JURONG JUNIOR COLLEGE

2014 JC2 ECONOMICS 8819 (H1)

PRELIMINARY EXAMINATION

ANSWER BOOKLET

Answers to 2014 Preliminary Examination Case Study Question 1

(a) Compare the prices of gas and coal & smokeless fuel in the UK between 2008 and 2013. [2]

The price of gas and coal and smokeless fuel rose in UK between 2008 and 2013. The price of gas rose by 70% much faster than the rise in price of coal & smokeless fuel which rose 30.5% in the same period.

(b) Using information in Extract 1, explain one demand and one supply factor causing the price of gas to rise in the UK. [4]

China has experienced rising GDP growth and this implied that there is a rise in purchasing power of the population. This will lead to a rise in demand for goods and services which in turn encourage production. Firms' demand for gas as an input in production will increase leading to a rise in the price of gas price.

The power outage at a Norwegian gas plant and the leaking crude oil pipeline in Scotland blocking the supply of natural gas from fields further up the production chain reduce the supply of gas which in turn raise the price of gas in the UK.

(c) According to Extract 1, UK consumers' domestic gas bill increased by 11.8% when the price of gas rose by 13.1%.between 2011 and 2012. Comment on what this might imply for the price elasticity of demand for gas. [4]

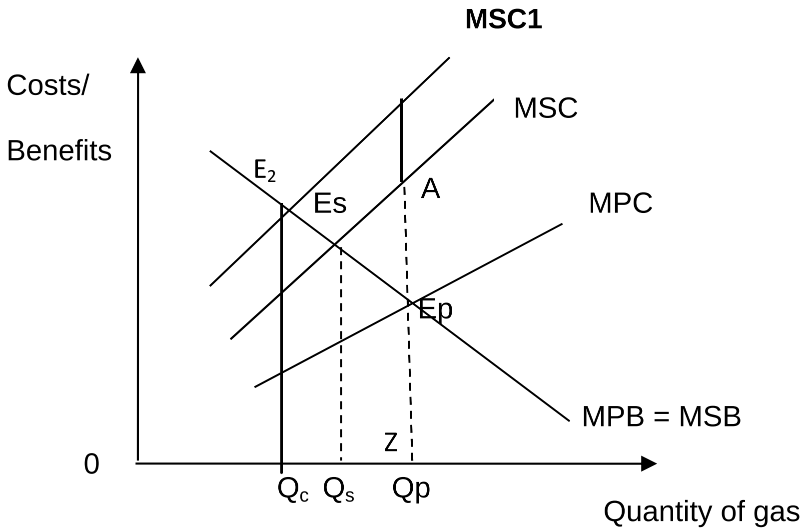
The demand for gas is price inelastic. This means that when the price of gas increased, there will be a less than proportionate fall in quantity demanded for gas. Consumer expenditure on domestic gas rose as the percentage increase in price is greater than the percentage fall in quantity demanded.

But the ceteris paribus assumption may not hold. The rise in consumer expenditure on domestic gas bill could be brought about by a rise in demand for gas. This could be due to longer period of winter which could use a lot of gas to heat homes.

(d) Using economic analysis, explain why economists would support the burning of natural gas rather than coal in a country's power station. [4]

As mentioned in extract 2, the burning of natural gas rather than coal in a country's power station is preferred by environmentalists as gas-powered plants emit less than half the carbon dioxide emitted compared to coal-fired plants. This implied that the amount of external costs generated in production by gas-powered plants could be reduced.

Carbon emission by gas-powered plants could pollute the environment and cause a deterioration of air quality. Residents staying within the surrounding area could likely fall sick and subject to rising medical costs. The presence of external costs in production is indicated by the MSC curve that lies above the MPC curve.



The figure above shows that the gas-powered station will equate MPC to MPB and will produce Q_P gigwatts of gas. The producer ignores the external costs generated from production equal to AE_p amount. The socially optimum level of production should be at Q_s gigwatts of gas where MSC=MSB. Hence, the presence of external costs leads to overproduction and welfare loss of area E_sAE_p as the total costs to society for the production of QsQp amount exceeds total benefits to society.

As external costs generated by gas-powered plant is lesser than a coal-powered plant, which is ZA amount in the figure above, the welfare loss of the former is indicated by area E_2ZE_p which is lesser than the latter given by area $E_2ZE_{p.}$

e) Discuss the policy measures adopted by the Australian government to correct market failure resulting from carbon emissions. [8]

Carbon tax priced at A$23 per ton in July 2011 was introduced in Australia. It has the effect of raising firms' cost of production by an amount equal to the MEC= AE_p amount and shift their MPC curve upwards to coincide with the MSC curve shown in figure 1 (part d of the answer). Firms are forced to internalise the external costs generated on others and they will reduce production level to Q_s as they equate MPC_1 to MPB to reach the socially optimum level of production as greenhouse gas emission is reduced.

As mentioned in extract 3 the carbon tax is easier to implement as the authority needs merely to attach a fixed price to be charge to each unit of the good produced. However, it is difficult to estimate the amount of external costs generated as the intangible costs like the deterioration of the quality of the environment could be difficult to quantify. The over and underestimation of the amount of external costs generated may lead to over and underestimated of the welfare loss. In addition, since the carbon tax does not cover agricultural and fuel used by light commercial vehicles and passenger that constitute 30% of carbon emission (extract 3), the adverse impact of rising costs on firms that lead to the slash of production and jobs could be kept lower.

The cap-and-trade system involves the Australian government to determine the maximum amount of carbon emissions allowed per year. Government will issue permits to firms which allow them to pollute up to the quota specified. Those firms that exceeded their quota will have to buy excess credits will those with excess credits ca sell them to increase their revenue.

There is more certainty on the results of this policy as Australian government could better control the level of carbon emissions. While firms that pollute above the quota could trade for more permits in the market, it acts as a disincentive for them to innovate and be more efficient in energy usage particularly if the rising costs could be passed on to consumers in the form of higher prices.

Carbon tax could be a better policy in the short run and if target at specific sectors that emit highest amount of carbon emissions, its adverse impact of rising costs on firms and subsequently households on the economy could be reduced. It also provide firms and households time to adjust to increase their usage of eco-friendly sources of energy. In the longer time, cap-and-trade policy could replace carbon tax as in the case of Australia which target at all polluting agents. It would be effective provided Australian government does not issue abundance of pollution permits like the case in Europe that could dramatically reduce the price of the permit and render the policy ineffective as polluting firms are not encourage to switch to green energy.

(f) Do you agree with the view that UK's "dash for shale gas" policy (Extract 4) would bring about more benefits than costs to the UK economy? [8]

UK's "dash for shale gas" policy will help reduce the country's high dependence on imported gas. The discovery and successful exploration of shale gas would help to drive down gas prices, just like the United States (extract 4). As gas is used for heating purposes at home, households domestic gas bill may not rise which benefit the lowest income group the most and to some extent help prevent rising cost of living.

The extract mentioned that 74,000 jobs are created in the shale-gas industry. As workers are employed in the shale-gas industry, they will spend on consumer goods and result in a spill-over beneficial effects on other sectors in the economy via the multiplier effect. The country's real GDP will increase. Businesses will also experience lower cost of production as gas prices fall. This will be translated into export competitiveness. As demand for export is elastic, export revenue will increase. As UK import lesser amount of natural gas, import expenditure may fall. The rise in export revenue and fall in import expenditure will lead to a surplus in the current account.

However, there are costs to the economy as gas drilling process may cause contamination of water supplies or other environmental damage (extract 4, paragraph 3). External costs could be generated as the contamination of water supplies could increase residents chances of falling sick and facing rising medical costs. As producers ignore the external costs generated in the drilling process, market fails and welfare loss arise. Natural landscape and scenery would be ruin and bring about a deterioration in the environment and qualitative aspects of life could worsen.

UK "dash for gas" policy is likely to bring more benefits than costs to the economy as the external costs generated from drilling process could be minimised with the UK having one of the most stringent regulatory system in this world (extract 4). Meanwhile, it should continue to invest in renewable energy to encourage low carbon investment. If UK's shale gas reserves are large enough, her dependence on imported gas could be reduce to below 69% by 2019 (extract 1). This will help to reduce the UK vulnerability to gas price volatility and bring about more benefits to both households and the economy.

Answers to 2014 Preliminary Examination Case Study Question 2

2014 J2 H1 (8819) Economics Prelim Case Study Question 2 (H1 Answers)

(a) (i) Compare the change in fiscal balances of the UK, US and Euro area between 2007 and 2012. **[2]**

In general, all UK, US and Euro area are having fiscal deficits (negative values) throughout 2007 to 2012. (1m)
The proportion of fiscal deficit to GDP has increased the least in Euro area. OR
The proportion of fiscal deficit to GDP has increased the most in the US. (1m)

(ii) With reference to the data, discuss whether spending cuts and tax increases are the most appropriate for Europe's recovery. **[8]**

Europe's recovery is to achieve economic growth and higher employment.

- Thesis: Austerity measures more appropriate for Europe

Austerity measures are a combination of direct tax rates increase and reductions in government expenditure in the European economies to cut budget deficits and restore confidence (Extract 5). With higher confidence (higher MEC and expected returns), investment would increase therefore stimulating the level of aggregate demand (AD), increasing national income multiple and increasing the overall level of economic activity and employment in the European economies. In addition, in the long run, a higher level of investment brings about potential growth since quantity of capital increases. Thus leading Europe to recover from the current problems of negative growth and unemployment.

*Limitations:*However, the use of austerity measures (decreasing G and increasing T) can result in a short run fall in AD and decreases NY multiple times, hindering actual growth. Moreover, the contraction of national income is worsened with the multiplier size being larger than assumed (Extract 5). This is due to the prolonged unemployment, causing savings in most of the European economies to deplete, resulting in a relatively lower marginal propensity to save. Therefore with smaller leakages and a bigger k, the impact of austerity measures on NY, production and hence unemployment will be larger, making it difficult for the government to restore confidence to achieve economic growth and recovery.

- Anti-Thesis: Stimulus measures or other policies more recommended for Europe

On the other hand, the European governments could adopt stimulus (EFP or supply-side policies) instead of austerity measures.

The government can use expansionary fiscal policy by increasing government expenditure

(G) on infrastructure or reducing taxes like personal income tax or corporate tax. The reduction in personal income tax results in an increase in disposable income, purchasing power and ability to afford goods and services, hence leading to an increase in consumption (C). Next, the fall in corporate tax increases after-tax profits, thus giving firms a greater incentive to invest so investment (I) is encouraged. The increase in C, I and G would increase aggregate demand (AD), and thus national income will increase by a multiple via the multiplier process, resulting in actual economic growth. The increase in AD and production will create jobs and reduce cyclical unemployment. Additionally, if the government spent on areas such as skills training and upgrading its workforce or improving the efficiency of infrastructure in the economy (Extract 8), it will help increase productivity and hence increase the productive capacity of the economy, achieving potential economic growth, bringing recovery.

Limitations:

According to a(i), the European economies have increasing high fiscal deficits which needed the high tax revenue to pay for those public debts. As such they might not be willing to lower the tax rates. Additionally, Extract 1 stated that further spending will accumulate the debt and it is only a short term measure. Moreover, the business confidence will be low due to the 'flat lined' growth (Extract 5) thus lowering tax rates may not increase I as business outlook is poor. Hence the increase in G and I might be limited, restricting the recovery process.

- <u>Anti-Thesis (II) Any other policy (besides G & T) more recommended for Europe</u>

In addition, Europe could adopt

- exchange rate policy - depreciates Euro dollars, (Extract 6) competitive devaluation but must note that all 17EU countries must agree to a depreciation. A country itself cannot depreciate the Euro dollar.
- trade policy – embrace globalization and strengthen comparative advantage (Extract 8)

**monetary policy is not acceptable as it is not mentioned in data*

- <u>Conclusion</u>

In conclusion, the use of austerity measures might be the most appropriate for the European economies currently to recover their growth and employment. This is due to the existing economic situation in which there is a lack of other policies to promote growth. This is primarily because the government has no ability to implement or complement this with other policies. In addition, external demand is very weak due to the weak global economy (Extract 6). There is thus no scope for devaluation to restore competitiveness too.

Lastly, austerity measures short run impact of dampening growth could be reduced if the government could practice reducing expenditure only on selective unproductive industries such as agricultural subsidies and spend on increasing productivity instead (Extract 8). This could decrease their fiscal debts without much compromising on growth.

L3	Well-developed explanations and limitations of 2 policies that the	6 - 8

	European governments can use to achieve growth and employment with reference to the case study evidence.	
L2	Under-developed explanation of policies that the European governments can use to achieve growth and employment with reference to the case study evidence.	3 – 5
L1	Smattering of valid points.	1 – 2

(b) **Explain the impact of near-zero interest rates (Extract 2) on employment in the US.** **[2]**

A near-zero interest rate decreases borrowing costs for consumption and investment**.**

- Consumption expenditure increases because a lower interest rate may divert savings into current consumption since the opportunity cost of consumption becomes lower.
- It decreases the cost of borrowing for financing consumption. Consumers are encouraged to borrow from banks to finance their consumer durables especially the bigger ticket items.
- Likewise, investment spending increases because marginal investments that were marginally unprofitable before now become profitable with the fall in borrowing costs.

(1m for any one of the explanations above)

The increase in investment and consumption expenditure stimulates aggregate demand (AD) and causes a multiple increase in national income through the multiplier effect. Production thus increases and more factors of production are employed, increasing employment in the US. (1m)

(c) **Explain possible effects on the balance of payments of the US when its currency weakened.** **[4]**

Effects on current account (2m)

With a weaken USD, the price of the US exports will be lower in foreign currencies and the price of imports will be higher in domestic currency. Assuming that the Marshall-Lerner condition holds where the sum of the price elasticities of demand for exports and imports is more than 1, net exports earnings would increase. This leads to an improvement in the current account balance. BOP therefore improves, ceteris paribus.

Effects on capital account (2m)

ST Capital

A weaken USD will lead to an outflow of hot money (Extract 6) as speculators anticipate a further depreciation of the currency. The weaken USD will also lead to a decrease in short term capital inflow. The increase in short term capital outflow and decrease in short term capital inflow will worsen the KA balance and ceteris paribus, worsens the BOP.

Or

LT Capital

As seen in Extract 6, a weaken USD might encourage foreign investment due to lower costs as it would be cheaper in the eyes of the foreigners to invest in the US since they need to convert less of their currency to the USD. Hence, this would result in an increase in foreign direct investments, thereby resulting in an increase in long term capital inflow. This will result in an improvement in KA balance and ceteris paribus, improves the BOP.

The overall effect on the US's BOP will depend on the extent of depreciation, especially in comparison to that of the other countries. The relative importance of the different accounts of BOP will also affect the overall effect.

(d) **Comment on how a low productivity growth in UK will affect its economy.** **[6]**

From Extract 7, UK's low productivity growth could be a result of poor labour or capital productivity.

Internal

Poor labour productivity could result in higher costs of production, higher per unit cost, since longer hours (more wages to be paid) are needed to produce the same output. As such, wage growth increases faster than productivity growth, UK firms suffer higher average cost; they might pass on the increased cost to consumers in terms of higher prices, thereby discouraging consumption. The increase in the cost of production for firms also results in lower profit margins and less incentives for firms to produce. Short run aggregate supply thus falls resulted in higher general price level (price instability) and lower output level, dampening UK's economic growth. The decrease in production will cause UK firms to retrench labour, resulting in a decrease in employment.

Poor labour productivity will also lead to the lag in wage increment as firms cannot afford higher wages when their labour is inefficient. As such, consumers who already suffer increased in cost of living will suffer a lower standard of living with stagnating wages.

Poor capital productivity would mean capital equipment (machineries) become less efficient, stagnate UK's economic growth since the growth of productive capacity, LRAS is dampen.

External

The higher cost of production due to poor productivity growth will also mean UK exported goods and services are less price-competitive in comparison to its trading partners, especially the G7. Given that demand for UK's exports are price elastic due to the availability of substitutes, the relative more expensive exports will cause a more than proportionate decrease in the quantity demanded. This will result in a decrease in UK's export revenue. Similarly with higher prices domestically due to higher cost being passed on, UK consumers might switch from domestic goods to relatively less expensive imports. The demand for imports will thus increase, resulting in an increase in import expenditure in UK. The decrease in export revenue and increase in import expenditure will cause the current account balance to worsen.

The fall in export earnings and rise in import expenditure will also lead to a decrease in demand for Pound and an increase in supply of Pound, causing the external value of the Pound to depreciate. Depreciation in the Pound has serious repercussions on the UK economy as it will invite imported inflation; further increase the costs of production.

In addition, since UK firms earn lesser profits, they will not have the ability to have excess funding for R&D (research & development), innovation and technological advances (Extract 7). Therefore, not only will UK exports become less price-competitive, its quality will not improve too.

The higher cost of production also deters FDI or causing an outflow of long term capital. This will cause a worsening of KA balances. With both CA and KA balances worsening, BOP might suffer a deficit.

<u>Conclusion / Extent</u>
The poor productivity growth is likely to have significant negative impacts on the macroeconomic goals. Moreover, the relative lower labour productivity when compared to other countries, ranked way below (Extract 7) implies that the fall in I, FDI and therefore real NY may be significantly much more.

However, the extent of the above impact eventually also depends on other factors such as strength of UK's exchange rate, prevailing economic outlook and existence of effective government policies that may be more important in determining the impact of macroeconomic objectives.

Lastly, there might be difficulties when measuring and comparing productivity accurately. There is a continuous change in the price of inputs and outputs creating challenges in measuring productivity. Also, it is very difficult to measure the productivity of service sectors because the output of the service sector is intangible.

L2	Well-developed explanation of both the effects on internal and external economy with extent and strong use of case study evidence.	4 – 6
L1	Under-developed explanation of the effects on internal and external with some use of case study evidence.	1 – 3

(e) Using the evidence in the data and your own knowledge, assess the validity of countries practising protectionism. **[8]**

Protectionist measures are policies which distort market forces in order to give a competitive advantage to the domestic industry of an economy.

<u>Thesis: Countries practise protectionism is valid</u>

- European countries to protect against dumping.

Dumping occurs when overseas firm sells its product in another country below its marginal cost of production. This causes domestic industries in EU to face unfair competition from China that results in a reduction in domestic output and employment (Extract 8). Furthermore, if China firms are practicing predatory dumping to gain monopoly power and then raise prices later, it will exploit the EU consumers. Hence the EU government practises of protectionism to protect their local industries from such unfair competition is valid.

Limitations

However, the validity is limited because in the real world, it is difficult to assess dumping. EU claim on protectionism may be too strict on cheap-labour-intensive imports from China as seen in Extract 8 raised by WTO. In fact, China may have the comparative advantage in labour-intensive products due to their abundant supply of cheap unskilled labour and resources, and extensive economies of scale enjoyed from mass production; and hence are able to enjoy lower costs of production, that can be passed on to consumers in terms of lower prices, hence increasing their welfare.

- US to protect against unfair competition due to Chinese currency manipulation

In addition, China has “suppressed the yuan” to keep Chinese products artificially inexpensive Extract 6, hence causing several domestic products to be less competitive, and cause domestic consumers to switch their expenditure away from domestic products to the cheaper foreign imports. Hence, the deliberate “Chinese currency manipulation” would be a means of unfair competition, rather than as a result of China’s comparative advantage in labour-intensive products.

Hence, protectionism by the US may actually be valid under such circumstances since it would “neutralize China's currency subsidies that steal economies factories and jobs” and act as a means of self-defense against unfair competition from China.

Limitations

However, besides the undervalued yuan, there is also a possibility that economies’ products are less competitive than China imports due to domestic inefficiency by local producers (such as the UK weak productivity growth, Extract 7) and such protectionist measures would only perpetuate domestic inefficiency and lead to a misuse of resources, rather than address the lack of export competitiveness. US Governments could have instead offered incentives or subsidies to encourage domestic firms to upgrade their industries to regain their competitive edge. In addition, such protectionism would also have resulted in the loss of consumer welfare caused by higher prices, lower qualities and smaller variety of the local products. Hence protectionist measure is valid to certain extent.

- US to reduce trade deficit (and hence protect domestic production and employment)

For the US, who is experiencing a chronic trade deficit, (Extract 8), the government may resort to protectionism to reduce imports and thus improve the balance of trade, thereby protect domestic production and employment against the competition from cheaper

Chinese imports. Hence, protectionism is justified.

Limitation

Nonetheless, protectionism is a short term measure to correct a trade deficit as protectionism does not address the root cause of the deficit which maybe a lack of export competitiveness. In fact US suffering from trade deficit should instead restructure its economy or adopt supply side policy (Extract 8) as mentioned by WTO so as to improve international export competitiveness. Furthermore, protectionism might invite retaliation from trading partners in the long run. Therefore, protectionism may only be justified in the short-run to buy time to allow the country to restructure its economy more gradually, hence ensuring greater economic stability.

<u>Anti-Thesis:</u> <u>Countries practise protectionism is not valid</u>

On the other hand, embracing globalisation instead of protectionism brings about many benefits that an economy, such as Germany (Extract 8) enjoys as it integrates into the international economy due to the freer flows of trade, capital, labour migration and spread of technology.

As Germany rode on the wave of globalization, it benefitted from an increase in exports revenue with a larger world market as it specializes in producing their quality goods in which it incurs a lower opportunity cost and has comparative advantage over. Additionally, more foreign direct investment (FDI) will inflow into Germany and thus enjoy an increase in economic growth, employment and living standards. Hence protectionism in the EU and US will deprive these economies to enjoy such gains.

<u>Conclusion / Evaluation</u>

All in all, to a large extent, countries practice protectionism is not valid as it is just a short-run measure with doubtful gains and high costs.

Although protectionism may be valid should unfair trade practices occur, or adjustment of time needed, it cannot be sustained in the long run due to the inefficiency that it can bring and the overall lower welfare for all countries.

More importantly, as EU and US are major economic powerhouse in the global economy, it is important for these governments to work together to embrace globalisation and not practise protectionism as protectionism will only hold back economic growth for all countries.

L3	Well-developed explanation of both protectionism can be valid and invalid for the EU, US and Germany, with strong use of reference to case study data.	6 – 8
L2	Under-developed explanation of both protectionism can be valid and invalid for the EU, US and Germany, with some use of case study evidence.	3 – 5
L1	Smattering of valid points.	1 – 2

Answers to 2014 Preliminary Examination Essay Question 3

Globalisation can result in influx of cheaper imports but the intense foreign competition may force inefficient domestic firms to close down.

a) Analyze the benefits and cost of globalisation. [10]

b) Discuss the impact of the abovementioned effects of globalisation on domestic steel and car markets. [15]

Part A

Mark Scheme		
L3	Well-developed analysis of benefits and cost of globalisation supported by real life examples.	**7 - 10**
L2	Under-developed explanation of both benefits and cost of globalization. OR Developed explanation of either benefits or cost of globalisation.	**4 - 6**
L1	For a descriptive knowledge of benefits and cost of globalisation	**1 - 3**

Part B

Mark Scheme		
L3	Well-developed analysis of combined effects of globalisation on the domestic steel and car markets, using both PED & PES concepts.	**9 - 11**
L2	Under-developed explanation of combined effects of globalisation on the domestic steel and car markets, using both PED & PES concepts. OR Developed explanation of either combined effects of globalisation on either the domestic steel or car markets, using both PED & PES concepts.	**6 - 8**
L1	For a descriptive knowledge of effects of globalisation on the domestic steel and car markets.	**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**

Part A

Introduction

Globalisation is the increased integration of national economies into the global economy. Globalisation results in greater flow of goods and services, capital and factor resources among different economies which leads to greater interconnectedness and interdependence.

Benefits of globalisation

Enlargement of the world market
A small and open economy like Singapore exploited the theory of comparative advantage and tapped on the opportunities presented by globalisation to expand their exports market beyond her national boundaries. This resulted in specialisation in producing goods and services where their area of comparative advantage lies in and also expansion of their scale of production. As such, firms in Singapore would be able to enjoy economies of scale leading to lower unit costs of production. This in turn enabled them to make their exports more price competitive. Ceteris paribus, rising net exports earnings would increase the AD leading to an increase in the national income via the multiplier effect. This rise in national output would be fuelled by greater production and expansion plans which would lead to higher employment and living standards.

Globalisation also provides more opportunities for sourcing cheaper and better quality imports from other countries. This would help to curb imported inflation and in turn raise export competitiveness since many of the exported goods from a small economy like Singapore for instance, use imported raw materials. Thus greater ease in flow of goods and services would imply a cheaper and a wider variety of imports to choose from.

Increase in foreign direct investments
The educated, skilled workforce and positive investment climate in Singapore attracted many foreign direct investments (FDIs). The ease of inflow of FDIs helped improve economic growth, employment and balance of payment position of Singapore. Besides, the technological transfer from the transnational corporations has helped Singapore to enhance the productivity of their production, distribution and marketing processes, together with greater sharing of technical and managerial skills, knowledge and experience. This increase in FDIs and productivity levels has boosted the long run potential growth of the economy.

Increased mobility of labour
Countries which are agricultural based tend to have higher population. With a freer movement of labour, smaller economies including Singapore with limited manpower are now better able to utilize workers from other economies to fill up the vacancies requiring lower level of skills. For instance, Singapore imports a lot of low skilled foreign workers from South-east Asia and South Asia like India, China, Malaysia and Philippines to work in the construction sector and as domestic maids.

Costs of globalisation

Increased threat from global integration
The downside of being a small and open export oriented economy, such as Singapore and Hong Kong which have large trade sectors, is its increased vulnerability to external shocks. This makes them more vulnerable to changes in world conditions. The 2009 Global Financial Crisis affected Singapore adversely and caused her to slip into recession. When more markets become more open, competition will get stiffer. Stiff foreign competition and influx of cheap imports hurt domestic firms' profitability can force some inefficient domestic firms out

of business. The increase in competition also applies in the service industries. For instance, Singapore airport and Singapore Airline has faced increasing competition from regional countries and the Middle East.

Worsening income inequality
Globalisation results in rising income inequalities between the skilled and the unskilled workers. With greater mobility of labour, the unskilled workers face stiff competition from foreign workers. With an increased supply the wages for unskilled workers fall. On the other hand there is a shortage of skilled workers whose supply is limited however the demand for their services is high. This situation leads to rising wages for the high skilled workers.

<u>Conclusion</u>

Globalisation can bring about both benefits and costs. Ultimately, it is up to an economy to seize the opportunities it offers, and turn the threats into opportunities by managing the challenges.

<u>Part B</u>

<u>Introduction</u>

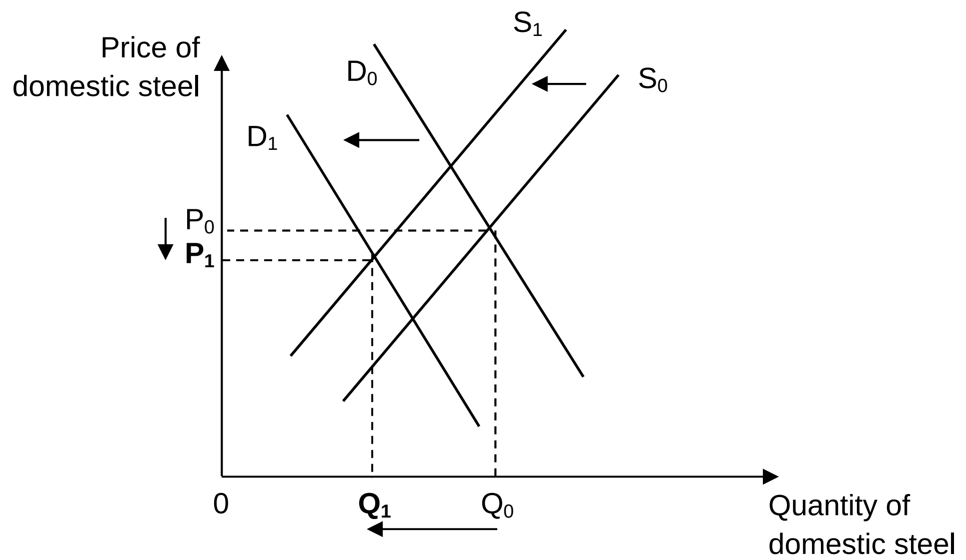
The price elasticity of demand (PED) measures the responsiveness of a change in the quantity demanded of a good to a given change in the price of the good itself, ceteris paribus. The numerical value of the price elasticity of demand is always negative, which means that the price and quantity demanded of a good have an inverse relationship.

<u>Body 1</u>

<u>Explain how effects of globalisation (influx of cheaper imports and foreign competition forced inefficient domestic firms to close down) affect the domestic steel and car markets respectively</u>

As mentioned in the pre-amble, one of the effects of globalisation is the influx of cheaper imports. The imports of both cheaper imported steel pose challenges to the domestic steel market. As these foreign imports are substitutes to domestic steel, the influx of cheaper imported steel will cause a fall in demand of domestic steel.

The other effects of globalisation mentioned in the pre-amble is how foreign competition forced inefficient firms to close down. The closure of these domestic steel firms will cause a fall in supply of domestic steel.

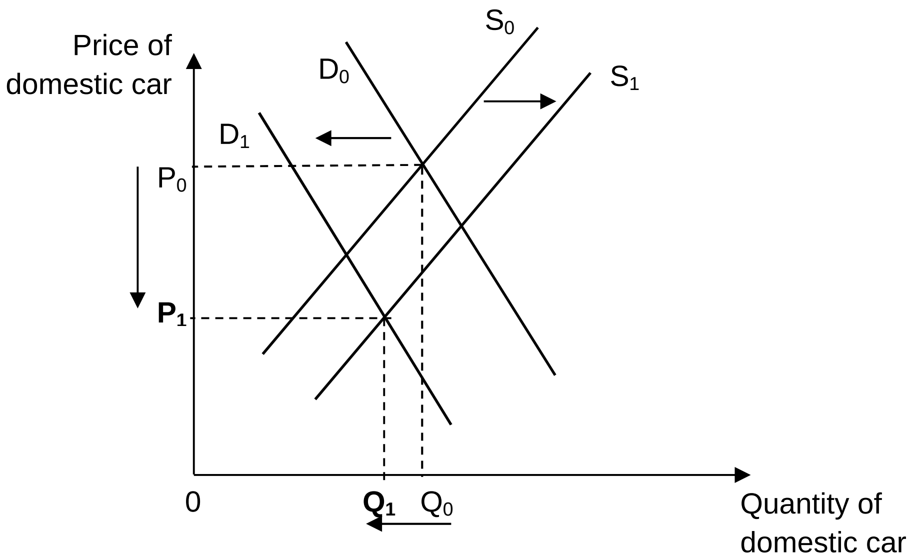


Hence, when demand falls and supply falls, the demand curve will shift leftwards from D_0 to D_1 and the supply curve will shift leftwards from S_0 to S_1. It will result in a fall in quantity of domestic steel from Q_0 to Q_1. However, the outcome on price is indeterminable. If the fall in demand is larger than the fall in supply, there will be a net fall in the price of domestic steel from P_0 to P_1.

This is likely the case for US steel markets which is reported to face its worst import crisis in more than a decade putting up to half a million US jobs in the domestic steel industries at risk. This due to significant global excess steel capacity from steel producing countries like China, South Korea and India which results in exports of these surplus at below-market rates.

Similarly, the influx of cheaper imported cars will cause a fall in demand of domestic cars. However, despite the fact that foreign competition forced inefficient firms to close down leading a fall in supply of domestic car, the domestic car market may actually benefit from the globalisation.

The imports of cheaper imported steel allows domestic car market to enjoy a lower cost of production should they switch from using domestic steel to cheaper foreign imported steel. As steel is a major factor input for the production of car, car producers can greatly benefit from the lower cost of production, resulting in higher profits and greater incentive to supply. Therefore, despite the closure of domestic car firms due foreign competition, there is still a net increase in supply for the car market.



Hence, when demand falls and supply increase, the demand curve will shift leftwards from D_0 to D_1 and the supply curve will shift rightwards from S_0 to S_1. It will result in a fall in the price of domestic car from P_0 to P_1. However, the outcome on quantity is indeterminable. If the fall in demand is larger than the increase in supply, there will be a net fall in the quantity of domestic car from Q_0 to Q_1.

This is likely the case for US car markets where there are rising concerns over the quality of cheaper imported Japanese cars. Over the years 2009 to 2011, Toyota, Honda and Nissan recalled more than millions of car involving defective air-bag inflators, faulty ignition switches and unintended acceleration. Toyota is now up to 10.1 million recalls worldwide, while General Motors has called back almost 14 million in the US alone.

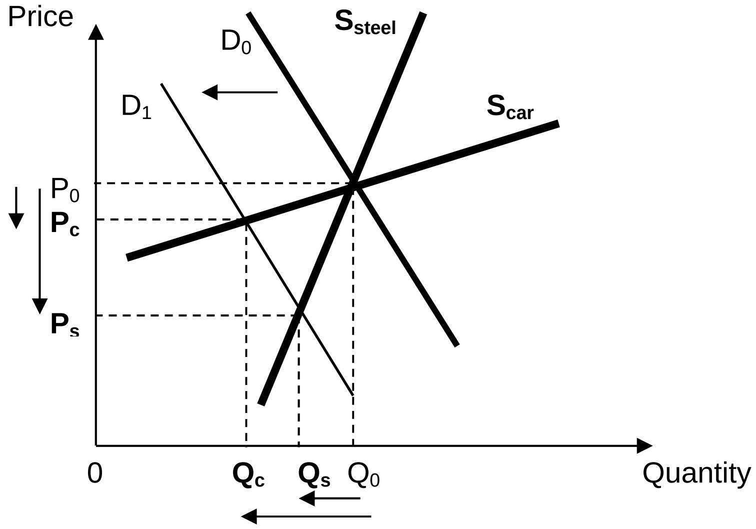
Body 2

Explain how effects of globalisation (influx of cheaper imports) affect the domestic steel and car markets, using elasticity concepts

As explained earlier, the influx of cheaper imported steel and car will cause a fall in demand of domestic steel and car markets. However, the outcome of price and quantity changes of the domestic steel and car markets will differ due to their different PES value.

The supply for domestic steel market is likely to be price inelastic. This is because the steelmaking process takes a substantial amount of time and effort - from mining raw iron ore to the steelmaking process which converts liquid iron into steel.

On the other hand, the supply of car market tends to be price elastic. This is because car being a manufactured good has a relatively greater ease in factor input mobility compared to the steel market.



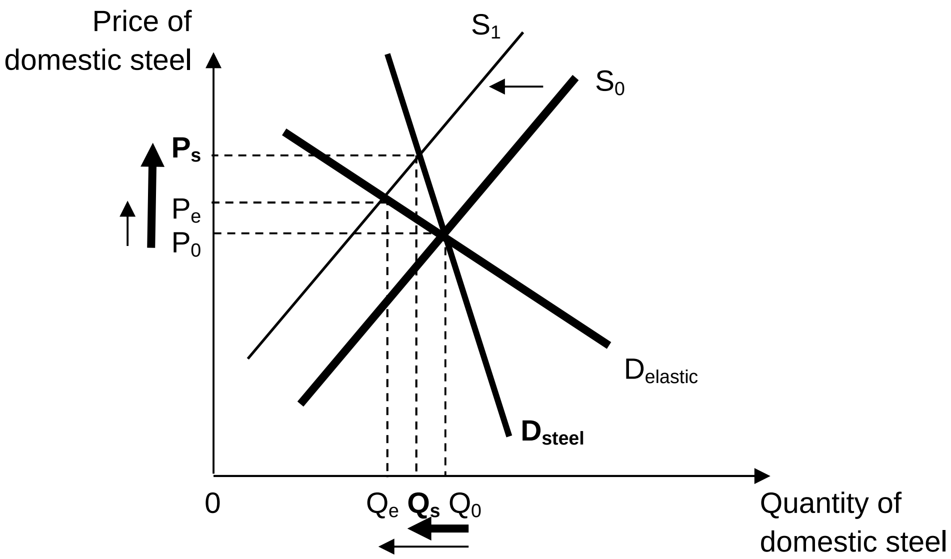
Hence, when demand falls, shifting the demand curve leftwards from D_0 to D_1, for the domestic steel market which has an inelastic supply curve, it will result in a more significant fall in the price of steel from P_0 to P_s and a less significant fall in the quantity of steel from Q_0 to Q_s.

In comparison, for the domestic car market which has an elastic supply curve, it will result in a less significant fall in the price of car from P_0 to P_c and a more significant fall in the quantity of car from Q_0 to Q_c.

Body 3

Explain how effects of globalisation (foreign competition forced inefficient domestic firms to close down) affect the domestic steel market, using elasticity concepts

As explained earlier, foreign competition forced inefficient firms to close down causing a fall in supply of domestic steel market. Due to the lack of available substitutes for steel as a raw material, the demand for domestic steel market is likely to be price inelastic. As a result, the outcome of price and quantity changes of the domestic steel market will differ compared to a market with an elastic demand value.



Hence, when supply falls, shifting the supply curve leftwards from S_0 to S_1, for the domestic steel market which has an inelastic demand curve, it will result in a more significant rise in the price of steel from P_0 to P_s and a less significant fall in the quantity of steel from Q_0 to Q_s.

In comparison, for a market which has a more elastic demand curve, it will result in a less significant rise in the price from P_0 to P_e and a more significant fall in the quantity from Q_0 to Q_e.

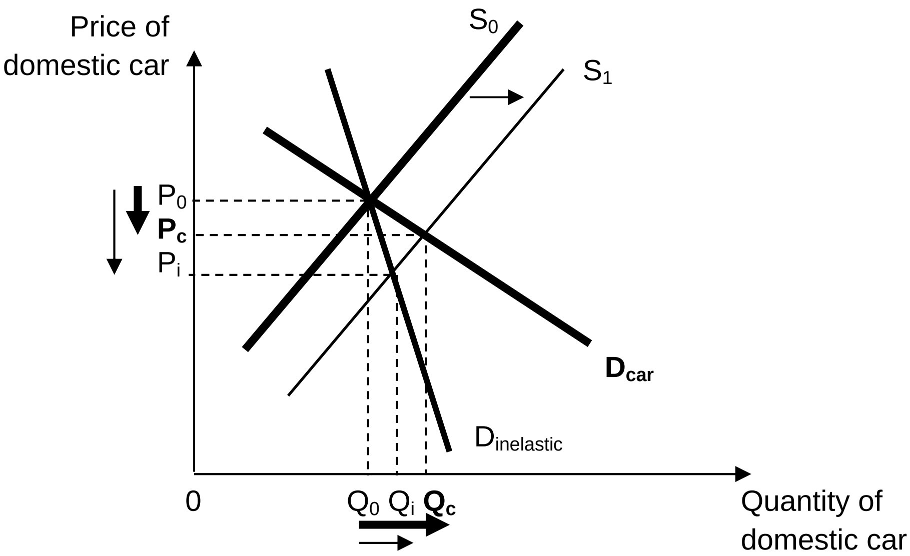
Body 4

Explain the net effects of globalisation on domestic car market, using elasticity concepts (optional)

On the other hand, as explained earlier, there is a net increase in supply of cars.

The demand of car market tends to be price elastic as there are alternative modes of transportation to cars such as the public transport – buses and trains or cabs. Hence, when supply rises, shifting the supply curve leftwards from S_0 to S_1, for the domestic car market which has an elastic demand curve, it will result in a less significant fall in the price of car from P_0 to P_c and a more significant rise in the quantity of car from Q_0 to Q_c.

In comparison, for a market which has a more inelastic demand curve, it will result in a more significant fall in the price of car from P_0 to P_i and a less significant rise in the quantity of car from Q_0 to Q_i.



Evaluative Conclusion

Nonetheless, the discussion of the effects of globalisation on the domestic steel and car markets can only be done based on the assumption of ceteris paribus. However, the ceteris paribus assumption does not hold true in real life. Firstly, in reality, the PED and PES values are difficult to collect and as such these data may not be accurate. These data may be outdated and unreliable overtime due to changes in the degree of substitutability between foreign and domestic markets or the discovery of alternative raw materials to replace steel.

In addition, there are various factors that take place simultaneously that may also have affected the price and quantity of these markets. For example, the market outcomes of the domestic steel and car markets can be largely influenced by the objectives of government policies. In response to the call for protectionism, governments may impose protectionism measures against foreign imports such as tariffs and devaluation to distort market forces so as to protect domestic industries and local jobs.

Answers to 2014 Preliminary Examination Essay Question 4

4 The government is moving to reduce its reliance on foreign workers and increase productivity. This includes support to upgrading efforts by businesses and subsidising training for local workers.

(a) Explain why government aims to achieve economic growth and full employment. [10]
(b) Discuss the extent to which a reduction in the reliance on foreign workers would slow down growth in Singapore.
[15]

Knowledge, Application, Understanding and Analysis		
L3	Well-developed analysis of reasons why government aims to achieve both macroeconomic goals.	**7 - 10**
L2	Under-developed explanation why government aims to achieve both macroeconomic goals **OR** an undeveloped explanation that explains why government aims to achieve either goals	**4 - 6**
L1	Descriptive knowledge of why government aims to achieve both macroeconomic goals	**1 - 3**

Knowledge, Application, Understanding and Analysis		
L3	Well-developed analysis of how reduced reliance on foreign workers may affect growth furnished with other offsetting factors that may not slow down growth in Singapore	**9 - 11**
L2	Under-developed analysis of how reduced reliance on foreign workers may slow down growth and may quicken pace of growth	**6 - 8**
L1	Descriptive knowledge of how a reduced reliance on foreign worker slows down economic growth	**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**

4a) Amongst the government's macroeconomic objectives is to achieve economic growth and full employment. Economic growth is defined as the increase in real output in an economy. It consists of both actual and potential growth. An economy's economic growth can be measured by the rate of increase in real GDP. Real GDP measures the annual value of output produced/income earned by an economy within the geographical boundary of a country taking into account the effect of inflation. A healthy and stable economic growth means that an economy is enjoying positive growth with no recession.

The government aim to achieve macroeconomic objective as there are benefits that can be enjoyed when an economy grows. With increase in real GDP, it means that an economy is enjoying positive growth. Firstly, economic growth leads to a higher standard of living if population growth is slower as more goods and services are available for consumption. Therefore, quantitative SOL will improve. Furthermore, with rising income, government will be able to earn higher tax revenues and improve infrastructure of the economy. For example, better quality housing, more efficient transport system and better education opportunities. This would improve qualitative SOL. Moreover, economic growth helps to alleviate poverty and bring about a more equitable re-distribution of income. Since government receive more tax revenue, this tax revenue can be used to channel more resources to help the poor thereby reducing income inequality.

Besides that, economic growth increases firms' and consumers' confidence. Businesses would be more confident of higher expected profits and this encourages them to increase investments. Households are more confident of job security as expectation of higher salaries, hence they will increase their consumption. Increase in investments and consumption will lead to further economic growth and would generate more employment and income.

The government aims to achieve full employment because it means that the maximum output possible with all its resources fully utilised. This means that more workers would be able to earn an income which allows them to spend on goods and services and achieve higher SOL. Since more people are employed, it would imply to higher tax revenue for government. There is lesser burden on the government budget. Instead the government could spend more on public projects and merit goods which may increase the SOL of citizens.

Also, structural unemployment and labour immobility results in higher costs of production in expanding industries. The shortage of labour would lead to upward pressure on wages. The spill-over effect will raise general price level in the economy leading to cost-push inflation. Profit maximising producers will try to protect their profit margins by passing on increase in cost to consumers in terms of higher prices. This may lead to wage-price spiral. Therefore, by ensuring full employment, the government can avoid the costs of unemployment.

Lastly, full employment means that the economy can avoid from facing the problem of de-skilled workers. This is because as workers remain unemployed for long periods, their skills become increasingly outdated especially in the context of an economic restructuring. This reduces the chances of being employed in future. Therefore, refraining from imposing an economic burden on the government.

In conclusion, the government should achieve economic growth and full employment due to the benefits that the economy can enjoy.

4b) Introduction:
The Singapore government has reduced its reliance on foreign labour by imposing limits on foreign workers. The limits include more levies on firms that employ low-skilled foreign workers, a cut in foreign worker quotas and stricter qualification guidelines. Some examples

of the policy include higher salary and educational requirements and additional foreign worker levies to distinguish foreign skilled from unskilled labour. The purpose of this policy is to encourage businesses to avoid depending on foreign labour to keep costs low. Instead businesses should look into areas that improve productivity to keep cost of production low. The reduced reliance on foreign labour will impact Singapore's economic growth. A slowdown in growth means that real output is increasing at a slower rate.

Thesis: A reduced reliance on foreign labour would slow down growth in Singapore

With limits on the foreign labour, the labour force growth will grow at a slower rate since the economy would have to depend heavily on the local workforce for growth. This means that the economy's productive capacity will grow at a slower rate. Therefore, limiting the shift of LRAS. This would result in a slowdown in economic growth since Real GDP will increase at a slower rate.

Besides that, the reduction in foreign workers would mean that supply of labour is limited, especially in the context of a growing economy. Firms require more labour. The rise in demand for labour coupled with the fall in supply of labour would exert upward pressure on wages. The higher wages translates to higher cost of production for firms. Firms will receive lesser profits and would have lesser incentive to produce. Therefore, firms will cut back on production. Firms will relocate to other economies that offer more competitive wages. For example, many small and medium enterprises (SMEs) relocate to the Iskandar region in Johor as it offers lower costs of production. However, not all industries are equally affected by the rise in cost of production that stems from the tight labour market. Industries that are capital-intensive will still continue producing since they rely more on capital than labour for production. This implies that overall SRAS will increase but at a lesser extent since the rising wages hampers the increase in overall production of goods and services.

In addition, the lack of availability of labour would mean that firms will have difficulty expanding production of goods and services. Especially in the services sectors in food and beverage outlets and retail shops since the restriction is more stringent in these industries. The higher cost and lack of availability of labour deters investments consequently leading to a fall in AD. Moreover, with a fall in production, there will be lesser goods and services available for consumption. Besides a fall in investments, there would also be a fall in consumption since there are lesser consumers in the economy, there would be a fall in consumer expenditure. This would hinder AD from increasing as fast.

Overall, the reduction in reliance on foreign workers will offset the increase in AD and the economy will still experience positive growth albeit a slower growth.

Anti-thesis: However, the reduced reliance on foreign labour may not necessarily lead to a slowdown in economic growth, in fact, it may quicken the pace of economic growth.

The reduced reliance on foreign labour will encourage firms to be less dependent on foreign labour and instead find ways to upgrade and improve their production processes. The government is supporting the effort at improving the skills of workforce by providing subsidies for skills training. This will result in an increase in LRAS since quality of workers and quantity of capital has increased. Furthermore, by producing more efficiently, overall cost of production falls and businesses gain higher profits. With the rise in profits, businesses have an incentive to expand production. This would lead to an increase in investment, resulting in AD increasing and national income further increasing via the multiplier effect.

Next, the reduced reliance on foreign labour pushes the economy to restructure. This is because by imposing measures that tightens foreign labour through imposing higher salary and educational requirements sharpen the distinction between skilled and unskilled workers. This implies that for firms to hire foreign labour, the foreign labour must be earning income above a certain level and possesses relevant skills. This requirement ensures that the foreign labour hired fuels labour productivity instead of just ensuring lower cost of production for producers.

The stricter measures on foreign labour would mean that industries that depend on unskilled foreign labour will decline while sunrise industries like pharmaceuticals, offshore and marine engineering that require more skilled labour will expand. With the expansion of these capital-intensive industries, Singapore will produce more value-added goods and services. These industries will drive productivity further since it requires more innovation and automation compared to labour-intensive industries. The increase in productivity lowers cost of production leading to an increase in national income. Moreover, economic restructuring increases the productive capacity of the economy since industries expand and engage in more R&D and innovation. With more capital accumulation, it leads to an increase in LRAS and increasing potential growth.

Despite the fall in labour due to a reduction in foreign workers supply, it is offset by a higher labour force participation from women and older workers. In 2013, more females and older workers joined the labour force, raising the labour force participation rate.This is because of the improvement in educational profile over the years. Besides that, it is fuelled by the government's efforts to establish tripartite efforts to improve the older workers employability. For example, the minimum statutory retirement age in Singapore is 62 years old. However, employers have to offer re-employment to older workers that are eligible to work up to age 65.

Therefore, Singapore's productive capacity will continue to expand despite the reduction of foreign workers. Hence, offsetting the impact of a foreign labour restriction therefore, the economy may continue to grow instead of slow down.

Evaluative Conclusion

In conclusion, whether the economy slows down or quickens depends on government's success in raising productivity to offset the increasing cost from the foreign worker restrictions. It also depends on the time period where slower growth can occur in the short run but the economy may experience a faster pace of growth in the long run.