



# SERANGOON JUNIOR COLLEGE

## JC 2 Preliminary Examination

**ECONOMICS**  
**Higher 1**

**8819/01**

PAPER 1

2013

**3 hours**

Additional Materials: Writing paper

### READ THESE INSTRUCTIONS FIRST

Write down your name and civics group on all the work you hand in.  
Write in dark blue or black pen on both sides of the paper.  
You may use a soft pencil for any diagrams, graphs or rough working.  
Do not use staples, paper clips, highlighters, glue or correction fluid.

#### **Section A (2 hr 15 minutes)**

Answer **all** questions.

#### **Section B (45 minutes)**

Answer **one** question.

At the end of the examination, fasten all your work securely together.  
The number of marks is given in brackets [ ] at the end of each question or part question.

**Section A**

Answer **all** questions in this section.

**Question 1 Too hard to swallow****Extract 1: World food prices jump to record high**

World food prices rose to a record in December on higher sugar, grain and oilseed costs, the United Nations (UN) said, exceeding levels reached in 2008 that sparked deadly riots from Haiti to Egypt.

Sugar prices climbed for a third year in a row in 2010, and corn prices jumped the most in four years in Chicago. Food prices may rise more unless the world grain crop increases "significantly" in 2011, the Food and Agriculture Organisation said. At least 13 people died last year in Mozambique in protests against plans to lift bread prices.

Last month's year-on-year rise was higher than the 43 percent jump in food prices in June 2008. Record costs, crop problems, increasing demand, and the push for biofuel all contributed to the crisis that year.

Global grain output will have to rise at least 2 percent this year to meet demand in 2011 and avoid further depletion of stocks, the UN agency has said.

Source: [www.bloomberg.com](http://www.bloomberg.com), 5 January 2011

**Extract 2: Scrap biofuel support to curb food prices**

Governments should scrap policies to support biofuels because they are forcing up global food prices, according to a report by 10 international agencies including the World Bank and World Trade Organisation.

The report adds to growing opposition to biofuels targets and subsidies such as those in Europe, Canada, India and the United States. "If oil prices are high and a crop's value in the energy market exceeds that in the food market, crops will be diverted to the production of biofuels, which will increase the price of food," said the report.

Biofuels have sparked a fierce "food versus fuel" debate since a spike in food prices from 2007 to 2008 that triggered riots in some developing countries. Biofuels have also come under increasing scrutiny for encouraging deforestation, a side-effect that can sometimes make their carbon footprint bigger than that of fossil fuels. Biofuels absorbed around 20 percent of sugar cane from 2007 to 2009, 9 percent of oilseeds and coarse grains and 4 percent of sugar beet, the report said.

Source: [www.reuters.com](http://www.reuters.com), 10 June 2011

**Extract 3: Carbon taxes, emissions trading and regulation**

There are three key approaches governments around the world are taking in a bid to lower carbon emissions: carbon taxes, emissions-trading schemes (ETS), and regulation.

Carbon tax is a measure where the government sets the price of carbon.

- The resulting market forces determine how much the quantity of emissions is reduced.
- Businesses have certainty about the price of carbon emissions.
- The resulting level of emissions would vary.

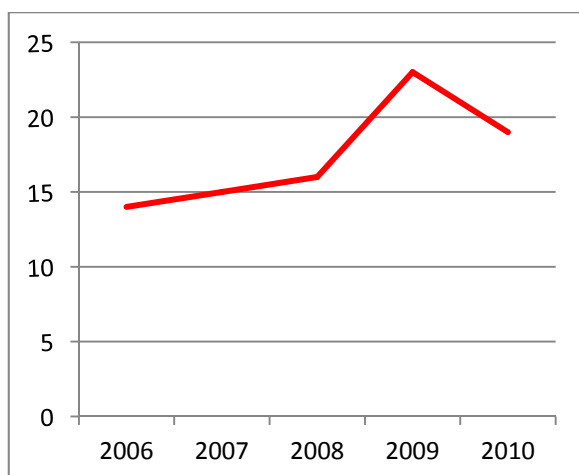
Standard ETS is a measure that the government caps total emissions and issues permits to emit up to that amount.

- Businesses can trade the permits, so the market determines the price of carbon.
- The price of emissions fluctuates, can be volatile.
- There is a set limit on the final level of emissions.

Regulation enables the government to direct businesses and households to lower emissions. Examples include closing high-emissions factories or power plants and restricting new investment in high-emissions sectors.

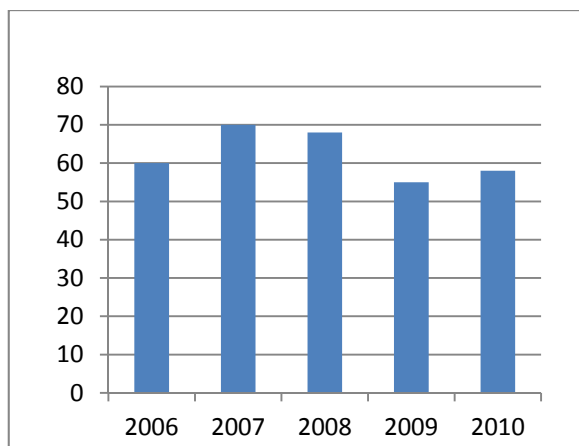
Source: [www.abc.net.au](http://www.abc.net.au)

**Figure 1: World price of sugar (US cents/pound)**



Source: <http://www.thebioenergysite.com>

**Figure 2: Closing stocks of sugar (millions of tonnes)**



Source: <http://www.thebioenergysite.com>

**Questions**

- (a) (i) Describe the trend of sugar prices from 2006 to 2010. [2]
- (ii) Explain whether there is a stable relationship between stock level and the price of sugar. [3]
- (b) With the aid of a diagram, explain the possible factors leading to a rise in food prices. [5]
- (c) Explain how a removal of biofuel subsidy affects the total revenue of biofuel producers. [4]
- (d) (i) With reference to the data, explain how the existence of a negative externality can lead to market failure. [5]
- (ii) Using demand and supply analysis, explain how emissions-trading scheme (ETS) works to reduce carbon emissions. [3]
- (iii) Discuss whether the carbon tax or regulation is a better policy to address the market failure. [8]

**[Total: 30 marks]**

### **Suggested Mark Scheme**

**(a) (i) Describe the trend of sugar prices from 2006 to 2010. [2]**

- Overall it rose.
- There is a sharp rise from 2008 to 2009.

**(ii) Explain whether there is a stable relationship between stock level and the price of sugar. [3]**

- *Mainly inverse relationship as seen in 2008, 2009 and 2010. Explain reason for inverse r/s:*
  - E.g. 2008-2009, there is a fall in the stock level could be due to rise in DD (determinant: growing world population) greater than the rise in SS → shortage → upward pressure on prices → when  $P \uparrow$ , some producers find it more profitable to sell their sugar stock thus  $\downarrow$  stock.
  - OR e.g. 2009-2010 where stock level and prices of sugar both fell because of a recent bumper harvest (SS determinant) → surplus → downward pressure on price → as  $P \downarrow$ , producers who are not willing to sell at a lower price will  $\uparrow$  stock in anticipation of a correction to future prices.
- *Identify and explain direct r/s:*
  - However in 2006-2007 both the stock level and price  $\uparrow$  demonstrating a direct relationship. This is an anomaly and could be due to  $P \uparrow$  → producers  $\uparrow$  stock in anticipation of further  $\uparrow$  prices (SS determinant). A possible cause of future price  $\uparrow$  could be news of a looming bad harvest that will cause a shortage.

**(b) With the aid of a diagram, explain the possible factors leading to a rise in food prices. [5]**

The rise in food prices is due to rise in demand and fall in supply.

Rise in demand can be due to rising world population. As food is necessary for survival, the growth in world population means more mouths to feed and thus the rise in demand.

Fall in SS due to 'record costs' and crop problems. E.g. of costs could be rising price of fertilisers and seedlings. When profits fall, farmers will reduce supply ceteris paribus. On the other hand, crop problems could be due to pests and unfavourable weather such as drought or flooding thus destroying many crops.

**OR**

Fall in supply due to 'biofuel push' as food and biofuels are in competitive supply. Both are produced from the same input - grains. When governments grant biofuel subsidies, producing biofuel becomes profitable →  $\uparrow$  DD of grains →  $\uparrow$  price of grains →  $\uparrow$  cost of production of food →  $\downarrow$  supply of food.

Draw and explain simultaneous shifts diagram

- Rise in demand of  $D_0$  to  $D_1$  and fall in supply from  $S_0$  to  $S_1$  → a huge shortage  
→ an upward pressure on price as unsuccessful consumers bid a higher price. As price rises, quantity demanded falls while quantity supplied rises till the new equilibrium at a higher price  $P_1$ .

**(c) Explain how a removal of biofuel subsidy affects the total revenue of biofuel producers. [4]**

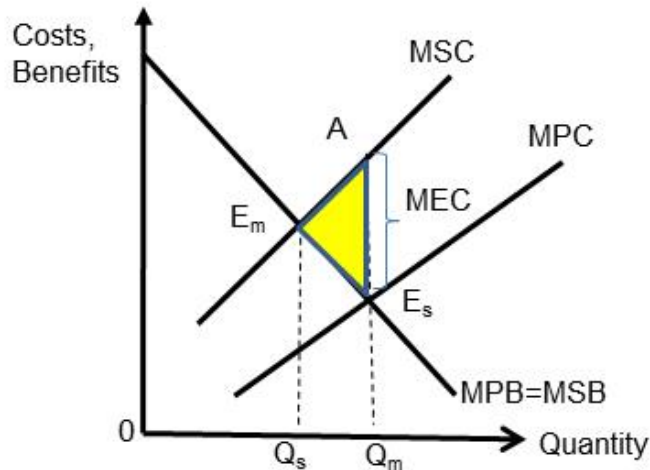
Removal of such subsidy will lead to a rise in cost of production by the same amount. This will result in a fall in supply of biofuels thus price will increase.

Extract 2 para 3 suggests rising food prices are due to biofuel subsidy. This implies that the biofuel subsidy is high thus removing the subsidy means biofuel becomes an expensive energy source (similar to PED determinant of a large proportion of income) thus demand is price elastic. A price rise → more than proportionate  $\downarrow$  Qty demanded thus TR of biofuels producers falls.

**(d) (i) With reference to the data, explain how the existence of a negative externality can lead to market failure. [5]**

**Intro**

- Carbon emission (Extract 3 last para) is considered a form of negative externality. Negative externalities are costs imposed on third parties who are not directly involved in the production or consumption of a good and they are not compensated for.
- High emissions can be caused by industrial production activities and such lead to rising global temperatures. This causes environmental problems such as droughts and floods which lead to loss of property in low lying areas and crops.
- The market equilibrium is determined by equating MPB with MPC, as firms only consider their private benefits in the form of sales revenue and their private costs comprising wages and raw materials. Thus, market output is  $Q_m$ .
- In contrast, the socially optimal output  $Q_s$  is attained when the benefit derived from that last unit (MSB) equals to the next best alternative forgone (MSC).
- With the existence of external costs, the MSC of industrial production is greater than the MPC by MEC for each unit of output.
- At  $Q_m$ , there is an overproduction because  $Q_m > Q_s$ .
- For every additional goods produced beyond  $Q_s$ , the costs incurred by society is greater than its benefit. Hence, there is a net loss to society. Total welfare loss to society, known as deadweight loss is denoted by shaded area  $E_m E_s A$  and derived by summing up the excess of MSC over MSB for  $Q_s Q_m$ .



**(ii) Using demand and supply analysis, explain how emissions-trading scheme (ETS) works to reduce carbon emissions. [3]**

- Governments sets a quantitative limit on level of carbon emissions and give carbon permits for each country and then for each firm/industry.
- Firms which are better equipped to reduce carbon emissions than its allocated amount can supply the credits gained to the less efficient firms so that the less efficient firms can emit over their allocated limit.
- The gradual reduction of total quantitative limit (note: this is the first attempt of reducing carbon emissions) is to create a shortage and firms will react according to their profits motive.
- Thus the workings of ETS results in the internalisation of external cost by the less efficient firms as they would need to pay a price for additional emissions above their allocation. Adding to their cost → lowering their profits → incentive to cut emissions through innovation technologies (note: this is the 2<sup>nd</sup> reduction of carbon emissions) so as to avoid incurring higher cost.
- Collectively (together with government's gradual reduction of total quantitative limit), target optimal emission level where  $MSB=MSC$  is achieved.

**(iii) Discuss whether the carbon tax or regulation is a better policy to address the market failure. [8]**

**Carbon tax is a market-based solution favoured by economists.**

- How it works. The government imposes a carbon tax on production that is equal to MEC so as to force the firm to internalize the external cost. This will raise the firm's production cost or MPC by the full tax amount thus reduces its output level to the socially optimal level where  $MSC=MSB$ . Welfare loss arising from overproduction is thus eliminated.

**Regulation can be used to prohibit or regulate production behaviours that lead to negative externalities.**

- How it works. In its most extreme case, government will order the closure of high emissions factories (e.g. steel manufacturing, coal plants) which is similar to a complete ban on production so as to lead to a significant fall in carbon emissions to socially optimal level.

- Alternatively the government can impose a heavy fine on factories which release carbon beyond the regulated amount, as decided by the state. Laws can also be used to impose legal limits on the emission level that producers must meet.

**Carbon tax is a better policy compared to regulation as it allows the market to continue to operate.**

- On one hand, setting carbon tax at MEC forces polluting firms to internalise the full social costs (private cost of production plus external cost) of their actions as the amount of tax is based on the level of carbon emissions. On the other hand, consumer sovereignty is protected as consumers who are willing and able to pay a higher price for the goods (e.g. electricity) can continue to get it. This is unlike regulation which leaves no room for continued production (and enjoyment of the goods produced) if government orders closure altogether.

**Carbon tax is also a better policy as it may incentivise firms to find cleaner ways of production in the long run.**

- In the long run, tax acts as an incentive to reduce emissions as the more a firm cuts down emissions, the less taxes it pays. Thus firms will seek out greener form of production and energy which as a more sustainable way. Regulation on the other hand, is a blunt policy as firms have to shut down, pay a fine for failing the legal emission level without any costs savings for emitting less. Thus there is no incentive that firms will seek low emission technology under regulation.

**Despite its strengths over regulation as seen from above, carbon tax has its limitations thus regulation could be a better policy. (at least 1 point)**

- High emitters include power plants which are less sensitive to taxes. These energy giants enjoy a price inelastic demand where they can pass a high proportion of tax to consumers without suffering a more than proportionately fall in quantity demanded and the rise in TR can be used to offset the carbon tax. Thus the 'resulting level of emissions vary' and such firms continue to emit beyond the socially desired level  $Q_s$ . While regulation of a closure of 'rich' firms will drastically reduce carbon emissions to  $Q_s$ .
- The damage from drought and floods from carbon emission and subsequent reconstruction costs are difficult to assess accurately and put a value on it. Government may fail to tax the right amount due to such imperfect knowledge (condition). An over or underestimation of the size of external cost would mean either a less or more than social optimal output level respectively. Regulation of high carbon emitters is simpler as the emission of black smoke is visible.
- Implementing taxation on firms will raise their cost of production which hurt their international competitiveness and conflict with healthy balance of payment, economic growth and high employment. High unemployment will lead to market failure in terms of wastage of resources. On this note, regulations such as fines are independent of output level. Fines reduce the firm's profits but do not add to the cost of production.



## Question 2 Responses to changes in global economic outlook

### Extract 4: Macroeconomic developments in Singapore

In 2011, the Singapore economy grew at a more moderate pace, following a record expansion the year before. Since Q2 2011, domestic economic activity slowed discernibly against a volatile backdrop marked by concerns over the Eurozone sovereign debt crisis, faltering external demand and regional supply-side shocks.

Notwithstanding the slowdown in domestic economic growth, overall employment rose by 122,600 in 2011, exceeding the 115,900 gain in 2010. Reflecting the tight labour market, the unemployment rate reached a 14-year low of 2% in 2011. Consequently, wage growth accelerated to 6%, up from 5.6% in 2010. Meanwhile, inflation rose, partially due to global inflation which picked up over the first three quarters of 2011, as oil prices spiked during the MENA (Middle East and North Africa) crisis, where anti-government protests continue to halt production. To make things worse, food prices climbed due to adverse weather conditions.

Source: Monetary Authority of Singapore, *Annual Report 2011/2012*

**Table 1: Consumer price index of Singapore (2009 = 100)**

	<b>Weights</b>	<b>2010</b>	<b>2011</b>
All items	10000	102.8	108.2
Food	2,205	101.3	104.4
Housing	2,548	102.0	110.5
Transport	1,553	110.3	123.5
Education & Stationery	735	102.7	105.7
Health Care	586	101.9	104.3
Recreation & Others	1,557	101.1	102.5

Source: Singstat

### Extract 5: Backlash from Beijing raises fears that China's economy is slowing down

While Europe's leaders were wrestling with the problem of who will bail out whom last week, the world's other two major trading blocs, the US and China, were gearing up for a potentially damaging trade war.

As China slapped punitive import taxes on gas-guzzling American cars, and complained about what it said were US subsidies, some Beijing-watchers read it as a sign that the government is so alarmed about a looming economic slowdown that it is casting around for

someone to blame. The tariffs, ranging from 2% to 21.5%, will be levied on imports of larger capacity cars.

It's not hard to see why China is lashing out. Evidence is mounting that just a few months after Beijing was fretting about its economy overheating and taking action to tame rampant food prices, the most pressing concern now is a so-called hard landing.

Foreign investment in China was almost 10% down in November on a year earlier – the first such decline since 2009. A year ago, all the talk was of China overheating as cheap US capital poured in. Beijing unleashed several measures, including raising reserve requirements<sup>1</sup> for its banks to prevent a credit boom from running out of control. But it failed to anticipate the coming Eurozone slump. The People's Bank of China has already signalled it is switching from reining in the economy to boosting growth.

Source: The Observer, 18 Dec 2011

### **Extract 6: The global economic outlook for 2012 isn't pretty**

The outlook for the global economy in 2012 is clear, but it isn't pretty: recession in Europe, anaemic growth in the US, and a sharp slowdown in China. The US – growing at a snail's pace since 2010 – faces considerable downside risks from the Eurozone crisis. It must also contend with significant fiscal debts and political gridlock. Meanwhile, flaws in China's growth model are becoming obvious. Falling property prices are starting a chain reaction that will have a negative effect on developers, investment, and government revenue. The construction boom is starting to stall, just as net exports have become a drag on growth, owing to weakening US and especially Eurozone demand. Having sought to cool the property market by reining in runaway prices, Chinese leaders will be hard put to restart growth.

They are not alone. On the policy side, the US and Europe, too, have been postponing the serious economic, fiscal, and financial reforms that are needed to restore sustainable and balanced growth.

At the same time, key current account imbalances – between the US, China and within the Eurozone remain large. Orderly adjustment requires lower domestic demand in over-spending countries with large current-account deficits and lower trade surpluses in over-saving countries via nominal and real currency appreciation.

Finally, policymakers are running out of options. Currency devaluation is a zero-sum game, because not all countries can depreciate and improve net exports at the same time. Meanwhile, fiscal policy is constrained by the rise of deficits and debts in countries like the US and Europe. But that is the challenge that a fragile and unbalanced global economy faces in 2012. To paraphrase Bette Davis in *All About Eve*, "Fasten your seatbelts, it's going to be a bumpy year!"

Source: The Guardian, 15 Dec 2011

---

<sup>1</sup> The minimum amount of cash or cash-equivalents that banks are required by law to keep on hand, which may not be used for lending or investing.

**Table 2: Selected Economic Indicators of China, the US and Singapore in 2011**

	<b>China</b>	<b>US</b>	<b>Singapore</b>
Current account balance (U.S. Dollars, billions)	360.5	- 467.6	52.8
Current account balance (% of GDP)	5.2	- 3.1	19.8

Source: IMF, World Economic Outlook Database, September 2011

### Questions

**(a)** With reference to Table 1:

- (i)** Describe the trend of Singapore's general price level from 2009 to 2011. **[1]**
- (ii)** Identify the item which contributed most to the change in the general price level in Singapore in 2011. Explain your answer. **[3]**

**(b)** 'The People's Bank of China has already signalled it is switching from reining in the economy to boosting growth.'

With reference to the data, discuss whether there are sufficient grounds to support its change in economic focus. **[6]**

- (c)** **(i)** Using Table 2, compare the current account balance of the 3 economies. **[2]**
- (ii)** Assess the relative effectiveness of fiscal policy and the abilities of any 2 economies in Table 2 to use this policy to address the slowing economic growth brought about by the Eurozone crisis. **[8]**

**(d)** Consider whether there are more winners or losers from the imposition of China's import taxes on American cars. **[10]**

**[Total: 30 marks]**

**(a) With reference to Table 1:****(i) Describe the trend of Singapore's general price level from 2009 to 2011.****[1]**

There is an increase in the general price level.

**(ii) Identify the item which contributed most to the change in the general price level in Singapore in 2011. Explain your answer.****[3]**

- Housing costs contributed the most to the change in the general price level.
- In order to calculate which item contributed most to the change in general price level, we need to consider the increase in the prices of the item itself as well as its relative weightage or contribution of the item to the overall price level.
- Though there was a **12%** increase in transport costs from 2010 to 2011, but given the **weight assigned to the item of 1553**, the increase in transport prices only contributed **1.9%** to the overall increase in general price levels. In contrast, the weight assigned to housing is much higher at 2548, so despite housing prices only increased by 8.5%. Thus, the contribution of housing prices to the final increase in general price level was 2%. Hence rise in housing costs contributed the most to the change in the general price level.

**(b) 'The People's Bank of China has already signalled it is switching from reining in the economy to boosting growth.'**

**With reference to the data, discuss whether there are sufficient grounds to support its change in economic focus.**

**[6]****Introduction**

The People's Bank of China believes that Chinese economic growth is slowing down and that the government needs to put in place policies to boost economic growth.

**Body**

There are some grounds to support the Chinese government's decision to change its economic focus as seen from Extract 5, foreign investment in China was almost 10% down in November on a year earlier. In addition, due to the Eurozone crisis, consumers in the Eurozone would have earned less income and demand for exports from China into the Eurozone would fall. Assuming import expenditure and domestic investment remains constant, net exports and investment would fall, this would lead to a fall in aggregate demand and national income. Chinese citizens would experience a decrease in their income, reducing their purchasing power and material standard of living.

In addition, the decrease in national income would cause the tax revenue collected by the government to fall, assuming that the tax rate remains constant. With less tax revenue collected, assuming government expenditure remains the same, the government would be at the risk of a budget deficit. This would cause China to incur foreign debt which may hinder potential growth in future as the government would have to pay back the debt rather than increase government expenditure on infrastructure.

**However**, China is still at risk of inflation due to an inflow of hot money or “cheap capital” flowing into China. US is suffering from “anaemic growth” and is employing expansionary monetary policy. The increase in money supply in the US has led to lower interest rates in the US. Thus, US investors seeking higher returns on short-term capital would shift their funds out of US banks and into Chinese banks. This would cause an increase in money supply in Chinese banks, which would lower the cost of borrowing and increase investment and consumption in China. This would cause a rise in aggregate demand and may cause inflationary pressures.

Such inflationary pressures can erode China’s export price competitiveness leading to a fall in export revenue. In addition, imports will be relatively cheaper compared to domestically produced import-substitutes and this also leads to a rise in demand for imports and import expenditure. Overall, this can lead to worsening of China’s current account balance.

### **Conclusion**

The data provided in the extract is also not sufficient. Without information on the capital account, we cannot ascertain whether the capital account is in deficit or surplus. Thus, aggregate demand may be increasing or decreasing.

**(c) (i) Using Table 2, compare the current account balance of the 3 economies.**

**[2]**

- Singapore and China both have a current account surplus in 2011 while the US is running a current account deficit.
- While China’s current account surplus in absolute terms is greater than Singapore, when expressed as a percentage of GDP, Singapore’s current account surplus is proportionately higher than that of China.

- (ii) **Assess the relative effectiveness of fiscal policy and the abilities of any 2 economies in Table 2 to use this policy to address the slowing economic growth brought about by the Eurozone crisis.** [8]

### **Introduction**

The Eurozone crisis brings about problems of worsening balance of payments especially for its major trading partners which in turn translates into slowing economic growth. The **relative effectiveness** of fiscal policies depends on the **root cause** of the problem as well as the **conditions** within the 2 economies like Singapore and US. In addition, the **abilities** of these 2 economies to use expansionary fiscal policy to address the slowing economic growth brought about depends on the finances of the government as well as if the economy is faced with other prevailing domestic economic problems.

### **Brief explanation of problems brought about by Eurozone crisis**

With concerns over the Eurozone sovereign debt crisis deepening, there is a fall in national income in this region of the world and business activity slowing down or even falling. This leads to a fall in purchasing power by the Eurozone countries that results in a fall in demand for exports from countries like Singapore and US. In addition, the pessimism within the region also leads to a fall in FDI by Eurozone investors into other countries as they may face a fall in funds.

Hence, there is likely to be falls in both export revenue and investment for countries like Singapore and US.

### **Analysis of expansionary fiscal policy**

Expansionary fiscal policy can be used in these 2 countries which include the rise in government expenditure in areas like infrastructure and education. Alternatively, the government can also reduce taxes to boost economic growth. By reducing taxes such as the **personal income** tax, disposable incomes will increase so that **consumption** will rise. The government can also reduce **corporate** tax. This will result in a rise in post-tax profits which will induce more **investments**. A rise in government expenditure as well as consumption and investment expenditures will lead to a rise in AE.

At original level of national income, there is a shortage of goods and services. Firms will meet the excess demand by drawing from their stocks or inventory. This means that there is unplanned disinvestment. Thereafter, firms will increase output in the next time period, resulting in a rise in national income, which is equal to the initial rise in injection. Consequently, this rise in incomes will lead to a rise in induced consumption and a rise in withdrawals. The amount of rise in induced consumption is determined by the value of MPC. The multiplier process continues until the total amount of increase in withdrawals equals to the initial rise in injections. Hence, the economy reaches a new equilibrium national income at a higher level.

### **Evaluation of extent of:**

## (I) Effectiveness

- Since expansionary fiscal policy aims to raise domestic demand through increasing government, consumption and investment expenditure, it does not clearly address root cause of problem and may be limited in its effectiveness to address falling economic growth. In particular, for a country like Singapore whereby its key engines of growth are external demand and it has a smaller reliance on domestic demand, expansionary fiscal policy are likely to be relatively more ineffective in raising AD for Singapore compared to US which is more reliant on its domestic demand like consumption expenditure.
- The effectiveness of fiscal policy to boost economic growth depends on size of the multiplier. The value of Singapore's multiplier is small due to Singapore's high marginal propensity to save (MPS) and marginal propensity to import (MPM) [Provide reasons].
- Hence, using expansionary fiscal policy to boost economic growth is not very effective in Singapore due to the large withdrawals from the circular flow of income. Therefore, the Singapore government may have to spend relatively more or reduce tax further in order to achieve the desired outcome compared to US which has a larger multiplier size due to its smaller amount of withdrawals.

## (II) Ability

- *As seen in Extract 6, US must also contend with significant fiscal debts and political gridlock.* With significant fiscal debts, it means that the US government is already currently facing large budget deficit. This limits the ability of the US government to finance an expansionary fiscal policy as the further government expenditure and reduction in taxes can cause a greater burden on the US government and its citizens to finance the interest payments of these fiscal debts. In addition, the ability to employ fiscal policy may also be further hindered by the political problems of the US government whereby different groups in the governments hold different views which can greatly slow down the policy-making process.
- Singapore, compared to the US, has greater ability to finance an expansionary fiscal policy as it can draw on its budget reserves to

## Conclusion

On the whole, though expansionary fiscal policy may not tackle the root cause of the Eurozone crisis, it can help to cushion the extent of the fall in AD in the short term for countries like Singapore and the US. However, the effectiveness of the implementation of fiscal policy differs for different economies based on their characteristics of the country. Hence other policies may need to be further considered like depreciation of its currency for

countries like Singapore which is more dependent on external demand. In addition, the ability of the government depends on both the current fiscal position as well as considerations of other economic problems for the country.

- (d) **Consider whether there are more winners or losers from the imposition of China's import taxes on American cars. [10]**

### **Introduction**

As seen in Extract 5, China is imposing punitive import taxes on gas-guzzling American cars, in response to likely US subsidies to protect the US domestic car industry. However, whether there are more winners or losers from the imposition of these taxes on American cars depends on factors like *the* Response from US government as well as the importance of car industry as a proportion of GDP for China and the US

**The first group of gainers would be the Chinese economy in terms of an improvement in its current account as well as enjoying actual economic growth in the short run.**

With the imposition of China's import taxes on American cars, the price of American imports will rise. Assuming demand for American car imports is price elastic due to the presence of many other substitutes like domestically produced cars as well as imports from other countries, this will lead to a more than proportionate fall in quantity demanded of imports and in turn a fall in import expenditure for China. Assuming export revenue for China is constant in the short run, net exports will rise leading to an improvement in current account.

In addition, the rise in net exports, *ceteris paribus*, will lead to a rise in AD for China leading to a multiple rise in its national income and hence actual economic growth in China. With the rise in production activities, there is also a rise in derived demand for labour leading to a rise in employment in China as well.

However, the extent of gains to China depends on whether the US government retaliates with its own protectionist measures since such import taxes has a beggar-thy-neighbour effect on the US. The US will suffer a fall in their export earnings due to the import taxes imposed by China. This leads to a fall in their national income and purchasing power, hence they will import less. This will cause a reduction in the employment in the export sector of China that initially imposes the trade barrier. Overall employment in China may not improve with protectionist measures. This may be made worse if the US government decides to retaliate with protectionist measures of import taxes on China which is highly likely as seen in Extract 5 whereby both countries are already gearing up for a potentially damaging trade war.

**However, there are also losers with the imposition of these import taxes, in particular, the American economy and car producers will be most directly hit in the short run.**

American car producers will suffer a rise in export prices with the imposition of import taxes on them by China. Assuming demand is price elastic, quantity



demand will fall more than proportionately, hence leading to a fall in export revenue for the American car industry. With total cost remaining constant, this will lead to a fall in profits for the American car producers which can lead to a fall in production levels. With this, there can be a fall in derived demand for labour leading to massive unemployment in its car industry.

In the long run, overall US economy may suffer. With the fall in total export revenue for car producers especially if car industry contributes to a large percentage of the US GDP, this can lead to a fall in net exports, *ceteris paribus*, AD, national income and employment will fall.

The extent of losses for US depends on the price elasticity of demand for American made SUVs. If Chinese consumers perceived American cars to be of better quality or it seems more prestigious to own a foreign car, the demand for American car exports may be price inelastic, leading to a less than proportionate fall in quantity demanded, which may lead to a rise in total revenue. However, this may only be in the short run as Chinese consumers may turn to cheaper substitutes from other developed countries like the Eurozone.

**Another group of gainers like to benefit indirectly would be the Chinese government as well as other domestic car producers and related suppliers within the Chinese economy.**

Government may gain through tax revenue collected through tariffs – can be used to develop infrastructure or subsidise investment in R&D in the domestic car industry to develop new areas of CA.

Overall, the Chinese economy may gain in terms of economic growth and employment. With import taxes imposed on American cars, Chinese consumers will increase demand for domestically produced vehicles, leading to a rise in production levels and business activity within China. This results in greater optimism within the economy and in turn higher expected profits can be gained. With this, investment expenditure is likely to increase, *ceteris paribus*, AD increase leading to an immediate rise in national income. Consequently, this rise in incomes will lead to a rise in induced consumption and a rise in withdrawals. The rise in induced consumption can also benefit other suppliers and retailers. The amount of rise in induced consumption is determined by the value of MPC. The multiplier process continues until the total amount of increase in withdrawals equals to the initial rise in injections. Hence, the economy reaches a new equilibrium national income at a higher level.

Extent of benefit for winners depends on the importance of car industry for the Chinese economy in terms of its contribution to the percentage of GDP. The extent of benefit will be greater the larger the contribution of the car industry to the economy in terms of GDP. This is because the spillover effects on related suppliers like domestic suppliers of car spare parts, car maintenance services will benefit more.

On the whole, protectionism is at best a short-term measure which will only benefit a few agents in the economy at the expense of long-term negative impact for consumers and the economy in general – wastage of scarce resources.

Levels	Descriptors
<b>3</b>	<ul style="list-style-type: none"> <li>▪ Thorough analysis of gains or losses with clear links to macroeconomic or microeconomic goals.</li> <li>▪ Good balance:               <ul style="list-style-type: none"> <li>- Explained gains <b>and</b> losses</li> <li>- Explained impact on China <b>and</b> US</li> </ul> </li> <li>▪ Well-explained, consistent attempts at evaluation of extent of gains / losses</li> <li>▪ Justified and insightful conclusion with an overall stand of whether there are more gains or losses with the imposition of import taxes.</li> </ul>
<b>2</b>	<ul style="list-style-type: none"> <li>▪ Adequate analysis of gains or losses with some links to macroeconomic or microeconomic goals.</li> <li>▪ Lack of good balance:               <ul style="list-style-type: none"> <li>- <b>Only</b> explained gains <b>or</b> losses</li> <li>- <b>Only</b> explained impact on China <b>or</b> US</li> </ul> </li> <li>▪ Some attempts at evaluation of extent of gains / losses</li> <li>▪ Unsupported conclusion</li> </ul>
<b>1</b>	<ul style="list-style-type: none"> <li>▪ Superficial analysis of gains or losses with no clear links to macroeconomic or microeconomic goals.</li> <li>▪ Lack of scope: only explained 1 gain or 1 loss to a particular group or economy.</li> <li>▪ No / superficial attempts at evaluation of extent of gains / losses</li> </ul>

**Section B**

Answer **one** question from this section.

- 3 (a) Explain how public goods and merit goods lead to market failure. [10]
- (b) Assess whether the use of subsidies is the most appropriate policy to correct the above sources of market failure. [15]
- 4 There is a general economic consensus that globalisation is good for growth. But there is also uneasiness about the unequal distribution of the benefits of globalisation, the fact that it can create losers as well as winners.
- (a) Explain how globalisation affects the components of the circular flow of income in Singapore. [10]
- (b) Discuss the extent to which the economic impact of globalisation would differ among countries. [15]

- 3 (a) Explain how public goods and merit goods lead to market failure. [10]
- (b) Assess whether the use of subsidies is the most appropriate policy to correct the above sources of market failure. [15]
- 

## **PART A**

### **Introduction:**

Public goods will lead to total market failure whereby there is no output produced when left to free market mechanism whereas merit goods will lead to partial market failure whereby there is some output produced when left to free market mechanism.

### **Body:**

1. Explain how characteristics of public goods (non-rivalry in consumption and non-excludability) lead to inefficiency in resource allocation.

**Public goods have the characteristic of non-rivalry in consumption which results in supply of the goods to be zero.**

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. The cost of supplying traffic light to an additional consumer is zero. MC of providing the good to next user is zero. To achieve AE,  $P = MC = 0$  and it is not possible for private sector to supply the good if  $P = 0$  since private firms are assumed to be profit-motivated.

**Public goods also exhibit the characteristic of non-excludability which results in hidden demand for the goods.**

Public goods like traffic lights also exhibit the characteristic of non-excludability in consumption. No single person has to pay to enjoy the traffic light. i.e. It is technically impossible / prohibitively expensive to exclude non-payers from enjoying the good. There is free-rider problem. Hence, demand for consumers is concealed.

Firms are unable to charge a market price for the good without information with regards to demand for the good. As there is no price signal at all, it is unprofitable for private firms to supply the good.

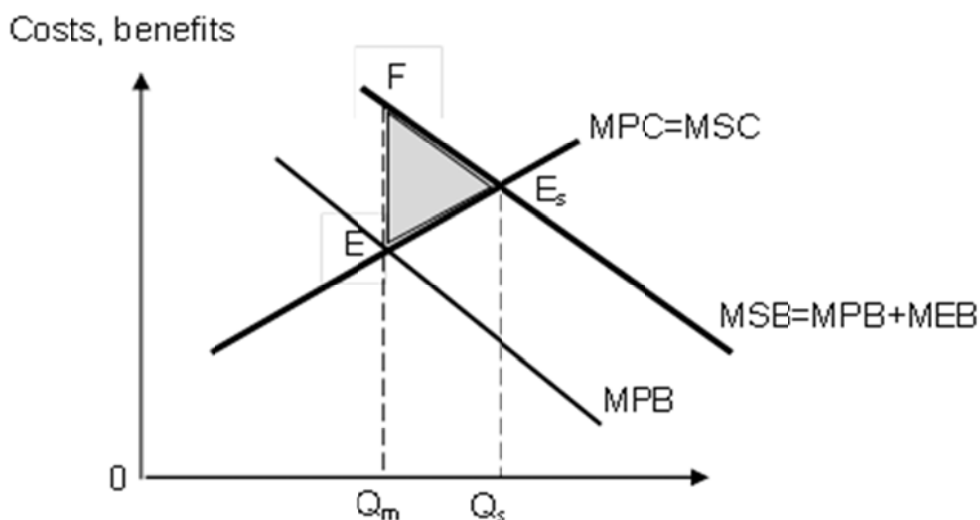
**For the case of public goods, there is non-rivalry in consumption and non-excludability characteristics will lead to total market failure.**

Due to the characteristics of non-rivalry and non-excludability, no resources will be allocated to the production of public goods when left to the private sector. As public goods yield high positive externalities, society welfare can be increased when resources are allocated to produce public goods.

## 2. Explain how merit goods (positive externality and imperfect information) lead to inefficiency in resource allocation.

**Merit goods such as education will lead to partial market failure due to positive externality and imperfect information.**

Merit goods are goods that the government deems to be socially desirable and intrinsically good. Thus, their consumption should be encouraged. An example of merit goods would be education. The marginal private benefit of consuming one more year of education is better career prospects and earnings for the person consuming it. The marginal private cost of consuming one more year of education is the tuition fee loan and costs of textbooks. Education generates positive externality in the form of third party benefits (MEB) as the people form a pool of educated and highly-skilled labour force and those not directly involved in the production or consumption of education like school leavers benefitted in terms of higher standard of living when the educated workforce attracts investments which in turn, propel 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 private individuals, driven by aim of maximising profits (for producers) or maximising satisfaction (for consumers), consider only private costs and benefits, thus they will produce/consume up to  $Q_m$  where  $MPB=MPC$ . Worth noting that this decision is made in the context of imperfect information 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 the true benefits equal to the true cost of producing/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 underproduction/underconsumption by  $Q_m Q_s$  amount. For every additional unit of  $Q_m Q_s$  produced/consumed would add

more to society's benefits (MSB) than cost (MSC) ie.  $MSB > MSC$ . However, society is not consuming beyond  $Q_m$ , welfare loss to society is the loss of potential gain if society were to consume beyond  $Q_m$ . The total welfare loss to society of area  $FE_sE$  when  $Q_m$  is underproduced/underconsumed.

Level	Descriptor
L3	<ul style="list-style-type: none"> <li>• Clear explanation of the characteristics of public and merit goods as well as the implications of such characteristics linking to the zero production of public goods and under production/consumption of merit goods under the market mechanism.</li> <li>• Use of relevant examples to integrate into analysis of the goods.</li> </ul>
L2	<ul style="list-style-type: none"> <li>• Clear explanation of the characteristics of public and/or merit goods.</li> <li>• May / may not use relevant examples to support analysis or gaps in the explanation of implications.</li> </ul>
L1	<ul style="list-style-type: none"> <li>• Smattering of ideas.</li> <li>• Listing rather than explanation of public and merit goods.</li> <li>• Generally weak answer. Limited application of economic analysis.</li> </ul>

## **PART B**

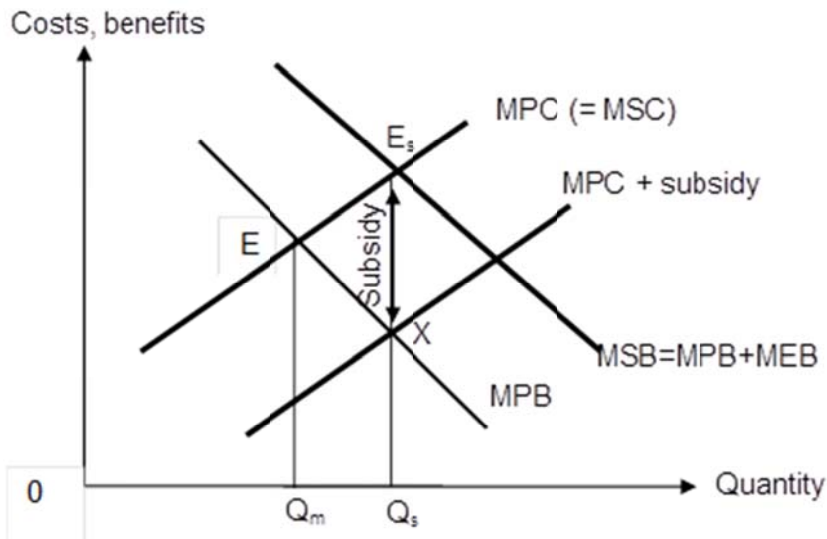
### **Introduction:**

This essay aims to explain whether subsidy is the most effective and desirable measure to correct under consumption of merit goods and zero production of public goods problems by taking into consideration whether it tackles cause of the problem, the extent to which it is effective, and consider any conflicts with other goals.

### **Body:**

**Subsidies can be used to correct under consumption of merit good problem to achieve socially desirable output level.**

**Subsidy which is equal to the marginal external benefit** will shift the supply curve vertically downwards by the full amount of the subsidy, to  $MPC + \text{subsidy}$ . (Fig 2) 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. 2: Correcting Positive Externality**

**Evaluation:**

- The use of subsidies is most appropriate to tackle under consumption of education when the countries have sufficient budget reserves and the demand for education is highly price elastic such that a given fall in price of education will result in more than proportionate rise in quantity demanded for education, *ceteris paribus*. Thus, subsidies are a highly effective policy for such countries.
- Although subsidy tackles root cause of under consumption problem due to positive externality by capturing the MEB, it may be a strain on government's budget especially for countries facing budget deficit constraints. This may trigger other problems as the governments would have less funds for economic development purpose of funding the low income group to narrow income gap problem in the short run. It is thus, not sustainable and it will conflict with other goals such as equity in income distribution goal.

**Legislation could be a more appropriate policy than subsidies to correct under consumption of merit good problem to achieve socially desirable output level for countries with price inelastic demand for education or budget deficit problem.**

The government can pass legislation such as mandatory education during the first few years of elementary education. For example, even though Singapore does not have budget deficit problem, the government does not want to put a strain on its budget reserves. Therefore, in Singapore, under the Compulsory Education Act, it is mandatory for every child in Singapore to complete the first six years of their primary school education or there is a penalty imposed on any parent who is guilty of the offence. Thus, the government will be able to increase demand for education from MPB to MSB as the consumers would consume education to avoid penalty for not abiding by the rules. As such, that the consumption of education will increase from  $Q_m$  to  $Q_s$ .

**Evaluation:**

- Legislation are straightforward and can be understood easily. Thus, it is relatively more effective than subsidies in encouraging consumption of education. However, for parents in the low-income group, they may be illiterate as they did not receive much education. Hence, they may not be aware of the legislation such as Compulsory Education Act and its implications. This means that they may inevitably run afoul of the law.
- However, as legislation is a blunt weapon, it does not encourage the consumers to consume education beyond the stated number of years as it does not address the imperfect information problem which resulted in the consumers underestimating the true value of benefits of education. Thus, to ensure sustainability of this policy, it needs to be complemented with campaigning to raise the awareness of producers or consumers of education.

**The use of subsidies is less appropriate than education and campaigns in tackling the root cause of under consumption problem of education due to imperfect information.**

When under consumption of education problem is due to imperfect information, subsidies will not be able to tackle the root cause of the problem. In this context, education and campaigns would be a more appropriate policy. The government carries out campaigns which emphasize the importance of education such as 'Lifelong Learning Campaigns' to raise the awareness of producers and consumers on the large society benefits generated by education. By reducing the degree of imperfect information, consumers will not underestimate the true value of education. Thus, they will raise demand for education and the quantity of education consumed would increase from  $Q_m$  to  $Q_s$ .

**Evaluation:**

Education and campaign takes a relatively longer time than subsidies to achieve its effectiveness as there is a time lag involved to change people's mindset. Thus, the under consumption of education problem may only be corrected in the long run. There is a need for policies to address the problem more immediately. Hence, education and campaign need to be complemented with subsidies.

**The use of subsidies is not appropriate in correcting zero production of public good problem.**

As public goods have hidden demand and no private producers who would be willing to produce the good since public goods should only be provided free of charge, it is not possible for the government to subsidize the producers. This is because with subsidy, there will still be some cost of production which the producers incur and some price has to be charged which is not possible for public goods. Hence, for the case of public goods, a more appropriate policy would be direct provision whereby the government enters the market and directly make the good available to the consumers at zero price. The government can fund the public goods provision via tax revenue collected from tax payers.

**Conclusion**

Subsidies are a relatively more appropriate measure to tackle merit good problems than public goods to a large extent. However, in dealing with under consumption of merit good



problems, subsidies are not without its limitations which call for the need for other policies to complement it. It is worth noting that in the real world context, public goods, for example, infrastructural facilities such as railway tracks are directly provided by the government but merit service such as the operation of train services, SMRT and SBS Transit in Singapore, is subsidized by the government.

Level	Descriptor
<b>L4</b>	<ul style="list-style-type: none"> <li>• Thoroughly explained 4 policies and discussed why subsidies may or may not be appropriate in correcting the two sources of market failure by consistently comparing it with other policies.</li> <li>• Discussion pertaining to Singapore with clear examples, properly drawn diagram and informed conclusion included.</li> </ul>
<b>L3</b>	<ul style="list-style-type: none"> <li>• Policies are explained and evaluated but answers are not consistently detailed.</li> <li>• Consistent attempt in comparing subsidies with other policies in correcting the two sources of market failure.</li> <li>• Some discussion pertaining to Singapore with examples</li> </ul>
<b>L2</b>	<ul style="list-style-type: none"> <li>• Some attempts at explaining the policies are evident.</li> <li>• Some attempt to compare subsidies with other policies in correcting the two sources of market failure.</li> <li>• Answers are generic with weak attempts to apply policies implemented by the Singapore government evident.</li> <li>• For an answer that discusses at least 3 policies thoroughly but no comparison with subsidies</li> <li>• For an answer that makes no reference to Singapore at all.</li> </ul>
<b>L1</b>	<ul style="list-style-type: none"> <li>• Smattering answers with scant elaboration</li> <li>• Only explained one policy without any attempt to evaluate whether subsidies is appropriate in correcting the two sources of market failure.</li> </ul>

- 4 There is a general economic consensus that globalisation is good for growth. But there is also uneasiness about the unequal distribution of the benefits of globalisation, the fact that it can create losers as well as winners.
- (a) Explain how globalisation affects the components of the circular flow of income in Singapore. [10]
- (b) Discuss the extent to which the economic impact of globalisation would differ among countries. [15]

### **Answer outline**

#### **Part (a)**

#### **Introduction**

Globalisation refers to the growing interdependence of countries resulting from the increasing integration of trade, finance, people, and ideas in one global marketplace. International trade and cross-border investment flows are the main elements of this integration. The circular flow of income describes both the flow of money and goods and services between firms, households, government and the external sector in an economy. Globalisation affects the components of the circular flow of income in Singapore mainly on net exports and investments.

#### **Body**

**The circular flow of income consists of 2 flows between firms and households which are the income flow and the output flow.**

The interaction between firms and households takes place in two different markets – goods and factor markets. The goods market is where trade in goods and services takes place whereas in the factor market, services of factors of production are traded. These interactions involve the flow of income between firms and households.

Firms hire factors of production from households or individuals to produce goods and services. In return for the use of factors of production such as labour services, land, capital and entrepreneurship skills owned by households, the firm pays income to the households or individuals. These incomes can be in the form of wages, rent, interest and profits. The sum of all these factor payments makes up the national income of the country.

With the income received, households spend all their incomes on goods and services produced by the firms. This flow measures income in real or output terms. The total expenditure by households equals the total income received.

Besides consumption expenditure that arises from household's current income, there are also other forms of expenditure that do not arise from household's current income. These are investment expenditure on capital goods by firms, government expenditure on goods and services and expenditure by foreigners on the country's domestically produced goods and services or exports. These expenditures are called injections.

On the other hand, there are also leakages or withdrawals from the circular flow of income. They are called so because they are part of income that is not spent on currently produced goods and services. Examples of withdrawals are savings, taxes and import expenditure.

**The first component through which globalisation affects the different components of the circular flow of income in Singapore is through exports.**

Being a small economy, Singapore is very much dependent on international trade. With globalisation, other countries have increasingly opened up their markets by lowering trade barriers. This made it possible for Singapore to gain greater access to foreign markets. On average, Singapore's direct exports to an FTA partner increased by 18 per cent two years after the entry into force of that FTA, and a further 16 per cent in the third year. There are also other indirect benefits like increase in export competitiveness due to the greater competition in the larger market.

**Besides exports, the other component that is affected by globalisation is foreign direct investments (FDI).**

Inward FDI has been increasing steadily in the past decade, though there has been some decline in FDI in 2002-2003 and 2008 because of unfavourable global conditions. In view of the increasing competition due to globalisation, Singapore has given more emphasis on promoting innovation-driven and knowledge-based investments.

Being small, Singapore also lacks natural resources and thus depends on imports of food and other basic necessities and raw materials. With globalisation, cheaper imports are available from lower-cost producers. This also contributed to the rise in Singapore's import expenditure on foreign goods which represents a withdrawal from the circular income flow.

**Conclusion**

Globalisation has increased the significance of trade-related components of the circular flow of national income, namely exports and imports and investments. These changes would have an impact on the level of national income in the country both in the short run and in the long run.

**Levels Marking Scheme**

<b>Levels</b>	<b>Descriptors</b>
L3	<ul style="list-style-type: none"> <li>• Thorough explanation of the circular income flow with all key components described with relevant examples.</li> <li>• Clear explanation of how globalisation has affected the different components of circular income flow with reference to the Singapore economy</li> </ul>
L2	<ul style="list-style-type: none"> <li>• Adequate explanation of the circular income flow</li> <li>• Some explanation of the impact of globalisation on any 2 components with some reference to Singapore economy</li> </ul>
L1	<ul style="list-style-type: none"> <li>• Broad overview of the circular income flow</li> <li>• Limited explanation of the impact of globalisation on any of the components of circular flow of national income</li> </ul>

## **Part (b)**

### **Introduction**

Globalisation is one of the main reasons to account for economic growth and higher standard of living in many countries. But globalisation also poses serious challenges to other countries. The extent to which countries can benefit from globalisation depends on a few key factors which are both economic and non-economic in nature, which we will discuss in this essay.

### **Body**

**One of the benefits of globalisation is that of increased efficiency.**

- In a world of scarcity, efficiency is important because it can increase the welfare of the people.
- Globalisation intensifies competition. In the domestic markets, competition from imports can stimulate greater efficiency in production in the c'try as local producers must keep their costs low in order to remain competitive → **> efficient production and better utilisation of a country's resources.**
- In addition, with globalisation, there are reduced trade barriers. This encourages greater specialisation according to the country's comparative advantage. Comparative advantage is defined when a country can produce a good at a lower opportunity cost than other country. In this case, with its advanced technology and skilled labour, Singapore has comparative advantage in high-end manufactured goods such as electronic valves and petroleum refined, which are our two top exports. **Rise in efficiency** due to specialisation and economies of scale. Consumer welfare therefore improves because if firms pass the cost savings to consumers in terms of lower prices.

**Globalisation has a direct impact on a country's balance of payments. Some countries benefit from an improvement while others suffer a loss.**

- Globalisation → Reduced trade barriers, e.g. fall in tariffs imposed on S'pore's exports → fall in price of S'pore's exports → Assume DD for exports is price elastic, more than proportionate rise in Q<sub>dd</sub> for exports, c.p. → Rise in TR of exports → c.p.  $\uparrow(X-M)$  → c.p. **current a/c improves.**
- Globalisation → low-cost producers e.g. developing c'tries such as Vietnam and China are able to attract inward FDIs. Other countries like S'pore continue to attract FDI into higher value added manufacturing e.g. pharmaceutical industries & petrochemicals & also financial services sector due to competitive corporate tax rate, good infrastructure and pool of skilled labour → If Inward investment > outward investment → **capital a/c improves.**
- Depending on the net impact on current and capital balances, the impact of BOP is indeterminate. For Singapore, it has enjoyed a favourable balance of payments which is largely a result of a healthy current balance. China also enjoys a rising trade surplus. Other countries like the developed countries of the US, suffer from trade deficits.

**Globalisation also impact on a country's economic growth.**

- Globalisation →  $\uparrow$ DD for exports →  $\uparrow$ TR of exports.

- Globalisation → emergence of low-cost producers → fall in price of S'pore's imports → DD for imports is price inelastic because S'pore imports a lot of raw materials which it is very dependent on since it lacks natural resources → less than proportionate rise in Qdd for imports, c.p. → ↓TE imports
- C.p. ↑(X-M) → c.p. AD rises (**diagram**)
  - at initial eqm level of real national output, excess demand results → upward pressure on prices → higher profits → firms increase production in the next time period → rise in real national output → rise in induced C and rise in W; rise in induced C depends on marginal propensity to consume (MPC) → greater the MPC, greater the rise in induced C → greater the rise in NY. Thus, multiple rise in NY, assuming country is not at full employment.
- The extent of the gains depends on the rise of exports and imports. For Singapore, it gains largely because without globalisation and increase in free trade, its economic growth is very much constrained by its small domestic mkt. By embracing globalisation, Singapore is able to grow at an average annual rate of more than 8 per cent since its independence in 1965. Hence S'pore has > to gain than c'tries for which the DD for imports is price elastic, e.g. USA and China that produce gds that compete with imports. When DD for imports is price elastic, fall in price of imports → rise in TE on imports for USA and China → change in (X-M) depends on extent of rise in TRx and TEM for USA and China.

#### **But, Globalisation can lead to a rise in structural unemployment.**

- Globalisation → emergence of new economies → changing CA
- S'pore: loss of CA in low-end manufactured gds → outward investment and outsourcing of jobs → loss of jobs mainly for low-skilled workers and older workers, thus ↑structural unemployment
- But CA in sunrise industries, i.e. high-end manufactured gds, e.g. DRAM chips and pharmaceutical products → create jobs for skilled workers
- Net effect depends on loss of jobs and no. of jobs created. To the extent that industries that shut down are labour-intensive in nature and those sunrise industries are less labour-intensive, then overall unN+ rises
- But in S'pore, govt emphasises on continuous upgrading of skills → increases labour mobility → workers can switch and find jobs → thus possible for N+ to rise

#### **Another consequence of globalisation is rising income inequality.**

- Globalisation has led to greater financial flows across national border. Total foreign direct investment (FDI) flows in the world increased. With the latter, it has resulted in exposure to new ideas, technology and products.
- New technology creates greater demands for those with higher skills. In S'pore, the use of technology is widespread in both manufacturing and services, raising the skills premium in a substantial portion of the economy.
- To the extent that technological change favours those with higher skills, DD for high-skilled labour rises → rise in wage rate
- At the same time, fall in DD for low-skilled workers → fall in wage rate. Hence, widening income gap between the rich and the poor. This is evident from the fact that our **Gini coefficient has been increasing in the last 3 years.**

- This is despite measures taken by the government to distribute growth dividends to its people whereby the poor gets more than the rich. In fact, S'pore has one of the highest Gini coefficient amongst the developed countries (USA 0.45, UK 0.34) (Source: CIA).

**The extent of impact of globalisation would certainly differ among countries.**

- Small and highly open economies like Singapore are already exposed to a high level of competition in the global market as well as in the domestic market (due to its free trade policy). Thus, globalisation and trade liberalisations will only benefit these countries more because of the enlarged market size. However, countries that have been practising protectionism on a large scale, would find their domestic industries suffer from competition with cheap imports. The negative impact of globalisation thus would be more pronounced.
- The extent of impact also depends on the current economic policies in place which determines the rate at which a country can make the necessary structural adjustments that are needed to raise its competitiveness both in terms of exports and in attracting investments. Government supply-side policies such as retraining or upgrading its workers are critical to finding new comparative advantage. Like in Singapore, large investments on education and infrastructure have enabled the country to remain competitiveness despite the rise of new emerging economies.

**Conclusion**

Globalisation is beneficial because it brings about increased efficiency in production and resource allocation, thereby raising the standard of living of the people. However, in the short run, countries may face some problems like trade deficits, unemployment and rising income inequality that are largely due to the structural impediments and immobility of factors of production.

Levels	Descriptors
<b>L4</b>	<ul style="list-style-type: none"> <li>▪ Sound analysis of the impact of globalisation.</li> <li>▪ Good evaluation of the differing impact based on clear framework for comparison.</li> <li>▪ Conclusion is reasonably supported.</li> </ul>
<b>L3</b>	<ul style="list-style-type: none"> <li>▪ Good understanding of the impact (both positive &amp; negative) of globalisation with some analysis &amp; evaluation of the differing impact.</li> </ul>
<b>L2</b>	<ul style="list-style-type: none"> <li>▪ Adequate understanding of the impact of globalisation on an economy with some recognition of the differing impact on different countries.</li> </ul>
<b>L1</b>	<ul style="list-style-type: none"> <li>▪ Very weak response to question, with vague understanding of the impact of globalisation on an economy.</li> </ul>