JURONG JUNIOR COLLEGE

2015 JC2 ECONOMICS 8819 (H1)

PRELIMINARY EXAMINATION

ANSWER BOOKLET

<u>Suggested Answers for 2015 J2 H1 (8819) Economics Prelim Case Study Questions</u>

<u>Question 1</u>

a) **Compare the patterns of price changes for Chinese domestic steel prices and iron ore prices from January 2010 to August 2014. [2]**

Both prices of Chinese domestic steel and iron ore fell during this period of time [1] with the prices of iron ore falling faster than that of steel.[1]

Or the prices of iron ore showed greater fluctuation and were more volatile than that of steel.

b) **With the help of a demand and supply diagram, explain how the enforcement of stricter environmental control in steel production and the government's effort to steer away from infrastructure development affect the market for steel in China. [6]**

The enforcement of stricter environmental control in steel production will increase the cost of production for steel. This reduces the profit margin and decreases the incentive to produce. Supply thus decreases and supply curve shifts to the left from S_1 to S_2 in the following diagram. At the same time, government's effort to steer away from infrastructure development will decrease the demand for steel. This causes demand to fall and demand for steel shifts to the left from D_1 to D_2.

The fall in demand and supply result in 3 possible outcomes depending on the relative magnitude of shifts. In this case, the fall in demand is likely to be more significant as China's move away from infrastructure development towards consumption-led growth would result in a large fall in the demand for steel in the economy. Also the stricter environment control will not likely lead to a large increase in the cost of production as labour cost and rental is likely to take up a more significant portion of the total cost and so the shift in supply is relatively smaller. Thus steel prices fall from P_1 to P_2 according to Figure 1 as the fall in supply is less than the fall in demand. Quantity also falls from Q1 to Q2.

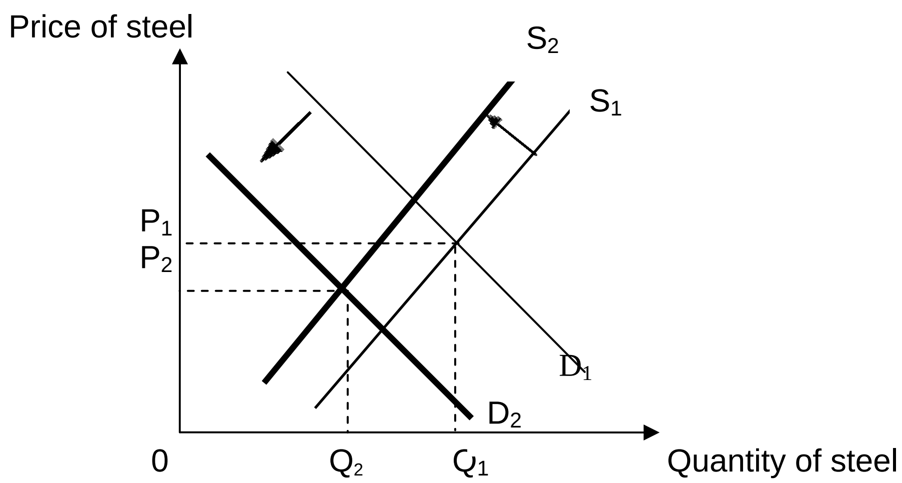


Figure 1: Market for Steel

Explanation of each shift. (2m each)

Justification for the magnitude of shift and explanation of diagram. (2m)

c) **Explain the difference in value of the price elasticity of supply of a manufactured good such as cars with that of a primary product such as iron ore. [3]**

The supply of manufactured goods such as cars is generally price elastic, i.e. PES>1. This is because the factor inputs are easily obtainable in general. It is also easier to have stocks of raw materials, components and finished products such that the firm is able to change its output quickly in respond to a price change.

On the other hand, the supply of a primary product such as iron ore tends to be price inelastic, i.e. PES <1. This is because of the long time period required to find iron ore and set up the mining operations to extract iron ore from the ground. The initial capital outlay for such production is also usually high and thus such firms find it difficult to enter and exit the industry. Thus they are less responsive to a price change.

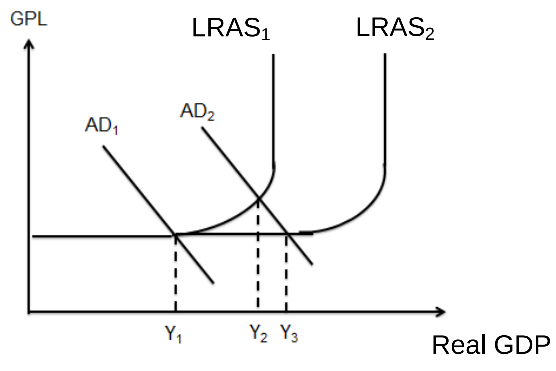
(1m for the difference in value (to include value) and 2m for the explanation.)

d) Discuss whether the expenditure on infrastructure by the Chinese government helps to improve the standard of living of the people. [8]

Thesis

Standard of living measures the quantitative and qualitative aspects of living. As mentioned in Extract 2, government expenditure on infrastructure has been contributing much to economic growth in China since 1990s. Hence any changes to the spending on infrastructure will bring about a significant impact on the Chinese economy.

In the short run, an increase in government expenditure on infrastructure acts as a stimulus to the economy as it increases aggregate demand from AD_1 to AD_2 as shown in the diagram below. This leads to a multiple increase in national income from Y_1 to Y_2 as the initial income earned by factor owners in round one of expenditure are spent on consumer goods generating further increases in output in subsequent rounds. As national income increases, assuming population remaining the same, the amount of goods and services becoming available to the people rises and this increases the quantitative aspect of living standards. The increase in national income also increases production which leads to an increase in employment of factors of production such as labour. Employment rate thus increases. This increases the income of the people thus increasing their purchasing power and consumption of goods and services, further showing an improvement in standard of living.



In the long run, such infrastructure spending will increase the efficiency of doing business and increase productivity in the country. This improvement will also attract investment in China including foreign direct investment. This is shown in the shift of the long-run aggregate supply curve from $LRAS_1$ to $LRAS_2$ resulting in further growth in China and real GDP increases to Y_3. Such an improvement in GDP, assuming population remaining constant, will result in an increase in the quantitative aspect of living standard even in the long term.

In addition as mentioned in Extract 2, government expenditure on infrastructure has led to much improvement in municipal infrastructure, utilities, transportation system and social infrastructure for the people. This results in an improvement in the quality of life of the people which enhances the qualitative aspect of standard of living.

Anti-thesis

However government expenditure on infrastructure may have its disadvantages. Firstly, as mentioned in Extract 2, such large expenditure has contributed to the budget deficit of the government. This accumulation of fiscal debt leads to a burden for the future generation. This can adversely affect SOL for the people in the future.

As mentioned in Extract 2, it can also lead to crowding out effect. Crowding out can be in the form of physical and financial resources. The large amount of infrastructure development undertaken by the government requires many factors of production. Excessive demand for land and labour for example can drive up wages and land cost. This is detrimental to private enterprise as it causes an increase in cost of production for them. In addition, as mentioned in Extract 2, some of the infrastructure spending is too excessive leading to over-capacity and hence under-utilization of some of the facilities. Financial crowding out can also occur as funds are diverted to infrastructure spending leading to limited funds for private sector investment. Thus an increase in government expenditure may have a trade-off in terms of a fall in private investment thus placing a limit on the rise of national income due to infrastructure spending. As a result, standard of living may not have improved much.

Infrastructure development may also lead to degradation of environment as more land are cleared to build facilities. Thus qualitative aspect of living standard may worsen.

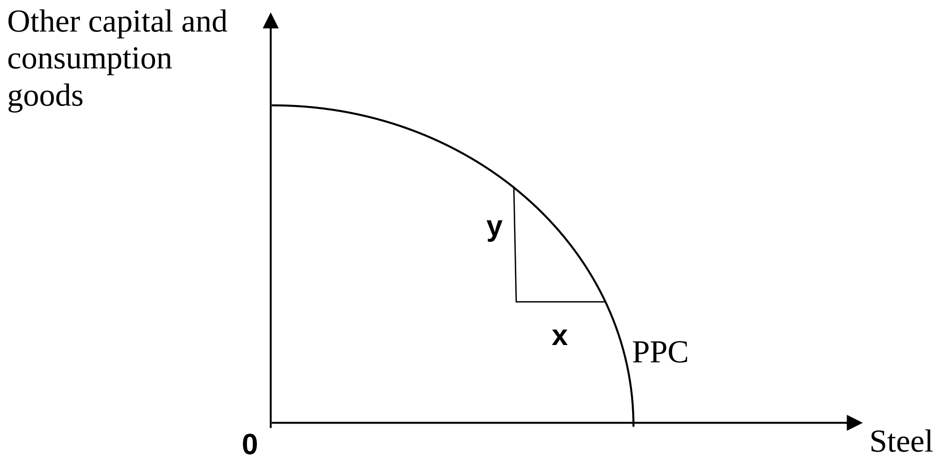
Conclusion

In conclusion, the government expenditure on infrastructure is likely to have led to a net improvement in the standard of living of the people in China. This is evident from Extract 2, where it mentioned that government spending on infrastructure has contributed much to China's economic growth. In addition, utilities infrastructure development have allowed 99 per cent of the population now to have access to electricity and 98 per cent of the urban population to have reliable water sources. There has also been improvement in the quality of transport for many of the people. Thus the quantitative and qualitative aspects of standard of living have improved as a result of infrastructure spending in China.

Level	Mark Scheme	Marks
L3	Well-developed explanation on how government expenditure on infrastructure may or may not lead to an improvement in SOL with strong reference to case study material AND Reasoned overall stand. Maximum of 6 marks if there is no overall stand and justification.	6-8
L2	Under-developed explanation on how government expenditure on infrastructure may or may not lead to an improvement in SOL with reference to some case study material Maximum of 4 marks if there is no case study evidence. Maximum of 4 marks for a one-sided view.	3-5
L1	A descriptive answer that explains how government expenditure on infrastructure affects SOL.	1-2

e) Using a production possibility curve, explain the opportunity cost incurred when more resources are allocated to the production of steel in a country. [3]

Opportunity cost refers to the next best alternative forgone when making a choice. In this case, when more resources are allocated to the production of steel, these resources cannot be used to produce other goods. Thus the opportunity cost is in terms of the other goods that are forgone when resources are used to produce steel. This is represented in the production possibility curve shown below:



As shown in the diagram above, an increase of x units of steel leads to an opportunity cost of y units of other goods forgone.
(1 mark for diagram and 2m for explanation)

f) Assess whether you support the view that "US's imposition of tariffs on steel imports would create a significant net loss of economic benefits to the US economy" (Extract 3). [8]

<u>**Thesis**</u>

When US imposes tariffs on steel imports, it is practising protectionism which is the act of sheltering the domestic industries from foreign competition. Such a measure could lead to economic losses to the US economy.

As mentioned in Extract 3, tariffs would lead to an increase in the cost of production for industries that use steel as an input. This includes the export-oriented industries such as cars and machinery industries which will become less price competitive. Assuming that the demand for such exports is price elastic due to the availability of substitutes, quantity demanded will decrease more than proportionately leading to a fall in export revenue. Ceteris paribus, net exports fall and thus US current account may worsen. In addition, the fall in production would lead to a fall in employment in these steel-related industries and as mentioned in Extract 3, it would hurt the workers, stakeholders and consumers of these related industries. Also it will encourage some firms to choose to expand overseas where tariffs do not apply. This further aggravates the detrimental effect on the US economy.

Also, it is likely that the protectionistic measure by US would invite retaliation from trading partners who would then impose tariffs on the exports of US. This will cause the prices of US exports to be more expensive thus causing the export sector to suffer due to the fall in export revenue.

Imposing a tariff can also be harmful as they distort market signals. It encourages inefficient US steel firms that do not have the comparative advantage to expand as they are protected from foreign competition. This will result in an inefficient allocation of resources. Consumers will also suffer as they have to pay a higher prices due to the tariff and consumer welfare falls.

Anti-Thesis

Although the imposition of tariffs can lead to much losses to the US economy, it is believed that it can also bring about some benefits to the economy.

Tariffs lead to an increase in the price of steel imported into US. This causes a fall in the quantity demanded for imported steel and people would switch to the consumption of steel produced locally. This increases the production of local steel and employment in the steel industry thus increases.

In addition, as mentioned in Extract 3, US accused other countries of dumping steel into the economy. This means that steel is sold below its marginal cost in US by foreign firms. If predatory dumping occurs, the intention is to drive out domestic firms and allow the foreign firms to gain monopoly power after which they could raise prices. Thus by imposing tariff as an anti-dumping measure, US is able to protect its own industries against such predatory dumping. However as mentioned in Extract 3, evidence for such dumping acts may be difficult to prove as prices of steel could have been low due to the over-supply of steel in China.

Conclusion

In conclusion, it is felt that US imposition of tariffs on steel imports would create a significant net loss of benefits to the US economy as costs outweigh benefits. It is likely that the jobs gain in the steel industry as a result of the tariffs would be less than the loss in jobs in the other related industries as a result of the loss of price competitiveness or retaliation. In addition, consumers suffer from a higher price not only for steel but for all products using steel as an input. Imposition of tariff goes against the theory of comparative advantage which explains that countries with differences in relative opportunity cost can benefit from an increase in world output and consumption beyond its own production possibility curve when it engages in trade and specialization. The use of tariff thus causes US to lose the benefits of free trade.

Instead of imposing the protectionistic measure, US should try to enhance the competitiveness of its steel industry and take policy measures such as encouraging more research and development to improve technology and bring about higher productivity and efficiency to compete with foreign firms.

Level	Mark Scheme	Marks
L3	Well-developed explanation on how the imposition of steel tariff may or may not lead to significant net loss of benefits to US economy AND Reasoned overall stand. Maximum of 6 marks if there is no overall stand and justification.	6-8
L2	Under-developed explanation on how the imposition of steel tariff may or may not lead to significant net loss of benefits to US economy. Maximum of 4 marks if there is no case study evidence. Maximum of 4 marks for a one-sided view.	3-5
L1	A descriptive answer that explains how the imposition of tariff on steel affects US economy.	1-2

CSQ2

a) Using Figures 3 and 4, compare the change in the balance of trade of US with that of UK between 2006 and 2014. [2]

- Similarity: Both current accounts are in a deficit throughout. (1m)
- Difference: The balance of trade deficit in US is improving while the deficit in UK is worsening. (1m)

b) Using AD/AS analysis, explain how 'the inevitable rise in interest rates over the next few years could weaken the economy' (Extract 4). [4]

- An increase in interest rate will increase the cost of borrowing. Marginal projects which were profitable at lower interest rates become unprofitable, thus investment decreases. At the same time, the increase in cost of borrowing will cause consumers to reduce their spending, especially on big ticket items as they borrow less. Households will also increase their savings and reduce consumption as the opportunity cost of consumption increases.
- When consumption and investment falls, aggregate demand decreases, shifting AD curve from AD_0 to AD_1 to the left as shown in Figure 1. This will reduce national income by the multiple, through the multiplier process as real GDP falls from Y_f to Y_1, thus weakening the economy.

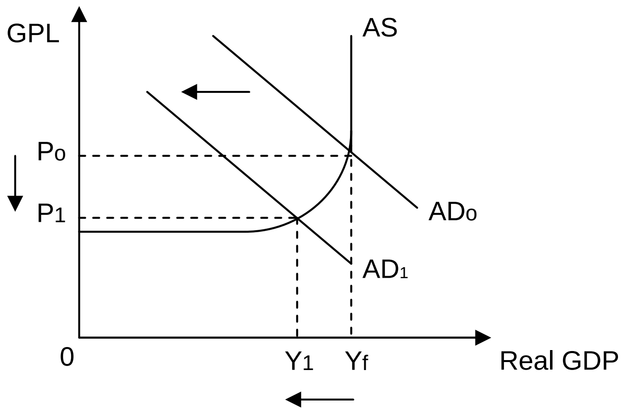


Figure 1

3m for explanation of how C and I lead to the weakening of economy
1m for the diagram and explanation

c) Explain the trade-off between economic growth and inflation. [2]

- When an economy approaches full employment (1m) and experiences rapid growth, it will eventually be accompanied by inflation.
- When aggregate demand increases, more resources have to be employed in order to increase production causing resources to become scarcer, thus pushing their prices up. This in turn increases the price of goods and services. Hence, if growth is too rapid, the economy is likely to overheat. (1m) Thus the pursuit of growth may result in inflation.

d) Compare the causes of the trade deficit in US and UK. [6]

Similarities:

1) Strong Currency (USD/Pound) (Extracts 5, 6 and 7)

- Appreciation of the USD/Pound has eroded the export competitiveness of the US/UK products in the international market. It will cause the prices of exports to become relatively more expensive in foreign currencies. At the same time, a stronger USD/Pound will make the price of imports cheaper in terms of domestic currency. Assuming that Marshall-Lerner condition holds where the sum of the price elasticity of demand for exports and imports is greater than one, net exports will fall, hence leading to a trade deficit.

2) Strong growth in consumer spending (Extracts 6 and 7)

- There is an increase in consumption in both US and UK. The increase in consumption will lead to an increase in demand for imports and thus import expenditure. Assuming that export earnings remained unchanged, this may contribute to a trade deficit.

Difference (Extracts 6 and 7):

- The weak Eurozone will lead to a fall in national income in EU. This reduces their purchasing power and consumption, leading to a fall in demand for imports. They will now thus demand less of UK's exports leading to fall in export revenue. Ceteris paribus, this might lead to a trade deficit. US on the other hand experiences a fall in export demand probably due to the lack of export competitiveness of its manufactured goods in terms of quality for example. The corresponding fall in export revenue will lead to a trade deficit assuming ceteris paribus.

2m for each factor explained.

e) Extract 7 says that UK's widening trade deficit would be a big challenge facing the government over the next five years. Discuss the impact of a worsening trade balance on the UK economy and its living standards. [8]

Explain how a worsening trade deficit affects external stability (BOP and ER)

BOP

- From Extract 7, a worsening trade deficit may contribute to a huge and persistent balance of payments deficit and can be a cause of concern for the UK government. It may lead to falling foreign reserves or borrowing which will lead to external debt. Figure 2 shows that UK is ranked second with the largest external debt in the world.
- There will be an opportunity cost incurred as the funds used to repay the debt could be used for infrastructural development which helps to create growth.

ER

- There is also a risk that the Pound will depreciate due to the worsening trade deficit. The fall in export revenue will lead to a fall in demand for Pound while the increase in import expenditure will lead to an increase in supply for Pound, leading to the depreciation. With the weakening of the Pound, it will also encourage capital flight and discourage short term capital inflow to the UK as speculators anticipate the Pound to depreciate further. This will worsen the capital account.

Extent of impact

- The impact is large as a worsening trade deficit will hinder UK's attempt in rebalancing the economy from consumption towards exports.
- The huge external debt accumulated will also lead to adverse consequences in the long run.

Explain how a worsening trade deficit affects internal stability (EG, N and inflation)

EG, N

- Net exports is a component of the aggregate demand (AD). A worsening trade deficit or fall in net exports will reduce aggregate demand and decrease national income by the multiple, through the multiplier effect. Actual growth will fall.
- Firms will then adjust to this fall in demand by decreasing the level of production and hire less factors of production which include labour. Cyclical unemployment will rise.

Extent of impact

- The extent of impact on growth and employment depends on UK's multiplier size. If UK's multiplier size is large, the impact might be large.

- The extent also depends on the state of the economy. If UK is near or at full employment, a fall in AD may lead to a fall in GPL instead of a fall in real income, thus mitigating the impact.

Inflation

- With a weakening Pound, imports will be relatively more expensive in terms of domestic currency. This will lead to imported inflation. If imported raw materials become more expensive, cost of production will rise which leads to cost push inflation.

Extent of impact

- The extent of impact might not be that severe as UK is not heavily dependent on imports as being a large country, it is likely to have an abundance of raw materials.

Explain how a worsening trade deficit affects living standards.

- If the population remains unchanged, the fall in national income will lead to a fall in real per capita income. This will cause a fall in purchasing power and consumption of goods and services. Quantitative standard of living will worsen.
- However if the worsening trade deficit is mainly due to the rising import expenditure, qualitative SOL might have risen as consumers consume better quality imports.

Conclusion and Evaluation

- A worsening trade deficit poses a challenge for the government as it can impact UK's macroeconomic goals and standard of living adversely.
- Overall, the impact might not be that severe as Extract 7 mentioned that the trade deficit only worsened slightly. However, the large amount of external debt is a huge concern and the government does need to prevent the trade deficit from worsening.
- The overall impact of a worsening trade deficit also depends if the trade deficit can be offset by a surplus in the invisible trade or/and capital account. If the trade deficit can be offset by such surpluses, it may not be a concern to the UK government as the impact on the UK economy might not be that serious.

Level	Mark Scheme	Marks
L3	Well-developed analysis of the impact of a worsening trade balance on the UK economy and its living standards. AND Reasoned overall stand. Maximum of 6 marks if there is no overall stand and justification.	6-8
L2	Under-developed explanation of the impact of a worsening trade balance on the UK economy and its living standards. Maximum of 4 marks if there is no case study evidence.	3-5
L1	A descriptive answer that explains how a worsening trade balance can impact the UK economy and its living standards.	1-2

f) Assess the view that signing free trade agreements is the most effective policy to correct the trade deficit in the US. [8]

- A large and persistent trade deficit in the US can bring about negative impacts on both the internal and external stability of the economy. The US government can sign free trade agreements to correct the surging trade deficit. Extract 6 mentioned that President Barack

Obama needs to complete a trade agreement with 11 other nations, an agreement known as the Trans-Pacific Partnership to help correct the trade deficit.

Thesis: Signing free trade agreements is the most effective policy to correct the trade deficit in the US.

Signing Free trade agreements

- Signing free trade agreements (FTAs) is the most effective policy to correct a trade deficit in the US because she will benefit greatly from the lowering or removal of tariffs by other countries as it means that US exports will now be cheaper. This will improve the price competitiveness of the exports. Assuming that the demand for US exports is price elastic due to the availability of substitutes, a fall in the price of exports will lead to a more than proportionate increase in the quantity demanded of exports, increasing US export revenue, correcting the trade deficit, ceteris paribus.

Anti-thesis: Signing free trade agreements is not the most effective policy to correct the trade deficit in the US.

Limitations

- With FTAs, it becomes easier for foreign firms to compete with US firms. This may hurt the local firms and force them out of the industries if they are unable to compete with the foreign firms. This will result in unemployment in the US. Strong foreign competition may also deter potential local investment from taking place if the business sentiment is not optimistic.

Supply side policy

- Besides signing FTAs, US can look at other policies to correct the trade deficit. Extract 6 states that the best way to maintain the quality of exports in an increasingly competitive global economy is through innovation in products, processes, and services. Supply-side policies could be used to retrain workers and subsidise research and development to further improve the efficiency of the production process as well as the quality of products. This will enhance US export competitiveness and help her expand the reach of her exports.
- The US government could also develop research facilities to make US exports more competitive while moving towards an innovative economy in the era of globalisation. The introduction of new products or the increase in quality can lead to an increase in the demand for exports, thus increasing export revenue and correcting the trade deficit, ceteris paribus.

Limitations

- However, huge funding is required and it depends on the ability of the US government to fund such R&D initiatives. The use of the government funds also incurs an opportunity cost as these funds could be spent on other areas like healthcare.

Depreciation of the USD

- From Extracts 6 and 7, one of the root causes of the trade deficit is the strong dollar. Thus, to effectively correct the trade deficit, the US government can allow the US dollar to weaken since the USD has been strong as mentioned in the data. As the USD depreciates, exports will become relatively cheaper in foreign currencies and imports will become relatively more expensive in USD. Assuming that Marshall-Lerner condition holds where the sum of the price elasticity of demand for exports and imports is greater than one, net exports will increase, hence correcting the trade deficit.

Limitations

- The adversely affected trading partners might eventually retaliate by lowering the value of their currencies too, which will cancel out the favourable effects of the depreciation by US. It will also result in hot money outflow as speculators expect the currency to depreciate further in the future, leading to a worsening of the capital account. US is an international financial hub and the USD is heavily traded hence the extent of the capital flight would be large.

- Depreciation of the USD might also lead to imported inflation as imports are now relatively more expensive in terms of domestic currency. Domestic firms that use imported raw materials might pass the higher cost to their consumers in the form of higher prices, increasing the cost of living.

<u>Conclusion and Evaluation</u>

- Overall, signing free trade agreements is not the most effective policy to correct a trade deficit because it takes time for countries to agree to the terms and sign the agreement and it does not solve the root causes of the problem. The trade deficit in the US is largely due to the strong USD and the lack of export competitiveness in terms of quality.
- To correct the trade deficit more effectively, it is important that the US government introduces a combination of policies to tackle her worsening trade deficit. For example, in the long run, the US government can continue provide funds for research and development to develop new comparative advantages to address the problem of the lack of export competitiveness. Meanwhile in the short run, the government can allow the USD to depreciate to prevent the trade deficit from worsening further.

**Protectionism and CMP/CFP not accepted.*

Level	Mark Scheme	Marks
L3	Well-developed answer that explains the effectiveness of signing FTAS and at least 1 alternative policy, with its limitations, in correcting a trade deficit in the US. AND Reasoned overall stand. Maximum of 6 marks if there is no overall stand and justification.	6-8
L2	Under-developed answer that explains the effectiveness of signing FTAs and at least 1 alternative policy, with its limitations, in correcting a trade deficit in the US. Maximum of 3 marks for well-developed explanation of how FTAs can correct the trade deficit (with its limitations) without alternative policies, with use of case study evidence. Maximum of 4 marks if there is no case study evidence.	3-5
L1	A descriptive answer that explains the effectiveness of signing FTAs in correcting a trade deficit in the US.	1-2

Section B Essay Mark Schemes

1 **(a) Explain how the price mechanism allocates scarce resources to address the problem of scarcity. [10]**

(b) Some governments are reducing subsidies for retraining programmes citing large fiscal budget deficits as the reason.

Discuss whether the reductions in subsidies are justified. [15]

Knowledge, Application, Understanding and Analysis		
L3	Well-developed analysis of how price mechanism allocates scarce resources to address the problem of scarcity.	**7 - 10**
L2	Under-developed explanation of how price mechanism allocates scarce resources to address the problem of scarcity	**4 - 6**
L1	Descriptive knowledge of how price mechanism allocates scarce resources to address the problem of scarcity.	**1 - 3**

Knowledge, Application, Understanding and Analysis		
L3	Well-developed analysis of the reasons on whether the reductions in government subsidies are justified.	**9 - 11**
L2	Under-developed explanation of the reasons on whether the reductions in government subsidies are justified. Max 6 marks awarded if answer is one-sided.	**6 - 8**
L1	Descriptive knowledge of the reasons on whether the reductions in government subsidies are justified.	**1 - 5**
	Evaluation	
E2	For an evaluative assessment based on economic analysis.	**3 - 4**
E1	For an unexplained assessment or one that is not supported by economic analysis.	**1 – 2**

(a) Explain how the price mechanism allocates scarce resources to address the problem of scarcity. [10]

The problem of scarcity arises as a result of unlimited wants and limited resources. As a result, choices need to be made and the price mechanism can be used to help achieve an efficient allocation of resources assuming that there are no externalities and there is perfect competition in the markets. Resources are efficiently allocated when production is at the level where marginal social benefit (MSB) is equal to marginal social cost (MSC) and society's welfare is maximised.
The price mechanism works to resolve the basic economic problems of what, how much, how and for whom to produce based on consumers' demand preferences for the types and quantities of goods and services that they prefer. Consumers influence producers' decisions on what to produce based on their demand preferences. The amount they are willing and able to pay is determined by the additional satisfaction they derived from consuming an additional unit of the good. This is represented by the demand curve which is also the marginal private benefit (MPB) curve of the consumers. Assuming that there is an absence of externalities, MPB=MSB.

Producers who are profit maximizers will receive the price signal from consumers. The amount which producers are willing and able to supply at various price levels represents the supply curve. Producers' decision to supply is based on the extra cost incurred in producing an extra unit of the good or service. Hence, the producer supply curve is also the marginal private cost (MPC) curve. Assuming that there are no externalities, MPC=MSC.

Demand curve will intersect supply curve resulting in attainment of an equilibrium price and quantity at Pe and Qe where MSB=MSC and resources are efficiently allocated.

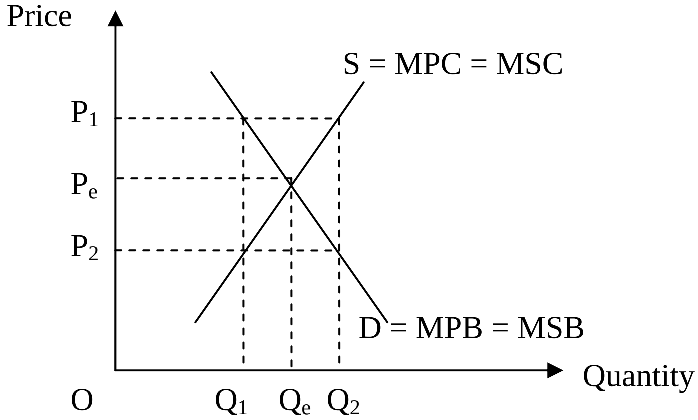


Figure 1

At price P_2, quantity demanded Q_2 is more than quantity supplied Q_1. Thus, there will be an upward pressure on prices as there is a shortage of the good. Producers channel resources to produce more of the good, until Qe is reached at price Pe. At price P_1, quantity demanded Q_1 is less than quantity supplied Q_2. Thus, the price falls as there is a surplus of the good. Producers will divert resources away from the good, producing less, until Qe is reached at price Pe. The adjustment process of the price mechanism will ensure that Qe is reached and resources are allocated efficiently. The price mechanism works to determine what and how much to produce.

The price mechanism determines how to produce through relative price signals too. Business firms produce goods by combining resources in the least costly way. Firms will substitute the relatively cheaper factor to replace the more expensive factor. For example, if the relative price of farm land increases, farmers will use more labour and tractors to work the land more intensively.

In addition, to solve the problem on “for whom” to produce, consumers who have the dollar votes will get the products. This means that consumers who have the money and are willing to pay the price for the products get them. Those without the dollar votes will not be able to get the products.

In conclusion, the price mechanism works to determine what, how much, how and for whom to produce based on consumers’ preference and the aim of producers is to maximize profits. Hence resources can be efficiently allocated to mitigate the problem of scarcity. However, when there is a lack of perfect information or when there is the presence of externalities, the price mechanism will fail to achieve an efficient allocation of resources.

(b) Some governments are reducing subsidies for retraining programmes citing large fiscal budget deficits as the reason.

Discuss whether the reductions in subsidies are justified. [15]

<u>Introduction</u>
Market failure occurs when the free operation of the price mechanism fails to allocate resources efficiently, and government intervention is required to correct the market failure. An efficient allocation of resources occurs when production is such that marginal social benefit is equal to marginal social cost and society’s welfare is maximised.

Body: Explain why reduction in subsidies is not justified
Retraining is an example of a merit good. A merit good is one where its consumption is deemed intrinsically desirable by the government and it has positive externalities in addition to private benefits. Positive externalities are benefits to third parties who are not directly involved in the production or consumption of a good. The benefits are not reflected in the price of the good. In the case of retraining programmes, a consumer would incur marginal private cost (MPC) of training which is the cost paid for training for one more unit as well as marginal private benefit (MPB) which includes the higher wages obtained as a result of undergoing one more unit of training. However it will also have external benefits which include the benefits to companies as their workers become more productive after undergoing the training. A more productive workforce also attracts investment which spurs economic growth which benefits the economy.
Marginal social benefit (MSB) is the additional social benefit from the additional unit of retraining program consumed, MSB = MPB + MEB where MEB are the external benefits. Due to the presence of positive externality, which is shown by the marginal external benefit (MEB) at a particular level of output, marginal social benefit (MSB) is greater than marginal private benefit (MPB), i.e. MSB>MPB. This means that the benefits of consumption to society include not just the benefit to the consumer but also the benefits to others enjoying the positive spill-over effects shown as MEB. Assuming MPC=MSC, there will be a divergence of marginal private benefit (MPB) and marginal social benefit (MSB).

Since consumers will only consider their private benefits and costs, while ignoring the external benefits to third parties, he will consume at the level Qp, where MPB = MPC. However, the socially optimal level of output occurs at Qs, where MSB = MSC. Since Qp is less than Qs, it means that the price mechanism is unable to achieve an optimal allocation of resources on its own. There is under-consumption of retraining programmes. Between Qp and Qs, the social benefits are higher than the social costs for an additional unit of retraining programmes consumed, resulting in welfare loss equivalent to the shaded area. Thus the government will need to intervene to achieve the socially optimal level of output where society’s welfare is maximised.

One way to do so is to provide subsidies for retraining through the training institutions. When the subsidy per unit is equal to MEB at Qs, this reduces the cost of programmes which is assumed to lower the cost to consumers assuming that cost savings are passed on to consumers, thus shifting MPC to the right to MPC' in the diagram below. This increases the consumption output from Qp to Qs which addresses the market failure.

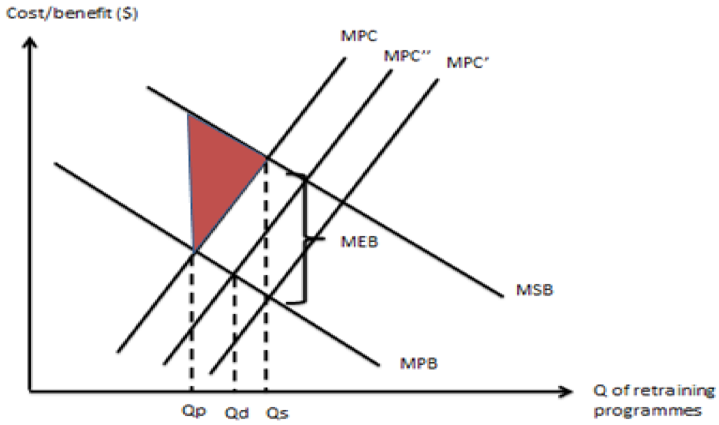


Figure 1: Positive externality

However if there is a reduction of subsidies for retraining, MPC' will shift to MPC'' and the socially efficient level of output is not achieved at Qd. Thus a reduction in subsidies is not justified. (Assume that there are still some subsidies given).

In addition, with the reduction in subsidies, the quality of retraining programmes can be compromised. Training Institutions will find it tougher to maintain high-quality teaching, learning and research. Unless they can manage cost savings efficiently, the deteriorating quality of retraining programmes will reduce productivity and quality of labour. This will cause a decline in the country's competitiveness. This can lower business confidence that can lead to a fall in investment which causes aggregate demand and long run aggregate supply to fall, lowering actual and potential growth. Also the reduction of subsidies can lead to some training courses being cut, leading to the retrenchment of lecturers and other training staff. This worsens the unemployment in the country.

Reduction in subsidies may increase structural unemployment in a country. For example, as UK's economy undergoes a shift from manufacturing industries to services and high technology industries, some workers from the manufacturing industries may not have the necessary skills to get employed in the high tech industries. With the reduction in subsidies, these structurally unemployed workers may not be able to afford the higher cost of retraining programmes and would remain unemployed due to the mismatch between the workers' skills and jobs requirement.
Thus the reductions in subsidies are not justified based on the above reasons.

Body: Explain why reductions in subsidies is justified
On the other hand, under some circumstances, the government would need to reduce the subsidies for retraining programmes such as when it is facing a large fiscal deficit.

For example, the recent global financial crisis has resulted in budget deficits in Europe and US as level of income falls resulting in a fall in tax revenue collected. This is insufficient to cover their government spending which needs to be increased when fiscal stimulus is implemented to help the economy. A continuous budget deficit can result in the accumulation of a large fiscal debt for the country. To reduce the budget deficit or fiscal debt, some governments would need to prioritize their expenditure and spend on more essential items such as healthcare and national security. Therefore there may be a reduction in subsidies for retraining which is not deemed to be the top priority of the country especially in the short term. Such subsidies may however be restored in the long term when there are more funds available.

Reduction in subsidies is also justified in the case when the government has overestimated the level of MEB and gave excessive subsidies initially, resulting in inefficient allocation of resources in the retraining programme market. Therefore, it is justified for the government to reduce subsidies to improve allocation of resources in the market.

Lastly, the government may feel that the marginal private benefits of retraining have been rising as increasingly the workers are aware of the need to stay up-to-date and upgrade their skills in the competitive world. This reduces the gap between MPB and MSB. Thus it is felt that there is a lesser need to pump in the same subsidies for retraining. Hence subsidies are reduced to reflect the current situation.

Conclusion and Evaluation

Reduction in subsidies may be justified in the short run if the economy is facing a large fiscal budget deficit and the government has other priorities such as national security which are more essential. Also, the government may want to transfer the burden of paying for retraining to private firms since a higher quality and more productive workforce benefits them as well. However, in the long term, if the reduction in subsidies results in less training for workers, it would have adverse effect on the country's macroeconomic objectives especially when they result in falling productivity of the labour force.

Whether the reductions in subsidies are justified also depends on a country's stage of economic development. It may be more justified for developed countries to cut subsidies as compared to developing economies. Developed economies may already have a highly skilled and educated labour force as compared to developing countries. Thus a reduction in subsidies may have less impact on developed countries than in the case of developing economies where building up the capacity of the workforce is still relatively important.

Also it is dependent on whether structural unemployment is high in the economy. In countries such as US and UK where structural unemployment is high among the youths, reduction in subsidies for retraining may not be justified as it worsens the situation.

Ultimately, the justification depends on the relative value of competing national goals and priorities to each government under the prevailing circumstances.

4. Many countries aim to improve their economic performance which includes internal and external price stability, healthy balance of payments, sustained economic growth and full employment.

(a) Explain the consequences of failing to achieve internal and external price stability. **[10m]**

(b) Discuss the extent to which globalisation can help Singapore improve her economic performance. **[15m]**

(a)

Knowledge, Application, Understanding and Analysis		
L3	Well-developed analysis of the consequences of failing to achieve internal and external price stability.	**7 - 10**
L2	Under-developed explanation of the consequences of failing to achieve internal and external price stability. Max of 5m if the consequences of only one type of stability are explained.	**4 - 6**
L1	For a descriptive knowledge of the consequences of failing to achieve internal and external price stability.	**1 - 3**

(b)

Knowledge, Application, Understanding and Analysis		
L3	For a well-developed answer that analyses both positive and negative effects of globalisation on economic performance and its extent. Max 9 marks awarded if script did not state the extent of the effects.	**9-11**
L2	For an under-developed answer that gives an explanation of both positive and negative effects of globalisation on economic performance. Max 6 marks awarded if answer is one-sided.	**6-8**
L1	For an answer that shows descriptive knowledge of the effects of globalisation with limited attempts to link them to economic performance.	**1 - 5**
Evaluation		
E2	For an evaluative assessment based on economic analysis i.e. one that considers the nature of economy, government policies, etc.	**3 - 4**
E1	For an unexplained evaluative assessment, or one that is not supported by economic analysis.	**1 – 2**

(a) Explain the consequences of failing to achieve internal and external price stability.
[10m]

Introduction

Internal price stability refers to a situation when there is zero or small rise or fall in the general price level. Pursuing internal price stability is important as inflation or deflation can lead to adverse internal and external consequences on the economy. External price stability refers to the country having a stable market exchange rate. A stable exchange rate facilitates trade and investment. In contrast, exchange rate instability, in terms of a rapidly depreciating currency, can result in a rise in imported inflation, or in the case of a rapidly appreciating currency, a reduction in the competitiveness of the country's exports.

Body

Internal effects of unstable internal prices: Investment, employment and growth

By attaining internal price stability, the economy could avoid the costs of inflation or deflation. This essay focuses on the costs of inflation. Inflation affects economic growth, balance of payments and employment levels in a country. When an economy is below full employment and is experiencing mild demand-pull inflation where excessive aggregate demand exceeds aggregate supply near or at full employment, the rate of increase in price is faster than that of cost which leads to rising profit levels. The increase in profitability thus induces producers to be more willing to invest and expand the line of production. This can lead to an increase in investment, thus leading to higher employment and growth. However when there is cost-push inflation which is caused by rising cost of production in the economy that is not due to excess demand, the rise in cost is more rapid than the rise in price. Hence producers are likely to put off any investment. Most importantly, in a high inflation rate environment, interest rates tend to be high to compensate savers for the loss of real savings. Producers hence are reluctant to borrow at high nominal interest rates as few investments give such high rates of return to make the project viable. Hence high inflation rates can reduce the level of investment due to the high cost of borrowing as reflected by the high nominal interest rates.

In addition, when inflation rate is moving in an erratic and unpredictable manner, businessmen will hesitate to commit themselves to long-term deals because of greater uncertainties and risks involved. Thus they will be less willing to take risks and invest, especially in long-term projects. This leads to a fall in investment. Without long-term deals, business investments fall and thus economic growth might fall.

Internal effects of unstable internal prices: Redistribution effect

Also, inflation results in redistribution of income as some people will be made better off while others are made worse off. This can be socially upsetting especially when the majority of people are worse off. When there is inflation, fixed income earners lose and producers gain during unanticipated inflation. Fixed income earners include employees whose salaries are fixed by contract, pensioners and landlords who continue to receive contracted rent. The purchasing power of the fixed-income earners decreases because they have to pay more for a product. Conversely, producers gain because they are making higher profits as price may rise faster than cost. Unless the fixed income earner can get wage increases as fast as the rate of inflation, he is worse off in real terms. Lenders will lose and borrowers gain during unanticipated inflation. Borrowers gain because the real values of their debts are reduced by the price increase. This is because although the sum that is repaid in nominal terms is what has been agreed, its purchasing power is much less. In contrast, lenders end up getting back a sum worth much less than agreed in real terms.

External effects of unstable internal prices: Balance of payments

Also if a country's inflation rate is relatively higher than its trading partners, her exports will be relatively more expensive and therefore less competitive. If the demand for the country's exports is price elastic, this will lead to a more than proportionate fall in quantity demanded leading to a fall in export earnings. On the other hand, her imports will be relatively cheaper than home-produced goods and thus demand for imports increases and her import expenditure will rise. Hence net exports fall which worsens the current account and may lead to a worsening of the balance of payments and a fall in foreign reserves if it is persistent.

Impacts of unstable external prices
When a country is experiencing external price instability in the form of a rapidly depreciating currency, it will affect its balance of payments, economic growth and employment in the country.

When a currency depreciates in a country, this will lead to the prices of exports becoming cheaper in terms of foreign currency and the prices of imports becoming more expensive in terms of local currency. Assuming that Marshall Lerner condition holds, ie the sum of price elasticities of demand for imports and exports is greater than one, this will lead to an improvement in net exports. Increase in net exports will lead to a rise in AD and thus general price level if the economy is **near or at full employment.** The increase in AD increases competition for scarce resources, thereby leading to increased prices of factor inputs and hence price of output, resulting in **demand-pull inflation**.

With the relatively more expensive imports, it can lead to rising prices of final goods and services as well as rising cost of imported inputs for industries. Thus imported inflation in the country worsens. This is more serious in a country such as Singapore where she is heavily dependent on imports for most of her foodstuffs, raw materials and fuel.

The rapidly depreciation of a currency may also bring about uncertainty due to the fear of future depreciation and this loss of confidence in the currency can cause speculative capital flight out of the country, thereby worsening the country's capital account. In addition, if a country has a huge external debt, a depreciation of the currency will increase the burden of servicing the debt which is in foreign currency.

On the other hand, when the country is facing a rapidly appreciating currency, the country's export becomes relatively more expensive in terms of foreign currency, while its imports become relatively cheaper in terms of domestic currency. Assuming that Marshall-Lerner condition holds where the sum of the price elasticity of demand for exports and imports is more than 1, this will lead to a fall in net exports, resulting in a fall in AD and thus multiple fall in NY via the multiplier effect. The fall in income and production will lead to a fall in demand for labour and thus unemployment increases. A rapidly appreciating currency may lead to the cost of investment to be relatively higher in terms of foreign currency and this may deter foreign investors from investing in a country which is detrimental to her economic growth.

In conclusion, the consequences of falling to achieve internal and external price stability are mainly detrimental to a country. Therefore, the government will implement appropriate policies to bring about internal and external price stability to facilitate the government to achieve the other macroeconomic objectives.

b) Discuss the extent to which globalisation can help Singapore improve her economic performance. [15m]

Introduction
Globalisation refers to the increased integration of national economies into the international economy through trade, foreign direct investment, capital flows, migration, and the spread of technology. A country's economic performance mainly focuses on its ability to achieve its macroeconomic goals, namely internal price stability, sustained growth, full employment, and healthy balance of payments (BOP).

Thesis: Globalisation can help Singapore improve her economic performance
Enlargement of the world market
For a small country such as Singapore, globalisation allows her to overcome the small domestic market size by providing greater opportunities to venture into overseas markets and benefit from trading according to the theory of comparative advantage. Domestic producers will gain from an enlarged export market, as they are able to reap internal EOS due to the larger scale of production resulting in lower average cost of production. This would improve her export competitiveness in

the international market. Assuming that the demand for her exports is price elastic due to the availability of substitutes, the fall in price would lead to a more than proportionate increase in quantity demanded, leading to a rise in export revenue.

With higher export revenue, ceteris paribus, net exports increase and current account balance improves. Ceteris paribus, BOP will improve. With an increase in net exports, aggregate demand increases leading to a multiple increase in national income through the multiplier process. Actual growth can be achieved. With higher output and production, employment also increases as more jobs are created.

As Singapore has a small domestic market, she is heavily dependent on the world market to buy her exports. Thus the enlargement of the world market brought about by globalisation will improve her economic growth, unemployment rate and balance of payments to a large extent.

Increase sources of imports
Globalization also provides more opportunities for sourcing cheaper and better quality imports from other countries. This is very important for Singapore as she lacks natural resources. Cheaper imports will help to curb imported inflation. The fall in the price of imported raw materials also leads to a fall in COP, thus reducing cost push inflation. This in turn helps to maintain export competitiveness as the imported raw materials are needed to produce the exports.

The extent of benefit is large as Singapore imports large amounts of raw materials and end-products.

Increase in FDI
Globalisation also results in a higher inflow of foreign direct investment which improves Singapore's economy. Singapore for example has been attracting FDI in the areas of life sciences, biotechnology, water technology and tourism services. In the short run, this helps to improve the capital account and may improve the BOP. In addition, I and thus AD will increase and national income will increase by multiple times via the multiplier process, resulting in actual growth. In the long run, there is technology and knowledge transfer from these FDI to the economy as well resulting in an increase in capital accumulation which increases the productive capacity of the economy and shift LRAS to the right. This results in potential growth. Together with actual growth, sustained economic growth will be achieved. This means that Singapore's economy can continue to grow without the economy overheating.

This improves Singapore's economy to a large extent as domestic investment might not be adequate to enhance productive capacity of the economy and provide enough jobs. Local start-ups and small and medium enterprises (SME) tend to be smaller in scale than FDI, thus generating less employment.

Increase in Mobility of labour
Globalisation also allows a freer movement of labour. This is especially important for a small country like Singapore which suffers from a tight labour supply. For instance, Singapore brings in a lot of low skilled foreign workers to work in the construction sector and as domestic helpers. The higher inflow of foreign talents and labour will increase the quantity and quality of labour, thus increasing the productive capacity of the economy and causing LRAS to shift to the right, boosting potential growth. Without the influx of foreign labour, her productive capacity will be very much limited by the small labour force available and cost of labour will be much higher. The inflow of labour helps to keep cost push inflation at bay as wages can be kept low.

The extent of benefits is great as Singapore has limited manpower, thus mobility of labour enables Singapore to overcome the constraints of the lack of labour and enhance her productive capacity significantly.

Antithesis: Globalisation will worsen Singapore's macroeconomic performance
Loss of comparative advantage

The increase in competition due to globalisation might cause Singapore to lose her CA in low-end manufacturing industries to China as China enjoys low cost of production due to cheap labour and land costs. Industries in Singapore may relocate to another one with lower opportunity cost of production. For example, manufacturing firms in Singapore have relocated and outsourced production to low-cost countries such as Cambodia and China that have abundance of labour. Retrenched workers then do not have the relevant skills to work in capital-intensive sunrise industries such as biotechnology, resulting in structural unemployment. The fall in X-M and FDI will lead to a fall in AD and thus multiple fall in NY via the multiplier process, resulting in a decrease in actual growth. The fall in production leads to a fall in demand for labour and thus an increase in cyclical unemployment. Hence, this results in an increase in overall unemployment.

The extent of impact is small as Singapore is constantly sourcing for and developing markets with new comparative advantage. Also, with the increase in competition, companies in Singapore are motivated to do research on lowering the cost of production or improving the quality of the product to ensure that her exports are able to compete with her trading partners in terms of quality and prices. Lastly, as Singapore's industries are mainly capital intensive, the extent of the impact on unemployment rate will be minimal.

Vulnerability to external shocks and greater economic instability

Globalisation increases the vulnerability of a small country to external shocks. For example, during the 2008 Global Financial Crisis, Singapore's major trading partner US experienced a recession and a decrease in income level. The fall in their purchasing power and consumption lead to a fall in their demand for imports. This caused a fall in the demand for Singapore's exports, resulting in a fall in export revenue and net exports decrease ceteris paribus. The corresponding fall in AD resulted in a significant decrease in GDP, leading to negative actual growth and increase in cyclical unemployment. Balance of payments also worsened.

The extent of impact can be large as exports are 250% of her GDP. Countries such as US and Eurozone are important trading partners of Singapore. Thus the impact on growth, cyclical unemployment and balance of payments can be large when there is a global crisis.

Small economies, such as Singapore, are highly dependent on imported raw materials due to the lack of natural resources. External shocks such as droughts in US and Middle-East Crisis have led to increases in food and oil prices respectively. These led to Singapore suffering from imported inflation.

The extent of the impact on imported inflation depends on whether Singapore is able to reduce unit cost of production by other measures such as increasing productivity.

Evaluative Conclusion

Globalisation can help Singapore improve her macroeconomic performance to a large extent as the benefits of globalisation outweigh the costs. This is due to the nature of Singapore which is a small economy that has limited resources and is trade dependent. However the ability to improve macroeconomic performance in Singapore is not solely dependent on embracing globalisation. Other factors such as the quality of her labour force and infrastructure can also be important in attracting investment and enhancing growth.

Achievements from globalisation are also dependent on the government's ability to implement policies to maximise the benefits of globalisation and minimize its costs. For example, Singapore government reduces corporate tax rates to attract inward FDI, invests in skills retraining and upgrading schemes to deal with structural unemployment, and provides incentives for firms to do R&D.