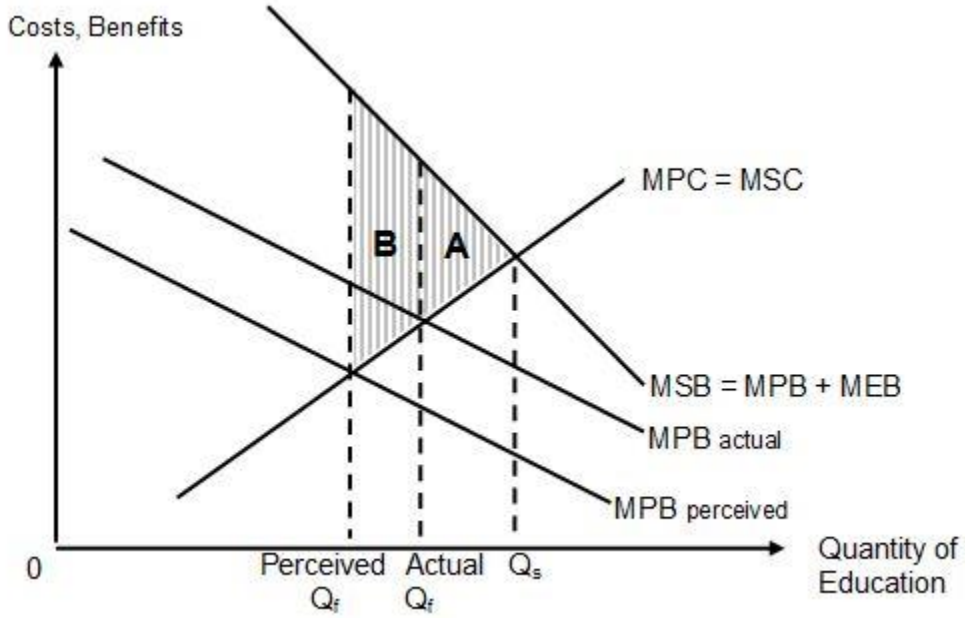

Figure 4: Presence of Imperfect Information in Merit Goods

Public goods are yet another source of market failure. Public goods are non-excludability and non-rivalry in consumption. An example of a public good is national defence. Due to its non-excludability characteristic, non-payers cannot be excluded from consuming such a good. As such, this leads to the problem of free-ridership. Hence, there will be no effective demand because nobody will be willing to pay for a good that is non-excludable in consumption. Furthermore, its non-rivalry in consumption means that the consumption of the good by an additional consumer will not leave less for others to consume. This means that the marginal cost (MC) of provision to an additional consumer will be zero. To achieve allocative efficiency, P=MC which is zero. No producer will charge a zero price due to non-profitability. Hence, this will lead to producers having the inability to charge a price. As such, there exist missing market signals in the market for national defence, thus leading to complete market failure where the public good will not be produced at all.

There exists a spectrum of market failure, where positive externalities and merit goods lead to partial market failure, where the goods are still being consumed in the free market equilibrium, whilst public goods lead to complete market failure. Since public goods will not be produced/consumed at all in the free market equilibrium as compared to goods with positive externalities or merit goods, I feel that this therefore provides the government with the greatest impetus to intervene in the market of public goods, as compared to merit goods or goods with positive externalities. This is so that the government can directly provide national defence, ensuring that national defence will be produced, and its citizens will be able to enjoy the security

it provides. Ultimately, I believe that whether positive externalities, rather than any other potential market failure, is the main reason for government intervention also depends on the government's objectives and short-tern versus long-term plans for the country. For a small vulnerable country like Singapore, obviously the development of national defence to provide a safe and secure environment would definitely be of top priority, before the government can think long-term and built up the labour force through education. As such, positive externalities will not be the main reason for government intervention.

Knowledge, Application, Understanding and Analysis		
Level	**Descriptors**	**Marks**
L3	For an excellent rigorous and analytic discussion of which source of market failure is the main reason for government intervention, with good application to relevant examples including well explained diagrams. No conceptual errors.	**9—11**
L2	For an undeveloped discussion that uses economic analysis to explain which source of market failure is the main reason for government intervention, with some application to relevant examples and drawn diagrams. Some conceptual errors in explanation.	**6—8**
L1	Answer shows some knowledge of sources of market failure, but discussion is weak/not well explained, with little/irrelevant examples. Major conceptual errors in explanation are present, with weak linkages to diagrams/lack of diagrams.	**1—5**
Evaluation		
E2	Good evaluative comments present in response - mini-synthesis, consideration of other factors, reality/contextual consideration, questioning of assumptions etc. with valid justifications and insights	**3—4**
E1	For an unexplained stand, without justification. OR Some evaluative comments present in response - mini-synthesis, consideration of other factors, reality/contextual consideration, questioning of assumptions etc	**1—2**

Essay Question 4 Suggested Answer Scheme

4 (a) Explain why there is a need for governments to engage in protectionism. [10]

(b) Discuss the extent to which globalisation helps to achieve sustained economic growth [15]

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4 (a) Explain why there is a need for government to engage in protectionism. [10]

Question Analysis

Command	Explain why: to give reasons why there is a need for protectionism
Content	Protectionism
Context	No particular context but some Singapore examples will be helpful
Approach	This is a simple and straightforward question. Time management is important here as the amount of material is extensive but the time available is only about 20 mins. Students therefore need to select only 3 points. Students should provide adequate reasons for protectionism and to get good marks, reasons should be accompanied with examples and evaluative comments.

Detailed Answer

Introduction:

Define protectionism: Protectionism is the economic policy of restricting trade between countries through a variety of government regulations designed to discourage free trade. It is a policy of sheltering domestic industries from foreign competition through the imposition of trade barriers on imports. A country would wish to restrict imports due to the benefits of protectionism which includes the protection of infant industries, reducing BOP deficits, protection against unfair competition and dumping and certain social benefits.

Overview

This essay will explain reasons for protectionism supported with examples and evaluative comments for each reason.

Body

Paragraph 1

P: Governments may engage in protectionism when there **is a need to protect infant industries in the country.**

E: Newly established industries need help in initial stages due to heavy initial costs. They need time to develop skilled management, reputation and exploit efficient technologies to be able to compete with developed competitors in other countries. These industries may have comparative

advantage but they need time to develop it. Without protectionism, a potentially efficient source of supply may be cut off. Protectionism buys these industries some time to grow, develop and gain efficiency as if a country learns enough through producing products in which it currently has a comparative disadvantage and has lower costs in the long run.

E: In the 1980s, Malaysia Prime Minister Mahathir Mohamad launched the national automobile company, Proton. Proton would be protected by massive subsidies, in order to help it attain the same economies of scale and other advantages enjoyed by established automobile exporters. Protectionism also allows countries to diversify into new niche areas of potential comparative advantage e.g. Singapore into the services sector.

E: The difficulty here is in choosing industries to protect, and again the political backlash that may be faced when removing these barriers.

L: Nevertheless without protection infant industries may not get off ground despite being potentially profitable in the long run.

Paragraph 2

P: Another reason why there is a need for protectionism is to reduce the BOP deficit

E: It is caused by the excessive import which is undesirable as it may lead to depletion of foreign reserves. Thus protectionism is put in place to restrict the amount of imports so as to correct the BOP disequilibrium. This is especially true during an economic downturn where unemployment rates would increase and dependency on imports may lead to demand for local goods to fall further aggravating the problem of unemployment.

E: For example US expenditures on laptop computers made in Taiwan count towards a deficit in the US current account. To correct its BOP deficit, the government might implement a protectionist measure on imports. UK had a persistent current account deficit since the mid 1980s and there may be a need for the British government to impose protectionist measure on imports and "Buy British goods."

E: However, the effectiveness of protectionism to correct the BOP disequilibrium is dependent on the price elasticity of demand and supply of imports and exports. If the demand for the good is price inelastic, it would drive up the cost and not only will the problem of BOP disequilibrium continue to persist, there will be another problem of inflation.

L: Thus it would be better if the government look at the root cause of the problem so that it will solve the problem in the long run.

Paragraph 3:

P: A government may engage in protectionism to protect industries against unfair competition and dumping

E: Dumping refers to the selling of goods in overseas markets below costs of production. The objective of dumping is to drive out rivals in importing country and eventually monopolise the market there. This also known as predatory dumping.This is detrimental as it would lead to reduction in domestic output and employment as domestic industries may be unable to compete

against foreign exporters. Additionally it is likely that prices would be increased after the collapse of the home industry, leading to welfare loss. Furthermore with some foreign production subsidised by their governments, this leads to unfair competition with producers in importing countries as they take on a higher cost of production.

E: In the past, the EU has used antidumping measures to slap higher import duties on, for example, shoes from China, plastic bags from Thailand, bed linens from Pakistan, television sets from Korea and salmon from Norway. In 2012, the US filed a complaint that China was given excess subsidies to its car industry resulting in unfair competitive advantage.

E: It is difficult to prove that foreign producers are subsidizing their exports so it will be difficult to know when to impose trade barriers. The differences in price could be due to price discrimination or lower production costs rather than export subsidies. Dumping causes price distortion and thus prices no longer reflect comparative advantage. A country may even export goods in which it has a comparative disadvantage.

L: Thus to counteract such practices, trade restrictions such as tariffs might actually be beneficial.

Extra

P: Another strong argument for protectionism would be to prevent over-specialisation of an economy.

E: In a recession, certain industries may be badly hit than others. These would often be industries producing essentials such as tourism. Being non-necessity goods and services, they would be largest hit with the largest fall in demand as income falls. Consequently, if a country is overly dependent on such industries, it would face detrimental outcomes in the long run. It is therefore important to protect other industries and cultivate them to reduce over-reliance on this one single industry. This is even more urgent in a recession if that one single industry has been badly hit and the entire economy sags because of it.

E: For example a country that specialises in commodities such as bananas and sugar may face large fluctuations n price in world markets, fall in price may cause large falls in standard of living. Trade barriers could be used to shelter these industries from foreign competition.

E: There are elements of reality in this argument however the gains of specialisation would be greater than the risks. Moreover it can also be argued that protectionism is not the most efficient method of preventing over specialisation. Again there is the problem of the “choosing” of industries and the timing of the removal of such protectionist measures. Once implemented, it is difficult to remove.

L: Thus the government needs to engage in protectionism to avoid over specialisation as it prevents an economy from becoming inflexible by overspecialising which means that it would be less vulnerable to external shocks.

Students can also write on argument to protect sunset industry etc.

Conclusion:

I feel that governments should engage in protectionism to some extent as it brings about social benefits for some countries. Protectionism is known to be used to protect and preserve traditional ways of life. Communities based on old traditional industries may be destroyed by foreign competition. Thus there is a need to restrict the amount of foreign competition and influence in traditional communities through protectionism, encouraging the locals to purchase domestic goods and preserving the culture and tradition.

Mark Scheme

Level	Description	Marks
1	Scanty description of reasons for protectionism. Stating reasons rather than explanation of reasons. Lacks depth.	1-4
2	At least 2 reasons. Adequate explanation of two reasons for protectionism. Some depth is seen but rather general with no evaluative comments and examples.	5-6
3	Three reasons. An acceptable level of explanation is seen. But this is not supported by examples. Good explanation of reasons supported by evaluative comments and examples.	7-8 9-10

4 (b) Discuss the extent to which globalisation helps to achieve sustained economic growth [15]

Question Analysis

Command	Discuss the extent" – Provide alternative(s) to the stated issue. Places emphasis on more than just having a two sided discussion but also to show the limit to which an argument has validity and to come to a reasoned conclusion.
Content	Globalisation and sustained economic growth
Context	No particular context. However students can make references to Singapore or any economy
Approach	TAS Approach. Address actual and potential growth using AD/AS analysis. All three flows (Trade, capital and labour) should be addressed and supported by examples, Balanced discussion about both benefits and costs of globalisation plus evaluation.

Detailed Answer

Introduction:

Define globalisation and sustained economic growth

Globalisation refers to the integration or inter-connectedness of national economies through trade of goods and services, foreign direct investment, capital flows, spread of technology and labour migration. Sustained economic growth refers to the increase in real output in the economy over time and this increase can be maintained. This is only achieved with both actual and potential growth. Economic growth could be the result of greater and better utilisation of existing resources (i.e. a rise in employment) or an increase in the capacity of the economy to produce goods and services. i.e. an increase in full-employment GDP. When the former happens, the economy is said to be experiencing actual growth; in the latter case, the economy is experiencing potential growth.

Overview

This essay aims to discuss whether globalisation helps to achieve sustained economic growth. I will use various examples of economies like Singapore, emerging economies like China and India and developed countries like USA in my essay.

Thesis 1

P: Globalisation helps to drive economic growth

E: Countries with small domestic markets like Singapore face severe growth constraints. Once the domestic demand is saturated there is not much room for output to grow. However, globalisation overcomes this constraint by providing domestic producers access to large/huge global export markets. For this reason growth can be driven by exports (i.e. external demand).

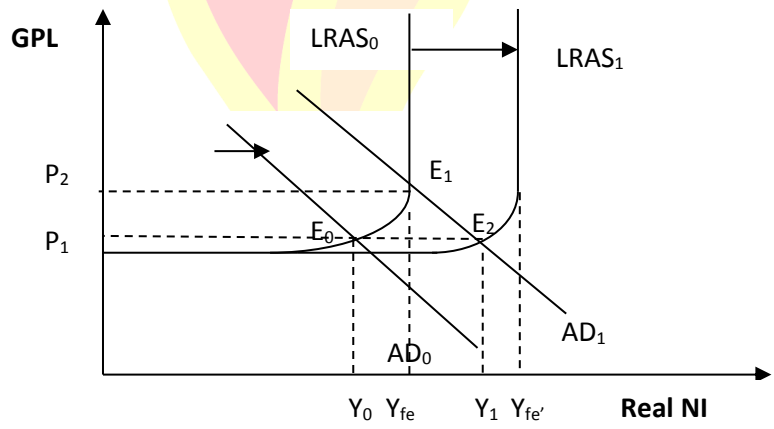
E: Singapore is a good example of a country that has adopted an export-led or export-driven growth strategy. In fact, Singapore's X to GDP ratio is around 1.5. In fact, external demand for X constitutes 150% of Singapore's GDP. Together with imports, total trade to GDP ratio is around 3.5 to 4. This ratio clearly indicates the high degree of openness and dependence of the SG economy on external trade.

The intersection of the AD_0 and AS_0 curves represents the current equilibrium output or GDP. Let us assume initially the economy is in equilibrium at point E_0, producing an output Y_0.

The actual level of output can be expanded in the short run by increasing AD and being a small and open economy, the major component of AD comes from external demand. Whenever export increases due to say a global economic upturn, ceteris paribus, the AD_0 function shifts rightwards to AD_1 causing real GDP to expand to Y_1 leading to actual growth.

Figure 1:

Non-inflationary



L: Thus Singapore has benefitted from globalisation due to trade flows and have enjoyed sustainable economic growth.

Thesis 2

P: Globalisation enables countries with resource constraints to tap on foreign resources.

E: In a globalised world, countries can tap on foreign capital to drive growth through the influx of FDI. Any inflow of FDI resulting from globalization will stimulate AD via an increase in total Investment expenditure (I). Hence, in the short run, it will stimulate greater output and employment level until the economy reaches its full potential output. In the long run, more FDI inflows enhance the nation's productive capacity, thus shifting AS the potential output level rightwards. Such an expansion in **productive capacity** provides even more room for the economy to grow without overheating.

E: Globalisation has given countries like Singapore access to foreign resources for potential growth. Singapore has been relying on **imported inputs** (raw materials) to produce goods for

exports. In fact, the import-content of our exports is relatively high by international standards. For every $1 of exports about $0.60cents is made of imported inputs. Globalisation allows Singapore to benefit by increasing the ease of obtaining imported raw materials to increase our **productive capacity**.

L: Thus globalisation not only enables a country to achieve actual growth but potential growth as well. Both actual and potential growth can result in sustained economic growth.

Thesis 3:

P: Globalisation has enabled countries like Singapore to tap on foreign or imported labour to drive its economic growth.

E: In fact today about a third of our labour force is made up of foreign workers. At the same time, the influx of young migrants could help to rejuvenate our population and mitigate problems associated with an ageing population. The influx of foreign talent represents a brain gain to our economy, contributing to the development of a knowledge-based and innovation-driven economy. They also contribute significantly to our productive capacity. With the speed of the transfer of technology and information, it is easier for emerging economies to catch up with the developed economies. Poorer developing economies can now learn lessons and use technologies from the developed countries to catch up and narrow the "digital divide" between the rich and poor countries.

E: For example, the spread of the internet and mobile telephone has enabled people in poor countries to improve their daily lives in terms of access to information, education and business opportunities.

L: Through the inflow of both skilled and unskilled labour viaglobalisation ,Singapore is able to achieve sustained economic growth.

Anti-thesis 1

P: Globalisation increases the threat of the contagion effect. As a result economies that are open to globalisation are vulnerable to external shocks. Such external shocks could destabilise the economy and derail growth.

E: In reality, the tide of globalization can recede or can be reversed anytime. For example, trade flows can be subject to various forms of protectionist measures (e.g. anti-dumping duties; quotas; anti-trade regulations). Capital movements can also be restricted by capital controls (e.g. tax may be imposed on funds taken out or coming into the country or subject to exchange controls). Countries can also restrict inflow or outflow of labour (e.g. Indonesia banning maids bound for Malaysia).

E: In a globalised world, any national economic crisis e.g. USA sub-prime mortgage crisis 2007-2009, can easily spread to other parts of the world. This **contagion effect** resulted in a sudden **collapse in external demand** for Singapore's exports to USA and other major trade partners like the EU. As US home consumers cut back their spending, invariably it will affect also the demand for our exports to their country. Thus, workers employed in manufacturing goods for

these markets lost their jobs. Moreover, the banking crisis due to the sale of toxic assets also affected some local banks e.g. DBS sale of Lehman Brothers Minibonds. Many investors lost their hard earning savings. The more open an economy to the rest of the world, the greater the shock to its economy.

L: Thus countries such as Singapore that are overly dependent on external trade, capital or labour inflows may be subject to economic instability due to uncertainty; price volatility and sudden disruptions to growth.

Anti-thesis 2

P: There is also the constant threat of competition from new rivals for a share of global export markets, hence putting workers at risk of becoming structurally unemployed.

E: This may happen if the workers skills become obsolete e.g. low-skilled workers in advanced economies lose their jobs to cheaper workers in emerging economies via offshoring/relocation or outsourcing. In a globalised world, structural changes occur more frequently due to rapid changes in comparative advantage. As a result certain sectors of the economy which have lost their comparative advantage declined and become "sunset industries". Unlike they are occupationally and geographically mobile, workers in these declining sectors face the threat of structural unemployment.

E: This is especially a problem in the developed countries such as USA where they have been losing their comparative advantage in various sectors such the steel sector and manufacturing sector to emerging economies like China and Vietnam due to their abundance of resources especially their lower labour cost.

L: Thus structural unemployment may disrupt economic growth due to a fall in productive capacity and hence aggregate supply.

Anti-thesis 3

P: Globalization may also lead to a worsening of the income disparities in the economy which may affect economic growth.

E: Low-skilled, uneducated or lowly-educated workers across the developed world are 'losers' for their real wages tend to stagnate or even fall. This is because in a globalised world employers have access to a vast pool of cheap unskilled labour coming mainly from poor developing countries. The abundance of an international pool of cheap labour makes it difficult for the real wages of such workers to rise in tandem with the rest of society.

On the other hand, the global demand for highly-skilled talented workers e.g. CEOs far exceed the available supply. Thus such talented skilled workers command very high wages. Thus, over time the income gap between the low-wage earners and the rest of society tends to widen. If the trend continues unabated the worsening income-disparity may reach the point where social harmony is threatened. Those at the bottom of the income ladder may feel disaffected, marginalised and "unfairly" treated and hence may resort to crime, violence and other anti-social acts to hit back at society.

E: This phenomenon has in recent years become an issue in Singapore. The **Gini-coefficient** is used by economist to measure income inequality. The lowest value is 0 (representing perfect equality) and the highest value is 1 (representing perfect inequality). In Singapore the Gini-Coefficient has risen to 0.48 in 2009, placing the country at the bottom

L: Worsening of the income disparities which may lead to social conflicts and discontent in turn may scare away foreign investors thus crippling economic growth.

Conclusion/Synthesis

With the increasing globalised world, more economies are becoming integrated with other countries. Benefits to these economies such as China & India are significant in the areas of economic growth. By opening up their economies to the rest of the world, they have seen an increase in exports which encourages growth. They have also benefitted from an increase in imports which allows their consumers a wider choice of goods and services, increasing the standard of living in the countries.

However, given their big population (consumer base) and vast resources (potential for growth) they can weather external shocks better than Singapore. For example, in the light of the financial crisis and trade disputes with her trade partner USA, it is easier for China to reduce her dependence on export-led strategy and shift towards more reliance on domestic demand to power her economic growth. The relative abilities of the government to put in place to mitigate the costs of globalisation such as the ability to diversify trading and investment partners will greatly determine the benefits of globalisation on them. In summary, globalisation has been beneficial and in fact is essential for sustained economic growth for a small, open economy like Singapore.

Mark Scheme

Level	Descriptions	Marks
L1	Give a list of relevant factors without explanation Able to outline some impacts of globalisation but lacking in economic framework in explaining impacts.	1-2 3-4
L2	• Covers only impact of either trade or FDI (capped at 5 marks) • Analysis of impact on sustained economic growth is underdeveloped. • Lop-sided response to either benefits or costs of globalisation • Some comparison of different economies (6 marks)	5-6
L3	• Able to cover impact due to any 2 flows of globalisation • Able to analyse well with economic framework the impact on sustained economic growth. • Illustrate how different economies with different characteristics, state of economy would affect relative impact of globalisation • Balanced discussion of both benefits and costs of globalisation due to all 3 flows of globalisation with example.	7-9 10-11

Evaluation		
E1	Able to provide a judgment regarding net benefits of globalisation	1-2
E2	Able to provide good evaluation about not only the net benefits but also relative benefits to different economies.	3-4