

**SERANGOON JUNIOR COLLEGE  
2016 JC2 H1 ECONOMICS PRELIMINARY EXAMINATION  
SUGGESTED ANSWERS**

**SECTION A – QUESTION 1**

**(a) (i) Using Figure 1, describe the trend of oil prices from 2005 to 2016. [2]**

- Overall fall in oil prices
- Sharp fall in oil prices from 08 to 09 [1] OR from 2014 onwards

**(ii) Using relevant case material, account for the trend in oil prices from 2014 onwards. [4]**

- Ext 2 “global demand particularly from China, appears to be dropping” OR Ext 3 “slowing China economy”
- Implies a global economic slowdown had led to greater uncertainty and pessimism which resulted in a fall in economic activities. Hence a fall in derived demand for oil especially from a large buyer like China
- Ext 2 “fracking in USA” created an exponential growth in oil production which led to a rise in global supply of oil.
- Both fall in demand & rise in supply reinforced each other to result in a large fall in price of oil

**(b) Explain the relationship between oil price and food prices as seen in Figure 1. [3]**

- Direct relationship: fall in price of oil → fall in price of food
- Fall in price of oil → rise in Qdd of oil, cp.
- Since biofuel & oil are substitutes which satisfy the same want, ie generates energy to drive economic activities → fall in demand for biofuel → Fall in TR for biofuel producers since both P & Q fall → less resources are allocated to the production of biofuel
- Since biofuel and food are in competitive supply as they require the same inputs such as corn and sugarcane, more resources are diverted to the production of food → rise in supply of food → surplus → fall in price of food.
- Thus there is a direct relationship between the prices of these 2 goods

**(c) Account for the value of price elasticity of supply for oil. [2]**

- **Define PES:** Degree of responsiveness of quantity supplied of a good to a change in its price, ceteris paribus.
- **PES<1:** When supply of crude oil is relatively price inelastic, a price rise will lead to a less than proportionate rise in quantity supplied, ceteris paribus.
- **Reason** being it takes time to locate oil deposits and considerable effort is needed to extract it from the ground. Oil drilling is part of a very long and complicated process used to locate, extract, and pump oil from wells.

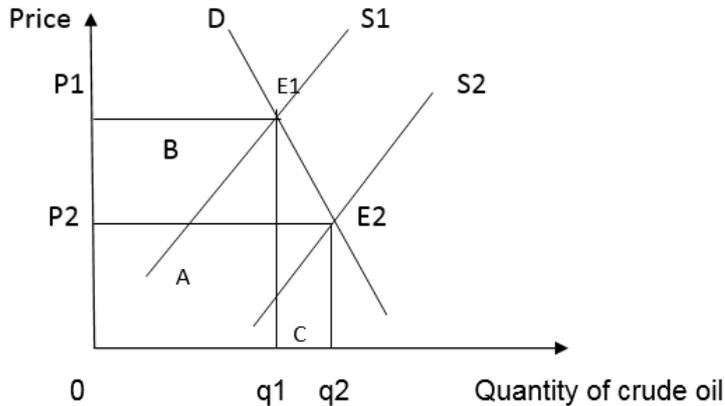
**(d) Using Extract 3, explain the likely effects of the ‘growth in supply’ (Extract 1) on producers’ revenue in the markets for oil and one other related product. [6]**

A growth in supply of crude oil ceteris paribus, will result in a large fall in its price, given PED < 1

**(1) Revenue of oil producers**

Since demand for crude oil is price inelastic due to very few close substitutes, a fall in price (due to a growth in supply) will lead to a less than proportionate rise in its quantity demanded, ceteris paribus. Thus total revenue of oil producer falls.

**Diagram** (Rightward shift in SS curve given  $PE_D < 1$ )



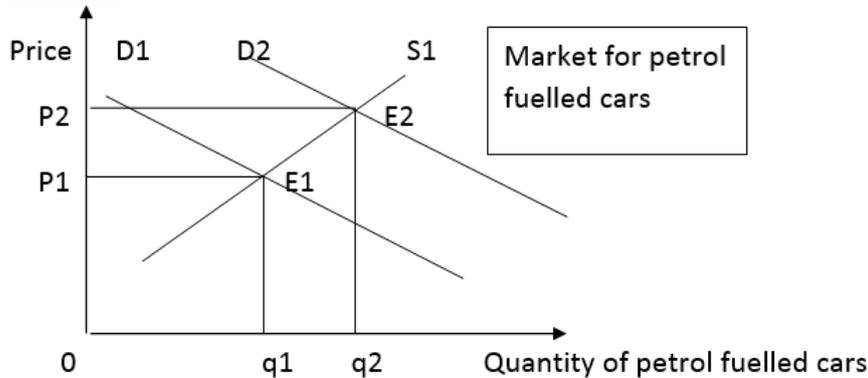
But revenue outcomes are mixed for producers of related products

**(2) Cars market** (impact on “businesses”)

A growth in supply of crude oil will lead to a fall in the price of petrol. It results in cost savings for owners of large fuel hungry cars. Since car and petrol are in joint demand, demand for such cars is likely to rise hence producers of such cars will enjoy a rise in total revenue from  $P1 \times q1$  to  $P2 \times q2$

On the other hand, total revenue will fall for producers of electric cars.

**Diagram** of rise in demand for conventional petrol fuelled cars



**Evaluative comment:** However, the extent of rise in revenue for producers of non-electric cars depends on the price of substitutes like electric cars.

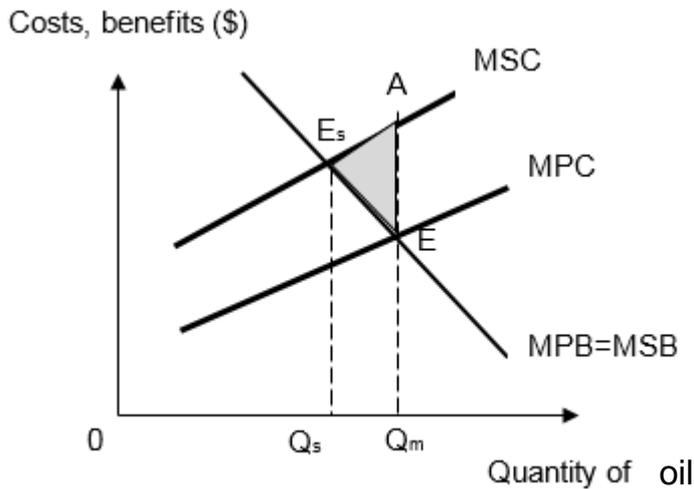
- (e) In the light of Extract 1, explain why ‘world leaders are more committed to switch their economies away from oil’ to achieve efficiency in resource allocation.” [5]

The world leaders pledged to switch their economies away from oil at the United Nations Climate Change Conference. They want to reduce the negative externalities generated from the burning of oil which results in partial market failure.

The free market operates based on the self-interest of producers and consumers who seek to maximise profits and satisfaction respectively. The burning of oil to

run economic activities produces toxic by-products which pollutes the surrounding air and water. This gives rise to negative externalities.

Hence, the total social cost of consumption is underestimated. With reference to the diagram below, this leads to a divergence between the marginal social cost (MSC) and marginal private cost (MPC) by the amount of marginal external cost (MEC) or negative externality.



The market equilibrium is determined where  $MPB=MPC$ . The market equilibrium output is thus  $0Q_m$ .

The socially optimum level of output is attained at a lower output  $0Q_s$  where  $MSB=MSC$ . The society's welfare is maximised as the benefit society gains from the last unit of this good is exactly equal to the value of the next best alternative goods forgone.

Since the market equilibrium output  $0Q_m$  is greater than the socially optimum level  $0Q_s$ , there is overconsumption of oil by  $Q_sQ_m$  amount in the free market. There is deadweight loss to society which is equal to the area  $EE_sA$ . By switching towards cleaner form of energy, the world leaders hope to eliminate the welfare loss arising from overconsumption of oil.

- (f) **How far do you agree that the oil price slump will bring about more benefits than costs to an economy?** [8]

#### Introduction

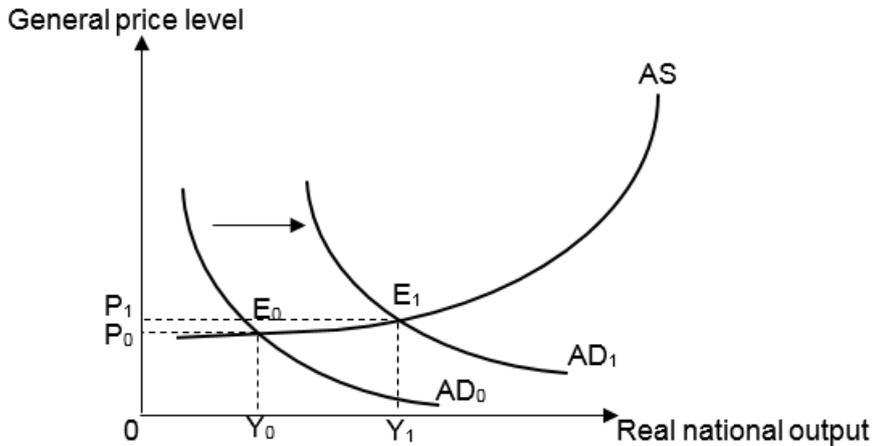
- Clarify 'economy': The economy refers to the economic growth, employment, balance of payments and inflation of a country.
- Direction: Whether the oil price slump is beneficial or detrimental to an economy depends on whether the economy is a net oil importer or exporter

**Thesis:** The oil price slump will bring about more benefits than costs to an economy if the country is a net importer of oil.

**China:** 2<sup>nd</sup> top net importer of oil (Figure 2).

- Oil price slump  $\rightarrow$  since demand for oil is price inelastic due to very few close substitutes  $\rightarrow$  rise in quantity demanded of oil by less than proportionately, ceteris paribus  $\rightarrow$  fall in import expenditure.

- Since oil is a necessity in the production process of manufactured goods which China has comparative advantage in, fall in oil price → fall in cost of production → rise in SRAS → surplus of final goods and services exerts downward pressure on GPL → As GPL falls, level of AS falls and level of AD rises → GPL continues to fall until surplus is eliminated → export becomes more price competitive → rise in demand for export → rise in export revenue, ceteris paribus.



- Currently at  $Y_0$ , the economy is operating at less than full-employment. When there is an increase in net exports, the AD curve will shift to the right from  $AD_0$  to  $AD_1$ . There is now a shortage of goods and services at original general price level  $P_0$ . There will be an upward pressure on prices. Prices will rise until the shortage is eliminated and new equilibrium real national output is at a higher level, i.e.  $Y_1$ . Hence, there is economic growth and a rise in employment for the China economy.

*Or any other relevant economy with data supported*

**Anti-thesis:** The oil price slump will bring about more costs than benefits to an economy if the country is a producer/net exporter of oil.

**Saudi Arabia:** Biggest net oil exporter and 2<sup>nd</sup> biggest oil producer (Figure 2)

- Oil price slump → since demand for oil is price inelastic due to very few close substitutes → rise in quantity demanded of oil by less than proportionately, ceteris paribus → fall in export revenue, assuming import expenditure constant → fall in net exports → worsens trade account.
- Furthermore, the fall in net exports → fall in AD → multiplied fall in RNO & GPL

### Conclusion

It says something about the uncertainties of the global economy and the threat of deflation that a fall in the oil price provokes fear as well as rejoicing. Undoubtedly there are downsides from violent swings in the price of a key commodity. But in the main, cheaper crude oil is a development to be welcomed.

## SECTION A – QUESTION 2

- (a) (i) **What is meant by real wages?** [1]

Nominal wages / earning of workers adjusted for inflation.

- (ii) **Based on Figure 3, compare the changes in the output per hour and median real wages for Britain and France between 2009 and 2014.** [2]

Output per hour rose slightly whilst the median real wages fell significantly for UK. In contrast, in France, both output per hour and real wages rose continuously with its rate of output rising faster than UK

- (iii) **With reference to the data, explain a factor that could have contributed to the change in UK's real wages after 2009.** [2]

World economy slowing down with slow growth in China, the second largest economy that drives the world economy, including UK (ext 4). As a result, UK investors and firms have a pessimistic economic outlook and cutback production as they anticipate that its trading partners will buy less imports from them. This will cause a fall in the derived demand for labour as less production is required. Assume price of goods and services unchanged, real wages thus fell.

- (b) (i) **Explain why a rise in a country's wages might not be evidence of a narrowing income gap.** [3]

A narrowing income gap means there is less uneven distribution of earnings amongst the various groups of people.

A rise in real wages might mean that more people could have been hired and hence less people without an income. This closes the income gap between various groups of people.

Wages are a major source of household income in both developed and developing economies but a rise in the country's wages does not mean that all workers benefit equally. The rise in wages could have been significant and benefitted only certain industries/sectors, especially those in the trade sectors spurred by globalisation export opportunities. At the same time, a fall in demand for less skilled workers reduces their income.

In addition, it has also been observed that globalisation presents vast opportunities for capitalists and entrepreneurs which means that their profits could also have improved greatly.

- (ii) **Extract 4 suggests that low pay across an economy as a whole threatens to put a lid on its growth. Using economic analysis and relevant diagram, explain and comment whether this threat is valid.** [6]

Growth may be actual or potential rise in real GDP. Using the expenditure method, GDP is the sum of spending by households, firms, government and the foreign sector, ie:  $C+I+G+X-M$ .

It may be achieved by either increasing aggregate demand (AD) for locally produced goods and services and/or a rise in aggregate supply(AS).

Low pay results in low C by households due to firstly their low income and purchasing power and secondly, households' *pessimistic outlook* at the same time. Therefore, in figure 1, at the same price OP, AD will fall. This is illustrated by a left shift of AD from AD<sub>0</sub> to AD<sub>1</sub>.

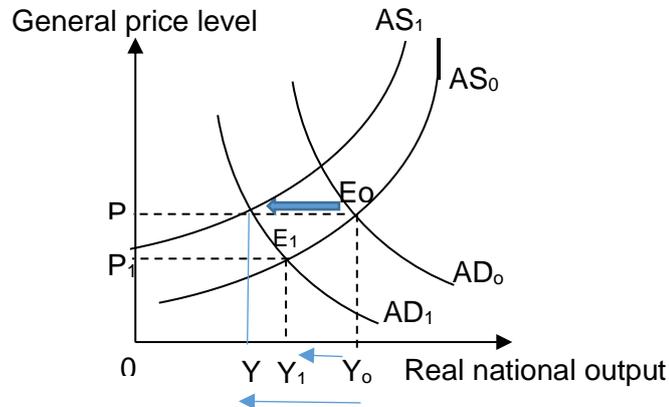


Figure 1: Impact of low pay on growth

Assuming no change in aggregate supply, the resulting surplus reduces the price of goods and services. This will reduce quantity supplied, causing a movement along AS and increases quantity demanded along AD<sub>1</sub> until new lower equilibrium is achieved with a lower national income level at OY<sub>1</sub>.

This fall may be to a large extent for countries like USA and rich countries, where consumption comprise a large percentage of their GDP (68%) and especially at this current period of slow growth where consumption is required to boost production.

In addition, this fall in consumption would at the same time cause a fall in net investment by firms when they cut back on production. This fall in net investments means that the productive capacity will also be reduced in the long run. The aggregate supply curve shifts to AS<sub>1</sub> in diagram. The actual growth could fall to OY.

However, if low pay is a result of technology advancements where workers are replaced by machinery or business firms switch production approaches to more capital and automation and demand less labour (ext 1), it could mean that growth might be assisted by more efficient methods of production. This could also result in export competitiveness and rise in real GDP.

**(c) Explain why maintaining a rise in the US interest rate is good news for the US but bad news for countries like Brazil. [4]**

A rise in interest rates is good news for United States because of the current state of the economy.

It signals that US is beginning to show signs of economy recovery as suggested by successful "stimulus efforts" in ext 6. This means that the job market is improving and there is some turn around in economic growth. Hence, raising interest rate suggests that United States has already reached its targeted job creation and inflation rate. This

is in spite of the problem of secular stagnation where it is gripped by higher health and pension costs associated with ageing population. Hence a rise in interest is a good contractionary tool to curb possible demand pull inflation.

However, rising US interest rates is bad news for Brazil because firstly, if Brazil is a big borrower from US banks, it incurs higher interest payment on its debt. In addition, this will prevent some government investments in Brazil due to the higher cost of borrowing from US banks. As a result, this fall in government spending will reduce the aggregate demand and output and income. Hence this further curtails economic growth and job creation in the country. Secondly, a high public debt ridden with high interest payment may dampen investors confidence in the country, further crippling the economy.

- (d) (i) **Analyse how infrastructure investment by emerging economies will ‘put a strain’ on their balance of payments (extract 6).** [4]

Balance of payments is a record of receipts and payments from exports and imports of goods, services and assets. A strain suggests the country is paying more than it is receiving from its international transactions.

Infrastructural development could mean capital/government spending on roads, ports etc. These require imports of capital goods, trains, oil and construction equipment, thus demand for imports and import expenditure will rise. Such investments are “large” and therefore could result in huge import expenditure and hence a *severe current account deficit*, assuming export revenue unchanged. This will put a strain on achieving a healthy balance of payments, *assuming capital account unchanged*.

Furthermore, extract mentions the possibility of inflation with infrastructure investment. This could result because of a rise in government spending on infrastructure that stimulates the economy to near full employment level. This resulting demand pull price instability could reduce foreign direct investment as foreign firms could be discouraged from setting up business in the country as they have challenges estimating cost, revenue and profits. Assuming local firms investment overseas remain unchanged, this puts a strain on the capital account as a net outflow of currency would result.

- (ii) **Extract 5 states that “these kinds of investments will help hundreds of millions of people lift themselves out of poverty”. Based on the data and your own relevant knowledge, assess whether a country should then focus on infrastructure investment to achieve growth or pursue other economic goals as its priority.** [8]

There are a few fundamental macro-goals a country should seek to achieve, such as growth, external healthy balance of payments, low inflation stability and full employment. Microeconomic goals include equity in income distribution amongst various groups of people and efficiency in resource allocation.

**TS1a: The data (ext 6) suggests the importance of developing physical infrastructure such as ports and highways to stimulate economic growth.** Infrastructure investment can be seen as an expansionary fiscal tool with long run sustainable rise in real GDP. Firstly, this rise in government spending will initially raise the aggregate demand for locally produced goods and services, stimulate production and bring about a rise in real GDP. Secondly, once this infrastructure is completed, it improves the productive capacity of and attracts

further investments in the economy bringing about an increase of the country's aggregate supply. This enables sustainable economic growth into the long run.

**TS1b: At first glance, it appears that this focus on government spending to improve infrastructure is therefore necessary if growth is the priority.** This would be the case especially if a country experiencing slow growth or recession or **severe** poverty. This will especially *lift emerging economies out of poverty*, bring about a **higher standard of living** for everyone as a rise in income would now mean a higher purchasing power for the average citizen, **assuming the inflation rate remain constant or rise less than the rise in national income.** In addition, through growth, it is hoped that strong job creation and equity goals can also be achieved through a redistribution of income that a rise in government tax revenue makes possible with economic growth.

Hence under such conditions, growth would be a reasonable priority to pursue for countries like Brazil with only a growth rate of 0.1% (Table 1) with the danger of sliding into **recession**. If this happens, investors' confidence will further be shaken with serious repercussions on reviving the economy. In addition, the strength of choosing this priority is that it is not likely to be **in conflict** with other goals, but achieves other important goals such as employment and equity simultaneously as explained above.

**TS2: Some countries such as India and China also appear to suffer from serious pollution issues with an unhealthy pollution index of close to 100 (Table 1) and may need to prioritise micro economic goals instead.** Such countries should seriously also look into environmentally sustainable growth with measures to manage growth and efficient use of resources at an optimal level. This is because environmental pollution will undermine citizens' non material well-being and quality of life due to negative externalities arising from economic activity. Such externalities could affect both the living and the unborn as water and air pollution cause serious medical concerns and deaths where research has already shown to have happened in countries like China. Hence instead of pursuing growth at all cost, it should prioritise cutting on environmental damage.

### **Conclusion**

There are many economic goals a government wishes to pursue. With a limited budget, it should consider carefully how serious or how far short its country is currently at in achieving these goals and whether they wish to solve the short term challenges with long term solutions. This requires an expedient mix of policies to achieve as many goals simultaneously.

## SECTION B – ESSAYS

**Question 3**

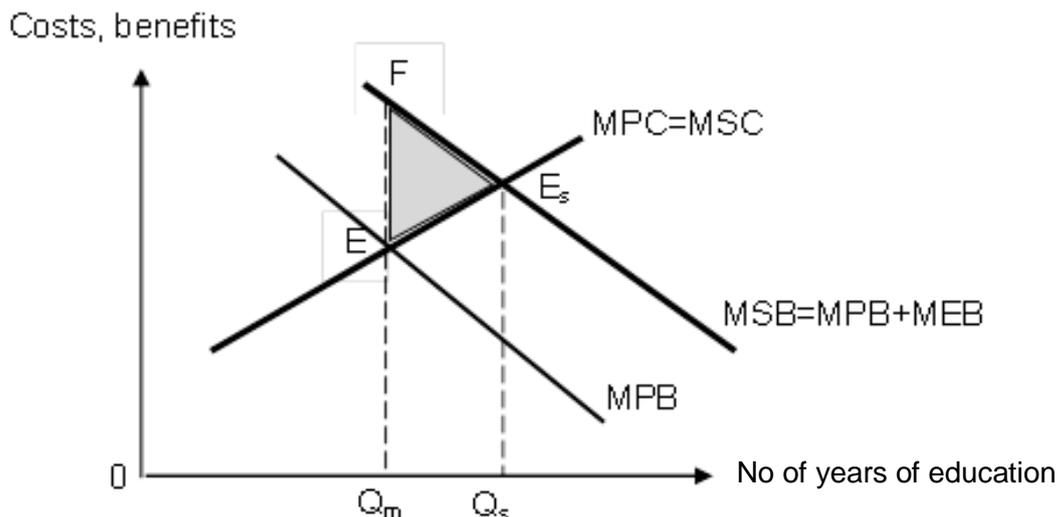
- (a) Explain why the price mechanism might not lead to efficient allocation of resources. [10]
- (b) Discuss the measures that the Singapore government can put in place to bring about efficient allocation of resources in different markets. [15]

**Part (a)****Intro**

In a free market economy resources are allocated through the price mechanism. The price mechanism functions based on self-interest. Consumers aim to maximise satisfaction whilst producers aim to maximise profits. The self-interest motive is reflected through the demand and supply curve which is also the marginal private benefit and marginal private cost. Assuming there are no externalities  $MPC=MSC$  and  $MPB=MSB$ , the market demand and supply forces would guide resource allocation and bring about efficient allocation of resources whereby  $DD=SS$  &  $MSB=MSC$ . However at times price mechanism may fail to allocate resources efficiently this is evident in the case of goods with externalities and public goods.

**P1: The price mechanism will not lead to efficient allocation of resource for goods with positive externalities.**

One such example of a good with positive externalities is education. The private cost of consuming one more year of education is the tuition fee loan and costs of textbooks and the private benefit would be the better job prospect that one could gain after education. Furthermore education also generates positive externality in the form of third party benefits (MEB) such as economic growth for the country, which the third party did not pay for the benefits.



**Fig. 1: Positive externality of merit good**

Due to positive externality arising from education, there is a divergence between MSB and MPB, where MSB is the sum of MPB and MEB (Fig 1). Since individuals consider only private costs and benefits, thus they will consume up to  $Q_m$  where  $MPB=MPC$ . Worth noting that this decision is made in the context of underestimating the true value of benefits which education can generate. However, socially optimal output is at  $MSB=MSC$  where output should be at  $Q_s$ . This implies that for the last unit of good consumed the true benefits equal

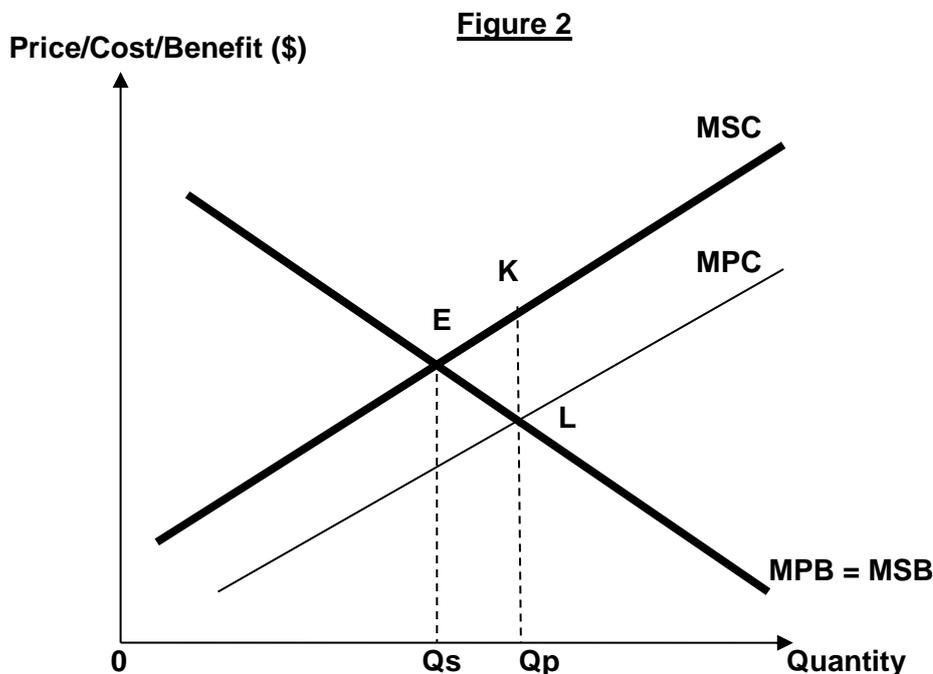
to the true cost of consuming the good. Since  $Q_m < Q_s$ , the equilibrium output in a free market is less than the socially efficient level of production/consumption, there is underconsumption by  $Q_m - Q_s$  amount. The total welfare loss to society of area  $FE_sE$  when  $Q_m - Q_s$  is underconsumed.

**L2:** Hence if left to the price mechanism there will be inefficient allocation of resources for goods with positive externalities.

**P2: The price mechanism will not lead to efficient allocation of resource for goods with negative externalities.**

**E/E2**

One such example of a good with negative externalities is cigarettes. Smokers would only take into account their private benefits and costs, ignoring the impact of their smoking on the health of others. Non-smokers who inhale the 2<sup>nd</sup> hand smoke may suffer from health problems and thus incur medical bills.



Due to negative externality arising from smoking, there is a divergence between  $MSC$  and  $MPC$ , where  $MSC$  is the sum of  $MPC$  and  $MEC$  (Fig 3). Since private individuals, consider only private costs and benefits, thus they will produce/consume up to  $Q_p$  where  $MPB = MPC$ . Worth noting that this decision is made in the context of underestimating the true costs which smoking will generate. However, socially optimal output is at  $MSB = MSC$  where output should be at  $Q_s$ . This implies that for the last unit of good consumed the true benefits equal to the true cost of consuming the good. Since  $Q_p > Q_s$ , the equilibrium output in a free market is more than the socially efficient level of production/consumption, there is overconsumption by  $Q_p - Q_s$  amount. The total deadweight loss to society is equal to the area  $KEL$  if consumption were determined by the price mechanism

**L2:** Hence if left to the price mechanism there will be inefficient allocation of resources for goods with negative externalities.

**P3: The price mechanism will not lead to efficient allocation of resources for a public good.**

**E/E3:** Public goods exhibit the characteristic of non-rivalry in consumption. In the context of Singapore, traffic lights are seen everywhere in the neighbourhood. The consumption of a traffic light by one person does not diminish the quantity or quality available for the next person. Furthermore public goods like traffic lights also exhibit the characteristic of non-excludability in consumption. This means that it is technically impossible / prohibitively expensive to exclude non-payers from enjoying the good. Thus there is free-rider problem. Hence, it is unprofitable for private firms to supply the good. Therefore because of the above characteristics there is zero production of public goods if left to the free market. As public goods yield high benefit, society welfare can be increased when resources are allocated to produce public goods.

**L3:** This means if left to price mechanism there will be inefficiency in resource allocation for public goods.

**Conclusion**

Government need not intervene in market whereby which the price mechanism can allocate resources efficiently. However at times whereby the price mechanism fail to allocate resource efficiently such as the case of goods with externalities and public good, government might want to step in to intervene through various measures.

<b>L3</b>	<ul style="list-style-type: none"> <li>- Thorough explanation of at least 2 forms of market failure.</li> <li>- Analysis supported with well-drawn diagrams</li> <li>- Answer also clearly explains how the price mechanism can help to allocate resources efficiently.</li> <li>- Good use of examples used to support analysis</li> </ul>
<b>L2</b>	<ul style="list-style-type: none"> <li>- Adequate explanation of at least 2 forms of market failure OR 1 market failure thoroughly explained.</li> <li>- Answers makes limited/some attempt to explain how price mechanism helps allocate resources.</li> <li>- Limited/some attempt to make use of examples to support analysis</li> </ul>
<b>L1</b>	<ul style="list-style-type: none"> <li>- For an answer that is underdeveloped.</li> <li>- Smattering of ideas that are lacking in depth of explanation.</li> <li>- No use of examples</li> </ul>

**Part (b)**

**Intro**

As explained earlier, the price mechanism need not always bring about efficient allocation of resources. Thus the Singapore government needs to be aware of this failings and intervene in these markets in order to bring about more efficient allocation of resources.

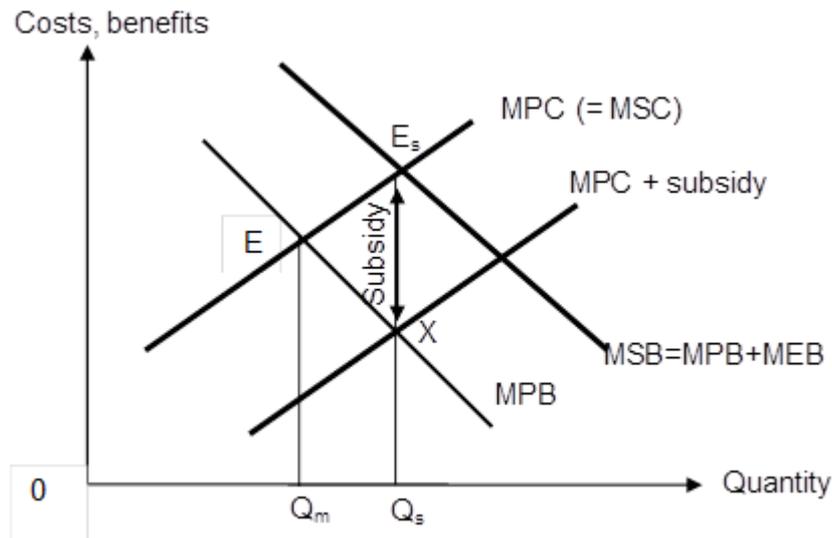
**Body**

**P1: Subsidies can be used to bring about more efficient allocation of resource in the market for education.**

**E/E1:**

The Singapore government spends a substantial amount per student each year and a significant portion of this expenditure is in the form of a subsidy. The subsidy which is equal to the marginal external benefit will shift the supply curve vertically downwards by the full amount of the subsidy, to  $MPC + \text{subsidy}$ . (Fig3) This will lower the cost of producing education,

assuming revenue constant, profit would be higher. Profit maximizing education providers more willing and more able to increase supply of education. Surplus of education will exert downward pressure on price of education.



**Fig. 3: Correcting Positive Externality**

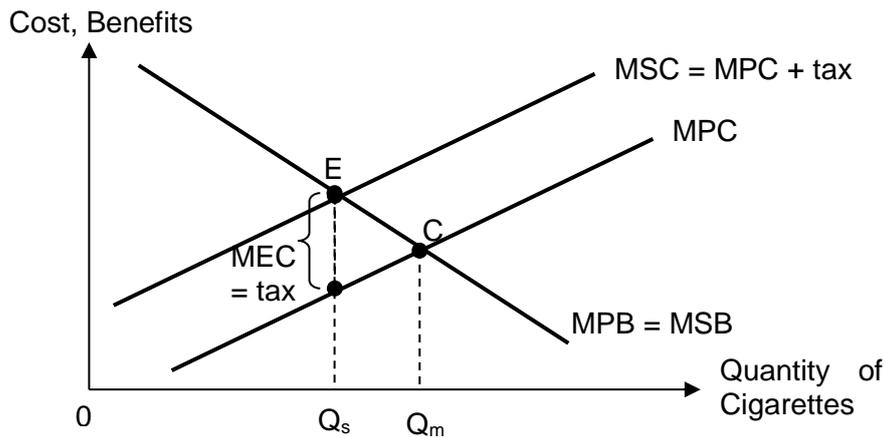
**L1:** Hence, lower price of the education (school fees) will induce the consumers to increase the quantity demanded to the level of output that is efficient from society's point of view, ie from  $0Q_m$  to the socially optimal level  $0Q_s$ .

**Evaluation:**

- The use of subsidies is most appropriate to tackle under consumption of education for a country like Singapore as it has huge budget reserve and is thus able to spend on education.
- Furthermore it may be difficult to estimate the amount of MEB as the country's economic growth could be due to many other factors. Thus the amount of subsidy may not allow the socially optimal level of consumption to be achieved.

**P2: Taxes may bring about more efficient allocation of resource in the market for cigarettes**

E: For example, prices of cigarettes in Singapore are one of the highest in Asia because high tax is imposed to discourage smoking.



If the tax is calculated to reflect accurately the marginal external cost the consumer inflicts on a third party, the consumer is then, in effect made to **internalise the external cost**. Ceteris paribus, the higher cost will be passed on to consumers as higher prices. The higher price will then limit his ability to consume. In the figure above, his consumption is reduced to an amount equal to  $OQ_s$  which is the socially optimum output level where the marginal *social* cost is equal to the marginal *social* benefit ( $MSB=MSC$ ). The welfare loss arising from overconsumption is thus eliminated.

#### Evaluation:

- The Singapore government may favour the tax solution to correct externalities because it still allows the market to operate.
- Smoking is habitual / addictive in nature thus demand for smoking is price inelastic. Hence a high tax rate may be needed to be imposed in order to effectively reduce the consumption of cigarettes to socially optimal output level.

#### P3: Government will choose to provide public goods in order to bring about more efficient allocation of resource.

Since public goods are not provided for when left to market forces governments will have to step in to provide for these essential goods. The production of these goods are usually financed through taxes. It may also grant full subsidy to the private producer to undertake production.

#### Evaluation:

- However, it is worth-noting that public provision may not necessarily achieve the socially optimal production level as the government has imperfect knowledge.
- The government may also "fail" to correct the market failure efficiently because of bureaucracy and red-tape. With their excessive routine and formalities, bureaucracy and red-tape can lead to slower decision-making and waste of scarce resources. Hence, government failure arises.

#### Conclusion

There may be many different markets that will require government to intervene as such the government may have to weigh the cost and benefit carefully to determine which market they should focus their efforts in.

<b>Level 3</b>	<ul style="list-style-type: none"> <li>- Thorough explanation of 3 different measures clearly explaining the pros and cons. Measures suggested should cover at least 2 different form of market failure.</li> <li>- Good use of appropriate examples is also used to help support analysis</li> </ul>
<b>Level 2</b>	<ul style="list-style-type: none"> <li>- Adequate explanation of 3 different measures. Measures suggested should cover at least 1 form of market failure.</li> <li>- Some use of appropriate examples is also used to help support analysis</li> </ul>
<b>Level 1</b>	<ul style="list-style-type: none"> <li>- Briefly stated the measures to solve the different measures.</li> <li>- Limited use of economic analysis to support answer</li> <li>- No use of examples</li> </ul>

<b>E2</b>	<ul style="list-style-type: none"> <li>- Evaluation of policies with close consideration for the Singapore context</li> <li>- Clear justification of evaluation point</li> </ul>
<b>E1</b>	<ul style="list-style-type: none"> <li>- Evaluation of policies with some reference to Singapore context.</li> <li>- Justification of evaluation point made but is unclear at times</li> </ul>

**Question 4**

The rising threat of worldwide protectionism and low labour productivity are posing considerable downside risks for Singapore's highly open economy.

- (a) Explain how the above factors pose challenges to Singapore's economic performance. [10]
- (b) Evaluate the policies used by the Singapore government to address these challenges. [15]

**Part (a)****Introduction**

Economic performance refers to the different aspects of measuring how an economy is doing and is tied to the 4 macroeconomic objectives, sustained economic growth, low and stable inflation, low unemployment and healthy balance of payment. The above factors affect the aggregate demand (AD) and aggregate supply (AS) of Singapore (Sg) and hence pose challenges to her economic performance, both internally (e.g.employment) and externally (Balance of Payment).

**P1: Rising threat of protectionism may lower Singapore exports revenue and worsen its BOP current account.**

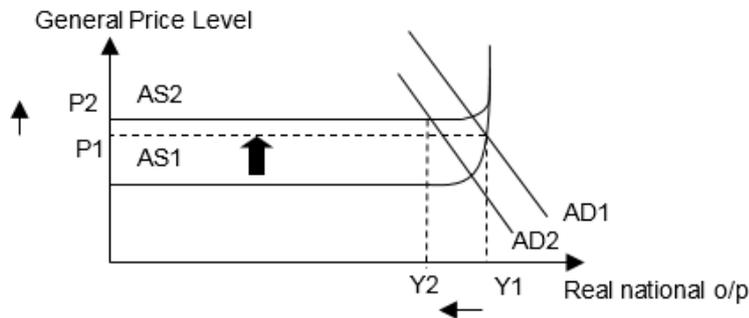
Protectionism involves governments imposing trade barriers to prevent the free entry of imports to protect their domestic economy from foreign competition. Since Sg exporters must pay the full imports tariffs to the foreign governments, their revenue after paying tariff falls. Assume import expenditure unchanged, net exports revenue fell and Sg face a worsening balance of payments (BOP) current account. Since X-M is a component of aggregate demand (AD), AD falls to AD<sub>2</sub>. This cause a surplus of goods and services exerting a downward pressure on prices resulting in firms decreasing production and national income falls. At the same time, as profits fall, firms reduce output and also hire fewer workers as labour is a derived demand. Hence, unemployment rises.

**P2: Low labour productivity may result in wage cost-push inflation and loss of competitiveness further worsening BOP overall.**

Labour productivity measures the output per unit of labour input. Due to its small population and workforce, Sg is facing a tight labour market with rising wages. Hence, Sg is experiencing a wage-cost-push inflation where there are higher wages without a corresponding increase in labour productivity. Thus, the cost of production rises, which reduces the short-run aggregate supply (SRAS) and a leftward shift of the SRAS curve, from AS<sub>1</sub> to AS<sub>2</sub>. The general price level increases from P<sub>1</sub> to P<sub>2</sub>, causing cost-push inflation.

The rise in general prices will also result in higher exports prices affecting exports revenue and BOP current account. At the same time, foreign investors may view Sg as a high cost country for business operations and there is a risk of capital outflow worsening the BOP capital account.

**P3: Fall in AD from AD1 to AD2 and fall in AS will result in negative economic growth as real GDP falls from Y1 to Y2 and rising inflation of P1 to P2 if AS falls more than fall in AD.**



### Conclusion

The 2 factors are topmost concerns of Sg, a highly open economy, particularly as they affect its BOP so various policies have been used with constant updating to avoid such grave situation.

<b>L3</b>	<ul style="list-style-type: none"> <li>• Thorough explanation of the given 2 AD/AS factors various macroeconomic indicators               <ul style="list-style-type: none"> <li>◦ With recognition of internal and external factors.</li> </ul> </li> <li>• Good contextualization to Singapore.</li> </ul>
<b>L2</b>	<ul style="list-style-type: none"> <li>• Sound explanation of 2 AD/AS factors and impact on at least 1 macroeconomic indicator.</li> <li>• Some contextualization to Singapore.</li> </ul>
<b>L1</b>	<ul style="list-style-type: none"> <li>• Theoretical explanation with no reference to factors in the preamble.</li> <li>• Only one factor explained with diagram.</li> <li>• Smattering of points with little economic analysis</li> </ul>

### Part (b)

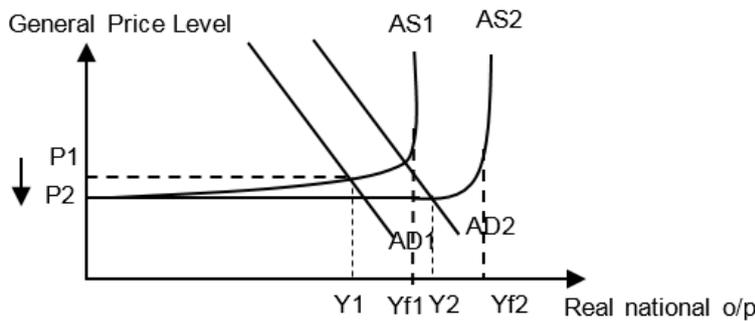
#### Introduction

An array of policies have been undertaken such as expansionary fiscal policy (eFP) to boost Sg economy and devaluation of Sing dollar (SGD) to improve exports competitiveness in the short term during worldwide recessions. But the essay will elaborate on more sustainable long term measures of signing of free trade agreements (FTA) and supply-side policies to address labour productivity.

#### **P1: Bilateral FTA and regional trade approach is being adopted in response to rising protectionism.**

To date, Sg has a network of 21 bilateral and regional FTAs which helps increase exports revenue significantly, ceteris paribus. As Sg has always been a free port, most imports are not taxed therefore assuming no change in imports expenditure. The rise in net export revenue leads to an improvement of balance of trade and ultimately in balance of payment position. As  $(X-M)$  increases, there will be increase in AD and this results in actual growth for the economy. In the long run, FTAs will lead to influx of FDI which will increase the productive capacity of the economy, increasing AS.

Explain diagram of rise in AD and rise in AS.



**Evaluation:**

- It takes time (measured in number of years) to discuss and agree on trade policies with other countries as every country aims to maximise their own interest.
- The success of FTA to bring about an improving BOP also hinges on whether Sg is specialising on the right products that is demanded by the trading partners.

**P2: Supply side policies can be used to address low labour productivity as well as rising protectionism.**

Retraining together with wage guidelines have been implemented to ensure labour competitiveness. These measures lower the costs of production and boost the productivity of the factors of production. For example, in 2015, SkillsFuture was announced which marks a new phase of investment in the country’s people throughout life. The improvement in the quality of the workforce can raise the productivity level of the labour force and hence lead to a rise in long run AS. This would bring about a fall in the general price level (GPL), ceteris paribus, leading to a rise in the price competitiveness of exports as well as enhancing Sg’s attractiveness for inbound investment. The rise in full employment level of output also makes Sg less vulnerable to demand pull inflation.

**Evaluation:**

- However firms may be unwilling to send workers for training due to loss of output during training.
- The government also has to increase its spending on subsidies and this drains government resources.

**Conclusion:**

Both FTAs and SSP are considered policies for long term competitiveness and thus Sg also uses expansionary fiscal policy to cushion fall in external demand and devaluation for short term to boost external demand. Likewise, Sg is one of the few countries in the world willing to invest a lot of resources in trade policies as well as subsidising SkillsFuture to prepare the workforce for the future.

L3	<ul style="list-style-type: none"> <li>• 2 policies (FTA &amp; SSP) to address challenges of <u>BOP</u> caused by protectionism &amp; low L productivity with limitations of policies are contextualised for the Singapore economy.</li> </ul>
L2	<ul style="list-style-type: none"> <li>• 2 generic growth/cyclical employment policies (eFP, ERP (apprec or deprec)) or generic BOP policies such as cFP, deprec) with or without evaluation.</li> </ul>
L1	<ul style="list-style-type: none"> <li>• Descriptive policies with little economic analysis.</li> <li>• Smattering of ideas.</li> <li>•</li> </ul>
E2	<ul style="list-style-type: none"> <li>• For a well-reasoned judgment of policies with respect to a highly open economy.</li> </ul>
E1	<ul style="list-style-type: none"> <li>• For an unexplained judgment such as mere stating of examples/factors not supported by economic analysis.</li> </ul>