Case Study 1

a)	Using Figure 1, describe the main features of the total health expenditure for Singapore and Japan relative to the world from 2008 to 2013.	[2]
	Total health expenditure (% GDP) for Singapore is always lower than the world throughout 2008 to 2013 [1], while total health expenditure for Japan is below the world between 2008 and 2010, but rose above the total health expenditure for the world after 2011. [1]	
b)	With reference to Table 1, explain two pieces of information which would be useful in assessing living standards in Singapore.	[4]
	Living standards refer to the level of material and non-material well-being of an individual. **[Material well-being- 2m] GDP growth** is an indicator of economic growth. The positive values of GDP growth between 2010-2014 suggests that Singapore's material standard of living has risen over time. This shows that the Singapore economy has produced greater quantity of goods and services and income has increased over time. This increased purchasing power and thus households consume more goods and services, raising their material SOL. [OPTIONAL: Complementary material well-being indicator (to be used with GDP growth)- 1m] Measurement of material SOL is also dependent on the income distribution in Singapore, as represented by the **GINI coefficient**. Singapore's GINI coefficient has generally fallen between 2009-2014. This suggests that distribution of income has become more equal over time and that the average citizen is more likely to have greater access to goods and service. A fairer income distribution in Singapore suggests that overall standard of living is higher. OR However, the increase in GDP growth may not be a true reflection of material SOL. Measurement of material SOL is also dependent on **population size**. The increase in population size in Singapore between 2009-2014 would mean that the increase in GDP has to be divided over a larger population, so there might not an increase in the quantity of goods and services available per head. **[Non-material well-being- 2m] Life expectancy at birth** is an indicator of non-material well-being. Singapore's life expectancy has increased between 2009-2014. This suggests that Singapore citizens have access to good healthcare facilities and services indicating a better quality of life.	
c)	Using supply and demand analysis, account for the rising healthcare expenditure in Singapore.	[4]
	Healthcare expenditure refers to the product of healthcare price and the quantity of healthcare services consumed. According to Extract 1, healthcare spending is rising in Singapore. **[Explain impact on DD & expenditure]:** There is a rise in DD for healthcare as mentioned in the extracts. • Ageing population, deterioration of health (Ext 1, Para 1)→ DD increase • OR Singapore's healthcare financing system, in particular the use of subsidies and 3Ms (Ext 2, Para 2)→ makes healthcare more affordable and accessible to Singaporeans→ increase DD Due to an increase in demand, price and quantity of healthcare will rise→ increase in healthcare expenditure. **[Explain impact on SS & expenditure]:** Factors causing fall in SS of healthcare: • "rising costs of manpower, supplies" (Ext 1, Para 1) → increase unit COP → reduce SS	

	• OR adoption of more expensive "advanced medical treatments and technologies" (Ext 1, Para 1)→ increase unit COP→ reduce SS Due to a fall in supply, price will rise and quantity will fall. The impact on healthcare expenditure due to a fall in supply is dependent on the PED of healthcare. As PED is likely to be <1, an increase in price for healthcare will lead to a less than proportionate fall in quantity. Increase in expenditure due to an increase in price will far outweigh the fall in expenditure due to a fall in quantity. Hence overall healthcare expenditure is likely to rise due to a fall in supply. **[Combined impact on healthcare expenditure]:** Both increase in demand and fall in supply reinforce each other in increasing expenditure. Hence, overall healthcare expenditure will rise. **Alternatively: student may consider impact of extent of shift on expenditure** • Rise in demand and fall in supply reinforce each other in raising price of healthcare but oppose each other on output, hence overall output is indeterminate. • Increase in demand is likely to outweigh decrease in supply as demands of a rapidly ageing population in Singapore is likely to drive up demand for healthcare by a larger extent and the improvement of medical technologies may eventually increase supply by lowering cost of production for healthcare treatments. • Hence, overall output is likely to increase → increase in price and overall output leads to increase in healthcare expenditure	
d)	Use the concept of opportunity cost to explain one effect on the government arising from the increase in healthcare expenditure.	[2]
	[Define opportunity cost]: Opportunity cost is the next best alternative forgone. [1] • Increase in healthcare costs will result in an increase in government spending on healthcare and more resources will be channeled there. • The opportunity cost of increased spending on healthcare is the benefit to society that could have been generated if the government had spent on the next best alternative developmental area such as education or infrastructure development. [1]	
e)	Discuss whether the disadvantages to consumers outweigh any benefits they may have gained from the merger of RadLink-Asia and its subsidiaries by Parkway Holdings (Extract 3).	[8]
	Proposed merger will result in Parkway "becoming the only commercial supplier of radiopharmaceuticals" in Singapore (Ext 3)→ analyse benefits and costs to consumers should the industry be allowed to move from duopoly to monopoly. **[Advantages of merger]** • A larger firm has more "substantial market share" (Ext 3) and will be able to produce at higher output→ more able to reap internal EOS e.g. marketing economies (spread advertising, marketing budget over larger output, bulk discounts from procurement of raw materials), managerial economies from better division of labour→ firm enjoys lower average cost of production→ pass down cost savings to consumers via lower prices→ increase consumer surplus. • Proposed merged firm will enjoy "moderate to high" barriers to entry (Ext 3)→ more able to sustain supernormal profits in the LR→ greater ability to channel supernormal profits into R&D→ greater ability to innovate, generate new products and greater variety for consumers. More able to generate new processes to lower cost of production too. **[Disadvantages of merger]** • On the other hand, with greater market power and less competition, the proposed	

monopoly firm has the ability to set higher prices as compared to a duopoly. This is because consumers will have less substitutes for radiology and imaging services as RadLink is Parkway's closest competitor and consumers will have weaker bargaining power as suggested in Ext 3. Monopoly firm faces more price inelastic demand curve (as shown in Fig 2)→ able to charge higher prices (P1) and lower quantity (Q1) than would be the case before merger→ fall in consumer surplus.

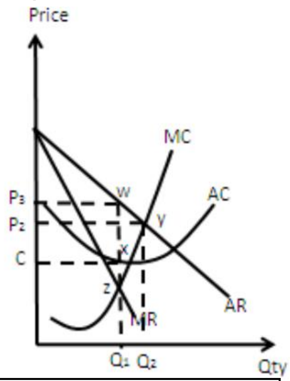


Fig 1: Before merger

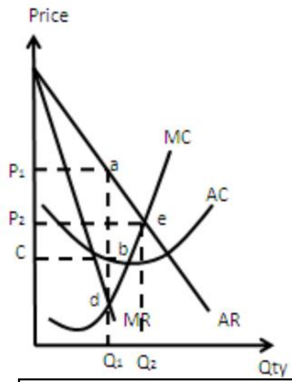


Fig 2: After merger

- Greater ability to charge consumers higher prices over and above MC after merger (P1>MC after merger vs P3>MC before merger), i.e. value society places on an additional unit of good is more than the additional cost of producing it→ greater underproduction of radiology services→ greater underallocation of resources→ more allocative inefficient outcome.
- Greater x-inefficiency→ especially if merged company has less competition, more lax cost controls and greater tendency to splurge on prestige buildings and fittings etc→ translate to higher prices passed down to consumers.

[Synthesis/Conclusion]
Cost of merger to consumers is likely to outweigh benefits
- Weak bargaining power of consumers (Ext 3) and high degree of necessity of radiopharmaceuticals due to lack of substitutes in the use of radiology diagnostic tests→ implies that merged firm is less likely to pass down any cost savings to consumers in terms of lower prices.
- [Potential entry/ Theory of contestable markets] Moreover, barriers to entry are relatively high and CCS has indicated that no potential new supplier will enter to market (Ext 3)→ suggests that there will be little threat of potential competition→ merged firm is less incentivized to pass down cost savings to consumers and innovate further for the benefit of consumers.

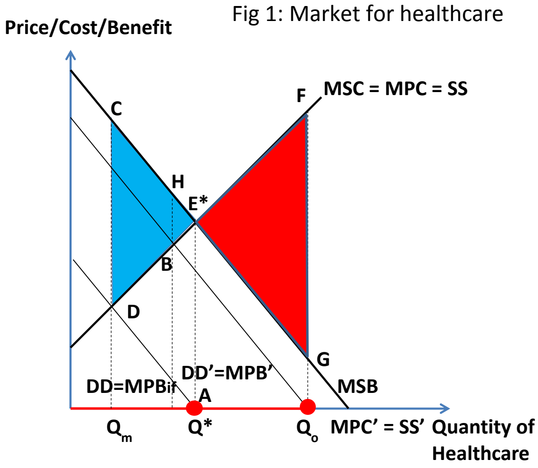
Level	**Level Marking Scheme**	**Marks**
L3	Candidate demonstrates their ability to analyse and evaluate the pros and cons of merger for consumers with reference to case materials.	**7-8**
L2	Candidates accurately analyse the effects of merger with the use of economic tools. However, no evaluative comments are demonstrated.	**4-6**
L1	Candidates makes some relevant comments but without any appropriate analysis.	**1-3**

f) In light of an ageing population, would you recommend that the Singapore government follow UK's approach in the healthcare market (Extract 4)? Justify your [10] answer.

[Explain market failure]:

Healthcare is considered to be a merit good, where it is deemed to be socially desirable by the govt and is underconsumed due to presence of information failure and positive externality in consumption. Due to information failure, consumers are likely to underestimate the future benefits of consuming healthcare and therefore underdemand healthcare services, hence MPBif lies below the true demand. Moreover, consumption of healthcare (e.g. vaccinations) generate external benefits to third parties such as reduced medical costs due to reduced risks of infection in the community that are not compensated for. Hence MSB lies above MPB.

Fig 1: Market for healthcare



Assuming that the extent of positive externality and information failure generated is extremely large at E*A, the market output is at Qm (MPB = MPC) while socially optimal output is at Q* (MSB=MSC). There is an under-consumption of healthcare services represented by QmQ*.

This underconsumption problem is likely to be worsened in the light of an aging population in Singapore, where concerns of the aged not having sufficient funds to meet rising healthcare expenditure have emerged, leading to further underdemand for healthcare.

[Thesis]: UK's approach in healthcare market is appropriate

UK's approach to healthcare has been cited as a possible approach Singapore can take to solve the associated market failure. By providing healthcare "free of charge" (Extract 4), the intent of the UK government is to achieve greater efficiency and equity by fully subsidizing the private cost of producing health care to each individual. With free provision of healthcare, MPC has shifted to SS'. The new market equilibrium output (DD=SS') coincides with the socially optimum level of output at Q*. Deadweight loss (CDE*) is eliminated and market failure is corrected.

Benefits of direct provision: reduce inequity

The U.K government adopts state provision of basic healthcare and this would reduce the inequity problem as the low income would have greater access to it. This addresses the concern of 'larger out-of-pocket payments' (Ext 1). [Ev:] Inequity is likely to worsen in light of a rapidly ageing population, as retirees are less likely to have sufficient income to pay for healthcare. Govt may consider this policy appropriate because healthcare generates extensive external benefits and there is serious information failure on part of citizens.

Limitations of direct provision

However, if the extent of info failure & externality generated is smaller at HB instead, the new market equilibrium as a result of free provision will be at Q0 (DD'=SS'). There is now an over-consumption of healthcare by Q*Q0 units and an even greater deadweight loss compared to before at E*FG. This is implied in Ext 4 whereby the 'waiting lists are always a problem' as a result. Society is worse off now as the problem of inefficiency has worsened. Resources could have been utilized elsewhere in generating greater societal welfare. This resultant effect could be due to imperfect information on the government's end. [EV:] However, the make-up of SG's future ageing population is generally educated. It is likely that the extent of info failure and market failure generated is not as large as expected, thus reducing the need for direct provision in SG.

OR Requires high tax revenue: However, direct provision implies that the government has to impose high tax rates to finance health care expenditure. This could lead to disincentive to work, save and invest (Ext 2) which would in turn affect the future growth and SOL of the economy. [EV:] In light of an ageing population, the impact on G is likely to be higher in future with the increasing number of elderly needing treatment. Should the benefits of intervention < cost of intervention, this would reduce the effectiveness of this policy.

[Anti-thesis]: In view of the limitations of direct provision, Singapore should not follow UK's approach in the healthcare market. Singapore should stick to her current measures such as Medisave (Ext 2)

Medisave is a compulsory contribution by workers to finance medical bills. This increases the demand for healthcare services in future to MPB' as consumers now are more able to afford healthcare services when necessary especially as they age. Market output, Qm' is now closer to the socially optimal level of output Qs. This reduces the problem of overconsumption and thus the DWL incurred.

Why Medisave would be better than direct provision:
Since Medisave is actually an individual's own personal savings and not third party payments from the state or from insurance companies, therefore there is an incentive to economise on healthcare. As compared to direct provision, Medisave would be more cost effective as it encourages individual responsibility through co-payment rather than complete reliance on govt spending. This helps reduce the burden on government expenditure yet ensuring optimal consumption of healthcare services

It also ensures that the aged are able to afford healthcare services and will not under-consume healthcare especially in light of an ageing population. Consumption of healthcare services will not fall drastically from the socially optimal level with the increased ability to afford these services when they are old.

While Medisave is appropriate, there are limitations to current policies and there is need for changes to improve the current system

- Medisave: A higher contribution of 8.5% is marginal in relation to the huge medical bills of old age. To ensure that the elderly gets access to healthcare services, there may be a need to raise the contribution to their Medisave accounts.
- An ageing population, greater longevity and higher medical cost mean there will be need to extend the use of Medisave to cover more outpatient treatments and further enhancement of Medishield to improve payout for larger hospital bills.

Conclusion:
The SG government should not follow UK's approach and rely solely on direct provision as it would cause a strain on the government's budget especially in light of an ageing population. In contrast, Singapore's current healthcare policies are designed to avoid overreliance on govt by incorporating elements of individual responsibility and co-payment. Moreover, the current policies in Singapore are sufficient to address both the problem of info failure and externality in the healthcare

	market. However, in light of an ageing population, the government would want to ensure that the benefits of current policies do extend to all its citizens and not leave anyone out. The recent implementation of MediShield Life is an example of the SG govt's shift towards providing better lifelong universal coverage without overburdening govt expenditure.	

Level	Knowledge, Application, Understanding & Analysis	Marks
L3	A well-developed answer on the effectiveness of direct provision and an alternative policy in SG's healthcare market, considered in the context of ageing population that is well supported with usage of analytical tools and evidences.	7-8
L2	One-sided answer that analyses the effectiveness of 1 relevant policy OR underdeveloped analysis of two policies, without sufficient reference to case materials and/or ageing population.	5-6
L1	A descriptive answer that only explains direct provision. No evidence capped at level 1	1-4
	Up to 2 marks for evaluation	
E1	Application of relevant economic concepts to make judgment about the appropriateness of measures in the Singapore's healthcare market.	1-2

Case Study Question 2

<table>
<tr><td>(a)</td><td>Compare the government budget balance among Singapore, Switzerland and Greece between 2007 and 2012.</td><td>(2)</td></tr>
<tr><td></td><td>Similarity 1: All three countries experienced either an increase in their budget deficit or decrease in their budget surplus in 2009.
Similarity 2: worsening budget balance for all three countries in 2009. Difference 1:
Difference 1: Only Switzerland was observed to have experienced almost a balanced budget over the years while Singapore was consistently experiencing a surplus over the years and Greece was consistently experiencing a budget deficit.
Difference 2: While Singapore and Greece experienced great variation in their budget balances over the years, Switzerland’s budget balanced remained fairly constant.
Difference 3: While Singapore and Greece experienced a worsening of their budget balances over the years, Switzerland’s budget balanced remained fairly constant.
1mk: similarity
1mk: difference
(Candidates’ comparison must involve all three countries)</td><td></td></tr>
<tr><td></td><td></td><td></td></tr>
<tr><td>(b)</td><td>Explain how “if prices fall far enough and long enough, the economy could spiral into a worldwide recession.”</td><td>(3)</td></tr>
<tr><td></td><td>Evidence: Extract 5: when prices fall, the profits of businesses erode, which tends to cause higher rates of unemployment thereby reducing consumer spending. And when people expect prices will fall in the future, they will spend less in the present, further weakening demand and dragging down prices. Deflation also increases the costs of borrowing, discouraging business investment and making it harder for existing borrowers to pay back loans
AD/AS analysis: falling prices→ fall in C & I due to falling business optimism as cited in Extract 5→ fall in real output and GPL→ recession & deflation.
Link to worldwide recession : In the context of a globalised world: if PP power of one country citizens fall especially if it is a big country like USA, they demand less of imports from other countries especially the X-led economies in Asia or eastern Europe→ other countries export demand fall and export revenue decrease and their national income fall→worldwide recession.
[can accept any other possible explanation. Eg., Many countries which are dependent on FDI may find their economies slipping into recession should capital flight take place in the climate of falling prices and business optimism.]</td><td></td></tr>
<tr><td></td><td></td><td></td></tr>
<tr><td>(c)</td><td>With reference to Extract 7, explain how firm behaviour can account for the changes in export revenue in Greece despite the fall in Euro dollar.</td><td>(5)</td></tr>
<tr><td></td><td>Evidence: Extract 7: much lower euro because of quantitative easing by the European Central Bank, Greek exports have been reduced. This is in stark contrast with other southern European countries, such as Spain and Portugal, whose exports grew
Fall in Euro→ increase export competitiveness → assuming that PEDx>0, export revenue should increase as DD for X increases (rightward shift of DDx). Evident in the experiences of Spain and Portugal.
Yet, there has been a fall in exports of Greece due to a fall in DDx→ suggest that g&s produced by Greece lacks both price and non-price competitiveness. Therefore Greek firms lack competitiveness.</td><td></td></tr>
</table>

	• Firms' behaviour lack in non-price competitiveness: due to firms in Greece demonstrating lesser dynamic efficiency (product innovation) compared to those in Spain and Portugal. Given the sub-standard quality expected from Greece's exports, compared to other similar goods produced by other Eurozone countries, the fall in Euro would increase export competitiveness of all g&s produced in Eurozone. While there could be in increase DDx for g&s produced by other Eurozone countries, Greece can experience a fall in DDx due to the low substitutability between g&s produced by Greece and the rest of Eurozone, resulting in a fall in X revenue. And/**or** • Firms' behaviour lack in price competitiveness: due to firms in Greece demonstrating lesser dynamic (process innovation) and/or productive efficiency (due to complacency) and/or inability to reap EOS through large scale production (due to lack of DD) compared to those in Spain and Portugal. Therefore, given the higher cost of production, Greek produced g&S are probably more expensive compared to similar g&S produced by other countries. Even if with a fall in Euro, the prices of Greek produced g&S are probably still higher than similar g&s produced by other countries, resulting in no change in demand. As such the fall in prices due to the fall in Euro only resulted in a fall in export revenue for Greece. • Optional: Reasons for lack of dynamic and productive efficiency in Greece: Lack or failure of SS-side reforms to encourage innovation and entrepreneurship	
(d)	Explain one possible policy constraint faced by Greece in fighting the economic recession that she faces.	(2)
	• Lack of accumulated budget surpluses during years of economic growth due to poor tax system that encourage tax evasion and excessive spending→ limited fiscal tool to fight recession which usually calls for an expansionary FP that involves increased government expenditure or a fall in tax rates in order to increase domestic DD as a means to increase AD OR • Lack of monetary tool due to its membership to Eurozone. Monetary tool options can include either a lowering of interest rates, increase in money supply or depreciation of currency.	
(e)	Discuss the extent to which austerity measures which were meant to restore fiscal sustainability and economic growth had worsened the Greek recession.	(8)
	Argument: How austerity measures can restore fiscal sustainability and economic growth. • Austerity measures (↑T and/ or↓G) aim to reduce budget deficit (∴restore fiscal sustainability)→ boost business confidence→ increase C, I→ increase AD→ increase real output given the spare capacity available→ actual EG EV: extent of increase in (C & I) depends on a lot of other factors, apart from business confidence. E.g., availability of productive labour force, infrastructure available in Greece, cost of borrowing, etc. Unfortunately for Greece, many of these pro-business factors are also absent in Greece which will mitigate the effectiveness of the austerity measures (ie. Limited increase in AD) even if business confidence is ever restored in Greece. • (Link to competitiveness/ potential EG) Austerity measures also aim to improve competitiveness (eg., reduce unemployment benefits to create a leaner labour force OR reallocation of limited tax revenue into innovation, education/ training, enterprise) → increase productivity→ potential EG in LR EV: extent of potential EG depends on receptiveness of labour force and	

firms. Unfortunately for Greece, this is neither the case which frustrates the intent of the measures.

- ∴extent to which austerity measures can help restore fiscal sustainability so as to achieve actual & potential EG and hence overcome the recession that Greece faces **depends if** the circumstances in Greece complements the intent of the austerity measures.

Link to counter-argument: How austerity measures worsen recession

- The unfavourable economic climate in Greece does not enable Greece to increase either its AD or AS to lift the economy out of recession. Rather than to rely on economic agents such as consumers and firms to boost the AD and AS, perhaps the Greek government can undertake a proactive role to lift its economy out of a recession, such as an expansionary Fp which goes against the intent of the austerity measures currently put in place.

Counter-argument:

- Current situation: current deep recession complicated by the slow global economic growth backdrop (falling C & I in Greece) requires expansionary FP (to increase AD→ increase real output→ economic recovery) rather than austerity measures (which is essentially a contractionary FP that involves (↑T and/ or↓G) which would only depress the AD further → negative EG→resulting in a worsening of recession.
- EV1: Furthermore, austerity measures on public sector and/state-owned firms→lower morale, work incentive and productivity→ reduce potential EG→ reduce real output produced→worsening of recession
- EV2: Even as austerity measures have worsened the recession, that does not mean that fiscal health of Greece has improved. A lot will still depend on how robust the tax system is in collecting tax revenue. As it is, there is rampant tax evasion in Greece as cited in Extract 7.

Summative conclusion:

- Although the objectives of austerity measures are well-intended, such as the philosophy of fiscal sustainability that is religiously uphold by other small advance countries (Extract 8 and Table 1 for countries that consistently maintained at least balanced budgets), the circumstantial factors such as receptiveness of workers are equally essential in maximising its effectiveness. Given the lack of favourable circumstantial factors in Greece currently, austerity measures would worsen the Greek recession to a large extent, especially in the short run. Perhaps, Greece also needs to be directed with a concrete growth model which will complement the implementation of the austerity measures so as to lift the Greek economy out of recession to a much larger extent.

L2	For a thorough answer that analyses how austerity measures could potentially restore fiscal sustainability and economic growth and yet worsen the economic recession if the economic circumstances are not conducive.	4-6
L1	For an unbalanced answer that either suggests how austerity measures could either restore fiscal sustainability and economic growth or worsen the economic recession. OR A balanced answer but lacks economic rigour.	1-3
E1	Competent evaluation which shows thoughtful consideration of the extent of effectiveness of austerity measures in resolving fiscal sustainability and economic growth and worsening of the recession. Good economic reasons are cited for judgments made	1-2

(f)	Using the evidence in the data, comment on the view that the productivity growth approach remains the key in ensuring a sustained and inclusive growth.	(10)
	1) Explain what "productivity growth approach" involves: • Necessitates productive employment for the entire labour force →made possible not just through training of labour force but economic restructuring to develop new markets such as those suggested in Extract 8 to help to deliver wage growth and increased dollar votes for agents which include both households and firms. Evidence: Extract 7: "structural reform and productivity-enhancing investments for economic diversification and competition are required. The creation of productive employment will also focus on skills upgrading and higher productivity, which will enable the market mechanism to deliver respectable wage growth for the majority of the workforce" 2) Explain how creation of productive employment enables a sustained and inclusive growth: • Sustained growth: increase productivity of workers to take up enlarged job scope→ increase AS + improvement in qty and quality of G&S produced→ given a high AD→ sustained growth • Inclusive growth: increase productivity→ increase wages & dollar votes to give access to bigger share of G&S distributed to workers. Evidence: Extract 6: *boosting the level of productivity of economies. This will necessitate the eventual creation of productive employment for the entire labour force which can deliver respectable wage growth for the majority of the workforce*. • EV: Challenges presented by creation of productive growth: extent of increase in AS and AD is limited Evidence: Extract 8: advanced countries have exhausted the potential for productivity driven growth fostered by information technology developments in the late twentieth century (what he called the Third Industrial Revolution). Gordon speculated that the technologies now driving the creation of new markets , services , products , and technology companies (Alibaba and Apple) were not as transformative as the inventions of the Industrial Revolution→ limited increase in AS (productive capacity) and AD OR EV: outcomes of productive employment takes time to materialise as a lot will depend not just on mindsets of the labour force but more importantly to switch the mindsets of school leavers to one that is more risk-loving to take up challenges in entrepreneurship or unknown markets such as those mentioned in Extract 4. 3) Alternative approach: "Conventional approach via expansionary MP & FP • Expansionary MP and FP→ Increase C, I, G → increase AD and AS→ sustained and inclusive (either through higher wages from more employment or redistribution through increase in tax revenue collected made possible through EG) growth • EV: I/r are already very low, many countries are already running budget deficits + slow global growth which make X-oriented economy not a viable option now. Evidence: extract 5*: Now policymakers now face more policy constraints and have fewer tools in their belt to coax the global economy into stronger growth* *Evidence: extract 8: financial crisis of 2008-2009 caused serious*	

	problems to economies in developed countries and they are still struggling to recover 4) Summative Conclusion Evidence: Extract 6: *economic and social tensions if not properly addressed. Past traditional approaches, mainly based on expansionary demand management policies such as monetary policies, have helped to temporarily avoid a deeper recession and set the foundations for the global recovery in the short term* • Conventional growth approaches such as expansionary DD-mgmt policies can only help to avert recession in the SR. It is neither sustained nor inclusive→ calls for painful reforms to create productive employment as a viable option for all economies—small and developed, even if they may not appear to be as transformative as the inventions from the Industrial Revolution. (Extract 8) Hence, productive driven growth will remain the key in ensuring sustained and inclusive growth given the limited alternatives available.	

L3	For a response that addresses both sustained and inclusive economic growth. For a thorough answer that analyses productivity driven growth which necessitates productive employment for the entire labour force will remain the key in ensuring inclusive and sustained growth in spite of its limitations, especially given the policy constraints found in plausible short term DD-mgmt policies such as MP and FP.	7-8
L2	For a response that addresses only either sustained or inclusive economic growth. OR For an unbalanced answer that analyses how either productivity driven growth approaches or traditional approaches can attempt to achieve inclusive and sustained growth	5-6
L1	For a response that only addresses actual economic growth OR A descriptive answer that seems to address some related issues required of the question but lacks economic rigour.	1-4
E1	For a summative and competent evaluation which shows thoughtful consideration of the limitations of both productivity growth and traditional growth approaches in attempting to achieve inclusive and sustained growth. Good economic reasons are cited for judgments made	1-2

<u>Essay 1</u>

1 **The price of oil has halved compared to a year ago due to weak global economic performance, increased oil production through fracking and speculators' pessimistic outlook. This has produced winners and losers in the alternative energy and goods markets.**

Discuss the likely impact of the above events on producers' revenue in the market for oil and related products. **[25]**

Intro

- Analyse the changes in demand and supply to determine the impact on producers' revenue in the market for oil and related markets such as alternative energy and goods markets.
- Demand for oil refers to the quantities of oil that consumers are willing and able to buy at various price per a period of time, ceteris paribus.
- Supply for oil refers to the quantities of oil that producers are willing and able to sell at various prices per period of time, ceteris paribus.

<u>Development 1: Market for Oil</u> (address 3 events)

<u>Demand Factors</u>

1. **Weak global economic performance**
    - recession → ↓income → as oil is a normal good, YED>0 → ↓PP → ↓qty dd at every price → ↓Demand for oil
    - OR *demand for oil derived from demand of consumer goods which have decreased due to weak economy*
    - **Evaluation:** YED<1 as it is a necessity → extent of ↓Demand likely to be small
2. **Speculator's pessimism**
    - speculators expect price of oil ↓ → choose to speculate in other commodity markets or delay purchase of oil till later time period → ↓Demand for oil

<u>Supply Factors</u>

1. **↑oil production through fracking**
    - qty ss at every price ↑ → ↑Supply of oil
2. **Speculator's pessimism**
    - with prices expected to ↓ → speculators may choose to sell now instead of at a later period where prices will be lower→ ↑Supply of oil in current period

Analysis of Producers' Revenue (TR=P x Q) refer to **Figure 1**

↑Supply

- Initial equilibrium at E1, with price P1 and output Q2
- ↑SS → surplus created of Q2Q4 → downward pressure on price → ↓P to P2 and ↑Q to Q2
- As oil is a key FOP for many industries without good substitutes→ necessity/ lack of avail substitutes → PED<1 → ↓P leads to a less than proportionate ↑Qty dd
- ↓TR due to ↓P which is area P1P2aE1 > ↑TR due to ↑Qty dd which is Q1Q2E2a → overall TR↓

↓Demand

- ↓DD to D2 → ↓P to P3 and ↓Q to Q3 → ↓TR from 0P2E2Q2 to 0P3E3Q3

Overall: both shifts result in a ↓TR resulting in a reinforced/large ↓TR from initial TR of 0P1E1Q1 to 0P3E3Q3.

- **Evaluation**: The ↓demand and ↑supply will be further reinforced by the impact from the action of speculators → large shifts in demand and supply → large ↓TR of oil producers
- **Evaluation:** The ↓TR may result in closure of some of the oil fields in the LR due to ↓profitability → ↓SS → ↑TR (assuming PED<1)

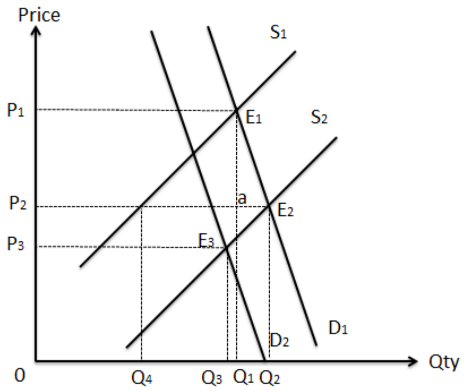


Figure 1

Alternative Energy

- Alternative energy includes solar energy, hydro, natural gas
- XED is likely to be positive (substitutes) → With price of oil expected to fall to a large extent (refer to Fig 1)→ ↓demand for alternative energy → ↓P and Q → ↓TR of alternative energy producers
- **Evaluation**: Extent of ↓TR depends on the strength of the relationship b/w oil and alternative energy → likely to be weak substitutes for energy generation in the SR→ power plants unable to switch easily from one type to another → magnitude of XED likely to be <1 → ↓demand and thus ↓TR likely to be small
- **Evaluation**: Different types of alternative energy may have different XED due to different decree of substitutability with oil
- **Evaluation**: In the LR → become better substitutes → ↑magnitude of XED → greater ↓demand and even larger ↓TR

Goods Markets

Use example of different types of goods

- Oil is a key FOP for many industries → ↓price of oil → ↓unit COP → ↑Supply for consumer goods
  - For necessities e.g. petrol, electricity→ PED<1 → TR↓
  - For luxuries e.g. luxury cars → PED>1 → TR↑
- Weak global econ performance → ↓demand for normal goods → ↓TR
- Overall effect → large ↓TR for necessities and indeterminate effect for luxuries
- **Evaluation**: Magnitude of impact depends also on the proportion of total COP that is due to oil → if large → greater ↑SS → greater change in TR

Conclusion

- Impact of the above events have led to a ↓TR for oil producers. Alternative energy producers are likely to also observe a ↓TR as are manufacturers of necessities goods. However, manufacturers of luxuries are likely to see a potential ↑TR.
- **[Respond to signpost]** Thus, the above events has created winners and losers whereby many industries have lost in terms of ↓TR although there are some industries which may be considered winners due to a ↑TR. In addition, consumers in general are likely to benefit from ↓oil price as prices of most goods and services should fall overall.

Lev el	Knowledge, Comprehension, Application & Analysis	Marks
3	For a well-analysed discussion of the impact of the 3 events on the revenue of producers' in the market for oil and related markets. Students should use relevant elasticity concepts to determine the impact.	15-21
2	For a well-explained analysis of the impact on only 1 market OR for a response that lacks rigor in analysis	9-14
1	For a descriptive response with some relevant points	1-8
	Evaluation	
E2	Evaluative judgement supported by appropriate analysis	3-4
E1	Unexplained judgement	1-2

Essay 2

Electronic Road Pricing (ERP) and subsidies for public transport for the low-wage workers are used by the Singapore government to address market failure in road usage.

(a) Explain why externalities and income inequality may lead to market failure. [10]

(b) Discuss whether there is a need to change the current policies adopted by the Singapore government to deal with excessive road usage. [15]

Outline of suggested answers

(a) Explain why negative externalities and income inequality may lead to market failure. [10]

Introduction:

- Define market failure/ Address sign post and link to question

Market failure occurs when the price mechanism fails to allocate resources efficiently and equitably. Negative externalities and income inequality lead to market failure due to allocative inefficiency and inequity in resource allocation respectively.

In the case of Singapore, the government taxes road usage due to the negative externalities generated from the production of car trips, and subsidies the public transport fares for the low-wage workers due to the inequity in resource allocation brought about by income inequality.

Development:

- Allocative inefficiency due to negative externalities in production of car trips

In the production of car trips, when individuals decide on how much car trips to produce and consume, the decision is based on one's MPC and MPB. MPC of producing car trips refer to the additional cost incurred by the driver from producing each unit of car trip. Examples of such MPC include the cost of petrol and car park charges at the destination, if applicable. On the other hand, MPB of consuming car trips refer to the additional benefit/satisfaction derived by the driver from consuming each unit of car trip. Such examples include convenience and time saved from not having to wait for public transport. Therefore, when an individual is left to decide on how much car trip to produce and consume on his own, the equilibrium quantity is at Qm, where MPB=MPC (Fig. 1).

However, the production of car trips generate negative externalities in the form of traffic congestion, where third parties such as employers incur a loss of income due to loss of man hour of their workers who come in late for work as they were caught in the traffic. Due to the presence of such MEC, there is a divergence between MPC and MSC, where MSC > MPC for all units of output from Qe units of car trips onwards.

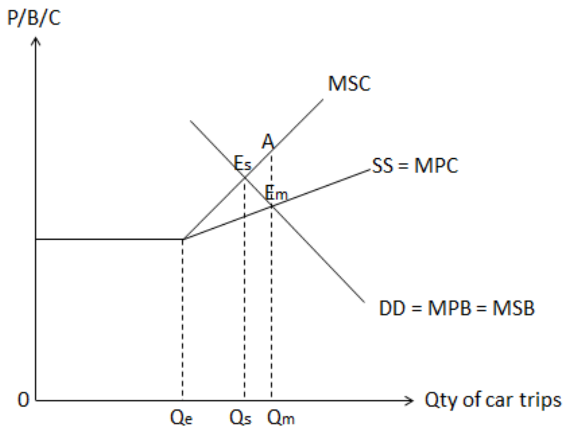


Fig. 1: Overproduction of car trips due to –ve externalities

The socially optimal output of car trips should be at Qs, where MSB = MSC. For any output above Qs, such as at Qm, MSB < MSC, which means that the society's value placed on alternative good forgone is greater than the society's value placed on car trips. Production of car trips should be reduced and resources should be allocated away from the production of car trips in order to increase society's welfare.

Therefore, society's welfare is maximised at Qs units of output and there is an overproduction of QsQm units of car trips when left to individuals to decide on the no. of car trips to produce/ consume. The overproduction of car trips suggests that there is an overallocation of resources into the market for car trips, such that not the right type and right amount of goods are produced for the society. Thus, allocative inefficiency in resource allocation ensues and market fails, where society's welfare is illustrated by the deadweight loss of the area, EsEmA.

- Inequity in resource allocation due to income inequality

<u>Explain briefly the cause of income inequality</u>

Income inequality may arise due to differences in the DD/SS of skilled labour and unskilled labour, where demand for low-skilled labour is relatively low but supply of low-skilled labour is high as there is a readily available pool of such labour as oftentimes, no specific skill set is required for these jobs. On the other hand, the demand for high-skilled labour is relatively higher and the supply of high-skilled labour tends to be lower than that of low-skilled labour as these are jobs that require specialised and technical skills that take time to be acquired. Therefore, those employed in the high-skilled labour market get paid a higher wage than low-skilled workers.

The difference in wage received and hence, income inequality persists due to occupational immobility, whereby the low-skilled workers are unable to move into the high-skilled labour industries due to the mismatch of skills.

<u>Link income inequality to inequity in resource allocation</u>

In a market based economy, allocation of resources is based on the price mechanism, where producers decide on 'for whom to produce' the good based on the dollar votes casted by consumers, through which they signal their willingness and ability to pay for the good. In this case, since the higher income group has more dollar votes, more resources will be allocated towards the production of luxury goods than necessities such as public transport as profit-driven firms allocate the scarce resources based on the signals from those with higher dollar votes. On the other hand, those of the lower income group who are unwilling and/or unable to pay for public transport rides at higher prices will be rationed out of the market. Hence, there is an unfair and unjust distribution of resources as the access to basic necessities such as public transport rides are based solely on the ability to pay for the good. Society's welfare is not maximised as income inequality brings about inequity in resource allocation, resulting in market failure.

Conclusion:

The extent of market failure in Singapore is likely to be large for both cases. The extent of negative externalities in the form of traffic congestion is high in Singapore due to our constraints of small geographical size. Likewise, the extent of inequity in resource allocation in Singapore may be large due to the rapid structural changes we face due to the openness of our economy, bringing about structural unemployment and worsening of income inequality.

Mark scheme:

	Knowledge, Application, Understanding and Analysis	
L3	For a **well-developed** explanation and **relevant economic analysis** of how negative externalities and income inequality result in market failure	7-10
L2	For an **underdeveloped** explanation which **describes** how negative externalities and income inequality result in market failure with lacking economic rigour	4-6
L1	A **descriptive** answer which shows **some knowledge** about negative externalities, income inequality and market failure but containing **inaccuracies**	1-3

(b) Evaluate the policies currently used by the Singapore government to solve the problem of externalities due to excessive road usage. [15]

Introduction:

- Link to Part (a)/ Outline current policies adopted by Singapore government

Due to the large extent of negative externalities generated in the form of traffic congestion, the Singapore government has been adopting a string of policies targeted at both car ownership and car usage in order to tackle the problem of excessive road usage.

Development:

- Electronic Road Pricing (ERP)

ERP is an electronic toll system which taxes drivers on the usage of roads and hence, gets **drivers to internalise the MEC of producing car trips**. It is an automated system, whereby the toll is deducted via the in-vehicle unit mounted in all cars when they pass through ERP gantries located at roads leading into the Central Business District and expressways, where congestion is the most prominent.

With reference to Fig. 3, as road users are taxed for the MEC generated from road usage, this increases the MPC of producing car trips, where the amount of tax they pay would be equal to EsB which is the vertical divergence between the MPC and MSC at the socially optimal output, Qs. This causes the drivers to internalise the external cost associated with excessive car usage and hence, shifts the MPC upwards to SS2 = MPC2. The new market equilibrium occurs where MPC2 = MPB, and the resulting output coincides with the socially optimal level of output, Qs. Thus, the problem of overproduction of car trips is solved and market failure is eliminated.

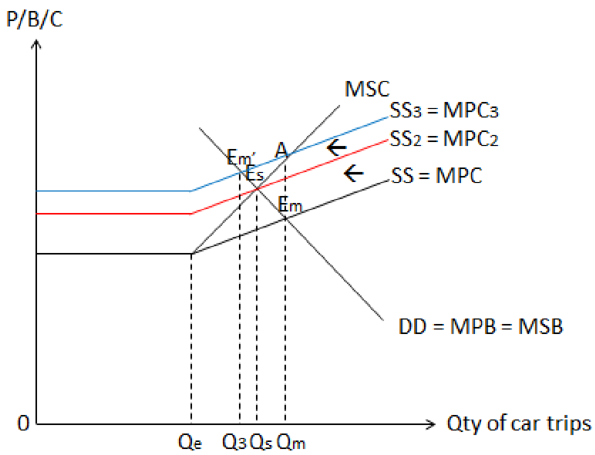


Fig. 3: Workings of ERP to reduce overproduction of car trips

This measure is fair, as it is based on the user-pay principle, where the charges are based on usage so those who contribute more to the congestion would pay more. On the other hand, those who use the identified roads less frequently or those who travel during non-peak periods and hence, do not contribute to traffic congestion, will pay less or need not pay at all.

However, it is difficult to estimate the exact amount of tax to be imposed, as it is difficult to quantity and monetise the MEC. Should the government under/over-estimate the extent of

MEC, this might result in the problem of overproduction of car trips persisting or it may create a new problem of underproduction of car trips.

EV: However, not all cases of over-estimation of MEC and hence over-taxation would lead to a worse off outcome for the society. With reference to Fig. 3, should the government over-taxes road usage by a small amount and shifts the SS = MPC curve to SS3 = MPC3, although there is now an under-production of car trips by Q3Qs amount, the resulting deadweight loss is smaller than before intervention. Hence, society's welfare has improved due to the over-taxation.

(Address the question) However, the extent of government failure is likely to be low, considering that the Singapore government constantly reviews the ERP charges based on a quarterly assessment of the traffic speed. Furthermore, in order to prevent the problem of traffic congestion simply transferring to other routes as drivers attempt to evade the ERP charges, Singapore government is looking at replacing the current ERP gantries with a satellite-tracking system, where drivers can be charged for the usage of congested roads via the Global Positioning System (GPS). Therefore, there are already many active efforts by the government to fine-tune our road taxation policies.

(Link to next policy) An alternative measure adopted by the Singapore government would be the Certificate of Entitlement (COE), which targets at reducing the car ownership of Singaporeans via a method which takes into account the rising affluence of its citizens and the growing wants of owning a private car.

- Certificate of Entitlement (COE)

COE is a right to own and and use a private vehicle for a period of 10 years. The entitlement is issued via a quota system, which provides a certainty of outcome by regulating the car population in Singapore. In order for an individual to own a private vehicle, he has to bid for the COE based on his willingness and ability to own the rights.

Although the measure does not target directly at the usage of cars, it **tackles the problem of traffic congestion indirectly by controlling the car ownership**, whereby with lesser no. of cars owned by Singaporeans, there would be a lesser no. of cars on any given stretch of road at any point of time.

Issuing the COE via a bidding system is an efficient way of allocating resources as the bids placed by bidders reflect their maximum willingness and ability to pay to own a car. Therefore, those who value the good (i.e. COE) most would get the resources allocated to the production of good for them.

EV: However, the measure may be counter-productive, whereby the no. of cars on the identified roads may not fall with the lesser no. of cars owned by Singaporeans but instead, the problem of traffic congestion may worsen as drivers drive out their cars more often to spread the fixed cost after having paid a large premium for the COE.

Also, being a form of legislation that falls on all Singaporeans, this measure is blunt and can lead to an over-correction of the problem. In fact, those who do not drive on to congested roads/ do not use the car during peak hours are also required to pay for the COE, which may be perceived as being unfair.

(Address the question) Furthermore, although bidding ensures efficiency, it may bring about inequity issues as the method of allocation does not take into consideration circumstances of those who may need the car more (e.g. Families with disabled members/ senior parents) but are unable to afford the COE premium. Therefore, the distribution of

COE could be modified to include the assessment of needs based on individual circumstances instead of purely basing its entitlement to wants and ability to pay.

(Link to next policy) Another policy that the Singapore government focuses on is the improvement of public transportation system, which aims to tackle the root problem of Singaporeans wanting to own a private car fuelled by our rising affluence, through increasing the substitutability between private cars and public transport.

- Improvement of public transport

The substitutability between private cars and public transport in Singapore has improved over the years through efforts to increase the comfort, convenience and efficiency of public transportation modes. For instance, the timely maintenance and upgrading of trains and buses would mean that the comfort level of travelling via public transport is comparable to travelling via a self-maintained private car. Also, the opening of the Downtown line, increasing the no. of buses and opening up of new routes are aimed at improving the convenience and speed of travelling via public transport.

When successful in increasing the substitutability between private cars and public transport, there will be a **change in the taste & preference towards public transport and away from both car ownership and car usage**. This is translated into a fall in DD for car usage from DD1 to DD2 in Fig. 4, where those who already own a private car may also choose to leave their cars at home when travelling to congested areas, as it is relatively comfortable, convenient and fast to travel to their destinations via public transport. The resulting overproduction and overconsumption of car trips is by QsQm' which is of a smaller amount and the deadweight loss to society is also smaller at area EsBC. Society's welfare has improved.

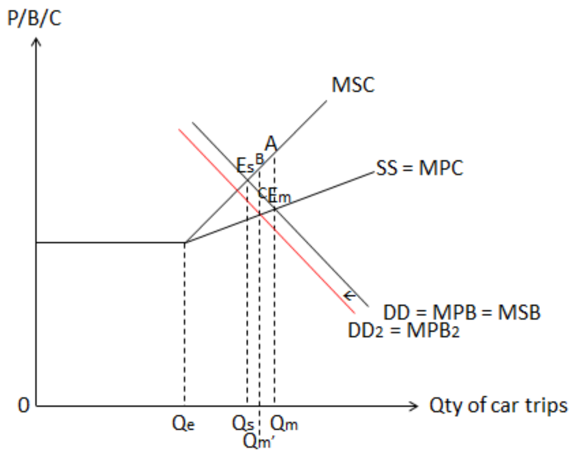


Fig. 4: Improvement of public transport to reduce overproduction of car trips

EV: However, the success of the measure is dependent on XED value between public transport and private cars. Despite public transport improving on its frequency, convenience and comfort level, it may never be a good substitute for private cars for those who value personal space and for the higher income group for whom cars are more than just a mode of transport but a status symbol.

(Address the question) As this measure is a long-term solution to discourage both car ownership and usage in the long run, it should be continued alongside ERP and COE. However, considering the public's growing displeasure towards the public transportation system in the recent events due to the frequent breakdowns, more efforts should be focused on ensuring the reliability of public transport via regular maintenance of the buses and trains/

stricter regulation in the compliance to standards (e.g. in material and wiring, etc.) when building the infrastructures such as train tracks.
Conclusion:

(Answer the question) Whether or not there is a need for the Singapore government to change the current policies adopted is dependent on a judgement criteria, such as:

[Extent of market failure] The multi-pronged approach taken by the government has been a long-standing one, which has gone through many refinements over time. However, if the extent of market failure due to traffic congestion worsens over time due to reasons such as greater proximity between roads and residential areas/ reduced space for roads due to more development projects, the greater will be the need to increase the amount of ERP/ set up more ERP gantries on newly identified roads, in order to curb road usage more effectively.

OR [Priorities of the government] Whether or not the government's priorities lie in efficiency or equity in resource allocation would matter in deciding if we should change the current policies being adopted. As mentioned, although measures such as the COE ensures an efficient allocation of resources based on a bidding system, it results in greater inequity as rising income of a small group of people push up the minimum successful bid for COE. Therefore, the greater the priority lies in the issue of equity, the greater will be the need to ensure that measures such as COE must assess the needs-basis of owning a car by an individual and a greater focus should be placed on ensuring the affordability of public transportation.

Mark scheme:

	Knowledge, Application, Understanding and Analysis	
L3	For a **well-developed** assessment on whether there is a need to change the current policies adopted based on the strength and limitations of these policies	9-11
L2	For an **underdeveloped** assessment on whether there is a need to change the current policies adopted, mainly based on unreasoned judgement	6-8
L1	A **descriptive** answer which shows the workings of current policies but containing **inaccuracies**/ not addressing whether there is a need to change these policies	1-5

	Knowledge, Application, Understanding and Analysis	
E2	For an informed judgment supported by sound economic analysis	3-4
E1	Unexplained judgment with no economic analysis	1-2

Essay 3

3 **The fast food industry in Singapore consists of a few dominant firms such as McDonald's and Kentucky Fried Chicken. With rising labour costs some chains such as Wendy's have left the market.**

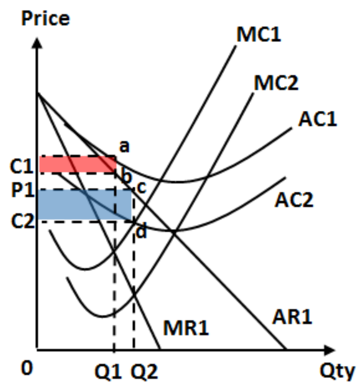
(a) Explain the factors a firm should consider in deciding whether to close down in view of the rising labour costs. [10]

(b) Discuss the view that the exit of firms in the market is desirable. [15]

Suggested Outline to part (a)

Intro
- Identify the market structure → oligopoly (small number of large/dominant firms in the fast food industry)
- ↑labour costs → ↑unit COP → ↑MC, ↑AC
- Firms should decide whether to shut down in SR and whether to exit in LR
- Firms need to consider their various costs (relative to their revenue) when deciding whether to close down.

Development



Short Run
- **Firms need to consider their average variable cost relative to its average revenue.**
- TVC refers to the cost of variable factors used in production. Variable factors are factors that vary with output. Example include: wages of staff in the restaurant, cost of ingredients in the preparation of the fast food.
- With a ↑ labour costs → ↑AC, ↑MC
  - Explain profit maximizing condition
  - ↓profits → some firms may end up with subnormal profits and may need to decide whether to shut down (cease production) in the SR
- If AR<AVC → firms should shut down production and they would only incur the fixed costs without any variable cost. Loss would be minimized to just the fixed costs. Firm may leave the industry in the LR.
- If AR>AVC → firms should continue production as the TR can cover the TVC and part of the TFC. This would be better than shutting down and incurring fixed costs alone.
- Firms with relatively high AVC are more likely to have to shut down

Long Run
- **Firms need to consider their average cost relative to their average revenue (profit level)**
- If AR>AC → remain in the industry
- If AR<AC → Should exit the industry
- As long as firms end up with subnormal profits → revenue unable to cover its total costs

• However, if the ↑AC, MC is not likely to be permanent and if the firms have prior supernormal profits/high reserves → firms can choose to remain in the industry • **Firms can also consider their ability to mitigate the ↑labor costs (breaking ceteris paribus assumption)** • Also, if a firm is able to conduct R&D to reduce unit COP or ↑demand →able to avoid subnormal profit and remain the in the industry
Conclusion • Summarize points/Rank factors, link to part (b)

Knowledge, Application, Understanding and Analysis		
L3	A clear economic analysis explaining the factors a firm needs to consider in deciding whether to shut down in SR and exit in the LR	**7-10**
L2	Underdeveloped answer or an answer only considering either the SR or LR.	**4-6**
L1	Descriptive response with few relevant comments.	**1-3**

Part (b)

Introduction:

- Interpret question/ Define desirability

Exit of firms from the market for fast food would mean that there is a lesser no. of firms in the market. This is translated into higher market power for existing firms as there is a lower level of competition.

For the society, the desirability of the level of market power of firms in a market be assessed based on its ability to be efficient and equitable in its resource allocation, whereby economic efficiency comprises of static and dynamic efficiency. Static efficiency refers to productive efficiency and allocative efficiency, where productive efficiency is achieved when the firms in the market utilises the least-cost method of production and allocative efficiency is achieved when the firms in the market produces the right type and right amount of goods. Dynamic efficiency is achieved when the firms in the market are willing and able to engage in both process and product innovation.

At the consumer level, whether or not the exit of firms in the fast food industry is desirable would depend on its impact on consumer surplus, which is influenced by the price, quantity, quality and variety of fast food that are available for consumption.

Development:

With reference to Fig. 1 below, prior to the exit of firms, the profit-maximising output and price of each individual firm would be at Q_1 and P_1 respectively, where $MR_1 = MC$. However, the exit of firms from the market would mean that each firm left in the market would face a larger demand and demand becomes less elastic, as the no. of substitutes in the market has decreased. Therefore, each individual firm in the market who profit-maximises would produce where $MR_2 = MC$, where the output is higher at Q_2 and the price is higher at P_2.

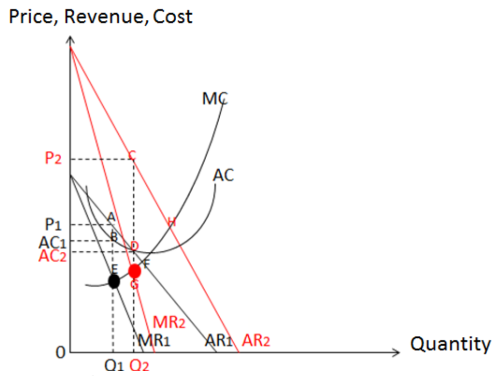


Fig: Impact on a firm's P, Q and profit level due to the exit of firms in the market

Thesis: Exit of firms from the market would be desirable	Anti-thesis: Exit of firms from the market would be undesirable
• **Positive impact on dynamic efficiency and consumer welfare** With reference to the same diagram, prior to the exit of firms, an individual firm in the market earns a supernormal profit of the area P_1ABAC_1 at the profit-maximising output of Q_1. With the exit of firms from the market, the supernormal profit earned by the firm increases to the area P_2CDAC_2. The increased ability to earn supernormal profits in the long run would mean that there is a higher availability of funds to conduct research and development for the purpose of product & process innovation. Therefore, the level of dynamic efficiency increases, improving society's welfare. Also, there will be an increase in consumers' welfare as better quality and more variety of fast food products can be offered by the remaining firms. Furthermore, if process innovation is successful in reducing the cost of production, there is a possibility that this cost-savings may be passed on to consumers as lower prices. **EV:** However, the higher ability to be dynamically efficient may not be matched by an increased willingness to engage in R&D. In fact, with lesser no. of rivals, the willingness to improve on its products may fall, as each firm already owns a larger share of the market share than before. This would mean that the increase in consumer welfare would be by a lesser extent that what was	• **Inequity worsens** The increased ability to earn supernormal profits in the long run may instead of negative impacts on the society. Higher level of LR profit signifies that the firm is earning at the expense of consumers, whereby the unequal income distribution between the shareholder who are mainly upper income earners and consumers is worsened. With the widening income gap between the rich and the poor, resource allocation may be more inequitable, as more resources will be allocated for the production of goods for those who are able to cast dollar votes. Society's welfare decreases. • **Allocative inefficiency and consumer welfare worsen** At the initial profit-maximising output of Q_1 prior to the exit of firms, P > MC. This means that the value that the society places on the each additional unit of fast food is greater than what it costs them. Therefore, the good is under-produced and more resources should be allocated to its production to increase society's welfare. With the exit of firms, each individual firm in the market produces at the new profit-maximising output of Q_2, where the extent to which P > MC is larger. The extent of allocative inefficiency is therefore worsened and society's welfare decreases. This is reflected by an increase in the deadweight loss from area AEF to area CGH.

analysed previously, or it may even fall as firms get complacent on their need to constantly improve on their products to capture market share. With lesser possibility of supernormal profits being eroded away, this complacency and lack of innovation may result in X-inefficiency.	Furthermore, although there is an increase in the output level from Q_1 to Q_2, price being higher now at P_2 may bring about a fall in consumer welfare. **EV:** However, with each firm providing for a bigger share of the market, internal EOS can be enjoyed through a large scare production. Hence, there is a possibility that consumers are able to enjoy lower prices as the cost savings enjoyed from internal EOS can be passed down to consumers.
Conclusion: **(Answer the question)** Whether or not the exit of firms in this market is ultimately desirable for the society and consumers would depend on a judgement criteria, such as: **[Contestability of the market]** Although there are some BTEs in the form of strong brand awareness and loyalty for existing fast food chains, the F&B industry is highly contestable as all you need to enter the market is a recipe and a license to handle/sell food. Therefore, with the constant threat of entrant firms and potential rivals, it is likely that firms in this industry are not only more able but more willing to be dynamically efficient and efficient in cost-cutting, which can be translated into better quality products at lower prices. **OR [Level of mutual interdependence between remaining firms]** It is likely that firms in the fast food industry would be more mutually interdependent on each other as the exit of firms would mean that the market becomes more oligopolistic in nature. Therefore, it is likely that firms would compete via aggressive non-price strategies due to price rigidity, results in higher quality and variety of goods for consumers.	

	Knowledge, Application, Understanding and Analysis	
L3	For a **well-developed** discussion on both the desirability of exit of firms in this market by assessing the impact on both the society's welfare and consumers' welfare	9-11
L2	For an **underdeveloped** discussion on the desirability of exit of firms in this market by assessing the impact on **some** aspects of society's welfare and consumers' welfare, with no clear structure	6-8
L1	A **descriptive** answer which shows some understanding of the impacts of exit of firms in a market but containing **inaccuracies**	1-5
	Evaluation	
E2	For an informed judgment supported by sound economic analysis	3-4
E1	Unexplained judgment with no economic analysis	1-2

Essay 4

(a) Using Keynesian analysis, explain the impact of a worldwide recession on an economy's national income. [10]
(b) Assess the extent to which conflicts in macroeconomic goals limit the scope to use interest rate policy in any economy. [15]
Suggested answer

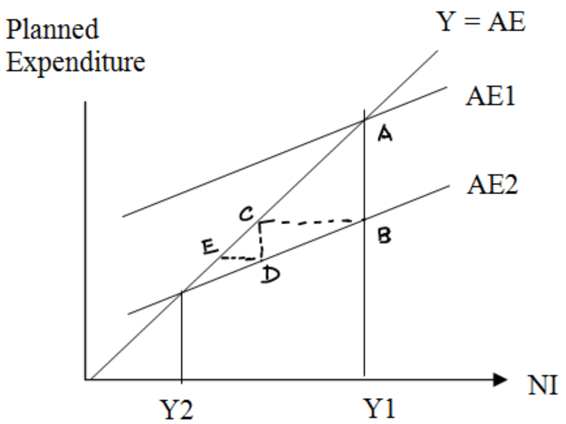
(a) Introduction

A worldwide recession implies falling national incomes globally. Households all over the world will respond to this fall in purchasing power by cutting back on consumption of domestic goods and services as well as imported ones. This weakens external demand of its trading partners. For a given country, **export revenue (X) will fall**, resulting in a multiplied decrease in its national income (NI). This can be demonstrated using the Y = AE model. Aggregate expenditure is the planned expenditure on final goods and services in an economy and consists of Consumption on domestic goods and services (Cd), Investment (I), Government expenditure (G) and Export Revenue (X).

Development

The economy is assumed to be initially at equilibrium where planned expenditure is equal to planned output. Marginal propensity to consume on domestic goods and services is assumed to be 0.5. We also assume that this is a 4 sector economy- households, firms, govt, and foreign sector.

With a decrease in autonomous expenditure such as export revenue (let's say by \$10bn), AE decreases. There will be disequilibrium in the economy since the planned expenditure is greater than national income.



Round 1: The fall in X by 10bn results in a **fall in AE by 10bn** as shown by AB in the figure. Since total output > total spending, inventories will increase for export industries. The export industries will decrease output by 10bn and thus they will hire fewer FOP such as labour. This will cause factor incomes of households to fall by 10bn. Thus **NI falls by 10bn** as shown by BC in the figure.

Since MPCd is 0.5, with the fall in income, households will reduce spending by 5bn on domestic consumption such as domestically produced clothes. There is also a fall in leakages (S, T, M) by 5bn.

Round 2: AE falls by 5bn as shown by CD. Inventories increase in the clothing industry and it will reduce output by 5bn and hire fewer workers. Thus factor income falls by 5bn. Thus **NI falls by 5bn** as shown by DE in the figure.
Households will cut spending by 2.5bn on domestic consumption such as electronics and leakages by 2.5bn.

Start Round 3: Thus **AE falls by 2.5bn**. Electronics industries will now have to reduce output by 2.5bn and thereby reducing factor income by 2.5bn.

Explain when the process stops: This process will continue with each round of fall in spending being 50% of the previous round's fall in income. This is not indefinite and will stop as with each round, the fall in spending becomes smaller due to the withdrawals. **(explain when it ends)** The process stops when the ***[sum of reductions in withdrawals]*** is equal to the ***[initial fall in injections]*** of 10bn. The multiplier process stops and NI would have decreased by a multiplied amount.

State outcome:
The multiplier value, k, shows how many times national income will fall given a fall in autonomous AE
K = 1/(1 – MPCd) = 2. Since k = 2, NI will decrease by 20bn (from Y1 to Y2 in figure).

Conclusion

[Sum up] Worldwide recession will cause NI to fall by a multiplied amount as a result of falling X. The pessimistic business outlook will erode business confidence, leading to falling I, causing a further fall in AE and hence NI.
[Evaluation] The extent of the fall in NI due to fall in X will depend on the size of k.
K=1/MPW where MPW= MPM + MRT + MPS
[Explain the k size] For a small country like Singapore which has limited natural resources, it relies heavily on imports for raw materials and necessities → large MPM. Govt policies such as compulsory savings (CPF contribution) and lack of social safety net such as unemployment benefits creates a greater incentive to save → Large MPS. Thus MPW is large for Singapore → small K size.
[Explain the underpinning] With each round of fall in income in the multiplier process, both consumption and leakages fall. But, consumption falls by a smaller proportion of the fall in income and leakages fall by a larger proportion of the fall in income. Since consumption falls by a smaller amount, this implies that in the next round the income falls by a smaller amount compared to an economy with larger MPCd. Thus overall NI will decrease by a smaller multiplied amount.

	Knowledge, Application, Understanding and Analysis	
L3	Well-explained answer of the K process and a good evaluation of the K process, linking back to the impact on NI.	**7-10**
L2	Undeveloped explanation of the K process. (E.g. Incomplete 2 rounds of K process, unable to calculate how much is the decrease in NI.)	**5-6**
L1	For an answer that has some basic knowledge about the Y=AE model but weak/no attempt to use the K process to explain the impact of worldwide recession on national income.	**1-4**

(b) Assess the extent to which conflicts in macroeconomic goals limit the scope to use interest rate policy in any economy. [15]

Introduction

In pursuit of macroeconomic goals, govt may choose to use interest rate policy. This policy aims to achieve a macro goal by influencing aggregate demand (AD) of an economy. If the objective of the govt is to achieve economic growth, it will use an expansionary demand management policy such as lowering of interest rate. However, it may conflict with other goals such as price stability which may limit the scope of using this policy. At the same time, there could be other factors that may limit its scope such as size of multiplier, size of domestic demand, open economy trilemma.

Development 1: How interest rate policy works to achieve a macro goal such as economic growth

Lowering of i/r → increases AD → economic growth [AD AS diagram]

- With lower cost of borrowing, expected returns from investment increases. Investment projects which were not profitable earlier may now appear profitable. Volume of investment (I) increases (movement down MEI curve)
- With lower cost of borrowing, consumers will be incentivized to spend more on big ticket items. At the same time, the higher opportunity cost of savings will discourage savings and further encourage spending. Thus Cd increases.

The increase in I and Cd increases AD. Shortage, inventories fall. Producers increase output level, assuming there is spare capacity. NI will increase by a multiplied amount.

Development 2

Thesis: Conflicts in macro goals limit the scope of using i/r policy

1) It conflicts with price stability

When an economy such as China, is operating close to full employment level, the rise in AD due to lowering of i/r creates a shortage and inventories fall. As firms try to expand output, the increased competition for FOP will bid up the factor prices due to limited resources available. This will drive up the product prices. If the increase in AD is sustained due a strong cut in i/r by Central Bank, then there is a sustained rise in GPL causing demand pull inflation. The full multiplier effect on NI will not be observed. This increases the cost of living and households may have to decrease their consumption levels, lowering their material SOL.

2) It further conflicts with healthy BOP

With rising inflation, this country will lose its price competitiveness of exports. X will fall. Imports will appear cheaper and households will switch from domestic consumption to imports. Thus M increases. Balance of Trade (X-M) may become a deficit. For a country like USA which has been running a persistent BOP deficit in current account, this will worsen a BOP position. This indicates that the citizens are always living beyond their means. Creditworthiness will fall, making the country less attractive as a destination for investment. So eventually, investments may fall, dampening future growth.

Thus conflicts in macro goals will limit the scope of using i/r policy when an economy is operating close to full employment level.

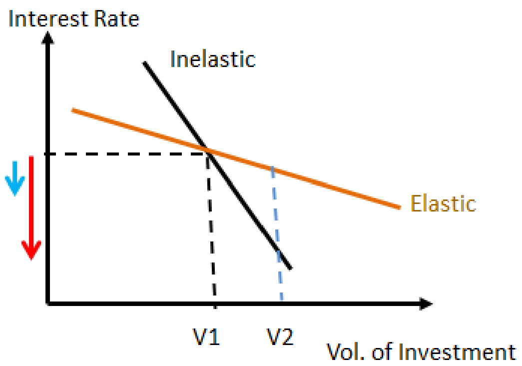
Evaluation

This policy encourages greater investment. This will lead to addition to fixed capital. The increase in the qty of capital will raise productive capacity of an economy in the long run. Firms in the economy are willing and able to produce higher output at every price level. Thus AS shifts right. This causes surplus of goods and rise in inventories. Firms will reduce production until a new equilibrium is reached where inventories return to their planned levels and prices fall. This helps to regain price stability in the long run. Thus the conflict in macro goals that arises in the short run, gets resolved in the long run.

Anti-thesis: Other factors may limit the scope of using i/r policy

1) Interest elasticity of investment

Lowering of i/r increases I, thereby resulting in growth. The extent to which this policy is effective depends on the responsiveness of investors to a fall in i/r.



- In times of a worldwide recession, investors' confidence would have fallen for countries all over the world. Even though the lower i/r implies greater profitability, the pessimistic business outlook makes the MEI curve interest inelastic. Thus, as i/r falls. I increases by a less than proportionately. This limits the extent to which I increases and hence growth. Thus to achieve the desired growth level, i/r should be lowered very sharply. This may not be feasible for countries where i/r are already very low, such as Singapore.
- Some types of I such as FDI are interest inelastic. When MNCs invest in a country, they are unlikely to respond to a fall in i/r the destination country since they need not borrow from that country. They are likely to have accumulated reserves over past years. For small countries such as Singapore, where most of the investment comes from FDI, the MEI is likely to be interest inelastic, reducing the effectiveness of the policy.

These limit the effectiveness of i/r policy, thus limiting our scope to use this policy.

2) Open economy trilemma

For a highly open economy such as Singapore, with high volumes of trade with the rest of the world, there is a need a **high degree of capital mobility** to facilitate transactions with the rest of the world. Moreover, Singapore aspires to become a financial hub, which requires SG to remain open to capital flows in and out of the economy. So we need to have free flow of capital, but this target limits the policy options available- SG can only choose between managing i/r or managing exchange rate but not both at the same time. Singapore will also choose to manage exchange rate as Singapore is highly dependent on trade. A stable exchange rate is required to prevent sharp increases in exchange rate which will affect our export price competitiveness. Also, the high import content in Singapore's output would mean exchange rate has a significant and direct influence on price levels of our economy. A **stable exchange rate** is required to minimize imported inflation and ensure price stability.
So Singapore manages our exchange rates and allows free flowing capital flows → this means that we cannot use i/r policy, because any changes in i/r will lead to capital flows in and out of the country, which destabilizes the exchange rate.

Suppose SG decides to lower i/r to achieve growth. This will lead to a sudden outflow of hot money from Singapore. Since Singapore is a rather open economy, there will likely be a large outflow of hot money which will lower the DD for SGD by a large amount, which in turn leads to a sudden and large depreciation of SGD, hence destabilising exchange rate. This conflicts with the initial aim to keep exchange rates stable.
As such, we are unable to conduct interest rate policy freely as it will affect our aim in keeping exchange rates stable. Singapore being a small country is an interest rate taker- SG's interest rates are largely determined by foreign interest rates.

Alternative points:

- Size of domestic demand (depends on nature of ecy)
- Time lags (impact is not immediately felt since it works in the money market first and then the impacts will trickle down in the real economy)
- Size of multiplier

Conclusion

[Availability of the option to use i/r policy] For economies that are small and open like Singapore, the open economy trilemma is the main reason why MAS does not use i/r policy.

[State of the economy] However, for economies that are large and relatively closed, they do not face this trilemma and thus have the option of using i/r policy; conflict in macro goals may be the main factor that limits the scope to use i/r policy. For economies operating with limited spare capacity, the conflict with other goals such as price stability will certainly occur in the short run when i/r policy is used to achieve growth. Rising inflation may result in greater costs such as falling SOL and rising inequity as the lower income households will have to spend a larger proportion of their income on consumption, compared to higher income households. This may cause social unrest. At the same time, price instability will erode investors' confidence causing I to fall. This will dampen future growth. Thus conflict in macro goals will limit the scope to use i/r policy to a large extent.

	Knowledge, Application, Understanding and Analysis	
L3	A balanced and rigorous discussion on how conflicts in goals limit the scope of using i/r policy as well as other factors that limit the scope of using i/r policy	**9-11**
L2	Analysis lacking in scope and rigor	**6-8**
L1	Brief and descriptive explanation of how conflicts in goals and/or other factors limit the scope of using i/r policy	**1-5**
	Evaluation	
E2	Reasoned judgement supported with analysis	**3-4**
E1	Mainly un explained judgement	**1-2**

Essay 5

(a) Explain the possible causes of a balance of payments surplus on current account. [10]
(b) Discuss if there is a need to change the current policies adopted by Singapore government to manage its balance of payments. [15]

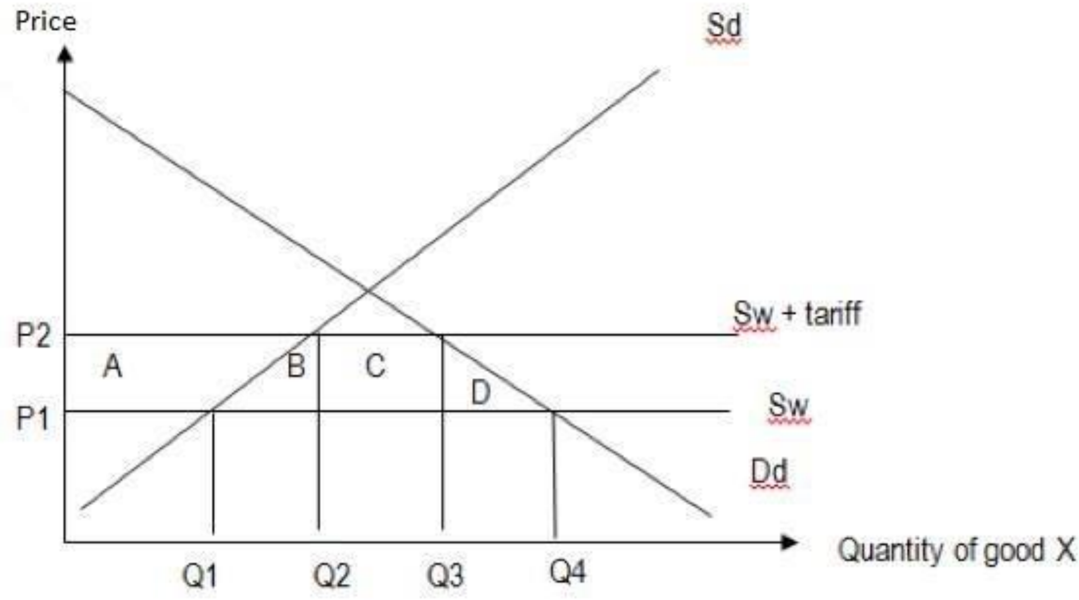
Suggested answer

a) Intro
The balance of payments is a record of inflows and outflows of money in and out of a country due to the transactions between the residents of one country and the residents of rest of the world in a year. The current account records exports and imports of goods and services, net income flows and net current transfers of Singapore in a year. The causes of a current account surplus include an undervalued domestic currency, high levels of domestic protection.

1. Undervalued domestic currency

An undervalued domestic currency will lead to lower export prices (in the foreign currency) and higher import prices. The demand for exports in domestic currency will increase and the quantity demanded for imports will fall. This will lead to an increase in export revenue and a fall in import expenditure. This will lead to an increase in current account surplus. However, this is given that the assumption of Marshall-Lerner condition (PEDx+PEDm>1) holds true.

2. High levels of domestic protection



High tariff rates will result in high prices of imports. If a country imposes a tariff on its imports, this will increase the foreign firm's unit cost of production, resulting in a fall in their supply. As seen in the diagram, world supply will fall and price of imports will increase from P1 to P2. Given that PEDm>1, this will lead to a more than proportionate fall in quantity demanded for imports. Initially, without a tariff, the quantity of imports is Q1Q4 but after a tariff, the quantity of imports will reduce to Q2Q3. Thus, import expenditure in the country will fall as a result of a tariff. Assuming export revenue remained unchanged, the reduction of import expenditure will lead to a current account surplus.

3. Increase in exports' competitiveness

As a result of supply side policies in a country, firms can now increase their price and non-price competitiveness of their goods and services. If most of the firms invest in research and development, there will be process and product innovation. Process innovation will lower the unit cost of production and increases the price competitiveness of a country's exports. If PEDx>1, a fall in the price of exports will lead to an increase in quantity demanded for exports and hence increasing export revenue. On the other hand, product innovation would increase the quality of goods and result in increase in export revenue as well.

Conclusion

Out of the 3 factors discussed, an increase in the competitiveness of a country's export will be the most important factor to allow a country to have a sustained current account surplus. On the other hand, imposing tariffs to increase a current account surplus is not sustainable because it will result in trade retaliation from other countries and reduce the ability of the country to reap the gains from free trade.

Note: Cyclical factors are accepted as well

	Knowledge, Application, Understanding and Analysis	
L3	Well-explained answer of the factors that could result in a current account surplus.	**7-10**
L2	Brief explanation of the factors that result in a current account surplus.	**5-6**
L1	For an answer that has some basic knowledge about current account surplus.	**1-4**

(b) Discuss if there is a need to change the current policies adopted by Singapore government to manage its balance of payments. [15]

Introduction

Need to manage BOP

If large and persistent BOP deficit then SG will run out of its foreign reserves and there is a limit to borrowing from abroad. Furthermore, it will reflect a fundamental structural weakness – lack of export competitiveness in the global market.

If large BOP surplus contributed by a large rise in X, then it will overheat the economy and cause DD pull inflation

SG's BOP position: BOP surplus mainly due to BOT surplus in its current a/c.

Current policies: Aim to maintain modest surplus

- Modest and gradual appreciation by MAS

- SS side policies (R & D)
- Fiscal Policies (low tax rates)

Development

1) **Modest and gradual appreciation by MAS**
The MAS has implemented a managed float ER system which is described as 'Band, Basket and Crawl'. The ER is allowed to float within a band and is weighed against currencies of major trading partners. The SGD is allowed to crawl to avoid sudden changes that can be destabilizing.
MAS's stance: modest and gradual appreciation to maintain price stability. Generally a strong SGD is maintained due to SG's reliance on imports, being a small ecy lacking natural resources.
With appreciation of currency, exports will be more expensive in foreign currency and imports will be cheaper in domestic currency.

Short run impact on BOP:
As long as the Marshal Lerner condition holds i.e. PEDx + PEDm > 1, net exports (X-M) will fall. This will reduce the BOT surplus. This may worsen the overall BOP position.

Evaluation
With appreciation, we lose price comp of exports causing X to fall. However, as the price of imported raw materials also fall → unit COP falls. Due to high import content of raw materials in domestic production, there is a significant fall in unit COP → Rise in the short run AS → lowers GPL → gain in price comp of exports. This will offset the fall in price comp of exports to a large extent. Thus X will fall to a limited extent.

At the same time**,** since SG imports a lot of raw materials and necessities, PED < 1. As the price of imports fall in SGD, qty dd for imports rises less than prop → M falls

These limit the extent to which our BOP position is worsened.

Long run impact on BOP:
However, gradual appreciation will help to control imported inflation and hence ensure price stability → Creates a certain environment for investment and a positive business outlook → Increase in investment → rise in productive capacity → rise in AS → GPL falls
Price comp of exports improve in long run → Increases X → (X-M) rises, c.p. This improves BOP position

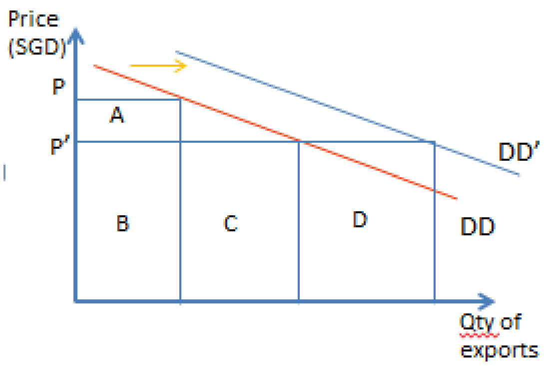
Need to change the current policy or not: MAS should continue with this stance. However, in times of a global recession, this stance needs to be changed. Appreciation of SGD causes exports to be expensive in foreign currency. In times of recession, with a weakened export demand, appreciated SGD will hurt export industries further in SG, worsening the BOT and hence BOP. Thus the MAS adopted of zero appreciation stance during the World Financial Crisis in 2009.

Evaluation (Linking statement to SS side policies): Since appreciation of SGD erodes price competitiveness of exports in short run, SS side policies are employed to maintain export competitiveness and hence counter the potential adverse effect of the rise in export price due to gradual appreciation.

2) Supply side policies

Supply side policies is a basket of policies that the government used to influence aggregate supply so as to achieve growth and stability. Example: Policies to encourage R&D, Subsidies for edu and re-training

↑ **R&D through subsidies:** Process Innovation → More efficient methods of production →Lowers unit COP. Producers are able to produce more output at every price level → AS increases → GPL falls. **Price comp of exports increases.** Qty dd for exports increase. Assuming PEDx>1, X rises from (A+B) to (B+C)
Evaluation: At the same time, the R&D results in better quality products → **non-price comp of exports also improves**. This brings about a favourable change in taste and preferences which raises the dd for exports increase. Again X rises to (B+C+D)
Thus BOT improves and hence BOP improves.



Need to change the current policy or not: In light of globalization and SG being open towards trade, SG faces rapid changes in comparative advantage of its products. SG should continue using its SS side policies to keep with its restructuring. It should encourage more start-ups and SMEs to develop new CA that will enable to move into higher value added or value creation products, in light of the rapid changes in CA that SG faces.

Linking statement to fiscal policy (low tax rates): Besides gradual appreciation and SS side policies to maintain export competiveness to ensure current a/c surplus, SG govt has also kept its income tax rates low to be internationally competitive and attract FDI, in order to manage its CFA.

3) Lower corporate income tax rates

Increases post-tax profits → expected yields from investment rises → **with openness towards capital flows,** this has encouraged inflow of FDI → Improves CFA

- **EV:** this may worsen BOP in future as profits made by foreign investors will be remitted back to their own country
-

Need to change current policy or not: SG should continue to maintain low tax rates. It shouldn't lower the tax rates any further since it might lead to a fall in tax revenue generated and thus a budget deficit. SG govt needs to maintain modest budget surplus to be sufficiently prepared in light of the uncertain global climate.

Conclusion

SG being a small and open ecy, BOP management policies such as gradual appreciation and SS side policies have helped to maintain BOP surplus over the years and should be continued.
However, with the increased volatility brought about by globalization, the government may consider being more active in the management of the BOP such as actively intervening to control ER and reversing its appreciation stance and devalue currency to maintain export competitiveness.

	Knowledge, Application, Understanding and Analysis	
L3	A balanced and rigorous discussion on how the current policies work to maintain a healthy BOP position and whether there is a need to change them	**9-11**
L2	Analysis lacking in scope and rigor	**6-8**
L1	Brief and descriptive explanation of how the current policies manage Singapore's BOP.	**1-5**
	Evaluation	
E2	Reasoned judgement supported with analysis	**3-4**
E1	Mainly un explained judgement	**1-2**

Essay 6

"Despite the benefits of globalization, developed economies need protectionist measures to deal with its challenges."

Discuss whether you agree with the view. (25m)

Suggested answer:

Introduction

Globalisation refers to the increasing integration of national economies in terms of trade, financial flows, ideas, information and technology. It has fused individual national markets, increased the ratio of trade to GDP for many countries and caused a sustained increase in capital and labour flows between counties.

Development 1

Benefits of globalization (Give 2)

Globalisation can lead to improvements in efficiency and gains in economic welfare:

1) Domestic firms can export to a wider market. This enables producers and consumers to reap the benefits of economies of scale. Globalisation enables increased specialisation of production according to theory of CA which enables firms to reap EOS leading to a fall in average costs. This enhances productive efficiency which can be translated in the form of lower prices for final goods and services.
2) Globalization leads to an increase in the volume of trade. Small developed economies such as Singapore is able to tap on a larger market (in the developing economies e.g. China and India) and hence this will lead to an increase in export revenue and hence AD and boosting economic growth in the country.

Challenges of globalization (Give 2)

1)Increases structural unemployment

There are gains from free trade as countries specialized in their areas of comparative advantage. However, developed countries have increasingly lost their comparative advantage in not only the primary industries, but also in the manufacturing sectors as well. Firms in developed countries find it difficult to compete with firms in developing countries who are facing lower production costs (e.g. lower wages due to abundance of labor). As a result, a lot of firms and investors in developed countries have chosen to relocate their production to low cost developing countries. Hence, there is a fall in demand for labor in the sunset industries and they are unable to work in the sunrise industries due to a mismatch of skills.

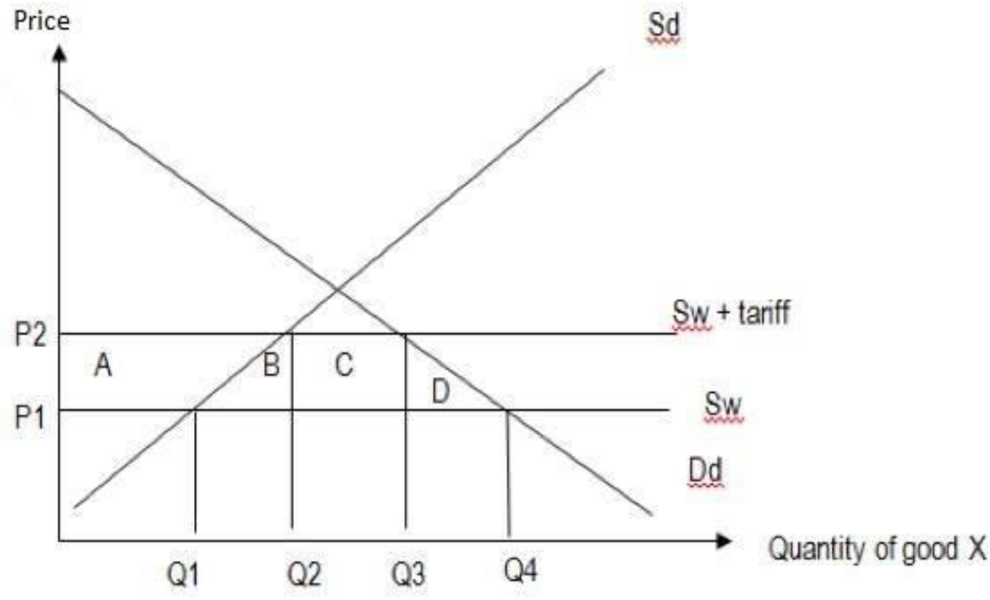
3)Result in a trade deficit

Globalization can result in a current account deficit for the developed economies. This is because developing countries like China is able to price their goods at a very cheap price due to its abundance of cheap labor. Hence, developed countries like the US is buying a lot of China's exports and thus the huge import expenditure has caused the US to land itself into a huge current account deficit.

Development 2

Thesis: Developed economies need protectionist measures to overcome the challenges faced by globalization

1)Protecting employment



A tariff is a tax on imports. It will increase the unit cost of production and reduces the world supply, resulting in an increase in the price of imports from P1 to P2. The intent of the trade barriers is to switch expenditure to domestically produced substitutes. The extent of the rise in domestic production is dependent on the PES of the good. The more price elastic the supply of good is, the more significant the increase in domestic production.

An increase in the domestic care production from Q1 to Q2 will mean that firms will need to engage more factors of production. This will increase the demand for the workers from D1 to D2, employment increases from N1 to N2 and increase the wages of the workers in the industry from W1 to W2. The extent of the increase in employment however, depends on the PES of labour. The more responsive the workers are to wage, the more employment in the industry will increase.

Hence, a tariff here will slow down the decline of the sunset industry and the workers will have more time to go for retraining so that they are equipped with the relevant skills to find employment in the sunrise industries.

2) Correcting a trade deficit

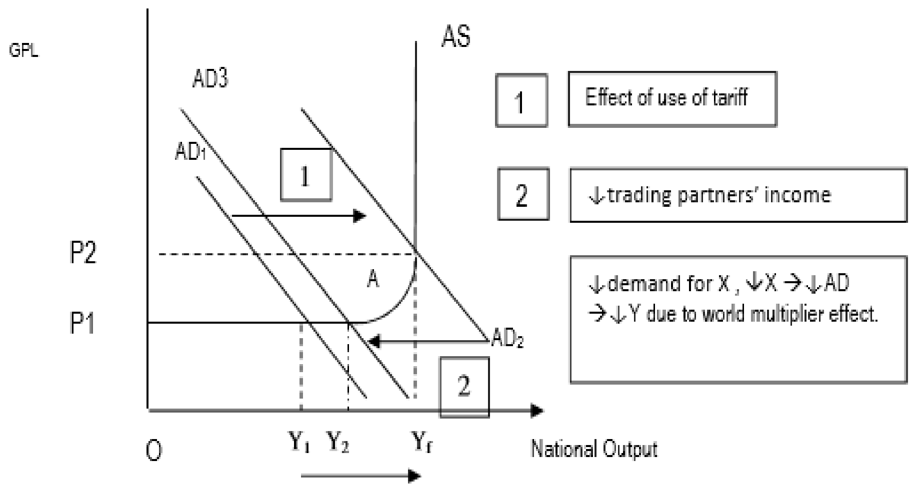
Another argument put forward for protectionism is to correct trade deficit where the total value of import of goods exceeds the total value of exports of goods. A trade deficit is often considered to be undesirable because it slows down economic growth of a country.

A tariff raises the price of imports and reduces the quantity demanded of imports.

Domestic consumers switch their consumption towards domestically produced goods, increasing domestic consumption. Hence, domestic consumption increase which raises the aggregate demand and helps to promote actual economic growth. National income, output, employment by a multiplied amount

Anti-Thesis: Developed economies do not need protectionist measures because it brings about drawbacks and in turn reduces the benefits that can be reaped from globalization.

1) World K effect



A country's imposition of tariff leads to a reduction of imports which are other countries' exports.A reduction of these countries' exports will reduce the 'injections' into the world economy and thus will lead to a reduction in demand for the first country's export and this will undo the benefits of the tariff.

The fall in demand for exports due to the world multiplier effect may offset the rise in the fall in consumption on domestically produced goods and investment due to the tariff with the result that AD does not rise at all. Hence, government's attempt to tackle negative growth or unemployment may be rendered less effective.

Conclusion

In conclusion, globalization can bring about both costs and benefits to a country. However, protectionist measures is a short term measure which does not address the root cause of the challenges faced by the developed economies, hence I disagree to a large extent that developed countries need to adopt protectionist measures to deal with the challenges.

Criterion: Dealing with the root cause of the problem

Protectionist measures like tariffs is only going to be effective in the short run because it can help to slow down the decline of the industry and ensure that workers are able to equip with them the necessary skills. However, it is not going to solve the structural factors which are causing the developed economies to be losing out.

Therefore to deal with the challenges, there is a need for developed economies to develop new niche markets and comparative advantage. For example, shifting away from low value added industries to more high value added industries since developed economies are equipped with better technology and equipment. For instance, Singapore's policies have been geared towards supply-side with the focus of improving our labor productivity and hence competitiveness of our goods and services. Hence, supply-side policies like education and retraining will greatly help to reduce production costs and increase the quality of our goods so as to place our products at a competitive edge in the global markets and be able to compete with low cost countries like China and India.

Level	Knowledge, Comprehension, Application & Analysis	Marks
3	For a well-analysed and balanced discussion that addresses both sides of the arguments of the protectionism in view of the challenges faced by the developed economies.	15-21
2	Answers lacking in scope. (e.g. Only addresses either the arguments for/against protectionism) or an answer that is lacking in rigorous analysis.	9-14
1	For a description of the costs and benefits of globalization.	1-8
	Evaluation Marks	
E2	Evaluative judgement supported by appropriate analysis	3-4
E1	Unexplained judgement	1-2