H2 Economics 9757

2017 JC2 Preliminary Exam

Answer Package

Paper 1: Case Study Questions

- ✓ **Answer Scheme**

Question 1 Suggested Answers

(a) With reference to the data, analyze the likely value of the cross elasticity of demand between repellents with DEET and the natural products. [2]

- The value of XED is likely to be positive but less than 1. (1m)

- Since both products serve the same purpose of repelling mosquitoes, they can be considered substitutes, however, "there is no 'natural' substitute for DEET" (extract 1), hence natural products are weak substitutes of DEET repellents. (1m) OR some consumers do not view them as close substitutes as they are 'leery of anything that smacks of chemicals'

(b) Different retailers, such as NTUC, Walgreens and individual sellers on Carousell, have changed prices of repellents differently in view of Zika. Explain two possible factors affecting the pricing decisions of the above retailers. [4]

Explaining very large increase in prices on Carousell

- On Carousell, sellers are able to practice 1st degree price discrimination and sell each unit at a different price, according to the maximum price at which each consumer is willing and able to pay (i.e. zero consumer surplus/maximum producer surplus) to maximize profits (1m) An increase in demand during the Zika outbreak thus increases consumers' maximum price that they are willing and able to pay, causing a very large increase in price on Carousell

OR

- Due to the convenience of e-shopping, the outbreak of Zika has led to a great increase in demand for products on Carousell (1m)
- This has led to very high prices given the rightward shift of the demand curve, as a large shortage as a result of the great increase . (1m)

Explaining unchanged prices in NTUC

- Extract 1, "mosquito repellent products have been restocked on a daily basis to meet the increased demand" (1m)
- The increase in demand has been matched by an equivalent increase in supply, leading to unchanged prices, since there is not shortage/surplus to exert pressure on prices to change (1m)

Explaining the fall in price at Walgreen

- Extract 1, Walgreen has boosted insecticide sales via an increase in supply (1m)
- The increase in supply is greater than the increase in demand, leading to a downward pressure on prices to eliminate the surplus, resulting in a fall in prices, (1m)

OR

- Walgreen has an alternative objective besides profit maximization, which is to increase market share in the long run/to maintain a profit satisficing level of output/for the altruistic reason of providing sufficient access to repellents. (1m)
- A lower price might yield a lower profit but increase the quantity of repellents consumed. (1m)

Any of the above 2 reasons – 2marks each

(c) In the event of a Zika outbreak, discuss whether a maximum price legislation or a subsidy on mosquito repellent products should be implemented by governments. [8]

Introduction: establish purpose of policy + criteria for evaluation

A price ceiling or subsidy would be implemented in the event of an outbreak in order to lower prices and address worsening inequity – to ensure that low income groups have access to repellents to prevent the contracting of Zika virus. As mentioned in extract 3, inequity is worsened due to the disproportionate impact on Zika "on the poorest countries of the region, as well as on the poorest and most vulnerable groups, especially poor women in peri-urban communities".

Whether a price ceiling or subsidy should be implemented would then be decided based on its effectiveness in lowering prices and addressing equity and whether it suits the context of the country.

Thesis: Price ceiling should be implemented because it is effective in lowering prices and addressing equity issues.
A price ceiling is implemented below the market equilibrium price. It therefore directly lowers the price of repellents from Pe to Pc, thus ensuring that low income households are able to afford the now cheaper repellents.

Anti-thesis: Price ceiling should not be implemented because it leads to inefficiencies (may not lower price and/or may not reduce inequity).

When the market is not allowed to equilibrate, there will be a shortage at Pc and the quantity of repellents exchanged between consumers and producers has actually reduced from Qe to Qc. This leads to deadweight loss as reflected in the shaded area of the diagram.

[diagram for price ceiling]

Furthermore, there is no way of ensuring that the Qc of repellents exchanged goes to the lowest income groups, hence a price ceiling may not address the issue of inequity.

<u>Alternative anti-thesis:</u> higher prices in black market pricing low-income groups as before price ceiling was implemented.

Anti-thesis 2: Subsidies should be implemented because it is effective in lowering prices and addressing inequity.
A subsidy would decrease the cost of producing repellents, hence increasing supply and decreasing price of repellents. The lower price would ensure that repellents are now more affordable to low income groups.

[diagram for subsidies]

Unlike a price ceiling, the quantity of repellents exchanged has actually increased, which ensures greater access to repellents (and hence a larger consumer surplus).

However, high government expenditure is required to provide for the subsidy. This is not only a drain on government resources but may require higher tax rates such as for income taxes to finance the subsidy. High income tax rates are known to discourage effort and investment in the country.

Synthesis:
A subsidy is preferred to a price ceiling as it is more effective in ensuring equity as evident by the change in quantity of repellents consumed and its impact on societal welfare.

Given that the subsidy would merely be temporarily given (during an outbreak), the concern of draining governments' resources is a minor one. Moreover, the amount of subsidy can be flexibly implemented to target only low-income groups to reduce overall government expenditure. However, countries with a more extensive outbreak and less government budget constraints (e.g., Brazil, in contrast with Singapore) may need to consider the use of a price ceiling instead, if the outbreak were eventually be proven to be long drawn.

Lastly, as according to extract 3, the cost of providing inadequate access to preventive measures such as repellents would incur a larger cost in terms of the "loss of international tourism revenues" and "the lifetime indirect costs related to the care of children with microcephaly", which are substantial.

Levels	Descriptors
L2: 4-6	Balanced and well developed economic analysis based on the case material and evident evaluation and judgment.

	Students are expected utilise DD/SS analysis Evaluative comment involving comparison of policies required to access 5m and above.
L1: 1-3	Answers tend to be one-sided or insufficient use of economic analysis. Little or no evaluation/judgment.
E2: 2	Judgment substantiated by contextual or theoretical analysis
E1: 1	Unsubstantiated judgment

(d) From Extract 2, identify and explain a reason for the upward trend in tourist arrivals into Brazil shown in Figure 1. [2]

Evidence:
"Travel companies say they are seeing great sales on international vacations and say the strong U.S. dollar have a lot to do with it." (1m)

Knowledge:
With a strong USD, the price of Brazil goods & services appear relatively cheaper in USD terms which leads to an increase in quantity demanded of Brazil goods & services, including travel vacations in Brazil. (1m)

(e) (i) Explain how "economic hardship on already marginalized populations" due to Zika worsens the economic inefficiency in Latin America. [4]

Evidence:
According to extract 3, Zika affects the poor disproportionately due to a lack of "access to health services, clean water and sanitation" and causing mothers to "withdraw from or not enter the labour force to care for a child with Zika-related congenital conditions" (1m)

Knowledge:
This means that the low-income groups are more likely to be infected and hence, more likely to experience a loss of income, which widens income inequity in brazil (1m)

Less able to afford basic necessities like food and healthcare, hence not captured in the DD curve since they have no effective demand (1m)

Resources underallocated to the poor since they will be channelled more to produce goods and services as desired by the rich (1m), hence worsens economic inefficiency.

(ii) Using data where appropriate, evaluate whether the Zika outbreak is the most worrisome problem that the Brazilian government has to consider in achieving sustainable and inclusive economic growth. [10]

In order to evaluate ZIka's impact on sustainable and inclusive growth is the most worrisome, this answer will consider its short run and long run impacts and the significance of each of these impacts, and how these impacts compare to the other problems faced by Brazil.

Thesis: Zika is the most worrisome problem.
According to extract 2, there has been rising concerns about Zika's "impact on Brazilian tourism, which supports nearly one-tenth of Brazil's economy". A decrease in X in terms of tourism revenue would lead to a fall in AD and a more than proportionate fall in RNY due to the multiplier effect. This lowers actual growth. As evident in Table 1, Brazil would experience the largest absolute total short term cost in USD as compared to other Latin American Countries (LAC).

The Zika outbreak would also have an impact on potential growth. According to extract 3, "caring for a child with microcephaly or developmental disorders often forces family members, especially women and adolescent girls, to leave the labour market or formal education, contributing to lost productivity". A lost in productivity and a shrinking labour force would lead to a fall in productive capacity and a decrease in LRAS. As evident in

Table 1, Brazil would experience the largest absolute cost and largest cost as a % of GDP as compared to other LAC. This compromises sustainable economic growth (since sustained economic growth is not achieved), because a falling LRAS and falling AD leads to a larger decrease in RNY, with a likely increase in GPL.

Furthermore, Zika would worsen socioeconomic inequities, compromising the aim of inclusive growth. According to extract 3, the impact of Zika is disproportionate on the poorest countries and on the lowest income groups due to a lack of access to health services, clean water and sanitation. Besides a reduction in women in the workforce amongst low income groups, their offsprings with microcephaly may experience long term developmental disorders, further crippling low income households from being able to benefit from economic growth by participating in the workforce. The worsening of inclusive economic growth thus further contributes to worsening sustainable economic growth, as larger income inequity reduces the productive capacity of the economy with a larger proportion of its population not being able to access healthcare, education etc, thus resulting in LRAS to fall in future, thus leading to unsustainable economic growth.

Anti-thesis 1: the impacts of Zika are limited
The impact of Zika may be limited due to the tourism sector being only a tenth of Brazil's economy, i.e. there may be other larger sectors that are still growing and hence contribute to overall economic growth. According to table 1, the short term costs as a % of GDP is also smallest for Brazil vis-à-vis other LAC.

Anti-thesis 2: Other problems are more worrisome
Brazil is in the midst of the longest economic downturn since 1930s and its economy in the dumps (Extract 2), suggesting that there are other macroeconomic problems, such as **low/negative economic growth**. The long drawn economic downturn could lead to low consumer and investor confidence, hence leading to lower C and I, which lowers AD and LRAS, further perpetuating the negative economic growth and deflationary effects on the economy. Furthermore, a long drawn economic downturn very often results from structural issues, such as low productivity and poor infrastructure, which would have severe negative implications on sustainable economic growth.

Another problem is that Brazilian currency is "trading near all-time lows", which suggests that there could be an **external instability** in the form of a **persistent BOP deficit**, which causes outflow to be larger than inflow, hence a depreciation of the currency overtime. A steadily declining exchange rate could lower investor confidence, cause an outflow of FDI, and hence leading to negative economic growth both through AD and LRAS.

However, the depreciating currency appears to have a positive impact on tourism (Extract 2) through an increase in Brazilians opting to vacation at home. The fall in X due to foreign tourists could be offset by an increase in domestic consumption (Brazilian tourists travelling within the country). A depreciating currency would also increase the price of imports, decreasing the quantity demanded of imports, potentially reducing M as well. These factors may potentially offsetting the fall in AD as a result of the low consumer and investor confidence, leading to a rise in AD and RNY. This could be the positive counter effect that the Brazilian economy needs, in order to get out of the deflationary spiral. Yet, the economic growth due to a possible improvement of the tourism sector may not lead to inclusive growth, since tourism tends to be in the cities or scenic areas than the peri-urban less developed marginalized segments of the city.

Synthesis:
Whether Zika turns out to be the most worrisome problem for Brazil depends on how the extent of impact of Zika vs its depreciating currency is on its tourism, and whether other sectors of the economy may continue to grow despite of its long drawn economic downturn. Given that the short term costs (including tourism) is only 0.03% of GDP, it appears possible that the negative effects on tourism could be offset by the low currency. **It thus depends on whether the current long drawn economic problem is due to deep seated structural issues.** If not, the depreciating currency could be what is sufficient to kickstart the economy and pull it out of its low economic downturn – Zika would thus be the worst of its problems. If, however, there are deep seated structural issues, Zika will merely worsen these economy's structural problems. Therefore, the government would do well to implement proactive policies to overcome these problems

while taking preventive policies against Zika.

Levels	Descriptors
L3: 7-8	Balanced and well developed economic analysis based on extract evidence. Addresses both sustainable and inclusive growth
L2: 4-6	One-sided answer or two sided but insufficient use of economic analysis Addresses only sustainable OR inclusive growth
L1: 1-3	Answers tend to be descriptive with superficial links to AD/AS without extensions to growth.
E2: 2	Judgment substantiated with contextual/theoretical analysis
E1:1	Unsubstantiated judgment

[Total: 30]

Question 2 Suggested Answers

(a) (i) Account for the changes in price of copper from 2012 – 2015. [3]

Answer:

- **Fall in price:**
  - Due to the various demand/supply factors, the equilibrium price for copper in Peru has fallen over the years.
- **Demand factor: [1]**
  - Evidence (Extract 4): "Slowdown of the Chinese economy"
  - Knowledge: With a slowdown of the Chinese economy, disposable incomes should generally have fallen. Assuming that copper is a normal good, the demand for copper will fall.
- **Supply factor: [1]**
  - Evidence (Extract 4): "output is still growing in Peru's operating mines…world's second-largest copper producer… (OR "Peru is a giant of the global mining industry" also accepted in place of "world's second largest copper producer")
  - Knowledge: Since Peru is set to be the second largest copper producer, an increase in its output of copper is enough to increase the world supply of copper.
- **Simultaneous shifts: [1]**
  - A fall in demand together with an increase in supply of copper will lead to a definite fall in equilibrium price of copper, and this accounts for the "last three years of falling copper prices" as mentioned in extract 4.

(ii) Explain the relevance of a price elasticity concept in determining the Peruvian copper producers' standard of living. [2]

Answer:

- Application: [1]
  - Given a fall in copper prices due to the increase in supply of copper, and that the demand for copper is price inelastic because "…copper, which is an essential component in virtually every electrical and electronic device and wiring", hence it will lead to a less than proportionate increase in quantity demanded of copper, and thus the total revenue of copper will fall
- Linkage to SOL: [1]
  - Since total revenue falls, assuming total cost remains constant, it means that the Peruvian copper producers' profits and therefor their incomes will fall. With less disposable income, purchasing power falls and thus the quantity of goods and services consumed will also fall. Thus material, and possibly non-material standard of living will fall.

Answer also accepted if answer talks about DD shift + PES
Answers without elasticity concepts will only get a maximum of 1 mark

(b) How far does the data in Table 2 support the theoretical relationship between trade balance and exchange rate? [5]

Answers:

- Theoretical R/S:
  - **Appreciation of exchange rate** will make **exports more expensive in terms of foreign currency and imports cheaper in terms of domestic currency.** As a result, volume of exports will fall while volume of imports rises. **Assuming Marshal Lerner condition** which states that the sum of |PEDx + PEDm| >1 holds, the **trade balance will worsen** and vice-versa when the currency depreciates. [1]
    (Note: mark not given if any bolded phrases is missing)

- Thesis:
  - This is supported from 2011—2012 where the appreciation of the Peruvian currency has resulted in a worsening of the trade balance. [1]
- Anti-Thesis:
  - However, this is not supported between 2012—2015 where trade balance continues to worsen despite a depreciation of the currency. [1]
  - This could be due to other factors like the global slowdown causing a fall in export revenue despite the depreciation [1]
- Stand:
  - Small extent [1]
    (Note: mark not given if stand is merely stated and not a result of analysis presented)

Or

- Theoretical R/S:
  - A worsening of trade balance will result in a fall in demand for the country's currency relative to supply, resulting in a depreciation of the currency, ceteris paribus. [1]
- Thesis:
  - This is supported from 2012—2015 where the depreciation could be explained by the worsening of the trade balance. [1]
- Anti-Thesis:
  - However, between 2011—2012 the currency has appreciated despite a worsening of the trade balance. [1]
  - This could be due to government intervention in the currency or a net inflow of capital which could have exerted upwards pressure on the exchange rate [1]
- Stand:
  - Small extent [1]

(c) Assess the relative importance of internal factors and external factors in explaining Peru's economic slowdown. [8]

Answer:

Command	Assess … relative importance
Content	Economic slowdown Internal factors of growth External factors of growth
Context	Peru
Approach	T: Internal factors – Slow productivity, large informal economy, lack of physical capital development, lack of human capital development. Private consumption slow down. Contraction in public and private investment. AT: External factors – slack export appetite from major importer like China, falling investor confidence causing currency plunge. Comparison of relative importance + Synthesis: Overall, internal factors seem to be more major problem than external problem. *Economic slowdown → Rise in Real GDP is insignificant/slower than before.

Full Answer

Introduction

An economic slowdown is a situation where real GDP rises insignificantly. This can be contributed by various internal and external factors. **The most significant factor will be assessed by judging the degree of <u>immediate</u> impact it has on Peru's economic growth rates.** *[other criterions are also acceptable, such as the extent of impact given the Peru's relative dependency on external vs internal drivers of growth]*
Thesis 1: External factors are critical in explaining the economic slowdown in Peru. **One external factor will be a fall in income of Peru's major trading partner, China.** Peru is a major copper exporter, but its NX has been falling due to China's slack appetite for copper. Since China is a major importer of Peru's copper (China consumes 40% of world's copper, Extract 6), **the large fall in export revenue to China is therefore unlikely to be offset by rise in export revenue to other countries.** (China slowdown could also possibly hurt her trading partners as she is a major importer, and in turn, these countries will in turn also consume fewer exports from Peru). It was also mentioned that China's slowdown has sparked a confidence crisis in Peru where investors were seen selling off Nuevo. The fall in demand of Peru currency will result in a sudden drop in currency strength. **This external factor thus has an impact on the Peruvian government's choice of policies** such that expansionary monetary policies can no longer be appropriate as a response to the economic slowdown [as further interest rate reductions will serve to further weaken the Nuevo, hence deepening the confidence crisis].
Thesis 2: External factors are critical in explaining the economic slowdown in Peru. **Rising food prices is another possible external factor why Peru is facing a slowdown**. Peru may also be importing food from overseas as its primary export is copper. It is logical to conclude that Peru most likely may have a comparative advantage in copper production, and hence will seek to specialize and export. Certain types of food production (such as wheat/corn/soybean) may not be Peru's comparative advantage; hence Peru will import such food items. As a result of this, Peru will be highly susceptible to imported inflation. The rising prices of food will result in imported cost push inflation. **The extent of imported inflation depends on the rate at which the Nuevo weakens.** Overall, firms' cost of production rises. SRAS likely shifts up, hence reducing Real GDP.
Anti-thesis 1: However, internal factors are vital in explaining the slowdown as well. **Falling productivity is cited to be one internal factor why Peru is facing a slowdown.** It can be seen that productivity in Peru has improved slightly (despite still lagging behind Asia). The improved productivity was attributed to a slightly more educated workforce; hence quality of labor force improves. Overall, a slight improvement in productivity would most likely imply a small increase in the productive capacity of a country, such that the maximum output that Peru can possibly produce has increased slightly. The lack of innovation, physical infrastructure development and competition could then on balance cause a fall in LRAS, thus leading to lower economic growth. *[Note: Other internal factors such as **lack of innovation, lack of physical infrastructure development and lack of competition** can be used as well.* ***Innovation** is important to a country as it may determine the flexibility of firms to change or adjust during difficult times.* *Peruvian government faces a problem investing in **infrastructure development** projects as they will strain the government budget. This will have significant impacts on productivity.* ***Lack of competition** breeds complacency, hence creating productive inefficient and dynamic inefficient outcomes – unable to compete effectively in terms of price and quality.]*
Anti-thesis 1: However, internal factors are vital in explaining the slowdown as well.

Falling private consumption is one reason why Peru is facing a slowdown. Private consumption may include import consumption and domestic consumption. Due to poorer job expectations, consumers may have cut down on their private consumption. This could possibly imply that domestic consumption will fall. Since Cd is a component of AD, AD on balance may rise but at a slower rate. This could hence explain the economic slowdown. *[Alternatively, students can argue that there may be a cut in import expenditure. While this may seem to improve the trade balance, the larger drop in export revenue to China will offset the cut in import expenditure. Overall, NX may still fall]*
Conclusion/synthesis Overall, all internal and external factors played significant roles in explaining the economic slowdown in Peru. It can be argued that that the more significant cause of the economic slowdown is due to external factors. In particular, the most significant is the large decline in China's appetite will be the most significant as it directly reduced real GDP growth rates, and as a result caused internal factors to negatively affect growth, via shattered investor and consumer confidence in Peru, thus further prolonging the economic slowdown. This therefore severely hampered Peru's growth in a short time, hence proving that this external factor is the most significant. *[It is also possible to argue that weak fundamentals would be the underlying cause for the inability to adjust to the external environment. Hence, internal factors will be the most significant in explaining the slowdown]*

<u>Marking Scheme:</u>

L1 (1 – 3m)	Explanation of only external or internal factors or a superficial answer with no reference to slowdown.
L2 (4 – 6m)	Good explanation of both external and internal factors contributing to economic slowdown, with reference to case.
E (1 – 2m)	Evaluation of more important factor.

(d)(i) Explain why any two indicators from 2011 to 2015 might have been of concern to the Peruvian government. [2]

<u>Answer:</u>

- **Trade balance, because it has** has **worsened from surplus to deficit,** thus having a negative impact on economic growth, ceteris paribus [1] OR **Current account deficit** has worsened, thus having a negative impact on economic growth, ceteris paribus. [1]
- **Unemployment rate,** because it is generally high and has been rising since 2013 [1]
- **Economic growth rate**, because it is increasing, but at a slower rate. [1]
- Depreciation of **exchange rate** (against USD), thus leading to lower confidence of investors, potentially reducing actual and potential growth [1]

Any 2 indicators with explanation – 2 marks.

(d)(ii) Discuss the effectiveness of the various policies mentioned in the extracts in dealing with the above problems. [10]

<u>answer:</u>

Command	Discuss: Provide different perspectives into the issues raised 'effectiveness': Some form of comparison according to a set criterion is needed

Content	Macroeconomic Problems & Policies AD/AS analysis
Context	The above identified problems, say: 1. High unemployment rate 2. Worsening trade balance Various policies mentioned in the extracts: 1. Fiscal policy (expansionary) (Extract 7) 2. Structural policies (Extract 7) In view of the risks that remain (Extracts): 1. Slowdown in Growth of China 2. Faster than expected rise in US interest rates 3. Uncertainties in supply due to mining and weather
Approach	1. The word "discuss" entails the use of the Thesis-Antithesis-Synthesis framework to give a two-sided argument about the relative appropriateness of fiscal and monetary policies. 2. Under the thesis/antithesis, students will have to explain how fiscal and supply side policies are effective in addressing the above macroeconomic issues. This will have to be done using AD/AS analysis with contextualization to the Peruvian context. Students will have to further substantiate the thesis/antithesis with evaluation of each policy. 3. ***Under the synthesis, students will have to make a stand about the effectiveness of the policies. The phrasing of the question allows for a wide variety of conclusion.*** One possibility is to conclude on which policy or policy mix is more appropriate and to justify their stand with economic & contextual analysis. You may even conclude that both / the various policies are all ineffective.

<u>Introduction</u>

Fiscal policy refers to the use of government expenditure and taxation to influence the level of economic activity in an economy while supply side policies refers to measures that raises the productive capacity of a particular economy through market oriented or interventionist measures.

In part (i), it has been identified that the 2 areas of concern for the Peruvian government are specifically that of high unemployment and worsening trade balance. According to the extracts, the Peruvian government is currently employing the use of fiscal policies and is now exploring the possibility of adopting supply side policies, albeit with limited success. Monetary policies such as exchange rate and interest policies are mentioned in the extract, but according to Extract 6, the Peruvian government is unable to cut its interest or exchange rate. Thus, this answer will focus only on the remaining policies, namely fiscal and supply side.

Whether a policy is effective will depend on whether it is able to address the <u>root cause of the issue</u> at hand as well as whether it is able to <u>deliver results in both the short and long term</u>. This essay will explore the relative effectiveness of Fiscal policies as well as supply side policies in dealing with above macroeconomic issues based on the above-mentioned criteria.

<u>Body</u>

<u>Thesis: Fiscal policy is effective</u>

Fiscal policy is appropriate for dealing with the issue of the high unemployment rates.

Expansionary fiscal policy will directly increase the Aggregate Demand (AD) through a rise in Government Expenditure or a reduction in taxation. According to Extract 7, "fiscal policy is expected to be expansionary in 2015". It is also mentioned that this will involve "…a reduction in corporate and personal income tax rates" as well as "New important infrastructure spending will also take place".

The reduction in the corporate and income tax will undoubtedly increase the expected rate of returns for investments as well as the disposable income of consumers respectively. This will result in an increase in the level of Investments (I) and Consumption (C) respectively and an increase in the AD and increase real national output (RNY). To meet the rising AD, firms will want to hire more workers in order to ramp up their production resulting in a fall in cyclical unemployment.

Anti-Thesis: FP is not effective

However, the fiscal policy does little in mitigating the worsening trade balance, which is one of the root causes of the economic slowdown that led to the high unemployment. While it increases AD, it does nothing to correct the falling (X-M) due to economic slowdown of China, which is expected to remain.

Furthermore, fiscal policy is only effective in mitigating cyclical unemployment and is unable to address other forms of unemployment that might be frictional or structural in nature.

According to Extract 6, the main reason for low public and private investment is due to worsening business expectations, which is a main determinant for the level of investments in an economy. Therefore, despite the reduction in corporate tax, there may not be a marked increase in I and that limits the extent of AD increasing to lower cyclical unemployment.

Also, it is mentioned in Extract 6 that Peru is seeing high levels of inflation and a lack of innovation and poor transport networks. This could mean that the country is now operating close to the full employment level already, which suggests that cyclical unemployment may not be the main cause of the high unemployment rates. This further eliminates fiscal policy as an option as it has limited ability to target any other form of unemployment.

Thesis 2: Supply Side policy is effective

Supply policy is appropriate for dealing with both the high unemployment rates as well as the worsening trade balance.

Supply side policies could lead to an improvement in the quality of goods and services or to enhance efficiency in production. For example, the government could finance Research & Development or provide grants for economic innovation to boost productivity as mentioned in Extract 7. This would help to make Peru's exports of higher quality and therefore reduce its substitutability and make the demand of its exports relatively more price inelastic. This could either result in a larger volume of exports or allow the Peruvian firms to charge a higher price for their exports. Either way, this leads to a rise in export revenue. Furthermore, through R&D and innovation, Peruvian firms could become less reliant on imports whether in the form of factor inputs or as final goods and services, which leads to a fall in import expenditure. The combined effect of rising export revenue and falling import expenditure would no doubt help to improve the worsening trade balance. The higher quality of exports can also divest Peruvian exports away from China, as more countries would want to buy from Peru, thus reducing the vulnerability of Peruvian economy to China's slowdown.

Also, supply side policies could work in improving the productive capacity of Peru's economy by encouraging innovation, better transport infrastructure and even the level of education of its labour force. As productivity of Peru's workforce improves, thus tackling another root cause of low productivity, not only does it boosts Peru's economic growth by increasing their LRAS, the training provided could be targeted at ensuring that workers from sunset industries such as copper mining are properly trained and equipped with the skills and know-how necessary to find jobs when the copper mining industry dwindles. This will lessen the structural unemployment in Peru in the present day as well as in time to come.

Anti-Thesis 2: SSP is not effective However, as mentioned in Extract 6, supply side policies such as Education Reforms take time. As is the case of Supply Side policies, they do not guarantee immediate short terms results, which may be a cause of concern for the Peruvian government. Also, a common way of executing supply side policies is through the public and private investments, which is now at a low point due to the poor business confidence. Therefore, until business confidence picks up, supply side policies may be limited in its effectiveness to achieve the desired outcomes. On the other hand, Fiscal policy is able to guarantee more immediate results through its direct effect on the AD.
Conclusion If the objective is to tackle both the high unemployment as well as the worsening trade balance, a supply side policy appears to be more appropriate, since it could potentially address both issues, and can help to address the root causes better. This is corroborated by Extract 6 where it is mentioned that Peru needs to look at 'productivity improvements' a key aspect of supply side policies. However, these supply side policies take time and Peru does need to address its issues in the short run too. To tackle both high unemployment as well as the worsening trade balance, a combination of fiscal policy and supply side policy is required. While the use of fiscal policies could result in lower cyclical unemployment in the short run, supply side policies will ensure that structural unemployment and an improvement in the trade balance is achieved in the long run as well.

Mark Scheme

Knowledge, Application, Understanding and Analysis		
L2	Answer deals with question requirement well by comparing policies and explicitly ascribes each policy to dealing with the 2 problems identified in the previous part. Content is well developed, with sound economic theory being explained and well explained diagrams and AD/AS analysis being used Consistent and effective use of examples, continually linked to question. Coherent two-sided argument made. [max L2-5 (half of the question requirement addressed – max mid L2 as per CIE training): if answer explains how policies work to address the problems very well, but without any form of discussion OR if answer only discusses how policies work to address ONE problem]	**5 – 7**
L1	Answer fails to deal with question requirement by merely explaining the policies, without any form of discussion (or comparison). Content shows major errors in conceptual understanding. Limited examples provided. Argument is incoherent, or missing.	**1 – 4**

	[max L1-4m if only policy is well explained or if 2 policies have one sided explanations only.]	
Allow up to 2 additional marks for Evaluation		
E3		**3**
E2	Evaluative statements / Judgment is based on economic analysis and adequately substantiated and well contextualized to Peruvian context	**2**
E1	Evaluative statements / Judgment is limited and unjustified.	**1**

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2017 JC2 Preliminary Exam

Answer Package

Paper 2: Essay Questions

- ✓ **Answer Scheme**

Question 1:

Brick-and-mortar travel agents are facing challenges with the proliferation of online platforms like Zuji and the global economic slowdown. While some brick-and-mortar travel agents are shutting down, others work to maintain their relevance through apps and specialised services.

Discuss how the above events would affect the sales volume and revenue earned by brick-and-mortar travel agents and online platforms like Zuji. [25]

Question Interpretation

Command	Discuss how – candidates will have to consider multiple perspectives of different travel agents and scenarios, explaining how aforementioned events could affect Q and TR.
Content	Demand Supply, PED, YED, XED, PES
Context	Travel industry – online vs brick-and-mortar, global economic slowdown
Approach	For each market, separately: 1. Identify and explain relevant demand non-price determinant and resulting shifts 2. Application of PES to DD shift to analyse extent of change in Q, application of YED/XED to DD shift to weigh competing non-price determinants and to analyse extent of change in Q/TR 3. Identify and explain relevant supply non-price determinant and resulting shifts 4. Application of PED to SS shift to analyse change in TR 5. Weigh extent of DD/SS shifts to conclude eventual impact on TR

Suggested Answer

Introduction

Sales volume refers to the quantity of travel services exchanged between consumers and producers. Producers' revenue refer to the price of the travel service multiplied by the quantity of services exchanged. Both volume and revenue would be affected by demand and supply changes, whereby demand refers to consumers' willingness and ability to consume the travel service at every price level; supply refers to producers' willingness and ability to offer the service for sale at every price level. This essay will weigh the supply and demand changes in the market for brick and mortar travel agents and online travel agents and their impact on volume and revenue.

Market	**Brick and mortar travel agents**	**Online travel agents**
Change in demand	<u>Demand decreases (T&P)</u> Due to the proliferation of online platforms, consumers experience greater convenience in booking and customising a travel package. This shifts their taste and preferences away from brick and mortar travel agents. Hence, their willingness to consume a travel service from these agents decreases. Quantity demanded decreases at every price level, i.e. demand curve shifts leftwards from D_0 to D_1 as shown in Figure 1. <u>Demand decreases (Substitutes)</u> Similarly, these online platforms may serve as a substitute to brick and mortar travel agents since they satisfy the same purpose of purchasing a travel package. A rise in demand for Zuji would lead to a corresponding decrease in demand for brick and mortar travel agents' services.	<u>Demand increases (T&P, Substitutes)</u> Corresponding to a fall in demand for brick and mortar travel agents, consumers are more willing to consume online travel services due to its convenience in satisfying the same purpose of purchasing a travel package. Hence quantity demanded for online travel services increases at every price level, i.e. demand curve shifts rightwards from D_o to D_1 as shown in Figure 2.

	Demand decreases (income, normal good) The decrease in demand for brick and mortar travel agents is further reinforced by the fall in income due to the economic slowdown, since travel services can be considered a normal good. Hence a fall in income would lead to a consumers being less willing and able to consume travel services.	Demand decreases (income, normal good) The decrease in demand for online travel services offsets the increase in demand previously explained. The resultant effect on demand for online travel services **depends on YED. [Criteria]** If travel is considered a luxury good (YED >1), the decrease in income would lead to a more than proportionate decrease in demand. Hence it would be likely that the decrease in income would be a more significant determinant for demand rather than the shift in taste and preferences. Demand for online travel service would ultimately decrease. If however, travel is considered a necessity (0 < YED < 1) as it is for business travellers travelling for work, the decrease in income would lead to a less than proportionate decrease in demand. Hence it would be likely that shift in taste and preference would be the more significant determinant for demand, i.e. demand for online travel service would ultimately increase.
Impact on Q and TR.	Given the above determinants, a decrease in demand would lead to a **decrease in sales volume** and price, i.e. **producers' revenue decreases**, ceteris paribus.	Given the context of Singapore where most leisure travellers are affluent and even leisure travellers consider at least a yearly travel as a necessity, it is likely that demand for travel service would ultimately increase since taste and preference/substitutes become the more significant determinant. An increase in demand would then lead to an **increase in sales volume** and price, i.e. **producers' revenue increases**.
Extent of change in Q and TR	The extent of decrease in sales volume would **depend on PES.** [Criteria] The marginal cost of producing a travel service via a brick and mortar agent is relatively high due to the need to incur labour and rental costs. This leads to supply being price inelastic. When this is so, when demand falls, Q_0 **would decrease by a smaller extent** to Q_i as compared to when supply is price elastic (decreases to Q_e) as shown in Figure 1.	The marginal cost of producing an online travel service is relatively low (compared to brick-and-mortar shops) as no significant costs are incurred when consumers use the self-service of customising their own travel package online. Hence, the marginal cost of increasing one unit of sales is not as high as that of the brick-and-mortar shops. This leads to supply being relatively price elastic. When this is so, **sales volume would increase by a larger extent** (Q_0 to Q_e) as compared to when supply is price inelastic (Q_0 to Q_i) when demand increases (figure 2). Prices would also increase less than proportionately in this case due to the relative price elastic supply

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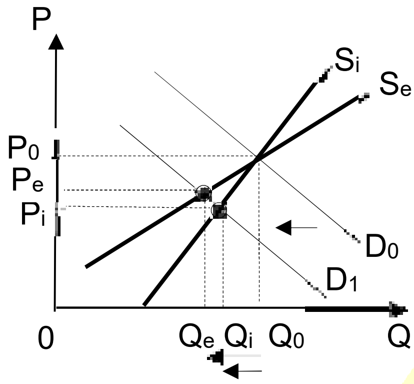

Figure 1

The extent of decrease in producers' revenue **<u>depends on XED</u>** [Criteria]

Since online travel services and brick and mortar travel services are considered close substitutes for most types of travel (they allow consumers to customise their travel packages to a high degree), the decrease in demand for brick and mortar agents would be significant and hence P, Q and TR would decrease by a large extent
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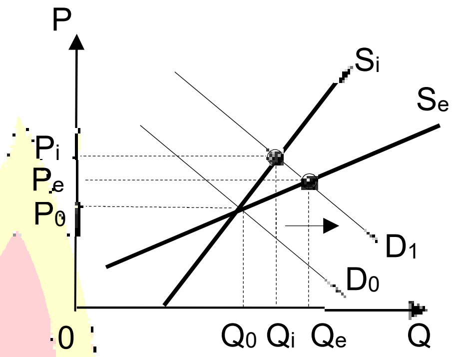

Figure 2
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<td>Change in supply</td>
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<u>Supply decreases</u>
Due to the competition from online platforms, some brick and mortar agents may not be able to earn sufficient revenue to cover their costs, hence they exit the industry. This decreases producers' ability to offer the service for sale. Hence quantity supplied decreases at every price level, leading to a decrease in supply from SS_0 to SS_1 as shown in Figure 4.

<u>Supply increases</u>
However, brick and mortar agents that have remained in the industry are trying to regain market share by provided more services through apps and specialised services. This can come in the form of more customised packages catered not to large tour groups but small family tours. Providing greater access for consumers through apps may lead to a decrease in cost of production since it cuts down the need to incur labour costs in the form of travel or call centre agents. The increase in such customised services and decrease in cost of production would increase producers' willingness and ability to offer the service for sale. Hence quantity supplied increases at every price level, leading to an increase in supply.
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<u>Supply increases</u>
Due to the proliferation of online platforms, online travel agents are easily able to increase the number of destinations and packages on their websites. The rise in no. of online travel agents and the rise in each agent's offerings would lead to an increase in supply.
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	The resultant impact on supply would depend on how affected brick and mortar agents are by the competition from online platforms. **<u>If existing agents are not able to cover their average variable costs</u> [criteria]**, these firms will leave in the short run. If however, P > AVC, these firms will remain in the industry and may regain market share to a level sufficient to remain profitable. Given the rapid rise of online platforms, the loss in revenue and hence the scale of firms shutting down in the short run would be significant, hence the decrease in supply would offset the rise in supply (due to existing firms expanding).	
Impact on Q and TR	The decrease in supply would lead to a **decrease in sales volume** and increase in price. The impact on TR would **<u>depend on PED</u>**. [Criteria] Given that brick and mortar agents are providing more specialised services, the demand for their service would become more price inelastic, i.e. PED < 1 since the service becomes less substitutable. This is particularly so for destinations that are more exotic that requires specialised services of these brick-and-mortar shops for their contacts and ground experience. For these destinations, an increase in price would lead to a less than proportionate decrease in quantity, hence **TR of brick and mortar agents would rise.** Conversely, for the destinations that are more commonplace and easily substitutable with online platforms for self-planning by travellers, the PED >1, and **TR will fall.**	The increase in supply would lead to an **increase in sales volume** and decrease in price. The impact on TR would **<u>depend on PED</u>** [Criteria] Given that online travel agents are numerous and provide similar degree of customisation, there are many substitutes, leading to demand for the service of each online travel agent to be price elastic, i.e. PED > 1. A decrease in price would lead to a more than proportionate increase in quantity, hence **TR of online travel agents would rise.**
Overall synthesis: Combining impacts due to both DD/SS shifts	The **sales volume of brick and mortar agents would certainly decrease** given that both demand and supply has decreased. The impact on TR would depend on the **<u>extent of shifts in demand and supply curves</u>**. [Criteria] If remaining firms in the industry are able to provide greater convenience through the use of apps and a higher degree of customisation through face to face interactions with customers, the decrease in demand due to the determinants of change in taste and preferences and substitutes may be minimised. Given this scenario, supply would decrease	Given that both demand and supply shifts would cause an increase in TR revenue, the resultant impact would be a **large rise in TR revenue along with a large rise in sales volume.**

	by a larger extent than demand. Given that demand is price inelastic, **TR would rise.**	

Marking Scheme

L3: 15-20	Answer provides a thorough analysis of each market based on DD/SS determinants and elasticity concepts in considering the direction and extent of changes in Q and TR.
L2: 9-14	Answer attempted but provides an underdeveloped analysis of each market based on DD/SS determinants and elasticity concepts. • But may contain inaccuracies in explanation of DD/SS determinants • May contain inaccurate application of elasticity concepts • May contain inaccurate links to impacts on Q and TR Answer considers only 1 market – either brick and mortar or online travel service (max mid L2 – 12)
L1: 1-8	Answer provides only a vague analysis of DD/SS with conceptual errors; considers only direction of changes without considering extent and with no clear links to impacts on Q and TR.
E3: 4-5	Clear evaluative appraisal of the direction and extent of Q/TR based on explicitly established criteria, substantiated with economic and contextual analysis
E2: 2-3	For an answer that makes an attempt at evaluative appraisal of the direction or extent of Q/TR based on implicit criteria, substantiated with some but inadequate analysis
E1: 1	For an answer that gives unsupported concluding statement or appraisal about how the events impact on sales volume and revenue

Question 2:

To realise the dream of a tobacco-free future requires sustained and properly funded comprehensive smoking prevention strategies, which are threatened by budget cuts. The large tobacco manufacturers make obscene profits from their deadly products, and the public rightly supports a levy to make the industry pay for the tobacco-free future that we all want to see.

(a) Explain the determinants of rational decision-making both by consumers and firms. [10]
(b) Assess the extent to which government intervention is necessarily better than free market in the market for tobacco. [15]

(a) Explain the determinants of rational decision-making both by consumers and firms. [10]

Question Interpretation

Command	Explain – to make clear / give a detailed description of
Content	Determinants of rational decision-making: • Objective: Self-interest – to maximize net satisfaction/utility & • Marginalist Principle: factors to consider include MB and MC
Context	No specific context – give your own examples
Approach	Students will need to establish that rational decision making means to maximize self-interest. Students will then need to explain how consumers and producers maximize self-interest via the use of the marginalist principle – and explain the factors / determinants of MB and MC from the perspective of producers and consumers, in making the decision of how much to produce and consume.

Essay Outline

Paragraph 1	Introduction
Paragraph 2	Marginalist principle applied to consumers – utility maximization
Paragraph 3	Marginalist principle applied to producers – profit maximisation
Paragraph 4	Conclusion

Suggested Answer

Introduction

All economies face the problem of scarcity – where there are unlimited wants but limited resources. Thus, choices have to be made for the best allocation of resources and opportunity costs, which are the next best alternative forgone, will be incurred. As such, any rational consumer and producer will aim to maximize their self-interest, and they do so by making choices that yields them the maximum net satisfaction, i.e., the highest level of satisfaction with the least possible cost. In the case of ***consumers, self-interest comes in the form of utility maximization***; while in the case ***of firms, it is profit maximisation***. This can be achieved by weighing the cost arising from an activity against the benefits, by considering the marginal effects of change.

Body Para 1 - Marginalist principle applied to consumers

A rational consumer seeks to maximise utility by maximising net total benefits from consuming a good, and considers his marginal benefits and the marginal costs of consuming the good.

A rational consumer will buy an extra unit of a good as long as marginal benefit exceeds the price of the good (MB > P) as it increases the level of net total benefits from consumption. As the consumer consumes a greater quantity of the good, say a stick of cigarette, the marginal benefit / utility (e.g., relaxation and stress relief derived) from smoking that extra stick keeps falling (due to diminishing marginal returns) and hence the willingness to pay additional price falls. This explains the downward sloping demand curve. ***At a particular prevailing market price P for a stick of cigarettes***, the consumer will pay price P for each stick of cigarette, thus incurring a marginal cost of P for each unit (P = MC). Hence, to maximize net benefit, the consumer will consume all the units in Figure 1 where the consumer's marginal benefit is higher than the prevailing market price P. They will continue to do so until MB = P (= MC), i.e., q, where the total net benefits are maximised. Consumers will not consume the additional unit where MB is less than price, e.g., q', as it lowers the net total benefits from consumption. At A, consumer surplus, which is the difference between what the consumer is willing and able to pay and what he actually pays, is maximized.

Body Para 2 – Marginalist principle applied to firms

A rational firm seeks to maximise total profits from the production and sale of a good. Rational decision making by firms means that firms will base their output decision on the marginal revenue (the price the good is sold at) and marginal cost (of producing the good).

Similarly, a rational firm will want to profit maximize, and produce and sell an extra unit of a good, say a stick of cigarette, as long as MR is larger than MC. The MC in this case could be the additional costs of the tobacco and labour used in producing the extra cigarette. The higher the quantity produced, the higher the MC. ***At a particular prevailing market price P for a stick of cigarette***, firms will earn a marginal revenue of P for each unit sold (assuming perfect competition, hence P=MR). By producing that unit below Q' in Figure 2, there will be bigger addition to revenue (MR) than to cost (MC) and total profits will increase given that marginal profit is positive. When production by the firm is beyond an output Q', e.g., Q'' where MC exceeds MR, producing that add more to cost (MC) than to revenue (MR) and hence reduce total profit. Firms' profits can be increased by cutting back on production. Firms thus produce up to the point where MR=MC at Q' where the total profit is maximised. At this point, the producer surplus, which is the difference between what the producer is willing and able to sell for and what he actually receives, is maximized.

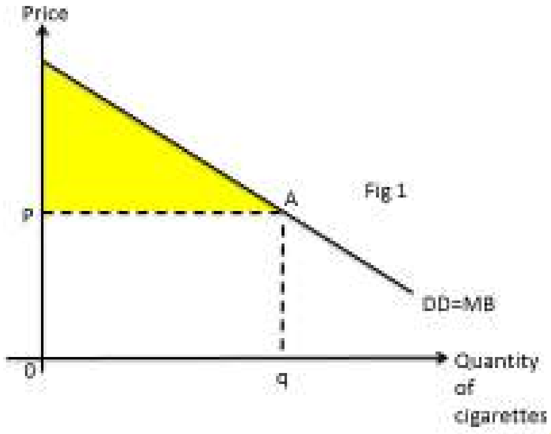


Figure 1

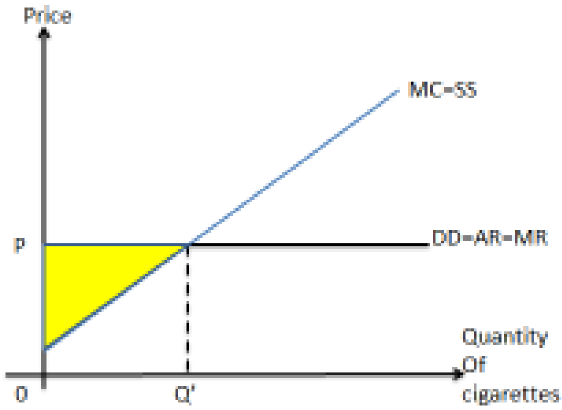


Figure 2

Body Para 3 – applying to Market

The marginalist principle is adopted by both consumers and firms when they attempt to maximise their self-interest. The determinants affecting the rational decision making is thus the marginal benefit and marginal costs of the consumer and producer. When resource allocation is left to the price mechanism, goods are produced up to the point where demand matches supply. Since demand reflects MB and supply reflects MC, at the market equilibrium point, where demand matches supply, MB=MC and society's welfare is maximised. The market equilibrium price of P is also the prevailing price P, which is the MC of consumers, and MB of firms.

Conclusion

Rational decision making by both firms and consumers hence would help allocate resources efficiently in the free market via price mechanism, assuming many strict assumptions such as no externalities, not public goods, no imperfect information, perfect markets etc. Hence, this might mean that society welfare is not maximized at equilibrium if any of these assumptions were not to hold. An example of such a good is the cigarette market. Part (b) will explore this, and whether government intervention is hence better than free market.

Mark Scheme

Level	Descriptor	Marks
L3	For an answer that uses the ***marginalist principle*** to explain the determinants of MC and MB that both producers and consumers make in their consumption and production decisions, with good use of examples.	8 – 10
L2	For a descriptive answer that recognises the ***marginalist principle*** is the basis of rational decision making but there are gaps in explanation. There is some use of examples. Or For a one-sided answer that only clearly explains rational decision making by the firms OR consumers.	5 – 7
L1	For some knowledge of the workings of the market. Superficial explanations with errors and little/no examples.	1 – 4

(b) Assess the extent to which government intervention is necessarily better than free market in the market for tobacco. [15]

Suggested answer Part (b)

Question Interpretation

Command	Assess the extent to which – present multiple perspectives and weigh, leading up to a synthesized stand
Content	Government intervention in market failure arising from demerit goods and imperfect competition Government failure
Context	Tobacco
Approach	Students will need to: (1) Establish the criteria for comparison between intervention and free market: effectiveness to achieve efficient outcome is possible (2) Explain how intervention is required as free market results in market failure due to demerit goods (3) Explain limitations of intervention – Government Failure (4) Explain how free market may not result in inefficient outcomes when market failures from large firms offset the market failures from demerit goods (5) Make a stand to synthesis

Essay Outline

Paragraph 1	Introduction • Definition • Contextualisation • Overview
Paragraph 2	Thesis: Government may be better than free market in achieving AE • Market failure as tobacco is a demerit good • AE is achieved
Paragraph 3	Anti-thesis 1: Government may not fare better than the free market • Government failure
Paragraph 4	Anti-thesis 2: Free market may fare better because the market failures arising from different sources offset one another

Paragraph 5	Synthesis and Conclusion • Stand • Justification

<u>**Suggested Answer**</u>

Introduction

Allocative efficiency is achieved when the right amount of the right goods are being produced such that marginal social costs equals marginal social benefit. Under strict assumptions such as that of perfectly competitive market, and no externalities are present, the interaction between rational firms and consumers result in an allocative efficient outcome and society welfare is maximised.

However, in the market for tobacco where the market fails due to the presence of information failure, externalities, and market dominance, then the resource allocation will not be efficient and government intervention may result in a more efficient outcome.

The extent to which government intervention results in <u>**a more efficient outcome**</u> will depend on the relative inefficiencies of the free market and the government.

Thesis: Government may be better than free market in achieving AE

(1) Market fails as results as tobacco is a form of demerit good

Tobacco is a demerit good that is deemed undesirable by the government, but overconsumed.

First, negative externalities arises from consumption of tobacco, since it generates 2nd hand smoke which has more deleterious health effects (e.g., lung cancer) on people around the smoker, that is not internalized or taken into account by the smoker. This causes the marginal social cost to be higher than the marginal private costs in Figure 1, thus when ***rational*** consumers only consider their *private* benefits and costs, they will consume at where MPB=MPC, at Qf in Figure 3. This will be higher than if consumers also considered the third party costs, where MSC=MSB at the socially efficient output Qs, thus resulting in an ***overconsumption*** of tobacco.
Furthermore, consumers have imperfect information of their true / actual private benefits / costs of consuming tobacco, often overestimating the actual benefits to themselves, which they perceive to be high due to the stress relieving or positive feelings

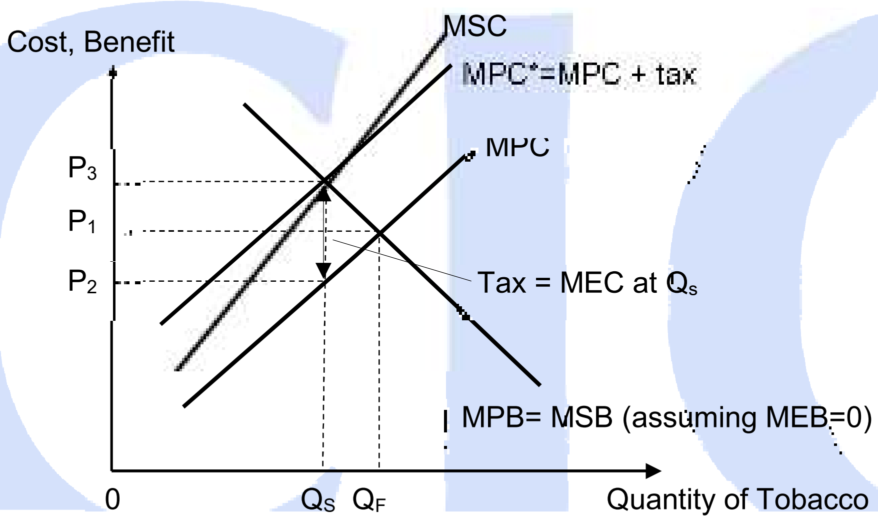


Figure 3

as well as the 'look cool' factor that smoking could bring them. Thus, ***rational*** consumers (in the pursuit of self-interests) may overconsume tobacco, as their *perceived* marginal *private* benefits are higher than the actual, thus further ***aggravating the overconsumption*** of tobacco caused by negative externalities.

(2) Government intervention leads to allocative efficiency

Thus, government needs to intervene to achieve the socially efficient outcome. For example, an indirect tax on tobacco related products, where tax = MEC at Qs, is likely to raise the MPC of consuming tobacco, and internalize the external cost as a private cost, thus shift MPC to MPC*, where MPC* = MPC + tax, as seen in figure 3. Ceteris paribus, this causes consumers to reduce consumption to socially optimal output of Qs, where MPC* = MPB, and government thus fare better resources are better channelled to other markets and the deadweight loss to society is removed.

Likewise, an advertising ban (e.g., shelves of tobacco related products to be opaque at retailers, no advertising of tobacco related products in Singapore) may limit the misinformation and "correct" the perception of these goods, causing the demand for tobacco to fall back to a more accurate level of MPB (actual), thus causing rational consumers to consume nearer to the socially optimum level Qs where MPB_{actual} = MPC, thus improving allocative efficiency.

Anti-thesis 1: Government may not fare better – Government Failure

Government intervention may, however, not always lead to an improved outcome compared with the free market, and may sometimes exacerbate a problem or produce unintended negative consequence making the ***cost of government failure considerably greater than the cost of market failure***.

This depends on the extent of **Imperfect Information** of the government. In the absence of perfect information to use when correcting the market failure, government may create more inefficiencies. For example, the government does not have perfect information of the MEC at Qs as well as the PED of tobacco to correctly estimate the amount of tax to impose to correct consumer behavior. As such, they may overestimating the amount of tax, thus creating underconsumption of tobacco instead. Should the tax be grossly overestimated, the DWL that results due to the underconsumption could be larger than the DWL at free market.

In view of the large tobacco firms often with high political clout, it is unlikely that tax levied on tobacco would be high enough to create such an underconsumption. It is thus likely that government intervention tends to underestimate the extent of MEC, thus tax is insufficient to fully resolve the issue of market failure. Government intervention in this case is likely to improve the market failure (albeit not completely solving it) rather than worsen it.

Furthermore, the choice of policy the government undertakes will also determine whether government intervention necessarily results in a more efficient outcome. Given that imperfect information of private benefits is also a source, government intervention that corrects this source of market failure is equally important to tackle the **root cause**. Public education (moral suasion) of the actual private costs and benefits of smoking tobacco related products (rather than just simply ban on advertisement) thus need to be used in tandem with taxes in order for government intervention to be considered adequate in addressing both root causes to achieve socially efficient allocation.

Furthermore, government intervention can also produce inefficiency when **administrative cost is high**. Administrative cost of an indirect tax (e.g., wages paid to tax officers to monitor the companies), advertising ban, and public education are significant, and may **exceed the reduction in deadweight loss** arising from overconsumption. If so, government intervention makes the society worse off. If the governments **do not have sufficient budget** for these strategies, their intervention methods may at best be under-correcting the misallocation.

Anti-thesis 2: Free market may fare better because the market failures arising from different sources offset one another

Hence, free market on its own may still lead to a more efficient outcome than government intervention, particularly because tobacco firms are large firms. With imperfect competition arises another source of market failure – market dominance.

Large firms are allocative inefficient, because in their ***rational*** decision making to profit maximize, they will produce at where MC=MR. Large firms face a downward sloping demand curve and can set their own prices at where MC=MR at point E in Figure 4. The equilibrium price and quantity is thus at P_m and Q_m, where P_m is larger than MC_m, thus implying allocative inefficiency and a deadweight loss of area (3 + 5), society welfare will be better off if units where P = MB > MC (i.e Q_mQ_{pc}) are produced. Thus, the large firms, in their rational decision making process of maximizing profits, would **underallocate** resources to producing tobacco.

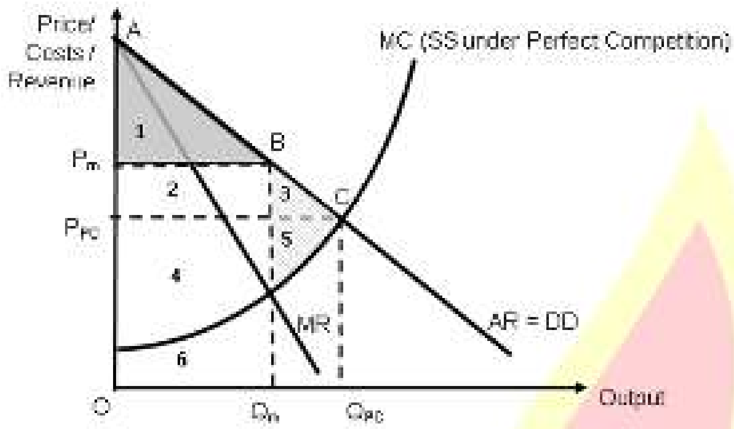


Figure 4

In fact, this may **offset** the market failure of **overallocation of resources** to tobacco arising from tobacco being a **demerit good**. Hence, in absence of any government intervention, the free market could on its own, achieve the socially optimal outcome given the different sources of market failure, thus completely removing the need for government intervention.

Government failure in properly estimating the extent to which the large firms mitigate the overconsumption of tobacco by consumers will hence misguide the government's policies in amount to tax, thus possibly creating more inefficiencies than before.

Synthesis and Conclusion

In conclusion, the extent to which government intervention is better than free market in the market for tobacco **depends critically on whether the two sources of market failure negate each other, and whether the government can properly estimate the true level of inefficiency in the tobacco market.**

While the two sources of market inefficiencies might negate one another, the extent of government failure could also be minimal, as governments tend to be cautious with the over taxing of tobacco. It is also often complemented with public education or strategies to reduce the MEC or correct imperfect information such as an advertising ban to achieve correction of the problem in the longer term, thus possibly preventing the worsening of the imperfect information in the long run.

Thus, I feel that government intervention is not necessarily better to improve allocation of resources, but the government's role is definitely still necessary in helping to change the mindsets of consumers and in achieving an allocation closer to socially optimum in the long run.

Mark Scheme

Level	Descriptor	Marks
L3	For a 2-sided discussion supported by analytical approach and careful consideration of the various factors which will affect whether government can fare better. Good use of examples. Clear identification of criteria of comparison.	**8 – 10**
L2	For a 2-sided discussion but limited in scope and where there are some gaps in analysis. Some use of examples. OR For a one-sided response to government faring better by addressing the market failure for a demerit good in discussion. [max 5m]	**5 - 7**
L1	For some knowledge of the various policies government can implement to achieve efficient resource allocation. Poor/no use of examples. OR Some knowledge of market failure that results, with no clear links made to address question to compare government intervention and market failure.	**1 – 4**
E3	For an evaluative judgement / assessment of the extent that is well substantiated by economic analysis	**4 – 5**
E2	For a judgement on the extent that is supported by some economic analysis	**2 - 3**
E1	For an unsubstantiated judgement of extent that the government will fare better.	**1**

Question 3:

(a) Explain how firms can practise price discrimination. [10]
(b) To what extent do you agree that there should be more regulation of monopolies? [15]

(a) Explain how firms can practise price discrimination. **[10]**

Question Interpretation

Command	Explain how – clearly describe the process and assumptions
Content	Market Structure – Price discrimination: the conditions/circumstances where firms can carry out price discrimination • Third degree price discrimination • First degree price discrimination • Second degree price discrimination (also accepted)
Context	No specific context – give relevant examples
Approach	• Define price discrimination • Explain 3rd degree or 1st degree PD and show the following: - Explain the 4 conditions for PD to take place 1) Firms have market power (price setting ability) 2) Ability to segment market 3) Different price elasticities of demand in the separate markets 4) Not possible for resale - Use an example to explain how the firm practises the PD (3rd or 1st degree) - Use a diagram to illustrate how it is done

Suggested Answer

Introduction
Price discrimination (PD) occurs when a producer charges the same good to different buyers at different prices, for reasons **not associated** with cost differences.

The objective of a firm to practise PD is to increase the firm's total revenue, to drive competitors out of business or to gain access to foreign markets (assuming similar cost conditions for the firm in both foreign and home markets). Ultimately, it is only beneficial to practise PD if **it increases the firm's profits**.

For price discrimination to take place, there are 4 conditions to be met: firms must have market power, ability to segment market, different price elasticities of demand in the separate markets and not possible for resale.

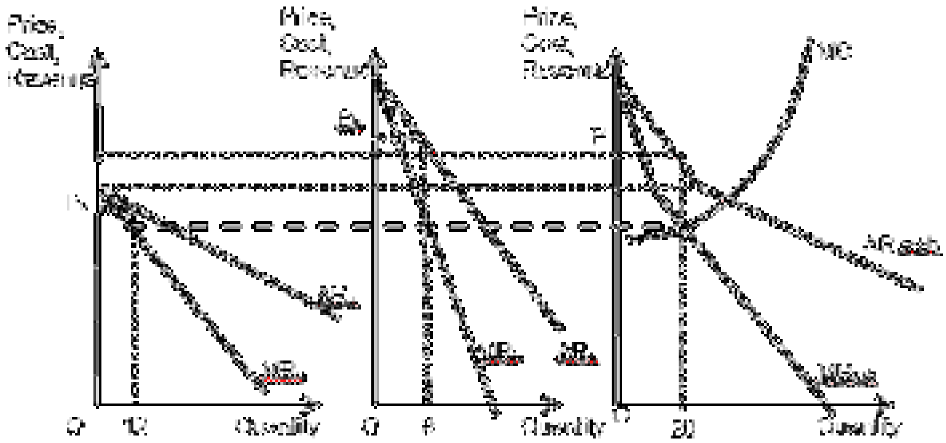
Development

Third Degree Price Discrimination
Consumers are grouped into two or more independent markets and a separate price is charged in each market.

For example, students and senior citizens are charged cheaper bus fares than adults, even though there are ***no differences in the cost of production or provision of the bus service*** to the different groups. SBS Transit and SMRT meet these conditions for price discrimination, and are able to charge different bus fares in order to raise revenue and profits.

The bus operators, SBS Transit and SMRT must have market power to set prices and are not price takers.

They can set the bus fares for different commuters.
The operators are able to <u>segment the markets ***by age***</u> where different distinct markets of students, senior citizens and adults can be identified. Consumers <u>with differing PED are grouped into the different markets and charged different bus fares (prices) ***for the same bus service***</u>**.** The market whose demand is relatively price inelastic (adults) will be charged a higher price compared to the market whose demand is relatively price elastic (students and senior citizens).
Students and senior citizens are <u>not able to resell</u> the cheaper bus concession cards in the market for adults.



i) Market for Senior Citizens ii) Market for Adults iii) Market Senior Citizens & Adults

Figure 1: Third degree price discrimination

In order to maximise its profits, the firm has to <u>decide on the total output he would produce, how to divide this output between the two markets, and what price to charge in each market</u>.

For each market, that is the market for senior citizens and market for adults, the profit maximising output is where MC = MR. The total output the firm produces is the sum of the output in the 2 markets.
With reference to Figure 1, the firm discriminates by charging a lower price, OP_a in the market with relatively price elastic demand (market for senior citizens) and a higher price, OP_b in the market with relatively price inelastic demand (Market for adults).

The **<u>total revenue is higher</u>** than if the firm sells the entire output at a single price, P (please refer to Figure 1iii)

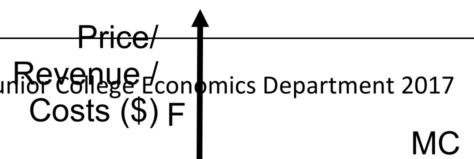
Hence, by practising price discrimination, the firm earns **<u>higher profits</u>**. This is because the ***total cost of production is the same whether there is discrimination or not***.

<u>Alternative point (optional)</u>
<u>First Degree Price Discrimination / Perfect PD</u>

First degree price discrimination is where ***<u>the firm is able to charge the maximum price each customer is willing and able to pay for each additional unit bought</u>***. An example is auction. In order to successfully practise first degree price discrimination, <u>the firm will need to have perfect knowledge</u> regarding the maximum price that consumers are willing and able to pay for each additional unit bought. Hence MR = AR for a perfectly price discriminating firm.

Referring to Figure 2, the firm will equilibriate at G, where his MR (AR=DD) = MC. The profit-maximising output is Q2. Every unit of good sold is charged a different price (the maximum price that each consumer is willing and able to pay for that unit of good), even though there is ***no cost difference*** in the goods produced. Therefore his total revenue is the area $OFGQ_2$.

In this case, the firm gets the entire consumer surplus in every transaction, leaving consumer with **<u>zero consumer surplus</u>**.



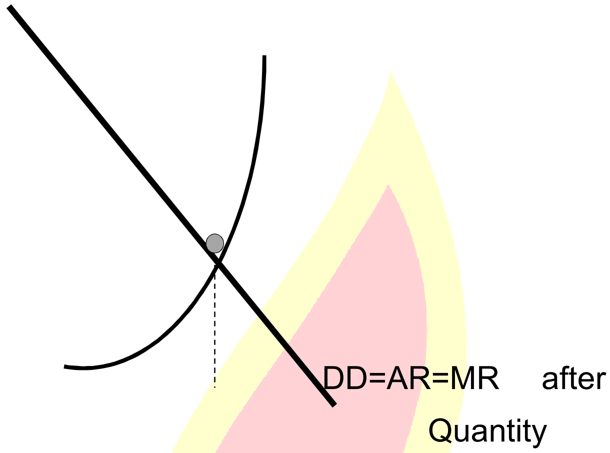


Figure 2: First Degree Price Discrimination

Marking Scheme

Levels	Descriptors	Marks
L3	Well-developed explanation on the conditions for price discrimination and how firms can carry out PD successfully. Clearly understands different prices charged for reasons not due to cost differences. Good economic analysis with accurate diagrams to support the explanation. Good relevant examples to illustrate PD. No need for both degrees of price discrimination to be eligible for L3.	8-10
L2	Some explanation on how firms can carry out price discrimination but economic analysis is lacking or undeveloped. Some use of examples.	5-7
L1	Largely descriptive answer of price discrimination theory and listing of the conditions for price discrimination	1-4

(b) To what extent do you agree that there should be more regulation of monopolies? [15]

Question Interpretation

Command	'To what extent' – to provide various perspectives on the issue and form a judgement about the extent to which there should be more or less regulation.
Content	This question requires students to analyse monopolies using the following aspects: ▪ Efficiency (Productive Efficiency and Allocative Efficiency) ▪ Equity ▪ Innovation (Dynamic Efficiency) ▪ Consumer choice ▪ Economies of Scale ▪ Contestability ▪ Natural monopoly **Linking** these to implications on ***consumer's interest – price and quantity, product innovation and variety***
Context	No specific context – give relevant examples
Approach	▪ **Thesis**: *There should be more regulation of monopolies* ➔ Students should argue that more regulation is needed because it is both **productive and allocative inefficient**, leading to ***higher prices and lower quantity*** and **increases income inequality** ➔ Need for regulation of prices and deregulation of markets to allow for ***greater***

	competition and contestability ▪ **Anti-thesis**: *May not necessarily need more regulation of monopolies* ➔ Students should argue that may not necessarily need more regulation because of the firm's **ability to reap EOS**, leading to lower costs, **dynamic efficiency** leading to ***lower prices, better quality goods*** ▪ **Anti-thesis 2** (optional): *More regulation of other market structures and not only monopolies* ➔ Students should argue that more regulation may be needed in other market structures because of possible allocative inefficiency. (e.g. case of collusion in oligopolistic markets where firms benefit at the expense of consumers) ▪ **Synthesis**: Provide a reasoned conclusion using a criteria

Suggested Answer

Introduction

More regulation of monopolies refers to greater government intervention which includes price regulation, deregulation of markets (i.e. to open up the monopoly market to competition) and any form of legislation to curb anti-competitive behaviour.

The **rationale for more regulation** is to bring about more efficient and equitable outcomes for society. Greater efficiency refers to greater allocative efficiency, greater dynamic efficiency and greater dynamic efficiency which benefits the society in terms of lower prices, higher quantity and better quality of goods. In addition, more regulation may also bring about greater equity in terms of lower prices enjoyed by consumers where firms will not enjoy supernormal profits at the expense of consumers. These are the indicators for us to assess if there is a need for more regulation of monopolies.

Hence, in this essay, we will look at the extent of allocative inefficiency, productive inefficiency, dynamic efficiency and ability of monopolies to reap substantial economies of scale and impact on the consumers' interests.

Thesis: There should be more regulation of monopolies

Monopolies are likely to be **allocative inefficient**. The monopoly firm has the market power to influence market prices and hence able to set prices. Due to its price inelastic demand, the firm is able to mark up prices (significantly above marginal cost) to restrict output and raise prices to maximise profit.

As a monopolist, the profit maximising monopolist would produce at Q_m and P_m where MC cuts MR from below (refer Figure 3). Thus, the *price charged is higher than the marginal cost of production* (P_m>MC). This means that consumers' valuation of the good is greater than the marginal cost of production. This represents the *degree* of allocative inefficiency. The greater the difference between P_m and MC, the greater the degree of allocative inefficiency. In addition, the monopolist produces a *lower quantity, Qm, that is below the output where society's welfare is maximised at P=MC*. This is compared to the perfectly competitive market where Ppc=MC with quantity Qpc at price Ppc. Hence, monopolists are allocative inefficient**.** There is a deadweight welfare loss to society which is represented by area BCE due to P>MC and underproduction.

This results in consumers being exploited and they have to bear *higher prices and lower quantity and* **hence the need for more regulation**.
An example is Sistic, which was the sole ticketing provider for many performance venues, leading to higher ticket prices over time.

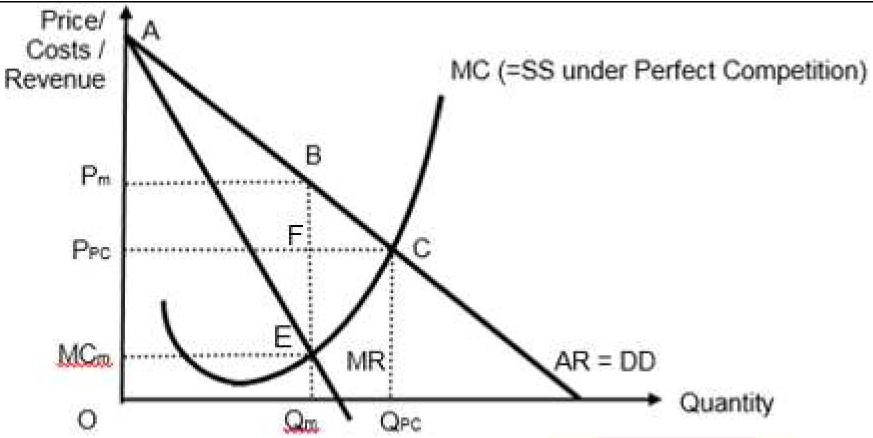


Figure 3: Equilibrium of industry under PC and monopoly

A monopoly is likely to be **productive inefficient** from firm's point of view as it has little incentive to cut costs and may not be using the least cost method of producing a given level of output. Due to the lack of such competitive pressure, it may create complacency within the firm, reducing its incentive to keep its costs to the lowest.

Hence it may result in the firm being lax in its cost control and X-inefficiency may occur, leading to firms charging <u>*higher prices to consumers*</u>.

The extent that more regulation is required depends on the extent of contestability and in markets where natural monopoly exists.

In a highly contestable market, a monopoly will be less allocative inefficient and productive inefficient as it would be compelled to keep prices lower lest the potential competitors enter the market. The lesser the contestability, the more the governments should intervene.

The government can allow *deregulation of markets* to make it contestable and introduce competition to <u>*reduce the monopoly's market dominance and ability to set very high prices*</u>, hence prevent exploitation of consumers. Another way is to *curb unfair competition practices*. The government can implement anti-competition laws to *curb anti-competitive or restrictive practices* e.g. Sistic was directed to remove its exclusive agreements with performance venues and pay a financial penalty of $769,000.

Some government regulation may be needed in markets where there is a natural monopoly (e.g. utilities) to reduce the deadweight welfare loss. Even though a natural monopoly would already charge a lower price and produce a higher quantity than if the market were operated by many small firms (PC), there would still be allocative inefficiency. The government can thus impose price regulation in the form of Average Cost Pricing and Marginal Cost Pricing (AC and MC pricing) to <u>*keep prices affordable for consumers*</u>. In the case of MC pricing, the firm incurs a loss given by the area P_rCFR which means the government has to subsidise the firm to cover the losses. AC pricing can be imposed so that no government subsidies are needed and where the firm earns normal profits and charges more affordable prices to consumers. However, allocative inefficiency still exists as output is still less than the social optimum level and not enough of the good is being produced.

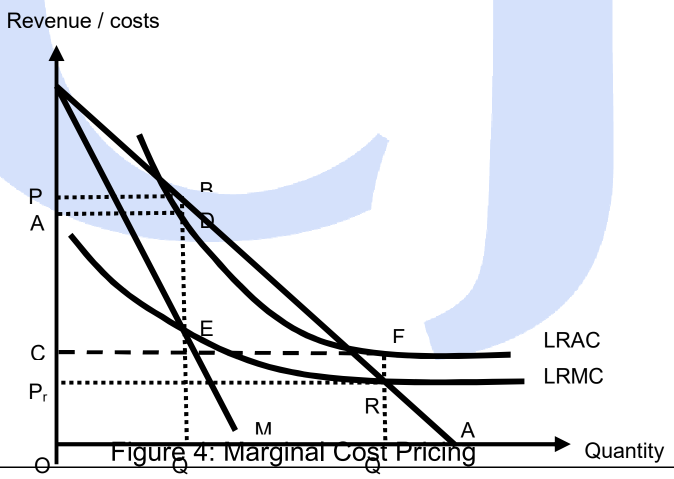


Figure 4: Marginal Cost Pricing

Monopolies tend to worsen income inequity as supernormal profits are likely to be enjoyed by a small group of monopoly firms at the expense of a large group of consumers who pay higher prices and for a limited quantity of goods.

Using Figure 3 above, consumer surplus in a PC industry is PpcAC compared to PmAB in a monopoly. Thus there is a loss of consumer surplus of area PpcPmBC. Consumer surplus PpcPmBF previously under PC has been transformed to producer surplus under a monopoly. The monopoly gains part of the loss in consumer surplus, that is the *firm gains at the expense of the consumer.* A monopoly as a price-setter can earn higher revenue than firms in other industries. Thus, the consumer loses more than the gains of a monopoly.

With more regulation such as government imposing a tax on the monopoly's profits, or deregulating the market which may result in lower prices for consumers and hence to *reduce the inequitable distribution of income*.

Anti-thesis: No, may not necessarily need more regulation of monopolies

Monopolies can be aid dynamic efficiency and innovation. A monopoly has the ability to carry out R&D and embark on innovation programmes to develop new / better products and processes because of the supernormal profits earned. In a contestable market, monopolist has the incentive to invest in R&D because it is protected from rivals through high barriers to entry such as the technical superiority of its product like Apple iphone. Hence consumers enjoy the benefits of *better quality and greater variety of goods*.

However, given its dominant position, a monopolist may become complacent and may see no need to innovate and improve the quality of its products.

In industries where marginal efficient scale (MES) is large relative to the market demand, the monopolist is able to enjoy significant internal economies of scale (EOS). With more competition and more firms in the industry, this means that each firm would have a higher LRAC than if it was dominated by a monopoly. Hence, it would be more productive inefficient from society's point of view, and likely to charge higher prices and for lower quantity.

With significant EOS, the monopolist is able to operate on a lower marginal cost, MC2 compared to firms in competitive industries, MC1, as shown on Figure 5. The lower costs may lead to *lower prices and higher output* if the EOS is substantial. Thus consumer surplus will be higher for the consumers in the monopoly market than in a perfectly competitive market. Thus this also *reduces income inequity.* Hence, regulation may not be needed in theses instances.

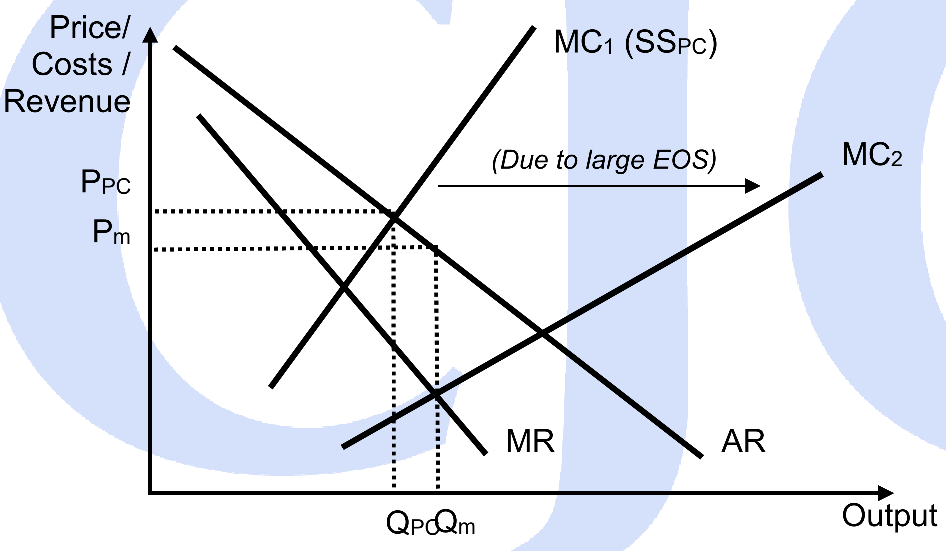


Figure 5: Monopoly enjoys EOS

In some situations, competition may also result in wasteful duplication. The duplication of resources can result in wastage of resources. An example is StarHub Cable and SingTel Mio both screening English

Premier League (EPF) games and hence both operators have to pay for the screening rights. A monopoly in this case would *reduce wasteful duplication.* Instead, the monopoly can direct its resources to provide greater variety of programmes and channels that can benefit the consumers.
Regulation may also not be needed in the case of third degree price discrimination where consumers in the market with price elastic demand enjoy more benefits in terms of *greater access to the good*. A monopoly practising 3rd degree PD is able to supply another segment of the market, which may not be possible if it chooses to charge at a single price for all units of output. The price is reduced in the market with relatively price elastic demand and quantity sold increased leading to greater consumer surplus. Some examples are cheaper bus fares for senior citizens during off peak hours and lower prices charged in foreign market versus the home market.
Synthesis: ***Use criteria of performance outcomes*** • Weigh merits of competition (keeping prices low etc) against the merits of limiting competition (supernormal profits for innovation in the long run etc.) in considering extent of more regulation needed • Depends on contestability of market • Depends on type of product or whether it is a natural monopoly • Extent of government failure
Synthesis: (sample) Whether more regulation is needed for monopolies largely depends on *the degree of competition in the market*. In the case of Singapore, domestic monopolies are subjected to competition from foreign firms, thus causing them to be less complacent and to carry out more R&D which boasts dynamic efficiency and also lower their prices so that P is close to MC, resulting in lower allocative inefficiency. Moreover, industries with larger sunk cost should also be operated by monopoly firms as it is *more cost efficient for a single firm to provide for the entire market demand*. An example is the Singapore Public Utilities Board. If there is *less competition* within the country, more regulations should be imposed on monopolies such as *nationalisation*. However, this might result in *government failure* as they are not profit motivated, thus causing X-inefficiency. An alternative would be to have *co-ownership of the monopoly by private firms and government* to ensure that the firms are profit motivated and at the same time, does not undermine the needs of society.

Marking Scheme

L3	Answer addresses direction word 'to what extent' and provides different perspectives. A well-developed discussion on whether there is a need for more regulation of monopolies. Demonstrates good economic understanding of efficiency and equity concepts and links the implications to the need for more regulation. Relevant examples used to support points. Coherent and fluent arguments.	8 – 10
L2	Able to show some relevant ideas on whether there is a need for more regulation of monopolies. Some explanation on efficiency and equity concepts but underdeveloped. Links to the need for more regulation not made consistently. Some use of examples.	5 - 7
L1	Superficial answer with scattered points on whether there is a need for more regulation of monopolies. Shows lack of economic understanding. No or little examples used. No coherent flow of arguments.	1 – 4
	Evaluation	
E3	For an answer that arrives at an analytically well-reasoned judgement about the extent to which there should be more regulation of monopolies.	4 - 5
E2	For an answer that makes some attempt at a judgement about the extent to which there should be more regulation of monopolies.	2 - 3
E1	For an answer that gives an unsupported statement about the extent to which there	1

	should be more regulation of monopolies.	

Question 4:

Savings as a percentage of GDP in Singapore has fallen from about 52% in 2010 to 44% in 2015.

Discuss the likely effects of the falling savings ratio on the performance of the Singapore economy and the standard of living of the people of Singapore. [25]

Question Interpretation

Command words:	Discuss - Perspectives
Content:	Cause : Fall in savings ratio Effects : On economic performance and SOL
Context:	Singapore
Approach	Students must be able to explain the likely effects of a fall in savings ratio on - Economic performance - SOL with specific comments related to the Singapore economy

Suggested Answer

Introduction

Profile of Singapore Economy

Singapore is a small open economy with a lack of natural resources. It is highly dependent on exports as an engine of growth and on imports for raw materials and essential goods like food and water.

Meaning of Economic Performance

Economic performance refers to a country's economic health. It considers the extent to which a country has achieved the macroeconomic aims of sustainable and inclusive economic growth, *low* and stable inflation, low unemployment and a favourable BOP position. Although it is often difficult to achieve all these aims simultaneously, a country which is able to achieve satisfactory performance in most of these aims, it can be considered as a healthy economy with good economic performance.

Define standard of living

Standard of living (SOL) refers to the well-being of the average person in a country. It considers both material and non-material aspects. The material SOL is determined by the amount of goods and services an average person is able to consume which the non-material SOL is determined by the quality of life one leads which includes aspects like average years of schooling, quality of healthcare, quality of the environment, leisure hours, etc.

Overview

In this essay I am going to analyse the short term and long term effects of the fall in savings ratio on the performance of the Singapore economy and its implications on the standard of living of the people of Singapore.

Body 1

Positive & Negative Effects on the performance of the Singapore economy

- In the short run, a fall in the savings ratio may result in positive effects on economic growth and unemployment assuming that the economy is below full employment. A fall in saving would mean that households are spending more on the consumption of domestic goods and services. The rise in consumption would cause an increase in AD from AD_1 to AD_2 and a multiplied increase in real national income assuming the economy is below full employment, as seen from the increase in Real GDP from Y_1 to Y_2 in Figure 1.

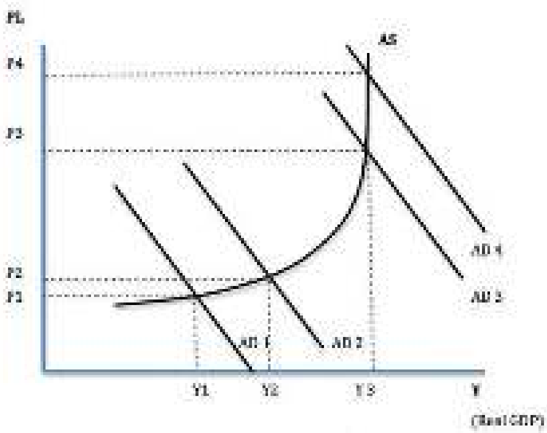


Figure 1

- *[Detailed explanation of the multiplier process:]* A rise in autonomous consumption will cause an initial increase in income by the same extent as more factors of production are employed to increase production. This increase in income will induce a further increase in consumption while part of this increase in income is withdrawn from the circular flow of income in the form of saving, tax and imports. The cycle of expenditure and income will continue with the rise in expenditure and income getting smaller and smaller till the increase in income is too small to induce further increase in consumption. Eventually at the end of the multiplier process, national income would have increased by a multiplied extent compared to the initial increase in consumption. This results in positive economic growth. Cyclical unemployment will also fall as producers employ more workers to increase output as inventory stocks decrease with higher consumption.

- A fall in saving ratio may result in an increase in the size of Singapore multiplier. A fall in savings ratio **may** result in a fall in MPS, resulting in a fall in MPW, ceteris paribus. Given the smaller MPC would mean that households are spending a smaller proportion of the increase in income for consumption. Since the size of a country's multiplier k is 1/MPW (where MPW=MPS+MPM+MPT), the fall in MPS will increase the size of the multiplier, resulting in a larger increase in real national income as a result of the increase in consumption. *[Note: savings as a % of GDP is average savings, in contrast to Marginal Propensity to Save, hence "may" result in a fall in MPS, and not definitive]*

- However if domestic households choose to consume imported goods rather than domestic goods, the increase in consumption of imports may slow down the rise in AD and therefore GDP giving rise to slower growth if the economy has unused resources.

- A fall in savings ratio may also worsen Singapore BOP position. An increase in consumption of imports may worsen the balance of trade position. Ceteris paribus, this might worsen Singapore's current account position and BOP positions.

- A fall in saving ratio may also cause demand-pull inflation in the case of Singapore as the economy has been operating very close to full employment in recent years. Given the increase in AD from AD_3 to AD_4 and larger multiplier effect as a result of the fall in MPW may increase AD into the classical portion of AS, resulting in demand pull inflation, as general price level increases from P_3 to P_4 with little or no increase in Real GDP as shown in Figure 1.

- A fall in savings ratio assuming constant income, may adversely affect long term economic growth of a country. With a fall in savings, the supply of loanable funds will fall, causing interest rate for borrowing to increase. The higher interest rates are likely to have a dampening effect on investment, causing AD to increase more slowly resulting in lower economic growth rates. In addition, the fall in investment would cause the productive capacity to grow more slowly, resulting in slower actual and potential economic growth.

- In the longer term, the higher prices due to demand pull inflation may erode export competitiveness, resulting in slower economic growth and worsened BOP position.

Body 2

Positive and Negative Effects on SOL of residents in Singapore

- The fall in saving ratio may result in higher SOL of the residents in Singapore. The increase in consumption may result in consumers consuming more cheap imports and/or better quality goods from abroad. This may result in higher material and non-material SOL for the residents of Singapore.
- The positive economic growth in short run may result in higher material SOL. With positive economic growth, the amount of output produced in the economy increases. Assuming that population grows at a slower rate, there will be more goods and services available for consumption to an average individual, resulting in a higher material SOL.
- The lower unemployment in the short run also has positive effects on the material and non-material SOL. Lower unemployment would provide households with higher levels of income, resulting in an increased ability to purchase goods and services improving their material SOL. Moreover the financial and job security would reduce stress and anxieties from unemployment, improving the non-material SOL of the residents.
- However, if the Singapore economy is on the classical portion of AS cure, the increase in AD would result in higher GPLs with no increase in output. This would cause purchasing power of the residents to fall, resulting in a fall in amount of goods and services that fixed income earners are able to buy. This would cause a fall in the material SOL of these people of Singapore.
- Positive economic growth may also lower the non-material SOL of the residents of Singapore. The increase in demand for consumer goods and services may be met by producers making workers work longer hours or with disregard for the environment, resulting in high levels of pollution. If this happens, the non-material well-being of the population may be decreased.
- The material SOL of all residents may not increase due to growth. If the increase in income and output due to growth as a result of higher spending is distributed among only a proportion of the population, i.e., higher economic growth but also higher income inequity, the well-being of an average person may not have increased.
- In the long run, the fall in savings may result in smaller improvement in SOL in the future for Singaporeans. The fall in savings would mean less investments due to less loanable funds being available and therefore a smaller increase investment and productive capacity. This would mean that future generations are likely to see smaller improvements on their SOL as the ability to increase output in compromised due to the fall in the availability of loanable funds.

Synthesis and Evaluation

Considerations:

- Though there has been a fall in the savings ratio, savings ratio is still fairly high in Singapore compared to many western countries
- [Challenging assumption] While amount of loanable funds for investment appear to have fallen, this may not be the case. If the overall increase in GDP from 2010 to 2015 is more that 8%, the absolute savings are still increasing despite the fall in proportion.
- Furthermore, as an open economy, Singapore has no restrictions to capital flows, any shortfall in savings can be offset with savings from foreigners in Singapore due its stability
- Moreover, any shortfall in domestic investment could be offset with FDIs into the Singapore economy. This would allow Singapore to enjoy sustained economic growth despite the fall in savings ratio.
- Government has strict policies on pollution and working hours which if not adhered to, firms will face negative consequences.
- Higher tax revenue collected can be redistributed to help the lower income households, reducing inequity that may arise.
- Demand pull inflation could also be mitigated by the other policies such as supply side policies and exchange rate policies that Singapore adopts.
- Given the recent slowdown in the Singapore economy due to external uncertainties and rising unemployment in Singapore, the fall in savings ratio may actually help to boost AD if it increases domestic consumption.

- Hence, the overall likely effects on economic performance and SOL of falling saving ratio may be more positive than negative in both the short run and the long run.

Marking Scheme

Knowledge, Application, Understanding and Analysis		
L3	Answer deals with question requirement well, by the student's ability to show both depth and scope in considering the effect of a fall in savings ratio on at least 3 macro goals and SOL. Content is explain well with good use of relevant diagrams/framework with a conscious attempt to link back to economic performance and SOL. Response provides both the likely positive and negative effects of a fall in ratio on the Singapore economy.	15-20
L2	Answer largely able to respond to question requirements but many be limited in depth and scope. Students give a generic explanation with little or no links to the Singapore economy. *Max L2 – 11 marks if only considers performance or SOL but not both.	9-14
L1	Answer fails to deal with the question requirement, with little knowledge of the impact of a fall in saving ratio on the economy. Students may have some correct points which are there incidentally without any clear link to the question requirement.	1-8
Evaluation		
E3	Evaluative appraisal of the likely effects on both economic performance and SOL that is well supported by economic analysis to justify, and adequately substantiated/contextualised.	**4 – 5**
E2	Attempts at an evaluative appraisal of the likely effects on both economic performance and SOL that is based on economic analysis and adequately substantiated OR an evaluative appraisal of the likely effects on only one aspect (either economic performance or SOL)	**2 – 3**
E1	Concluding statement or appraisal on likely effect that is limited and unjustified/unsupported.	**1**

Question 5:

Singapore has demonstrated a very high degree of resilience to global volatility, despite the openness of its economy and its dependence on global trade and investments.

(a) Explain how the small and open nature of the Singapore economy leads to macroeconomic problems. [10]

(b) Evaluate the alternative policies that could be adopted to solve the above stated problems faced by Singapore. [15]

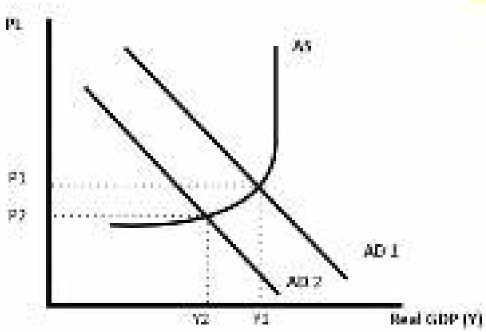
(a) Explain how the small and open nature of the Singapore economy leads to macroeconomic problems. [10]

Question Interpretation

Command:	Explain how
Content:	Small and open Macroeconomic problems
Context	Singapore economy
Approach	Interpret "small" and "open" • small/limited domestic C • limited resources – small labor force, land size, and a general lack of resources

	• Openness to trade, capital and labor flows. Explain how the above may adversely impact any 2 -3 economic goals.

Suggested Answer

Ideally Singapore would like to achieve internal and external stability through having sustainable and inclusive growth, price stability, low unemployment and a favourable BOP. Singapore small and open economy has increased her vulnerability to global volatility, which creates macroeconomic problems such as negative growth, unfavourable BOP as well as import inflation.
The small and open nature of the Singapore economy would imply a small population size. Given her small population size, the domestic consumer base and number of entrepreneurs will be small and limited. It will mean that Singapore will have to seek external growth in order to achieve ideal growth levels – net exports and foreign direct investments. In another words, Singapore's aggregate demand for goods and services is heavily reliant on external sources, such as exports and FDI, as compared to domestic drivers of consumption and government expenditure. **This will result in her being easily affected by unfavourable global economic climate, derailing her from being able to achieve sustained growth, and enjoying a favourable BOP.**  Figure 1 During the Global Financial Crisis in 2008-2009, poor economic performance in her trading partners resulted in reduced demand of Singaporean exports. Net exports fell. Also with the poor economic outlook, foreign direct investment levels also fell. With reduced levels of investments and net exports hence reducing AD, Singapore might enter a slowdown or at worse, a recession. Figure 1 shows a fall in AD_1 to AD_2, assuming ceteris paribus. Real GDP fell. Deflation arises as prices fall from P_1 to P_2. This increases the risk of a downward deflationary spiral if it creates **deflationary expectations** of the future. This may result in a long drawn recession in Singapore.
Also, the small and open nature of the Singapore economy would also imply general lack of resources, which makes us dependent on imports of both raw materials and final goods and services. Import dependence create increased vulnerability towards import disruptions. Import disruption such as **OPEC restricting supply of oil** and the possibility of **Malaysia water agreement** ceasing to be renewed will result in import supply disruption. Prices of water and oil will spike. **In short, Singapore is susceptible to import inflation due to our small and open nature, resulting in her experiencing cost push inflation, consequentially creating negative growth and worsening BOP.**

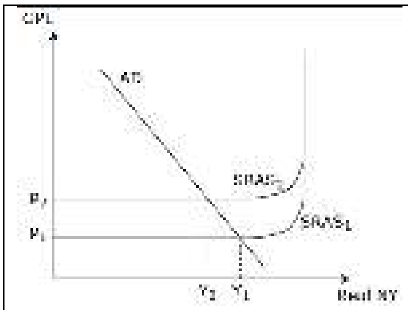


Figure 2

When global oil prices or water increase, Singapore will have to import these products at a higher price. The more expensive imported inputs will cause higher cost of production, SRAS falls from AS1 to AS2 in Figure 2. Firms pass increased costs to consumers in the form of higher prices. GPL rises from P1 to P2.

Due to SG import dependency, **rise in Pm results in less than prop fall in Qdm**. Import expenditure rises. However due to many substitutes to SG exports, the **higher GPL** means **higher Px. Export revenue will fall**. Overall **net exports fall**, **BOP worsens and fall in Real GDP.**

Due to openness to trade flows, there is intense competition with other export countries. Hence, resulting in a need to be export competitive. Due to other countries relative larger size than SG [such as China's large supply of labor, wages may be cheaper than SG], they may gain comparative advantage in production of certain goods and services.

Rise in Vietnam and China in low value added manufactured products. **Lower opportunity cost** in producing low valued add manufactured products than Singapore. SG no longer has comparative advantage in these goods.

Manufacturing industries in Singapore decline as they continually are unable to compete **with cheaper Chinese manufactured products. Persistent preference for manufactured Chinese products over SG leads to fall in Singapore manufactured export demand**, hence **export revenue** falls.

Fall in NX results in AD falling. Real GDP reduces. Since **MANUFACTURING CONSISTS of about 50% of our exports**, the fall in NX and therefore AD will be significant. Negative growth arises. **Investments in manufacturing related industries might relocate** to other more cost competitive countries, further reducing AD and Real GDP.

As a result of being small and open, there is a reliance on global markets for exports, reliance on external and increased susceptibility to changing comparative advantage.

Hence, these would create macroeconomic problems such as import inflation, negative economic growth and unfavourable BOP.

Other possible points:

Increasing globalization results in ***rise in outsourcing and offshoring*** *of business operations to reduce cost of production.* ***Laid off workers*** *from these industries may be* ***occupationally immobile,*** *unable to find jobs in other industries due to inability to adjust.*

Firms continually adopt new technology to improve productivity levels and stay price competitive. Firms are focusing on new ***technology*** *in the recent years have been focused on* ***substituting labour [Uber and Grab has looked into the possibilities of going driverless in the ride hailing industries]. Displaced workers may be occupationally immobile,*** *unable to find jobs in other industries.*

Inflow of foreign labour into Singapore. With limited job availabilities in middle skill jobs, ***PMETs*** *inflow will result in increased competition* ***against local labour force*** *for middle skilled jobs in Singapore. This may result in a unique situation where* ***resident unemployment is higher than overall unemployment.***

[Other possible problems are acceptable as long as they are linked to small and openness of Singapore economy.]

Mark Scheme

L3	Clear and in depth explanation of at least 2 macroeconomic problems stemming	8 – 10

	from Singapore's small and open nature. For 9-10m – at least 3 problems must be explained	
L2	An obvious but inconsistent attempt in elaborating on at least 2 macroeconomic problems arising from Singapore's small and open nature.	5 – 7
L1	Listing of macroeconomic problems which may not arise from Singapore's small and open nature.	1 – 4

(b) Evaluate the alternative policies that could be adopted to solve the above stated problems faced by Singapore. [15]

Question Interpretation

Command:	Evaluate... alternative policies - present perspectives on how various policies work
Content:	Macroeconomic Policies to address above stated problems
Context	Alternative policies – various policies Singapore economy
Approach	An extension of part a. ***POLICY 1: FISCAL POLICY as a alternative policy to solve 3 problems*** ***<u>Explore to what extent can FP solve the above 3 problems</u>*** • *Negative Growth and BOP issues* • *Import inflation can't be solved with FP* • *Limitations/difficulties in applying FP in a* ***SMALL AND OPEN ECY*** ***POLICY 2: MONETARY POLICY as a alternative policy to solve 3 problems*** ***<u>Explore to what extent can MP solve the above 3 problems</u>*** • *Realise that I/R cannot be used due to the Impossible Trilemma, Only E/R is applicable* • *Solve Import Inflation, Negative Growth and BOP issues using either MILD CREEP OR ZERO APPRECIATION.* • *Limitations/difficulties in applying MP in a* ***SMALL AND OPEN ECY*** ***POLICY 2: SUPPLY SIDE POLICY as a alternative policy to solve 3 problems*** ***<u>Explore to what extent can SSP solve the above 3 problems</u>*** • *Usage of interventionist SSP as a LT strategy to improve economic resilience* • *Negate import inflation, Negative Growth and BOP* • *Limitations/difficulties in applying SSP in a* ***SMALL AND OPEN ECY***

Suggested Answer

There is plethora of policies ranging from demand to supply side policies that may be used to resolve the above stated problems. However their applicability and appropriateness may differ. This essay will explain the various policy choices, as well as evaluate the appropriateness of these policies in solving the above stated macroeconomic problems in the context of the nature of the Singapore economy.
Fiscal policy is one policy that can be employed. This policy requires changes to government expenditure (G) or taxes (T) to effect changes in AD. Expansionary fiscal policies can be used to counter the external shocks. This is done so by either increasing government expenditure (G) or reducing taxes (T), to offset the effects of falling AD brought about by external shocks. Assuming Singapore had gone into a recession stemming from external shocks, such as the 2009 Global Financial Crisis, this policy most likely can dampen the rate of real GDP falling. At that time, the Singapore government implemented the Resilience Package, part of which increased government expenditure on infrastructure by bringing forward the construction of planned MRT lines, and increased tax concessions to firms. These increases G and I, thus increasing AD, ceteris paribus, increasing RNY by multiplied amount, mitigating the recessionary effects due to external shocks. However due to our small and open economy, our multiplier value will be small. Hence, it will mean that the expansionary effects of this policy will be limited. This can be addressed if the government injects more expenditure to ensure adequate improvement to Real GDP. Hence, its usage as external shock mitigation tool is still possible and relevant, especially in huge external shocks such as the GFC, as long as the Sg government has sufficient reserves that are accumulated from years of prudent fiscal positions that would enable her to spend during such recessions. Another way in which Fiscal Policy may still be relevant to counter external shocks will be spend selectively on development [Fiscal Policy with Supply Side effects]. The developmental spending, such as Test-Bedding Fund (rolled out as part of the Resilience Package), helps to promote productive capacity improvements and innovations, thereby improving export competitiveness as quality of exports improve. LRAS increases, from AS0 to AS1. Real GDP rises from Y0 to Y1. BOP improves as net export levels rises.

With the ability to maintain export competitiveness, there may be more productive investments (both local and foreign) into our export sectors, increasing our AD over time, further contributing to both economic growth (Y1 to Y2)

Despite the difficulties of predicting external shocks, ensuring our exports stay competitive will still improve our economic resilience against external shocks in the long run.

Since Fiscal policy is largely a demand management policy, it is unable to address imported inflation as it has no bearing on reducing import prices. Hence, Fiscal Policy is not effective and hence not appropriate in resolving this import inflation.

Monetary policy may be used to solve the above stated problems. It can be done either by targeting interest rates or exchange rates to stimulate AD. Exchange rates will be more important than interest rates due to our small and open economy.

[Note: Interest targeting is often used by big and less open economies to reduce vulnerability towards external shocks by encouraging expenditure switching effects [increase domestic C and I via a lower interest rates. Since SG already identifies exchange rate as an important policy due to her export orientation, interest rates therefore is not applicable as it will destabilize her exchange rates]

Singapore can employ the use of a zero appreciation exchange rate to preserve export competitiveness to counter external shocks, such as a global recession. Zero appreciation will make price of exports cheaper and imports more expensive. Assuming Marshall Lerner condition holds, NX will definitely rise, offsetting the falling AD brought about by external shocks. Ceteris paribus, this raises RNY, thus reversing the effects of recession.

However, the effectiveness does depend on the global outlook. If sentiments are highly pessimistic, then zero appreciation may not be able to boost NX. Also this move may be dangerous as a zero appreciation policy will increase the vulnerability of Singapore to import inflation. A zero appreciation policy can only be applied for a very short term and not long term, hence limiting its usefulness. Singapore should consider other alternatives like supply side policies than to use a zero appreciation exchange rates to promote resilience against such external shocks like a global recession.

In terms of managing import inflation, the employment of a mildly appreciating exchange rate will be suitable. With an appreciation, one Singapore dollar can exchange for more foreign dollars. Given a rise in import price, the appreciation can help to dampen the rise in import prices in local currency. Given the high import content of FOP in Singapore, this serves to lower the SRAS in Singapore, thus ceteris paribus, leads to lower inflation in Singapore. [it is not possible to have a steep appreciation as it is largely unfavourable for businesses, resulting in outflow of investments, reduces the country ability in achieving sustained growth and a healthy BOP]

This can then help preserving export competitiveness, potentially offsetting the effects of appreciating currency on net exports (decreasing NX assuming MLC holds). As long as the price of Singapore export prices [after accounting for strength of SGD] is still lower than other countries, there can still be export competitiveness, and hence promote economic growth and healthy BOP.

This policy measure is most beneficial to industries that are heavily reliant on imported inputs like manufacturing and least benefit to services industries such as the tourism industry. As the majority of our export sectors continue to be reliant on imported inputs, the mild appreciation will continue to remain the most relevant exchange rate policy in our open and small economy.

[Alternative analysis: Service industries such as accounting, business consulting, and risk management are rising and slowly dominating Singapore exports. These services are largely price inelastic in demand due to lack of close substitutes at the current moment. Appreciation will benefit these industries as export revenue will rise. [MLC may not hold]

Supply side policy may be used to solve the above stated problems. Supply side policy helps to improve the AS in the economy. To address the above stated problems, the Singapore economy must be adaptive, innovative and reduce her dependence on imports.

Some supply side initiatives that was done would be SPUR (Skills Programme for Upgrading and Resilience). Both employers and workers can benefit from SPUR. Employers can tap on SPUR to reduce their manpower costs for workers training. With improved skills, the productivity of labor force increases, spurring rise in

productive capacity. LRAS increases, and RNY increases. In a small and open economy, this will continue to keep firms and workers stay adaptive and resilient by maintaining or improving competitiveness. *[Note: SPUR is a $600million initiative. SPUR will also provide higher course fee subsidies and higher absentee payroll to employers for local workers' training at CET Centres. SPUR will also support local workers, including retrenched and unemployed workers, in re-skilling and up-skilling so that they can upgrade themselves or convert to new jobs.]* Another supply side initiative that was done Jobs Credit Scheme is introduced to encourage businesses to preserve jobs in the 2009 downturn [a downturn that was brought about by Global Financial Crisis]. This is a move to reduce current business costs and to retain existing employees. Since cost of production is lowered, SRAS increases, RNY increases. Also the dampening of widespread unemployment helps to maintain household confidence levels and their consumption, avoiding a massive decline in RNY. *[Note: Under Jobs Credit Scheme, businesses will receive a cash grant based on the Central Provident Fund (CPF) contributions they have made for their existing employees. It provides a significant incentive for businesses to retain existing employees, and where their business warrants, to employ new ones. This is a temporary one-year scheme which will benefit about 120,000 employers.]* Through this, Singapore will be able to continue to sustain her growth [also inclusiveness can be achieved], enjoy a healthy BOP. There is also a great focus on R&D to reduce resource dependency. One area would be in water dependency. There were innovations such as NEWater. By 2060, NEWater is expected to meet up to 55% of Singapore water demand. Private-public partnerships (PPP) is established with Keppel Infrastructure to further reduce water dependency. This will help reduce our dependence on imports, and hence Singapore can be more insulated from import price shocks or import disruptions. Overall, SSP promotes reduced resource dependency, increased adaptability and innovation against external volatilities. In addressing the macro economic problems arising from our small and open economy can be effective in the long run, but effects will not be immediate. Also, the government budget will be heavily strained as interventionist supply side strategies are costly. In the light of current aging population, government sustainability in these supply side policies will be threatened. Hence it is critical for the government to be prudent. *[Note that a full-fledged protectionist stance will not be a viable policy due to the dependence on trade and capital flows. Possible retaliation will result in more catastrophic economic impacts to a small and open economy like Sg than large and less open economy.]*
Due to SG small economy, SG continues to stay open. There is a need to be more self-sufficient, adaptive and innovative in order to weather the unpredictability of the global landscape. This will therefore increase SG economic resilience towards external shocks. **The policies that SG adopts thus depends critically on the global conditions.** As a matter of relative importance, when the global economy is doing fairly well with healthy export demand and rising import prices possibly due to high global demand overall for commodities, our **extensive reliance on imported raw materials necessitates the gradual appreciation of our currency** as the cornerstone of our economic policy, in order to offset imported inflation. It has to be **complemented with supply-side policies** to increase our productivity and the quality of our exports, so that PEDx<1, and thus reducing the effects our export competitiveness and consequently even arriving at a possible impact on RNY. However, when there are external shocks with large recessionary effects such as the Global Financial Crisis, where imported inflation is less of an issue than the large fall in X, Singapore will need to adjust this set of policies – to adopt **expansionary Fiscal Policy** to offset the fall in AD, as well as **supply-side policies that has a shorter term impact**, such as Wage Credit Scheme. **Hence, there is a need to adjust and use a mix of demand management and supply side policies to suitably address the economic problems as well as suit our unique small and open economy.**

Mark Scheme

L3	Balanced and coherent analysis on at least 2 policies in managing the 2 problems and well set in the Singapore context (At least 2 well explained policies in managing 2 policies required to enter L3)	8 – 10
L2	Adequate analysis on the policies in managing the problems; Maximum level 2 if no reference is made to Singapore Maximum mid L2 if only half of the question answered, i.e., only 1 policy and/or 1 problem explained	5 – 7
L1	Descriptive account of policies that does not explain how above stated problems are solved or policies are simply erroneously explained.	1 – 4

E3	A reasonable evaluative appraisal of the policies with justification	4 – 5
E2	Attempted evaluative appraisal/justification on policy evaluation based on Singapore context	2 – 3
E1	For unexplained evaluative statement(s)	1

Question 6:

As part of his "America First" approach, Trump has withdrawn the US from the Trans-Pacific Partnership (TPP) – the world's largest trade pact with a 12-country commitment aimed to create a free trade area spanning from Japan to Chile. This is a setback, but it does not have to be the ultimate outcome for the global trade liberalising agenda.

Discuss whether the US government's decision to adopt protectionism is always better in an increasingly globalised world. [25]

Question Interpretation

Command	"Discuss whether…always better" – requires multiple perspectives on issue, with comparison; TAS framework
Content	Macroeconomics ▪ 4 macro aims ▪ Globalisation » Trade flows, capital flows and labour flows » Trade policies » Protectionism ▪ Macro policies » FP, MP, SSP
Context	USA Increasingly globalised world
Approach	Students must first acknowledge that the TPP is a trade policy to create a free trade area. And the fact that USA pulled out of it shows that USA is not 'for free trade', and hence err more on the side of protectionism to protect USA's domestic market. Students must then weigh the arguments for and against protectionism as to whether protectionism is truly better compared to other policy approaches, given that the world is increasingly globalised and interconnected now, or if there are any other possible trade policies/macro policies that can help mitigate the limitations that arises from globalisation.

Full Answer

Intro	Protectionism is defined as the act of imposing economic policies aimed at restricting trade between countries, designed primarily to protect domestic producers and workers from foreign competition. The TPP is a trade policy to create a free trade area with 12 countries. The fact that US pulled out of it shows that US was restricting trade and thus not 'for free trade'. Instead of export-oriented industrialisation, it seems that US is instead engaging in import substitution industrialisation, where the key idea is to generate economic growth by reducing foreign competition to encourage domestic production. This is essentially a protectionist approach to trade to protect US's domestic market from foreign competition that could affect the flow of goods and services, labour and capital and cause disruption to the USA economy, thus affecting the four macroeconomic aims, namely sustainable and inclusive economic growth, price stability, low unemployment and balanced BOP. In an increasingly globalised world, countries are opening their economies to one another to facilitate the flow of goods and services, labour and capital between countries. In this essay, the answer will explore whether adopting protectionism is always better than other policy approaches *in achieving the macro aims* of the US economy, given that globalisation is now commonplace.
Thesis 1	Protectionism is better in an increasingly globalised world, because of the advantages it brings. With the rise of emerging economies like China and India, US increasingly faces possibilities of dumping and unfair foreign competition. Dumping occurs when foreign producers sell at prices below the price at which the output is sold in their home market, either by making losses or with the assistance of government subsidies. Hence, protectionism will prevent US from experiencing unfair foreign competition and dumping practices.

	For example, it is claimed that China is dumping rubber tyres/textiles into the US market in hopes that the US domestic tyre producers will eventually be forced out of the market so that the Chinese producers can gain monopoly power in the tyre market. Once the Chinese have established monopoly power, they will then engage in predatory pricing, where they will start charging high monopoly prices to reap supernormal profits at the expense of the American consumers. Although the US consumers benefit in the short run from cheaper Chinese tyres, they will eventually lose out in the long run. This will also lead to higher structural unemployment, especially in the US tyre industries, where standard of living will also be affected. Hence by withdrawing from the TPP, such problems will be prevented. However, it is difficult to determine whether actual dumping is taking place or not, because it is hard to ascertain whether the Chinese government is truly subsidising the production of tyres or whether the low prices arise because China simply has the comparative advantage in the production of tyres.
Thesis 2	Protectionism is also better in an increasingly globalised world, especially when USA is experiencing many setbacks that arise from free trade. In reality, resources such as labour are in reality not easily mobile between industries. With globalisation, industries which have comparative advantage and specialise in the production and exporting of goods and services will flourish whereas sunset industries which have lost its comparative advantage will eventually shut down. For labour to be transferred from the sunset industries to others, considerable retraining is needed, which takes a long period of time and is very costly. As a result, significant and often prolonged structural unemployment occurs, especially for older workers who tend to be more resistant and reluctant to undergo retraining. This will also widen the income gap in US where inclusive economic growth will not be achieved. Hence, protectionism will help the sunset industries to decline gradually, while giving the resources time to move to other industries and prevent prolonged structural unemployment and the widening of income gaps. In an increasingly globalised world, the US consumers also have access to a greater variety of goods and services. This could lead to greater import expenditure, which will worsen US's Balance of Trade (BOT), current account and Balance of Payments, ceteris paribus. Thus, US could face a worsening of its BOP. Thus, engaging in protectionism will help to cut down the import of non-essentials to improve the BOP.
Anti-Thesis 1	However, protectionism will also bring about limitations. Engaging in protectionism to solve a BOP deficit will not necessarily solve the root cause of the deficit. If the BOP deficit has been caused by a lack of price competitiveness, poor quality or marketing, then withdrawing from the TPP will not prove to be a wise and long-term solution. Also, by withdrawing from the TPP, other countries may retaliate and withdraw their existing trade pacts made with US. They may also impose their own import restrictions, thus causing US's exports, output and employment to suffer. A 'beggar thy neighbour' effect will also result from US's withdrawal from the TPP, where exports, output and income of its potential trade partners are reduced, which then in turn also affects the exports, output and employment of US as well. However, this could be less of a concern to the US than to smaller economies like Singapore, since US has a large domestic market, than can potentially be increased (via lower taxes etc) to offset the fall in exports, mitigating the impact on economic growth should there be a retaliation. In addition, by protecting the US domestic markets, the market power of domestic firms is raised due to lack of foreign competition. With monopoly power and supernormal profits, the US domestic firms will have higher chances of being allocative and productive inefficient, as they have less need to improve operating efficiencies, minimise costs and innovate. In the long run, the US consumers will lose out. Finally, in the case of sunset industries mentioned above, the initial intent may be to offer temporary protectionism to help smoothen the adjustment and reallocation of resources e.g. labour. However, once such measures are in place, the protection is politically hard to remove. Vested interests are created and the sunset industries will inevitably resist any removal of trade barriers. In the long run,

	US might end up having resources locked in these inefficient sunset industries, depriving its expanding sunrise industries of these precious economic resources
Anti-Thesis 2	On the other hand, free trade can also be better in an increasingly globalised world Should US be a part of the TPP, this will encourage greater free trade amongst the countries involved. With trade, it will enable US to consume beyond their production possibilities. Also, this will enhance consumer choice as there is now a greater range and variety, and higher quality of goods that they can choose from, from Japanese to Chilean goods and services. This will increase consumer welfare of the Americans. In addition, with the TPP, countries have access to other larger markets, enabling firms to reap economies of scale that lead to lower average costs of production. This can be passed onto consumers in the form of lower prices. US will also be able to import their raw materials from the cheapest markets within the TPP, thus lowering the prices of the final products. In addition, with a higher level of competition from foreign markets, this may help to reduce domestic prices. Domestic firms will also be spurred to be more productive efficient and have more incentive to minimise cost and innovate in order to be more competitive. Apart from trade flows, the TPP will also enable US to experience positive impacts from capital flows. By investing in the developing countries, Foreign Direct Investments (FDI) will help the US firms secure access over natural resources located in these developing countries. In addition, developing countries will purchase more capital equipment from US. This can help stimulate exports especially in machinery and other capital goods in US. However, should US invest heavily in overseas markets or rely too heavily on external demand, she may be adversely affected by external instability. This can come in the form of global recession, lower returns from portfolio investments and inability to move their FDI elsewhere, especially when the markets are hit by economic crisis due to the interconnectedness of capital and goods. This means that while free trade is useful in achieving sustained economic growth, it may result in uncertainty and vulnerability in the short run in terms of economic growth. US can also benefit from signing the TPP through labour flows. With outsourcing of production process to low cost developing countries, the US firms will enjoy relatively cheaper resources and lower their costs of production. The relatively cheap labour force will help US maintain economic growth. Highly skilled labour from the developing countries will also choose to work in developed countries like the US. This will increase the skilled labour supply in US and increase the quality and quantity of labour, at the expense of the developing countries. This will boost US's potential economic growth, and enable US to strengthen their comparative advantage in high value-added goods and services, enabling US to keep one step ahead of the competition even as developing countries play catch up and move up the value chain. Moreover, due to globalisation and higher labour mobility, US can now enjoy the pooled market of labourers with varying skills. Thus, different sectors in US are now less likely to suffer from labour shortages. With the increase in supply of foreign labour, wages are depressed. Unit cost of production will fall. Low or semi-skilled foreign workers are mostly required in industries such as construction, which workers in developed countries like US will tend to avoid with the inflow of foreign labour, important infrastructure such as roads and public transportation systems can be built or upgraded and this contributes to greater productivity. This will increase the productive capacity of US's economy where the LRAS curve will rise. This will lead to non-inflationary sustained economic growth in the long run. Unfortunately, with increase competition for jobs with foreign workers, including outsourcing, this will lead to a rise in unemployment of certain groups of workers in US – notably the lower skilled workers, especially those in the sunset industries. This rise in structural unemployment will worsen economic growth in the future – and standard of living will generally fall. The government then has to come out with large expenditures providing unemployment benefits or retrain the workers to upgrade their skills. This will lead to a widening income gap between the low-skilled workers and the higher-skilled workers in industries that thrive with globalisation thus aggravating the issue of income inequity, and not achieving inclusive economic growth.
Anti-Thesis 3	Instead of having a protectionist approach to trade, especially in an increasingly globalised world, US can engage in other policies like supply-side policies. To prevent structural unemployment from occurring due to foreign competition or sunset industries, the US government should provide retraining programmes for lower-skilled workers to upgrade their skills and enable them to find jobs easily in other industries. This helps to lower structural unemployment by increasing occupational mobility and ensure that the citizens' standard of living

	will be maintained, so that the income gap will not widen because of globalisation. Engaging in supply-side policies will also help to increase productivity of US's sectors, where the quality of US's goods and services will improve and thus enable US exports to become more competitive in the global market. Such an approach is definitely more viable in the long run as compared to protectionism because it will increase US's productive capacity and enable US to increase its potential economic growth. In addition, supply-side policies may better solve the root cause of the problems, rather than protectionism which will only serve to alleviate the symptoms of the problems US is facing. However, such interventionist supply-side policies can be costly, which is problematic for US given that the government is already encountering huge budget deficits.
Syn-thesis	In conclusion, protectionism can surely be one solution to mitigate the problems arising from globalisation. But it definitely is not always better than other policy approaches given today's context. Given that countries are now so interconnected due to globalisation in the flow of goods and services, labour and capital, I believe there is no one country that will be self-sufficient without trade with other countries. Even though US has a large domestic market, having a protectionist approach to trade should definitely not be a long-term solution due to the possible backlashes. I believe Trump withdrew from the TPP because his current aim is more nationalistic in nature, where he wants to protect the domestic markets – to alleviate the structural unemployment situation which is rampant in the sunset industries that were affected due to increasing foreign competition and the loss of comparative advantage as a result. However, Trump must tread carefully since US is such a large and influential economy in the world. The other countries should not see the US setback as a losing outcome. Instead, the other countries should still aim for global trade liberalisation, with other economic giants like China who can take the lead. Trade will definitely benefit economies, both developing and developed, provided the government also has other policies in place to mitigate the limitations that arise from globalisation e.g. supply-side policies. Similarly, US should instead rely on supply-side policies for more long term effectiveness in solving the problems arising from globalisation. However, because of the huge budget deficit the US government is in, the government then needs to prioritise and choose which policies to implement to achieve the best short-term and long-term results for the betterment of the US economy.

Mark Scheme

	Knowledge, Application/Understanding and Analysis	
L3	Overall well developed and coherent response to question requirements. For a good 2-sided discussion that shows, with thorough knowledge and clear analysis, the costs and benefits of protectionism and free trade, with contextualisation and comparison. At least two alternative perspectives to be eligible for L3. Clear criteria of what determines 'always better'.	**15—20** **(18)**
L2	Overall adequate response to question requirements. For an adequate 2-sided answer that either gives a descriptive explanation of protectionism and free trade <u>or</u> A detailed explanation of only protectionism (only one part of the question addressed – max mid L2). Some attempt at contextualisation. Criteria of what determines 'always better' might be implicit.	**9—14** **(12)**
L1	Overall weak response to question requirements. For a weak answer that shows limited knowledge of protectionism. Adequate one-sided discussion on either pros or cons of protectionism. Little or no contextualisation. Criteria of what determines 'always better; is lacking.	**1—8** **(5)**
	Evaluation	
E3	For a well-reasoned judgement that uses analysis to support an evaluative conclusion about whether protectionism is always better in an increasingly globalised world.	**4—5**
E2	For an answer that makes some attempt at evaluation or a conclusion about whether protectionism is always better in an increasingly globalised world.	**2—3**
E1	For an answer that gives an unsupported evaluative statement(s) about whether protectionism is always better in an increasingly globalised world.	**1**