ST. ANDREW'S JUNIOR COLLEGE
PRELIMINARY EXAMINATIONS – 2017 (JC2)
General Certificate of Education Advanced Level
Higher 1

ECONOMICS **8819/01**

28 August 2017

Paper 1

3 hours

Additional Materials: Answer paper

READ THESE INSTRUCTIONS FIRST

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

Section A
Answer **all** questions.

Section B
Answer **one** question.

At the end of the examination, fasten your answers for each question separately.
The number of marks is given in brackets [ ] at the end of each question or part question.

This document consists of **8** printed pages.

 [Turn Over]

Section A
Answer all questions

Question 1

Global Food Market and Potato Problems

Table 1: Food and Agriculture Organization (FAO) Food Price Index (2002 - 2004 = 100)

Year	2011	2012	2013	2014	2015
Index	230	215	212	207	179

The FAO Food Price Index is a measure of the monthly change in international prices of a basket of food commodities. It consists of the average of five commodity group price indices, weighted with the average export shares of each of the groups for 2002-2004.

Source*: Food and Agriculture Organization of the United Nations,* 2015

Extract 1: Global Food market

Cheap oil contributed to abundant global supplies of food in 2014 and prospects of a bumper crop for wheat, maize, potatoes and rice in 2015—factors that are driving the sharp decline in international food prices. The agriculture and food sector continue to benefit from less expensive chemical fertilizer, fuel and transportation costs brought on by the previous year's oil price declines.

Falling oil prices have also affected the demand for biofuels, made from crops like maize and potatoes, while the developments in rice support policies for the needy are other factors that could impact food prices. However, unexpected domestic food price fluctuations remain a possibility so it is crucial that countries are prepared to address dangerous food price hikes when and if they unfold.

Source*: World Bank,* 1 July 2015

Extract 2: Potatoes facts around the world

The potato has risen to become the third most important food crop in the world after rice and wheat in terms of human consumption, with fewer alternative food crops available. More than a billion people worldwide eat potato, and global total crop production exceeds 300 million metric tons.

It is a major food crop that is grown in over 100 countries across the world. China, Russia, India, the United States and Ukraine are the largest producers of potatoes. Although many countries across the globe are boosting their potato production, China and India are emerging as the clear world leaders. China is aiming to have 6.66 million hectares on which to grow potatoes by 2020, as the crop is set to become the nation's fourth food staple after rice, wheat and corn, and the government strongly supports this move. The development of the potato industry and the government's push for consumption of potatoes as a staple food is an important step in China's agricultural development

For years, growers have grappled with the problem of getting too good at what they do. Enhanced technology and growing techniques, especially when it comes to controlled irrigation, have allowed potato farmers to be more productive with the same amount of land, year after year. The average potato farmer is able to produce 1.5% more per year thanks to these advances. The Brazilian Agricultural Research Corporation has been carrying on a breeding program to develop well adapted and market quality varieties, targeting to obtain high-yielding, improved tolerance to crop diseases and harsh environment conditions

Source*: Adapted from USA Today,* 10 Feb 2016

Extract 3: Happy Problems in the Potato Market

Potato growers in the key growing regions of India are set for a long wait for better return of their crop. Total potato production is at a record 44.89 million tonnes for 2014-15, which is about 8% higher than the 41.55 tonnes produced in 2013-14. The decline in food prices is welcome, because more poor people can potentially afford to buy food for their families.

However, over the past one month, prices have started firming up as farmers hold back their produce. Farmers, who could stock their produce in the cold storages, have already done it. But still there is a large quantity lying in the fields with the farmers. They will first bring that to market and cold storage stock will get released. Small quantity is also stored by the growers in temporary storages, which have to be disposed of within 2-3 months of harvesting.

There are a total of 240 cold storages in Agra, a city in India, that can store 45 million packets of potatoes, but since there are no buyers of potatoes currently and the farmers could not pay the transporters to take the potatoes to other states for selling due to cash crunch, the cold storage owners were dumping the potatoes out of their units as the farmers were unable to pay them, This, even as a production glut has forced farmers of this starchy tuber to dump their crop on roadsides.

Source*: The Hindu Business Line*, 16 June 2015

Extract 4: Environmental Impacts Associated with Major Food Crops

In countries like India, agricultural intensification (involving the adoption of modern irrigation, fertilizers, improved seeds, and pesticides) has contributed to dramatic gains in food yields since the 1960s. However, increasing evidence suggests that intensive farming systems, if not properly managed, can cause serious environmental harm by reducing soil fertility, polluting soil and water, depleting groundwater, using large amounts of fossil fuels for water pumping, and contributing to climate change. All agriculture inevitably changes the natural environment. However in many instances, harm to natural ecological systems is either unnecessary or outright undesirable.

India, as the largest groundwater user in the world, with an estimated usage of around 230 cubic kilometers per year, more than a quarter of the global total, is severely affected by such environmental issues that are inevitable for an economy that is reliant on agriculture. With more than 60 percent of irrigated agriculture and 85 percent of drinking water supplies dependent on it, groundwater is a vital resource of clean water for both rural and urban areas.

This era of seemingly endless reliance on groundwater for both drinking water and irrigation purposes is now approaching an unsustainable level of exploitation. Many governments have considered the merits of policy measures, including environmental taxation, pollution permits, subsidies for innovation into curtailing usage and subsidies to encourage firms to recycle water.

Source*: Adapted from World Bank,* 6 March 2016

Extract 5: Brazil imposes anti-dumping duty on imported frozen potatoes

Brazil may be tempted to enforce a temporary 'anti-dumping rule' for imported frozen french fries sometime this month. The tax would mainly hit Belgian and Dutch potato product manufacturers.

Brazil is an important export market for the Belgian and Dutch potato manufacturers. The Dutch exported some 83,000 tons of frozen food to Brazil, which equates to about 166,000 tons of potatoes. That means the Netherlands are the second largest exporter to Brazil, following Argentina. Belgium, with 71,000 tons (which represents 142,000 tons of potatoes) is third in the list. Overall, Belgium process nearly 4 million tons of potatoes into cooled and frozen French fries, puree, chips, cooked potatoes, flakes and granulates.

The strong import numbers did not please Brazilian potato manufacturers. They accused European exporters (Belgium and the Netherlands, but also France and Germany) that they were dumping their products onto the Brazilian market. To support their claim, they refer to the pricing between July 2014 and June 2015, which were 18% to 41% below the prices used by those same four European countries to export to the United Kingdom. Belgian prices apparently differ nearly 25%.

The European potato manufacturers deny the accusation and feel the complaint is merely an attempt to protect local production. Even though there is still an ongoing investigation, Brazil could decide to enforce a temporary anti-dumping tax which might mean import costs could grow 40%. That would basically price the European frozen french fries out of the market.

The European potato industry is currently examining how it can fight back: one of the options is to create an interest group with local parties like importers, retailers and processors which could then point to how import helps the local economy and populace. One possible explanation could be that an additional import tax could cause price hikes, which could then spur inflation.

Source*: The EU Retail Detail,* 6 April 2016

Questions

(a)	**(i)**	Describe the trend in world food prices from 2011 to 2015.	**[2]**
	(ii)	Using a diagram and Extract 1, explain one demand and one supply factor that could support the trend in world food prices from 2011 to 2015.	**[4]**
(b)		From Extract 2, explain how the price elasticity of demand and price elasticity of supply of potatoes have changed over the years.	**[4]**
(c)	**(i)**	Using Extract 4, explain the source of market failure.	**[4]**
	(ii)	Comment on the options available to the Indian government as possible responses to the above market failure.	**[6]**
(d)	**(i)**	Explain what is meant by dumping as seen in Extract 5.	**[2]**
	(ii)	Discuss whether the Brazilian government should impose ‘anti-dumping duty’ on frozen potatoes.	**[8]**

[30 marks]

Question 2

United Kingdom and European Union

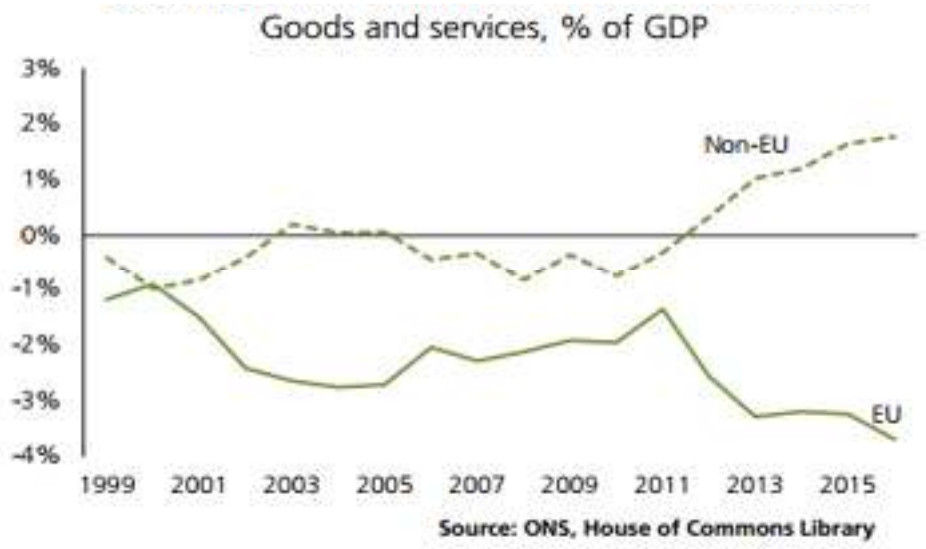
Extract 6: How worrying is Britain's large current account deficit?

Hear any UK politician talk of "the deficit", and he or she will now always be referring to the balance of budget. Britain has been facing a budget deficit from 2010. In the same period the current-account deficit, has also widened. Weak export performance is partly to blame for Britain's large current account deficit. Although disappointing net income from foreign investment is another cause of the deterioration in the current account, it is an extremely attractive investment destination for foreigners as they believe UK is a good bet given its credible governance amid trouble in emerging economies.

In one way, though, Britain looks less solid. Its appeal to investors might diminish markedly if it looked like leaving the European Union, in other words, if there were to be Brexit. Britain has been an attractive destination for FDI given its preferential trade access to the EU. European investors hold most of Britain's short-term liabilities; plugging the current-account gap might become harder without a big fall in sterling, if sentiment soured on Britain.

Source*: The Economist,* 15 October 2015

Figure 1: UK's Balance of Trade with EU and non-EU countries



Extract 7: Net immigration is up in UK

Net immigration is on the up with 298,000 which is the highest since the record level of 320,000 in 2005. Research reveals there is a brain drain of thousands of talented workers leaving the UK for lucrative jobs abroad, while six times as many migrants with low numeracy skills are arriving. These migrants tend to depress wages in low wage sectors and at the same time are entitled to a range of benefits such as housing, healthcare and financial assistance.

Source: *The Telegraph*, 5 March 2015

Table 2: 2015 UK's Export and Import Data

Top Export Partners	Top Export Products	Top Import Partners	Top Import Products
USA Germany China France	Precious Metals Mechanical Appliances Motor Vehicles Electronic Equipment Pharmaceutical Products	Germany China USA France	Mechanical Appliances Motor vehicles Electronic Equipment Mineral Fuels Pharmaceutical Products Precious Metals

Source: *HM Revenue & Customs Overseas Trade Statistics*

Extract 8: What would happen if Britain left the EU?

The 'Brexit'- Britain leaving the European Union (EU) is a major concern and David Cameron, the prime minister of UK, has promised a 2017 referendum on whether Britain should leave the EU. Results of early surveys show while those wishing to leave the EU just outnumber those likely to vote to remain in the EU, there are still many UK citizens who are undecided.

The arguments for leaving the EU include Britain regaining control over migrants flows especially slamming doors on Eastern European migrants abusing UK's welfare system, stopping of annual contribution of small fortune to EU budget and to minimise the impact of the Eurozone crisis on UK. Factors such as remarkable growth of emerging markets outside Europe like China and the relative success of the United States when compared with Europe also support the leave decision as it opens up new avenues of global economic co-operation and integration with UK able to strike better deals on its own. It would also prevent proposed EU regulation such as tax on financial services from harming UK's key sectors one of which is financial services. It would also open up Britain's food market to the world.

On the other hand, those wishing to remain in the EU argue that deep integration of UK and the EU in terms of economic, military and culture could mean that Brexit would lead to a loss of market access to EU, plummeting stock markets, weakening the pound and the UK economy. Even, the argument about control over immigration has its flaws as research shows that over longer term immigration boosted wages and employment.

Brexit would also be a source of concern to EU citizens who are all absolutely terrified by the prospect of the referendum due to uncertainty arising from the potential Brexit, diminished image of the EU and possible rise in trade barriers. More than 50% of Britain's trade flows are with the EU and UK is the second largest economy in Europe. The restriction of labour flows to the UK from the EU into the UK could have negative impact on Eastern European countries but might benefit more affluent Western European countries such as Germany which could see higher inflows of EU migrants.

Source: *The Guardian*, 19 April 2015

Questions

(a) (i) Compare the trend in the balance of trade between UK and EU between 2012 and 2015 with that of UK and non-EU over the same period. **[2]**

(ii) Using economic analysis, explain one possible reason for the trend observed in balance of trade between UK and EU between 2012 and 2015. **[2]**

(b) Explain how a change in UK's trade balance could affect UK's budget balance. **[4]**

(c) Use the concept of opportunity cost to explain **one** effect on each of firms and the government arising from the inflow of migrants in UK. **[4]**

(d) Using the information and your own knowledge, explain how Britain benefits from free trade with EU. **[4]**

(e) To what extent can theory of comparative advantage be used to explain UK's pattern of trade? **[6]**

(f) Discuss whether the potential problems faced by UK are likely to be more serious than problems faced by EU members' countries if Brexit were to take place. **[8]**

[Total: 30 marks]

Section B

Answer one question from this section.

Question 3

Plans to achieve a 'car-lite' society, which is to reduce the use of private cars in Singapore, will cost the government S$36 billion. The Government is expected to invest this amount over the next five years, as it seeks to improve rail reliability and make public transport the preferred way to get around.

(a) Explain how the use of private cars leads to market failure and consider whether public transport can be regarded as a public good. **[10]**

(b) Discuss whether improvement to public transport alone is the best way to achieve a car-lite society. **[15]**

Question 4

(a) Explain the two possible conflicts in macroeconomic goals that a government may face. **[10]**

(b) Assess the view that certain policies are better suited in attaining favourable balance of payments position than other policies. **[15]**

~ End of paper ~

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Suggested Answers with Examiners' Comments

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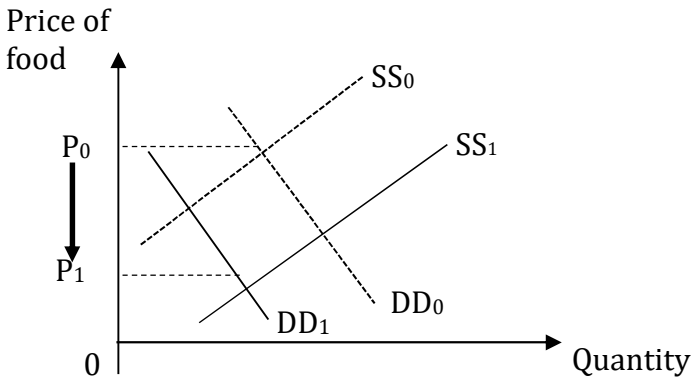
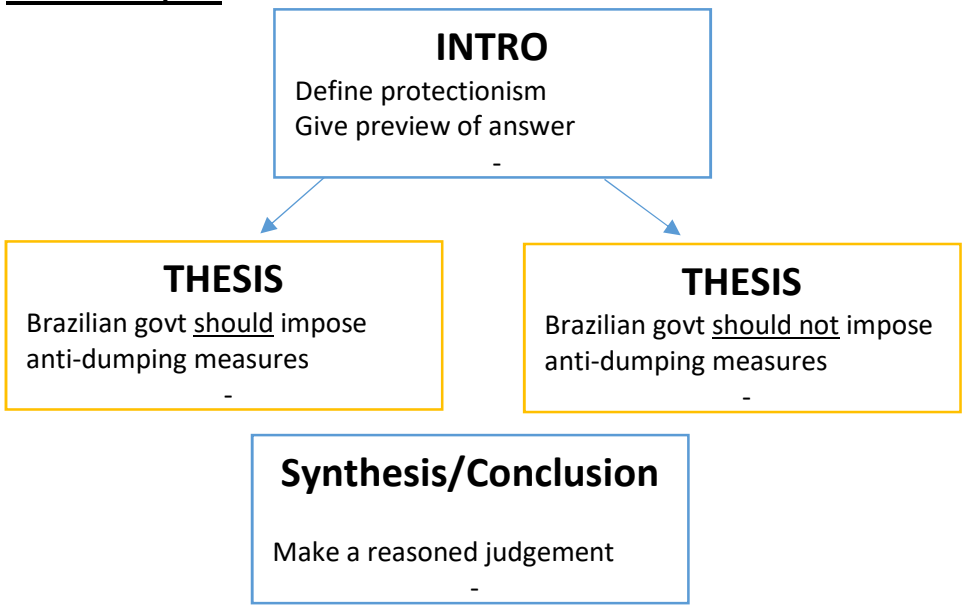
Suggested Answers for CSQ 1

(a)	(i)	**Describe the trend in world food prices from 2011 to 2015.**	**[2]**
		Suggested Answer: World food prices generally fell from 2011 to 2015 [1], with the sharpest fall from 2014 to 2015 [1].	
	(ii)	**Using a diagram and Extract 1, explain one demand and one supply factor that could support the trend in world food prices from 2011 to 2015.**	**[4]**
		Suggested Answer: One demand factor that could support the fall in food prices would be the fall in demand for biofuels. Biofuels require food crops as a factor of production. As mentioned in extract 1, "Falling oil prices have also affected the demand for biofuels, made from crops like maize and potatoes," hence, the derived demand for food falls. [1] One supply factor that could support the fall in food prices would be the fall in cost of production for food. From extract 1, "Cheap oil contributed to abundant global supplies of food". Oil is an important **factor of production** for food, as it is used to run tractors, transportation, etc. Cheaper oil will cause COP of food to fall, resulting in increase in supply of food. [1] Diagram [1] below shows a simultaneous fall in demand and increase in supply of food.  Therefore, a simultaneous fall in demand and increase in supply of food resulted in a fall in price of food. [1] (extent of shift not needed)	

(b)		**From Extract 2, explain how the price elasticity of demand and price elasticity of supply of potatoes have changed over the years.**	**[4]**
		Suggested Answer: Price elasticity of demand (PED) for potatoes has increased over the years [1]. This is seen from extract 2, "potato has risen to become the third most important food crop" and the Chinese government's "push for consumption of potatoes as a staple food". This shows that the **degree of necessity** for potatoes have increased, resulting in demand for potatoes becoming relatively more price inelastic over the years [1]. Price elasticity of supply (PES) for potatoes has also increased over the years [1]. From extract 2, "Enhanced technology and growing techniques, especially when it comes to controlled irrigation, have allowed potato farmers to be more productive with the same amount of land." This shows that producers of potatoes are better able to increase **spare capacity** and **factor mobility** has improved, resulting in PES of potatoes [1].	
(c)	**(i)**	**Using Extract 4, explain the source of market failure.**	**[4]**
		Suggested Answer Extract 4 explains the case of **negative externalities in the production of agricultural products** [1]. From extract 4, "harm to natural ecological systems is either unnecessary or outright undesirable," and "more than 60 percent of irrigated agriculture and 85 percent of drinking water supplies dependent on it, groundwater is a vital resource of clean water for both rural and urban areas." This shows that there is external costs incurred on **3rd parties**, who are not involved in the economic transaction, such as other producers who also depend on the ecological system, and people who live near the farms and consumes ground water. [1] With the presence of MEC, there will be divergence between MPC and MSC, where MSC>MPC. [1] This leads to **over-production** of agricultural products, causing **allocative inefficiency** and hence market failure [1]. ***Max 2m if no reference made to extract.***	
	(ii)	**Comment on the options available to the Indian government as possible responses to the above market failure.**	**[6]**
		Suggested Answer 1. Environmental taxation ▪ this will reduce consumption and cut down on wastage	

		▪ problems include time lag, enforcement and the amount of tax to implement 2. Pollution permits ▪ this will decrease the number of people tapping into the limited availability of groundwater ▪ problems include enforcement, who to get the permits to tap into the water 3. Subsidies for innovation into curtailing usage ▪ R&D needs a lot of funding and results are often uncertain. Government subsidies will increase the private sector's investment into R&D ▪ problems include limited availability of government funds, uncertainty of results 4. Subsidies to encourage firms to recycle water ▪ this will reduce the amount of groundwater used up ▪ problems include the acceptance of people to using recycled water and the enforcement of the policy ***Identify 2 options and explain how they work [3]*** ***Explain the limitations or disadvantage of the 2 options [2]*** ***Make a stand, conclude [1]*** ***Max 3m if no reference made to extract.***	

(d)	(i)	**Explain what is meant by dumping as seen in Extract 5.**	[2]
		Suggested Answer Dumping refers to the sale of goods abroad at a price that is below the marginal cost of production or below the price at which the product is sold for in the domestic market. As seen in extract 5, potatoes sold in Brazil are "18% to 41% below the prices used by those same four European countries to export to the United Kingdom. Belgian prices apparently differ nearly 25%." This could be seen as dumping by other nations into the Brazilian market.	
	(ii)	**Discuss whether the Brazilian government should impose 'anti-dumping duty' on frozen potatoes.**	[8]
		Question Analysis Command: 'Discuss whether' → 2-sided analysis needed Content: 'anti-dumping duties' → reasons for and against protectionism Context: Brazil and other related international markets **Schematic plan**  **Suggested Answer** **Introduction** Anti-dumping duty is a form of protectionist measure. Protectionism is defined as the setting up of trade barriers with the intention of protecting/sheltering domestic firms from foreign competition.	

Body

Thesis: Brazilian government should impose anti-dumping duty on frozen potatoes to protect domestic employment, increase actual economic growth and improve BOP current account position.

There is evidence in extract 5, as mentioned in d(i), that frozen potatoes are being 'dumped' into the Brazilian market. An "anti-dumping duty' will protect Brazilian potato producers from the unfair competition from abroad by increasing the price of imported frozen potatoes. This will help to prevent Brazilian potato producers from being competed out of their own domestic market due to the cheaper prices of imported potatoes from abroad. Domestic potato producers may continue operation and **domestic employment can be secured**.

Furthermore, an increase in price in imported potatoes will cause quantity demanded for imports to fall. Assuming PEDm>1, import expenditure for Brazil will fall, resulting in X-M component of AD to increase. An increase in AD will lead to an unplanned fall in stock inventories, firms step up on production, increase real national output/income via the multiplier effect. **Actual economic growth** will be experienced by Brazil.

A fall in import expenditure for Brazil will also **improve BOP current account** with less outflow of foreign currencies. Current account deficit will be reduced OR Current account surplus will be increased, depending on the initial position of Brazil's BOP current account.

Anti-thesis: However, the Brazilian government should not impose anti-dumping duty on frozen potatoes due to the potential loss of the benefits from free trade, and the possible disadvantages of protectionism

Imposing anti-dumping duty is considered a form of protectionist measure. If Brazil choose to do it, she may lose out on the potential benefit of free trade. As supported by the **theory of comparative advantage**, a country should specialise and produce/export goods and service that it has a lower opportunity cost in producing. The Europeans may indeed have a lower opportunity cost in producing potatoes compared to Brazil, which resulted in the lower prices charged by them in the Brazilian market. Hence, this may not be considered as 'dumping' by the European producers if they are truly able to produce at a much lower cost. Brazilian consumers will not be able to enjoy lowered potato prices, which results in greater consumer surplus, as a result of anti-dumping duties imposed by the Brazilian government. This **worsens global allocative efficiency** as prices are artificially raised.

Furthermore, firms that require frozen potatoes as a form of factor of production, such as fast food chains, may face increase in cost of production. They may then pass on the increase in COP to consumers in the form of higher prices, further reducing consumer surplus.

Also, as stated in extract 5, "European potato industry is currently examining how it can fight back". This represents a form of trade retaliation, which may cause other goods and services that Brazil imports from Europe

to experience as increase in price. If these imported goods in services from Europe include FOPs, it may cause COP to increase, SRAS falls, resulting in **cost-push inflation**. Brazilian exporters may also face a fall in revenue if the trade retaliation by Europe hits them badly.

Synthesis/Conclusion

All in all, whether the Brazilian government should impose anti-dumping measures on frozen potatoes depends on whether there is sufficient evidence to prove that European nations are indeed dumping potatoes to the Brazilian market. It is often difficult to prove that a country is practising dumping in the real world, hence it may be a tough choice for the government. Nonetheless, the government should weigh the potential pros and cons before deciding whether to impose the anti-dumping duties. If the potential harm outweighs the benefits, then the government should not impose the anti-dumping duties which causes trade retaliation from the Economic powerhouse – the Eurozone, which comes along with many other problems for the Brazilian economy.

Or any other reasoned judgment.

Level	Knowledge, Application, Understanding and Analysis
L3 (5 – 6)	For a thorough and well-balanced answer that shows an understanding of the fundamental case for and against trade protectionism. Makes good reference to case material.
L2 (3 – 4)	For a balanced but undeveloped answer that has some analysis on the reasons for and against trade protectionism.
L1 (1 – 2)	For an answer that is largely descriptive and lacks a clear structure. Simple listing of reasons for and against protectionism. Or listing of other policies. No examples/reference to extract to substantiate points.
E2 (2)	Judgement is based on economic analysis and adequately substantiated.
E1 (1)	For an unexplained assessment, or one that is not supported by economic analysis.

Suggested Answers for CSQ 2

(a)	**(i)**	**Compare the trend in the balance of trade between UK and EU between 2012 and 2015 with that of UK and non-EU over the same period.**	**[2]**
		Suggested Answer There was an ***increasing trade surplus*** between UK and non-EU while an ***increasing trade deficit*** between UK and EU over the period of 2012 to 2015.	
	(ii)	**Using economic analysis, explain one possible reason for the trend observed in balance of trade between UK and EU between 2012 and 2015.**	**[2]**
		Suggested Answer **Any demand or supply factors is acceptable:** As observed in (a)(i), balance of trade between UK and EU has seen an increasing trade deficit. One possible reason could be UK's export revenue to EU has fallen, assuming import expenditure remains constant. A ***persistent fall*** in the demand for UK's exports to EU could be due to a change in tastes and preferences towards UK's goods, contributing to an increasing fall in UK's export revenue between 2012 and 2015, assuming ceteris paribus, this would lead to a rising trade deficit between UK and EU. ***Or candidates can explain via UK's demand for EU's imports has risen between 2012 and 2015.***	

(b)		**Explain how a change in UK's trade balance could affect UK's budget balance.**	**[4]**
		<u>Suggested Answer</u>: As stated in **Extract 6**, UK has been facing a budget deficit from 2010 and current account deficit has widened. A rising trade deficit meant there was a fall in net export (X – M) which lead to a fall in AD ceteris paribus, resulting in negative economic growth. **[1]** This has also affected UK's budget balance, which was having a budget deficit. This implied that UK's government expenditure was greater than tax revenue. **[1]** ***<u>Either ONE of the Answer Below</u>:*** **[1]** • UK's government tax revenue from personal and corporate income tax could decrease due to negative economic growth from a fall in net export and thus leading to a fall in wages and profits respectively. • UK's government may also be required to distribute greater unemployment benefits as more people could be unemployed due to a fall in export, hence increasing welfare spending. Thus, a change in UK's trade balance, in this case trade deficit, could also affect UK's budget balance negatively, resulting in large budget deficit. **[1]**	
(c)		**Use the concept of opportunity cost to explain one effect on each of firms and government arising from the inflow of migrants in UK.**	**[4]**
		<u>Suggested Answer</u> Opportunity cost means the next best alternative foregone when a choice / decision is made by the different economic agents. **<u>Effect on Firms:</u>** With a rising inflow of migrants in UK, firms may employ cheaper migrants to produce goods and services which would allow the firms to drive down their cost of production, thus leading to higher profits, assuming ceteris paribus. This can be seen from **Extract 7**, as many migrants tend to depress wages in low wages sectors. Thus, the opportunity cost of hiring migrant workers could be better quality goods and services being compromised as they could have been produced by hiring better skilled domestic workers. This could also lead to forgone profits that could have been generated from better quality products. **<u>Effect on Government:</u>** With a rising inflow of migrants in UK, there would be an increase in government spending to provide services such as healthcare and housing benefits to the migrants' workers. This can be seen from **Extract 7** as these migrants were entitled to a range of benefits such as housing, healthcare and financial assistance.	

		Thus, the opportunity cost of funds directed towards migrants to provide such benefits would be the forgone benefits such as higher productivity could have been achieved if the funds had been spent on training instead. ***Note: any relevant opportunity cost example with sound economic analysis is accepted. However, the choice being made and the next best alternative that firms and governments need to foregone has to be clearly explained.***	
(d)		**Using the information and your own knowledge, explain how Britain benefits from free trade with EU.**	**[4]**
		<u>Suggested Answer</u>: From **Extract 6**, Britain has been an attractive destination for FDI given its preferential trade access to the EU. ***<u>Any TWO Benefits</u>:*** ➔ Increase in FDI and (X – M) leads to a rise in investment expenditure and net export respectively → ↑ AD, ceteris paribus → ↑ real national income → leading to positive economic growth. ➔ At the same time, an increase in real national output would lead to a fall in inventories, firms would hire more factor of production such as labour → ↑ derived demand of labour → leading to a reduction in unemployment. ➔ An increase in FDI and trade, assuming net export ↑ → would lead to an improvement in both capital and financial account and current account, thus Britain could also see an improvement in their balance of payment account position.	

(e)		**To what extent can theory of comparative advantage be used to explain UK's pattern of trade?**	**[6]**
		Question Analysis: **Command Word**: To what extent **Content**: Theory of CA/ pattern of trade **Context**: UK	
		Schematic Plan: **Introduction:** Define pattern of trade **Thesis:** Theory of CA can be used to explain UK's pattern of trade **Anti-thesis:** Other demand factors can be used to explain UK's pattern of trade instead **Evaluation:** Justified stand on the extent of whether theory of CA can be used to explain UK's pattern of trade.	
		Suggested Answer: **Introduction:** ▪ Pattern of trade refers to the volume and composition of trade between a country and the rest of the world. ▪ Determinants of pattern of trade are based on both demand and supply factors. ▪ Supply factors such as the differences in factor endowment, government policies, FTAs ▪ Demand factors such as tastes and preferences, rising affluence and changes in population sizes and demographics. **Body 1: Theory of Comparative Advantage (CA) can be used to explain UK's Pattern of Trade** ***Differences in Factor endowment – Theory of Comparative Advantage*** ▪ Theory of comparative advantage states that, under certain conditions, countries can benefit from specialisation of producing goods and services which they have comparative advantage in and trade for goods and services in which they do not have comparative advantage in. ▪ It's an important factor in determining the relative productivity of an economy in production of certain goods and services based on their factor endowments, which thus affect a country's CA. ▪ This means that country with relatively lower opportunity cost of producing certain goods and services compared to other countries should specialise in the production of those goods and services they are more efficient in. ▪ Countries should then import goods and services that they do not have comparative in as opportunity costs of producing these goods within that country are higher. ➔ E.g. UK could have a lower opportunity cost in the production of more capital and skilled intensive products. ➔ As stated in **Extract 7**, UK experienced 'brain drain' due to thousands of talented workers leaving the country. ➔ With relatively abundant amounts of such capital / technology / skilled labours. UK's could export capital / knowledge-intensive goods such	

as motor vehicles and pharmaceutical products as shown in **Table 1**.

- ➔ UK could also have a higher opportunity costs in the production of more labour-intensive products. This could be seen from the high migrants' influx which were from low numeracy skills. UK should thus import more labour intensive and lower value-added electronic equipment and mechanical products.
- ➔ Also in **Table 1**, UK has imported precious metals and mineral fuels which could imply that they lack such natural resources.

All the above showed that due to theory of CA, it has affected UK's pattern of trade → i.e. in term of the volume and composition of goods and services they export and import.

Body 2: Demand Factors could also be used to explain UK's Pattern of Trade

Differences in Affluence (particularly in emerging economies)

- ❖ Emerging economies such as China has experienced relatively stronger rates of economic growth. This can be seen from **Extract 8, para 2** which stated that there is remarkable growth of emerging markets.
  - ➔ This could lead to higher demand for goods and services produced overseas e.g. tourism-related services → resulted in greater export of such goods and services from UK to these emerging economies.
  - ➔ This can be seen from **Table 1**, which showed that China is one of UK's top export partners.

Differences in Tastes and Preferences

As seen in **Table 1**, although UK's export motor vehicles, mechanical appliances and pharmaceutical products, they also import them. This could be due to UK citizens' preference for foreign products in these categories, seeking greater choice and wider variety.

Other possible reasons could be due to globalisation, it had led to FDI flows and outsourcing such that lower value-added products / processes are made in lower cost developing countries and then exported back to UK. These exports could be further processed into higher value-added products and exported from UK to trade partners such as Germany and France.

For example, electronic equipment parts can be made in other countries but the final processes could be assembled in UK and then exported from UK to its trade partners.

Evaluative Conclusion:

From the data given, theory of comparative advantage can only be used to explain UK's pattern of trade to a small extent. As seen from **Table 1**, most of the UK's top export and imports products are largely similar. Thus, other factors such as tastes and preferences, coupled with increasing globalisation could have been a more plausible explanation that affect UK's pattern of trade more accurately.

		Level	**Knowledge, Application, Understanding and Analysis**	
		L3 (5 – 6)	• Both theory of comparative advantage (CA) and other factors are well-explained, linking it to the pattern of trade in UK. • Case materials / examples are well-utilised. • A substantiated judgment given to justify whether theory of CA can be used to explain UK's pattern of trade to a larger or smaller extent – otherwise, max 5m.	
		L2 (3 – 4)	• Both theory of CA and other factors explained but no linking to UK's pattern of trade. • Both factors explained but not well-developed. • Case materials / examples given or stated but are not well-explained.	
		L1 (1 – 2)	• Either theory of CA or other factors identified and explained. • No link to UK context. • Smattering of points.	

(f)		**Discuss whether the potential problems faced by UK are likely to be more serious than problems faced by EU members' countries if Brexit were to take place.**	**[8]**
		Question Analysis: | **Command word**	Discuss
---	---
Content	Impact on the macroeconomic aims Brexit
Context	UK and EU member countries		
		Schematic Plan: **Introduction:** Explain what is Brexit and brief description of the potential problems faced by UK and EU members' countries **Thesis: Potential Problems faced by UK are likely to be more serious than problems faced by EU members' countries if Brexit were to take place** Explain the potential problems faced by UK in term of the negative impact on the macroeconomic aims **Anti-thesis: Potential Problems faced by EU members' countries are likely to be more serious than problems faced by UK if Brexit were to take place** Explain the potential problems faced by EU members' countries in term of the negative impact on the macroeconomic aims. **Evaluation:** Conclude stand on whether UK or EU members' countries are likely to face a more serious problem	
		Suggested Answer: **Introduction:** Brexit refers to Britain leaving the European Union (EU). The potential problems facing UK and EU member countries are likely to have negative impact on their macroeconomic aims. **Body:** **Potential Problems faced by UK** As stated in **Extract 8, para 3**, UK could lose preferential trade access to EU. ➔ If trade barriers are imposed on UK's exports to EU, it could lead to a fall in export revenue and assuming ceteris paribus, worsen net exports → ↓ AD → ↓ real national income → leading to slower or negative economic growth. This is especially detrimental to UK's economy given the strong trade ties between UK and EU. ➔ At the same time, a fall in export would worsen current account position → ceteris paribus → leading to worsening of balance of trade → eventually affect its balance of payments account.	

➔ Loss of preferential trade access to EU may also reduce UK's attractiveness as an investment destination as stated in both **Extract 6** and **8** → Fall in foreign direct investment (FDI) would impact both actual and potential economic growth negatively since investment expenditure is a component of AD and a fall in FDI would also mean a fall in productive capacity, leading to a fall in long run aggregate supply respectively.

➔ Plummeting stock markets might lead to an outflow of portfolio investment → worsening its capital and financial account (KFA) position → thus BOP, ceteris paribus.

➔ Weakening pound might lead to imported inflation. This is because weakening pound would cause imported goods and services to be relatively more expensive in domestic currency. This would reduce UK's price stability.

➔ Restriction in labour flow might lead to higher cost of production (COP) in UK → short run aggregate supply curve would shift to the left → this would further increase UK's general price level → leading to inflation. At the same time, resulted in a fall in real national income → worsen UK's economic growth and increase unemployment.

<u>Potential Problems faced by EU Members' Countries</u>

As stated in **Extract 8, para 4**, UK is the second largest economy in the Europe.

➔ If UK leaves EU, EU members might suffer from a fall in export revenue due to the *'possible rise in trade barriers'* by the UK on EU's goods and services. Data from **Table 1** also shows that EU members are enjoying trade surplus with UK and this might be reversed if UK were to exit from the EU.

➔ Fall in net exports could similarly lead to negative economic growth or recession and higher unemployment in EU due to a fall in AD. The extent of the negative impact could be more strongly felt in EU members' countries with stronger trade links with the UK, such as Germany and France as shown in **Table 1**.

➔ Uncertainty and diminished image of EU as stated in **Extract 8** could lead to a fall in FDI due to bleak economic outlook of the investors. This might further worsen recession and BOP *[as explained above]*

➔ Restriction in labour into UK from the EU might worsen unemployment in EU especially in Eastern European economies shown in **Extract 8**.

<u>Thesis: Potential Problems faced by UK are likely to be more serious than problems faced by EU members' countries if Brexit were to take place</u>

As stated in **Extract 8, para 4**, more than 50% of Britain's trade flows with EU and in **Extract 8, para 2**, it also showed their deep integration in terms of economy, military and culture between UK and EU → thus, leaving EU might lead to potential shrinking of market for UK. As such, UK might not be able to exploit economies of scale significantly, leading to higher COP and

could lead to a loss of export competitiveness. On the other hand, EU members' countries belong to a single market and are able to trade freely among themselves, thus they might choose to import similar goods and services from within the EU rather than import from the UK.

Given UK's reliance on FDI especially to cover their current account deficit, it might be a more serious problem for the UK as loss of access to EU might lead to a fall in FDI in UK → instead there might be an increase of FDI in some EU members' countries such as Germany to gain access to EU markets. Further, as stated in **Extract 6, para 2**, it stated that if there were to be Brexit, investors might diminish markedly as Britain would be a less attractive destination for FDI if the UK has loss their preferential trade access to the EU. Not only FDI in UK would be negatively affected, *'European investors also hold most of Britain's short-term liabilities'* → all these would have worsen UK's KFA position.

Anti-thesis: Potential Problems faced by EU members' countries are likely to be more serious than problems faced by UK if Brexit were to take place

Weakening pound might lead to a fall in EU net exports to UK assuming PED of exports and imports are greater than one while it may lead to rise in UK net exports to EU, thus benefiting UK.

EU proposed regulation such as tax on financial services as stated in **Extract 8, para 2** might make UK financial services more attractive and lead to a fall in export competitiveness of EU financial services as compared to UK financial services. By *'striking better deals'* with emerging markets such as China and US, UK goods and services could be more export competitive than EU goods and services in these markets, thus worsening EU's net exports, ceteris paribus.

Redirection of Eastern European migrants from UK into EU member countries such as Germany as stated in **Extract 8, para 4** might depress wages and lead to structural unemployment in these countries.

Evaluation:

In the short-term, both UK and EU members' countries are likely to face potential problems due to possible Brexit. However, the potential problems seem to be more serious for UK as it might see an immediate greater fall in FDI and net exports as compared to EU members' countries.

In the longer-term, problems faced by EU might be more serious as UK competes with EU for trade deals and might be able to negotiate better deals as compared to EU. EU regulations might harm key sectors such as financial services. Diminished EU image might eventually lead to a fall in FDI, worsening economic growth as well as BOP. Greater burden on EU budget due to a fall in contribution as well as increase in spending on benefits as EU migrants flow out of UK into EU might reduce its ability to manage Eurozone problems as well as policies to enhance competitiveness of EU.

Knowledge, Application, Understanding and Analysis	
L3 (5 – 6)	• Potential problems faced by **BOTH** UK and EU members' countries if Brexit were to take place are well-elaborated with economic framework and analysis.

			• Well-developed answers addressing the seriousness of the problems faced by **BOTH** UK and EU members' countries – without this explanation, max 5m. • Analysis supported with strong evidence from the case materials.		
		L2 (3 – 4)	• Potential problems of UK and EU are stated and explained. • Case materials / examples stated with no explanation.		
		L1 (1 – 2)	• Potential problems of UK and/or EU stated with no elaboration. • No case materials nor examples given to support analysis.		
		E2 (2)	A substantiated judgment which considers whether UK or EU members' countries would face a greater problem if Brexit were to take place.		
		E1 (1)	A judgment without substantiation.		

Question 3

Plans to achieve a 'car-lite' society, which is to reduce the use of private cars in Singapore, will cost the government S$36 billion. The Government is expected to invest this amount over the next five years, as it seeks to improve rail reliability and make public transport the preferred way to get around.

(a) Explain how the use of private cars leads to market failure and consider whether public transport can be regarded as a public good. **[10]**

(b) Discuss whether improvement to public transport alone is the best way to achieve a car-lite society. **[15]**

(a)	**Explain how the use of private cars leads to market failure and consider whether public transport can be regarded as a public good.**	**[10]**

Question Analysis:

Command	Explain and consider
Content	Market failure, public good
Context	private cars, public transport

Schematic Plan

Introduction:
- Define market failure

Body 1: Explain how use of private cars lead to market failure	**Body 2: Consider whether public transport can be regarded as public good**
- State the source of market failure - Use of cost-benefit analysis to show how use of private cars lead to inefficient allocation of resources	- Define public good - Explain whether public transport is rival in consumption - Explain whether public transport is excludable in consumption - Conclude if public transport is a public good

Conclusion:
- Explain the need for government intervention in the use of private cars to bring about allocative efficiency

Suggested Answer:

Introduction:
Market failure occurs when the free market fails to allocate resources efficiently, resulting in an inappropriate amount of goods and services produced/consumed and thus a deadweight loss is incurred. Market failure may occur in a market for goods that generate externalities or a market for public goods.

Body 1:
In the use of private cars, car owners are consuming car journeys in traveling to various destinations. In their decision to consume car journeys, they would consider their Marginal Private Cost (MPC) and Marginal Private Benefit (MPB).

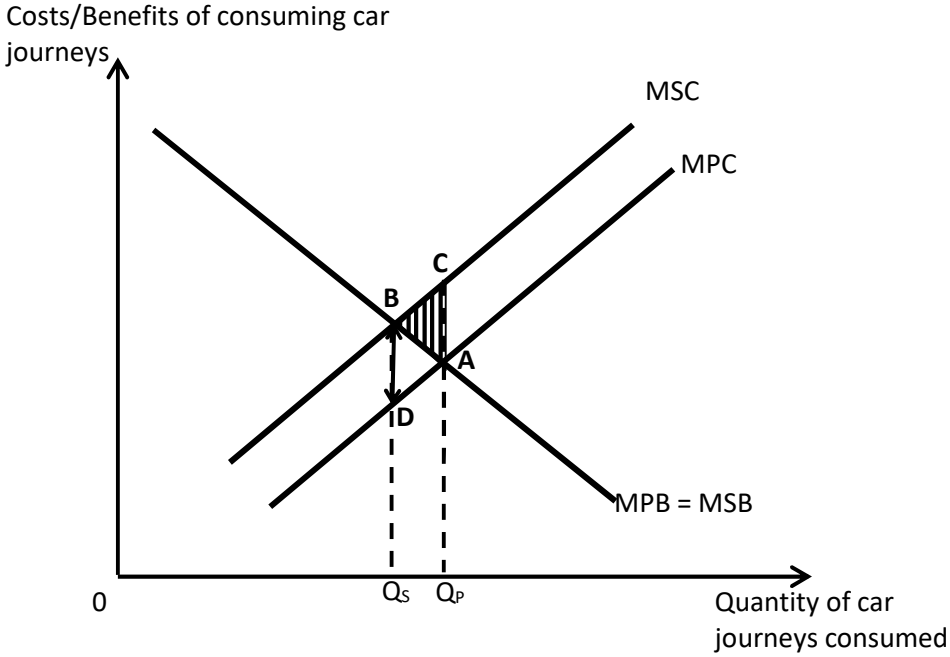
MPC which is the cost of using the car to themselves, includes price of fuel used and parking fee; MPB which is the benefit derived from using the car can be the convenience they have from using the car to travel.

The amount of car journeys consumed would be determined at a level where the private level of satisfaction is maximised, which is determined by the condition MPC=MPB.

However, in their decision to consume car journeys, an external cost is incurred by third parties who include other road users and pedestrians on the road.

This would include the healthcare cost incurred by pedestrians as a result of the car journeys due to the pollution emitted by the car or the loss of productivity by other road users due to the congestion generated.

These costs constitute the Marginal External Cost (MEC). Due to the presence of MEC, the Marginal Social Cost (MSC) would exceed MPC. Assuming no positive externality generated, MPB=Marginal Social Benefit (MSB). The socially optimal amount of car journeys is determined by the condition MSC=MSB. The situation can be depicted in the graph below



From the diagram above, it can be seen that the private level of car journeys consumed (Qp) is greater than the socially optimal level (Qs). This means that there is an over-consumption of car journeys. As a result, a deadweight loss of area ABC is incurred by society and there is an over-allocation of resources, thus market failure.

Body 2:

A public good has the characteristics of non-rivalry and non-excludability in consumption. To determine if public transport is a public good, it must be examined to see if it exhibits these 2 characteristics.

Non-rivalry in consumption means that the consumption of the good by one user does not decrease the amount of the good available to be enjoyed by other users. In other words, there is no additional cost incurred to provide the good to an additional user. In the case of public transport, when a person boards the train or bus, there is less space in the bus or

train for other users. In order for the bus or train service to be provided for an additional user, more train space would need to be created and thus a cost is incurred to provide the service to an additional user. As such public transport is rival in consumption.

Non-excludability in consumption means that there is no effective way to prevent non-payers from consuming the good. In the case of public transport, non-payers are effectively prevented from using the public transport service. This is evident from the gantries at the MRT stations which prevent anyone who does not pay from using the train service. As such public transport is excludable in consumption.

Given that public transport is both rival and excludable in consumption, it is not a public good.

Conclusion:
Given the market failure in the use of private cars, there is a need for government to intervene to correct the market failure so as to bring about allocative efficiency in various markets.

Level	Knowledge, Application, Understanding and Analysis
L3 (7 – 10)	- Answer provides clear analysis of the market failure in the use of private cars, using cost-benefit analysis - Provides contextualised examples of MPB, MPC and MEC - Answer provides clear explanation of whether public transport is a public good by comparing it against the 2 characteristics of public goods - Provides specific examples in the context of public transport
L2 (5 – 6)	- Answer provides brief analysis of the market failure in the use of private cars, with some attempt at using cost-benefit analysis - Answer provides clear explanation of whether public transport is a public good by comparing it against the 1 of the characteristics of public goods OR a brief explanation by comparing against the 2 characteristics of public goods - Examples are missing or not set in the context of private cars and public transport
L1 (1 – 4)	- Analysis of the market failure in the use of private cars does not use cost-benefit analysis - Answer provides brief explanation of whether public transport is a public good by comparing it against the 1 of the characteristics of public goods OR lacks any comparison against the characteristics. - No examples provided

(b)	**Discuss whether improvement to public transport alone is the best way to achieve a car-lite society.**	**[15]**

Question Analysis:

Command	Discuss
Content	Policies to correct market failure
Context	Public Transport Car-lite society

Schematic Plan:

Introduction:
- Explain what a car-lite society would mean in economic terms
- State the relationship between private cars and public transport

Thesis: Improvement to public transport can achieve a car-lite society	**Anti-thesis: Improvement to public transport cannot achieve a car-lite society**
- Explain how improvement to public transport will achieve car-lite society - Explain the advantages of improvement to public transport	- Explain limitations of improvements to public transport - Explain alternative policy

Conclusion:
- Take a stand
- Elaborate on stand using economic analysis

Suggested Answer:

Introduction:
Achieving a car-lite society would be to reduce the number of car journeys consumed and thus reduce the total amount of external costs generated, which is caused by both pollution and congestion. One way that the government could achieve this is to improve public transport which is an alternative to the use of private cars.

Thesis:
Improvement to public transport, which includes improving rail reliability, could reduce the time taken to travel via public transport as well as improve the comfort and convenience in taking public transport.

In Singapore, the Singapore government has attempted to improve the public transport system by creating more MRT lines to reach more parts of Singapore as well as develop more bus interchanges at stops along the MRT lines so that the bus network will work together with the MRT lines to increase the convenience of traveling to various places.

The government has also bought more environmentally friendly buses so that they emit less harmful gases when traveling on the roads.

All these would make public transport a closer substitute for use of private cars.

Furthermore, given that the price of consuming public transport services is lower than the cost of producing car journeys, some car users may choose to substitute using public transport for using private cars.

This would lead to a fall in the demand for car journeys.

An advantage of focusing on the improvement of public transport as a means to achieving a car-lite society is that it provides road users a viable alternative to the use of private cars, given that there is a necessity to travel either for work, school or recreation.

The reduction in external costs to society as a result of the improvement to public transport depends on the mode of public transport that is improved.

If it is the rail system, then there will significantly reduce the pollution and congestion issue because the use of trains do not emit harmful gases nor contribute to road congestion.

If it is an improvement in the bus system, then the reduction in pollution and congestion is less because the use of buses still emits harmful gases and contributes to congestion.

Anti-thesis:

However, there are several limitations which make the improvement to public transport unsuitable to achieve a car-lite society. First would be the responsiveness of the target audience in order for the improvement of public transport. If the private car users do not view public transport and private cars as substitutes, then the magnitude of the fall in demand will be fairly small.

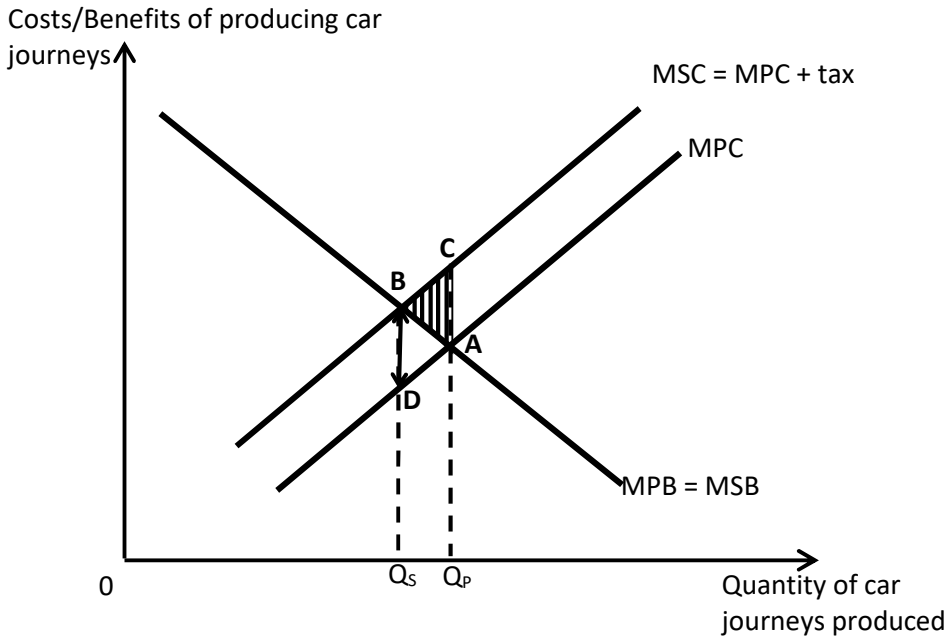
As such, implementing a policy which only consist of improving public transport, is insufficient in bringing about a car-lite society.

Instead, the government could consider implementing a tax that will make consuming car journeys more expensive and thus reduce the consumption of car journeys.

The per-unit tax should be the value of MEC at Qs.

With the tax levied, this would cause the car owners to internalise the MEC in their decision of deciding to consume a car journey. This would shift MPC upward by the value of MEC at Qs so that the MPC will coincide with the MSC. This would then cause the private level of consumption of car journeys to be equal to the socially optimal level.

In Singapore the Electronic Road Pricing (ERP) Scheme is implemented at various locations around Singapore with the aim of reducing the congestion on the road during certain hours of the day e.g. morning and evening peak hour. By implementing a charge to use the road during those times, the government hopes that those who drive will use other roads or consider taking public transport instead.



A difficulty that the government faces in implementing this policy is determining the amount of tax to levy as the MEC cannot be monetised. However, any form of tax would result in lower consumption of car journeys and thus a move towards a car-lite society.

Conclusion:

In conclusion, improving public transport alone is not the best way to achieve a car-lite society. Its effectiveness is dependent on road users' views of public transport.

Instead the government can consider using a mix of policies that would discourage the use of private cars through various ways. One such mix of policies would be to include a tax that makes cars more expensive to use and improvement in public transport. That way, road users will both be less inclined to consume car journeys and more inclined to consume public transport services instead. Furthermore, the tax revenue received from the tax can be used to finance the improvement of public transport.

Level	Knowledge, Application, Understanding and Analysis
L3 (9 – 11)	- Answer makes good use of tools of economic analysis to answer how a car-lite society can be achieved - Examples are well-used
L2 (6 – 8)	- Answer makes good use of tools of economic analysis to answer how a car-lite society can be achieved - Examples are mentioned but not elaborated upon
L1 (1 – 5)	- Answer does not make use of tools of economic analysis to answer how a car-lite society can be achieved - No examples are mentioned
E2 (3 – 4)	- Judgment with elaboration using economic analysis
E1 (1 – 2)	- Judgment without elaboration

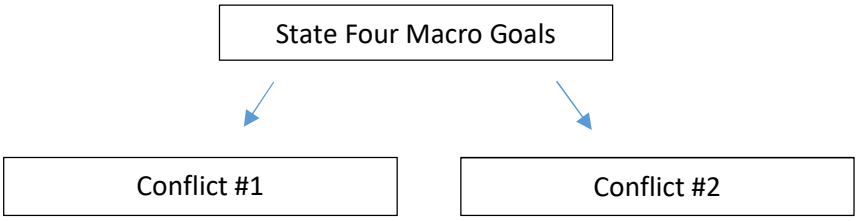
Question 4

(a) Explain the two possible conflicts in macroeconomic goals that a government may face. **[10]**

(b) Assess the view that certain policies are better suited in attaining favourable balance of payments position than other policies. **[15]**

(a)	Explain the two possible conflicts in macroeconomic goals that a government may face.	**[10]**

Schematic Plan



Suggested Answer

Introduction

- All governments aim to attain the four macroeconomic goals:
  - Sustained economic growth
  - Full employment
  - Low inflation rate
  - Favourable balance of payment

- Possible conflicts may arise when a government attempts to achieve all four goals.

Body

- Explain why all governments have these four macroeconomic goals:
  - Sustained economic growth
    - Positive and stable increase in real national income
    - Increase material SOL
  - Full employment
    - Minimise opportunity cost in terms of goods/services forgone
    - Minimise strain on government budget, especially for welfare states
  - Low inflation rate
    - Encourage consistent and continuous spending.
    - Minimise redistributive effect among population (borrowers vs lenders, etc)
  - Favourable balance of payment
    - Avoid drain on foreign reserves or, worse, excessive borrowing which incurs interest payments
    - Shore up confidence in investors, both foreign and local.

Conflict #1 – Full Employment and Low Inflation

- To achieve full employment
  → Govt increases AD
  → Firms hire more fop, including labour, to meet increase in AD
  → When economy produces near full employment level of output, GPL rises faster and faster (higher and higher inflation) as higher prices are needed to induce further rise in output due to higher cost of production.
  → Conflict arises.

Conflict #2 – Sustained Economic Growth and Favourable BOP Position

- To achieve sustained economic growth
  → Govt increases AD
  → National income rises via k process
  → As income rises, households increase import expenditure on more or better quality goods and services.
  → Assuming *ceteris paribus*, BOP deficit position may occur and persist over time.
  → Conflict arises.

Other possible conflicts:

- Sustained Economic Growth and Low Inflation

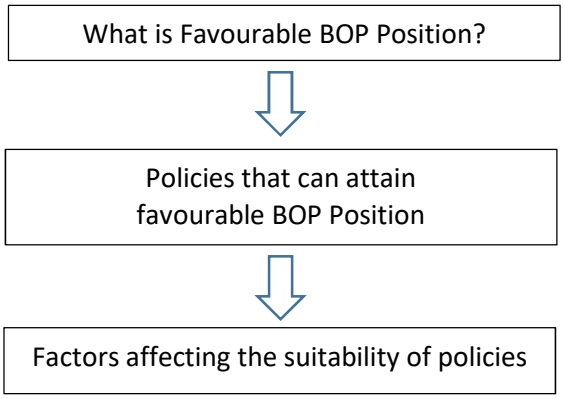
<u>Conclusion</u>

The above are two of the various conflicts in macroeconomic goals that a government may face.

Level	Knowledge, Application, Understanding and Analysis
L3 (7 – 10)	- Well-structured and coherent answer. - Comprehensive and well-developed answer that relies on economic analysis and explains **two distinct conflicts** covering at least **THREE** macroeconomic goals. Use of simple examples (real-life or hypothetical) is required to earn top marks.
L2 (5 – 6)	- For an answer that shows understanding of the question but nevertheless not well-explained (e.g. inadequate depth or errors in the use of economic analysis). - Answer only covers at most **TWO** macroeconomic goals – max 6m.
L1 (1 – 4)	- For an answer that is too general and mere listing of factors without elaboration. - Answer contains conceptual errors.

(b)	**Assess the view that certain policies are better suited in attaining favourable balance of payments position than other policies.**	**[15]**

Schematic Plan:



Suggested Answer:

Introduction

- Various policies could be employed by a government to attain a favourable BOP position.

- However, not all policies are equally suitable to do so due to the various constraints and circumstances an economy may face.

- Hence, to ensure higher success of achieving favourable BOP position, a government may decide to employ a suite of policies.

Body

- Framework:
    - State what is favourable BOP position – avoidance of large and persistent BOP deficit.
    - Explain the main causes of BOP deficit in CA and KFA.

- Policies:
    - Identify any 3 policies that could help achieve favourable BOP position.
    - E.g. currency depreciation, import restrictions, attracting inward FDI, etc.

Constraint/Factor/Circumstance #1 – Likelihood of Retaliation

- Import quota is one way to reduce BOP deficit.
- It reduces import expenditure by curbing the previously unlimited goods and services being imported into the country.
- However, if trade relations with supplier country are less than cordial, implementation of quota is likely to face retaliation (e.g. EU vs China over solar panel).
- Though import expenditure would fall, so would export revenue due to resistance faced by domestic exporters while attempting to sell to trading partners.
- Policy may not be suitable, as seen especially during global recessions.

[Students can also explain currency war in the same vein.]

Constraint/Factor/Circumstance #2 – Time Lag

- Enhance non-price competitiveness to maintain favourable BOP position
- Provide incentive (subsidies/grants) to firms which engage in R&D
- Even in the face of rising import expenditure, the higher export revenue would help to achieve favourable BOP position
- However,
    - Time lag may delay enhancement to non-price competitiveness.
    - Export revenue may not rise sufficiently to offset rise in import expenditure.
    - May not attain favourable BOP position

Constraint/Factor/Circumstance #3 – Degree of Import Reliance

- Expenditure-switching policy – aims to switch from spending on imports to spending on locally produced goods and services ('buy local').
    - Import expenditure falls, assuming export revenue constant ➔ achieve favourable BOP position
- Not likely to succeed if economy is highly reliant on imported goods/services/raw materials (e.g. Singapore) due to its own lack of natural resources to satisfy the needs and wants of its population.

Conclusion/ Evaluation

Indeed, some policies are more suitable to achieve a favourable BOP position than others. Two large set of factors are: nature of the domestic economy as well as that of others. Hence, the government would need to first understand the constraints/threats it faces before choosing the appropriate mix of policies to best attain a favourable BOP position. Over time, changes in economic conditions/constraints/outlook may warrant a review of the policy tools and their efficacies. The government will then need to put together an updated mix of policies to continue to achieve favourable BOP position.

Level	Knowledge, Application, Understanding and Analysis
L3 (9 – 11)	▪ Balanced argument with well-thought through and comprehensive set of factors dealing with deficits in both CA and KFA. ▪ Conceptually sound and well-elaborated explanation using economic tools/concepts/terms. ▪ Examples given are appropriate.
L2 (6 – 8)	▪ A balanced approach explaining at least one factor to reduce CA deficit and another to reduce KFA deficit. ▪ Elaboration is incomplete and may contain some errors. ▪ No examples provided to illustrate the points made.
L1 (1 – 5)	▪ Primarily descriptive, not using economic concepts/terms in the answer. ▪ Minimal explanation/elaboration. ▪ Major errors although there is relevance to question.
E2 (3 – 4)	• Judgement is substantiated with economic analysis.
E1 (1 – 2)	• Judgement is not substantiated or substantiated without economic analysis.

SERANGOON JUNIOR COLLEGE
JC2 Preliminary Examination

ECONOMICS
Higher 1

8819/01

PAPER 1

11 September 2017

3 hours

Additional Materials: Answer Paper

READ THESE INSTRUCTIONS FIRST

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

Sections A
Answer **all** questions.

Section B
Answer **one** question.

Start your answers to each case study question and essay question on a new sheet of writing paper.

Fasten your answers to all three questions separately.

The number of marks is given in brackets [ ] at the end of each question or part question.

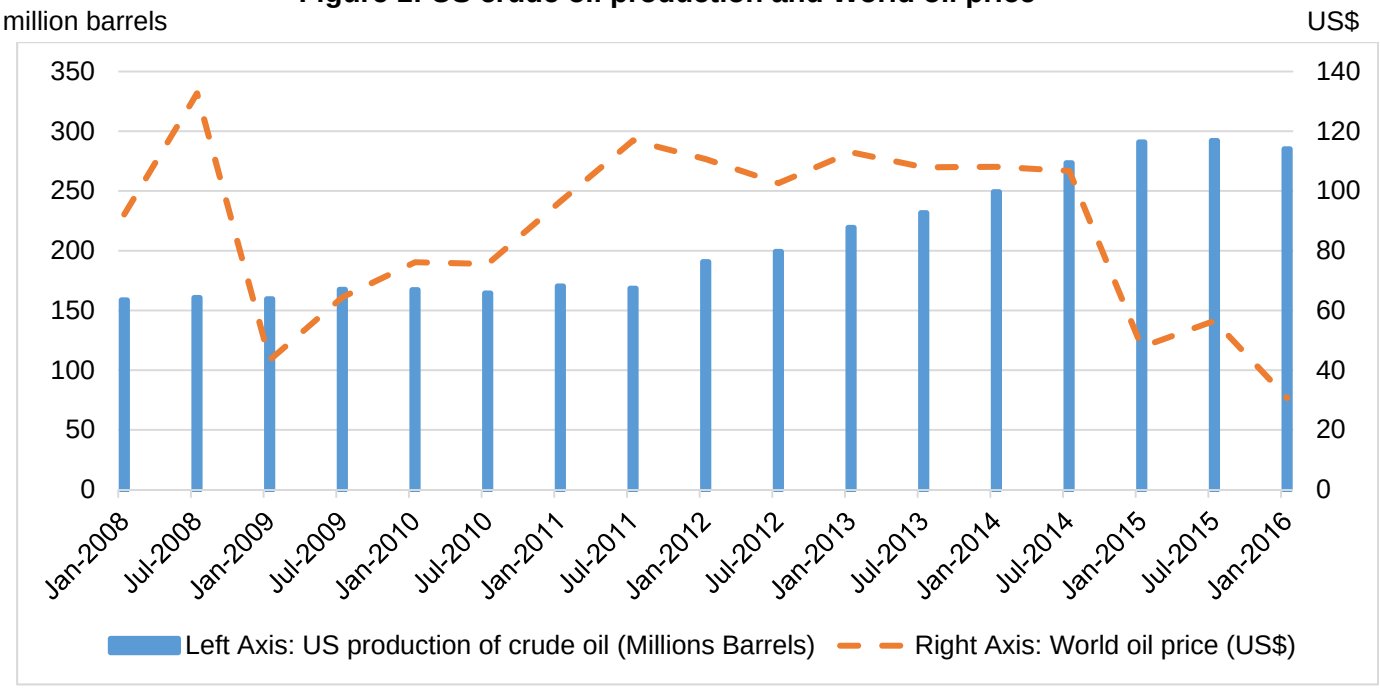
This document consists of **7** printed pages and **1** blank page.

Section A

Answer **all** questions in this section.

Question 1 **Global Oil Market**

Figure 1: US crude oil production and World oil price



Source: U.S. Energy Information Administration, accessed 1 Aug 2017

Extract 1: How has shale oil affected the global oil price?

Only a few years ago, many observers expected a steadily growing global shortage of crude oil. This shortage did not materialise in part because of the rapidly growing production of shale oil in the US. The production of shale oil exploits technological advances in drilling. This process is used to extract crude oil that would have been impossible to release by conventional drilling methods designed for extracting oil from permeable rock formations. Shale oil production relies on the availability of suitable drilling rigs and skilled labour, which is one of the reasons why the US shale oil boom so far has been difficult to replicate in other countries.

US shale oil production has grown from about 0.4 million barrels a day in 2007 to more than 4 million barrels a day in 2014. The International Energy Agency projected that the US would become the world's leading crude oil producer, overtaking Saudi Arabia by the mid-2020s and evolving into a net oil exporter by 2030.

It may seem that the change in the global price of oil after mid-2014 may be attributable to sharp increases in US shale oil production, providing direct evidence of the impact of the US shale oil revolution on oil prices after all. Although shale oil is not being exported, it replaces US crude oil imports, reducing the demand for oil in global markets. Similar price declines also occurred in other industrial commodity markets at the same time, suggesting that the cause of the oil price decline has not been specific to the oil sector, but that it mainly reflects a weakening global economy in Asia as well as Europe. This view is also consistent with the comparatively small magnitude of US shale oil production on a global scale.

Source: World Economic Forum, 14 Jan 2015

Extract 2: Falling oil prices: Who are the winners and losers?

Global oil prices have fallen sharply over the past seven months, leading to significant revenue shortfalls in many energy exporting nations, while consumers in many importing countries are likely to have to pay less to heat their homes or drive their cars. From 2010 until mid-2014, world oil prices had been fairly stable, at around $110 a barrel. But since June prices have more than halved.

United States: Fracking boom

"The growth of oil production in North America, particularly in the US, has been staggering," says Columbia University's Jason Bordoff. He added that US oil production levels were at their highest in almost 30 years. It has been this growth in US energy production, where gas and oil is extracted from shale formations using hydraulic fracking that has been one of the main drivers of lower oil prices.

Japan: Mixed blessings

Japan imports nearly all of the oil it uses. But lower prices are a mixed blessing because high energy prices had helped to push inflation higher, which has been a key part of Japanese Prime Minister Shinzo Abe's growth strategy to combat deflation.

Russia: Propping up the rouble

Russia is one of the world's largest oil producers, and its dramatic interest rate hike to 17% in support of its troubled currency, the rouble, underscores how heavily its economy depends on energy revenues, with oil and gas accounting for 70% of export incomes.

Russia loses about $2bn in oil export revenues for every dollar fall in the oil price, and the World Bank has warned that Russia's economy would shrink by at least 0.7% in 2015 if oil prices do not recover.

Falling oil prices has hit the country hard. The government has cut its growth forecast for 2015, predicting that the economy will sink into recession. The government also had to cut its spending. "We had to abandon a number of programmes and make certain sacrifices," said Prime Minister Dmitry Medvedev.

Source: BBC News, 19 Jan 2015

Extract 3: Fix shale oil production pollution before it gets worse

Scientists, regulators and leaders of Texas' energy industry must identify and understand the environmental risks of shale oil and gas drilling before air pollution or water contamination leads to tighter restrictions that could ultimately derail the rebounding industry, the leader of a broad new study said recently.

The study concluded that the shale oil boom, while enriching companies, residents and state coffers, has also caused earthquakes, degraded natural resources and overwhelmed small communities. The study noted that as many as 96,000 acres were covered by new well pads in 2014 alone, and clearing those pads caused soil erosion and the loss of wildlife habitat. Noticeable earthquakes, which came to Texas just twice a year before 2008, now hit the state 12 to 15 times a year, and some were caused by oil and gas companies injecting millions of gallons of wastewater deep underground.

Energy industry leaders, however, emphasised other findings in the study. The economic impact of oil and gas in Texas has been profound, accounting for an annual gross product of $473 billion as well as nearly 3.8 million jobs.

Source: Houston Chronicle, 19 Jun 2017

Extract 4: Should the Government Regulate Fracking?

Fracking involves injecting fluids into the ground to access hard-to-reach reserves of oil and natural gas, including shale gas. Many advocates argue that the government should step in and regulate the practice more forcefully because fracking can have big environmental impacts that cannot be managed effectively. At scale, they say, those hazards inevitably become a national problem. The result could be widespread bans on the practice and a premature end to the shale-gas revolution, they say. Currently, the government is strengthening its shale-gas regulations to tighten well-construction and waste-disposal standards.

However, opponents say the risks of fracking are overstated, and the impacts of fracking, both positive and negative, are mostly local, and different people balance them differently. So regulation should be left to the people who feel them most directly.

Source: The Wall Street Journal, 14 Apr 2013

Questions

(a) Describe the trend of world oil price from January 2008 to January 2016. [2]

(b) With the aid of a diagram, explain how technological advancements in shale extraction in the US could affect the economy's production possibility curve. [3]

(c) How far does the data in Figure 1 show that the change in US oil production was the key reason for the change in oil price between January 2013 and January 2016? [4]

(d) Comment on the impact of falling oil prices on the Japanese economy. [4]

(e) With the aid of a demand and supply diagram, explain how declining oil prices caused the value of the Russian rouble to fall. [3]

(f) **(i)** With reference to Extract 3, explain how the production of shale oil leads to an inefficient allocation of resources. [6]

(ii) Discuss the extent to which direct regulation of the fracking industry by the US government would lead to an efficient allocation of resources. [8]

[Total: 30]

Question 2 Economic Growth and Standard of Living

Table 1: Selected indicators for Singapore, Australia and China, 2016

	Singapore	Australia	China
Real GDP growth (%)	2.0	3.8	6.7
Inflation rate (%)	-0.5	2.0	2.0
GDP per capita in current market prices (US$)	52,961	49,927	8,123
Fixed broadband subscriptions (per 100 persons)	26.40	28.54	19.77

Source: United Nations Development Programme, accessed 17 Aug 2017

Extract 5: Slowing growth in China raises red flag for global economy

China's economic growth slowed in the latest quarter to a six-year low of 6.9%, adding to concerns that the world economy is entering a period of low growth that will extend into next year. The fall in China's growth rate, which compared to annual expansion of 7% in the previous quarter, follows a dramatic drop in trade that has reverberated across the world.

China's manufacturing sector has slumped as exports slumped. The decline in its heavy industry and construction has depressed demand for oil, iron ore and other commodities, dragging on growth in Australia, Brazil and other supplier countries. In recent weeks, the US Federal Reserve shelved plans for an interest rate rise, while the European Central Bank has been forced to consider launching a second stimulus package this year.

"China's slowing economy is raising concern about potential spill-over effects beyond its shores, particularly on the rest of Asia through the trade, financial and commodity channels," economists at BNP Paribas wrote.

Singapore, which has seen exports to China as a share of GDP almost triple since 2000, would fare worst with as many as 1.6 percentage points cut from GDP growth. South Korea's hit would be smallest at 0.4 percentage point.

The Chinese government has reacted to the slowing economy with a raft of measures since last November, when it began to cut interest rates. After two years of tightening credit conditions, regulators loosened access to credit in the summer and devalued the currency.

Goldman Sachs analysts said they do not think China's currency change will provide a strong boost to the country's growth. Those who believe the currency change will be large enough to affect the economy said it will be a boon for exporters and heavy industry, but bad news for companies that depend on imported goods. Shares of Chinese airlines plummeted, as analysts predicted that the higher cost of oil in US dollars would weigh on their earnings.

Source: adapted from various sources, Oct 2015

Extract 6: China cannot overcome its growth challenge without the right talent

Over the past 35 years, China's strong and sustained output growth, averaging more than 9.5 per cent annually has driven the miraculous transformation of a rural, command economy into a global economic superpower. In fact, according to the World Bank, China is about to overtake the United States as the world's largest economy. But, in terms of the quality and sustainability of its growth model, China still has a long way to go.

Strong human capital is critical to enable China to escape this fate. But China's labour force currently lacks the skills needed to support hi-tech, high-value industries. Changing this will require comprehensive education reform that expands and improves opportunities for children, while strengthening skills training for adults.

China has benefited from rapid employment growth, with more than seven million people entering the workforce each year since 1990. This, together with the massive reallocation of workers from rural to urban areas, has supported the labour-intensive manufacturing industries that have fuelled China's economic rise. But China's demographic advantage is diminishing, owing to low fertility rates and population ageing. According to the United Nations, by 2030, China's working-age population (15-59 years old) will have fallen by 67 million from its 2010 level.

Clearly, China needs to reform its higher education institutions, including technical and vocational training programmes and this will require increased public investment in education. As it stands, China's public investment in education, as a share of gross domestic product, is below international standards across all levels. China's education challenge also extends to quality as inadequate education is a major driver of rising unemployment among China's senior secondary and tertiary graduates.

Ongoing demographic and sectoral shifts mean that China will encounter a supply deficit of 24 million highly skilled graduates from universities or higher-level vocational schools by 2020. To fill this gap, China must upgrade its fragmented and ineffective technical and vocational training programmes.

Source: South China Morning Post, 21 May 2014

Questions

(a) With reference to Table 1

(i) Which country experienced the highest growth rate in nominal GDP? [1]

(ii) Explain how the information provided can be used to infer about the difference in the standard of living among the three countries. [4]

(iii) Suggest and explain one **other** piece of information, not in Table 1, that might be helpful in assessing the living standards of different countries. [2]

(b) Explain the statement: “Devaluation of the yuan will be a boon for exporters, but bad news for companies that depend on imported goods.” [4]

(c) What information is required to support the view that Singapore will be the hardest hit among the Asian economies from the slowdown in China’s growth? [2]

(d) With reference to Extract 6

(i) Using AD/AS diagram, explain the possible impact of an ageing population on the Chinese economy. [6]

(ii) Identify and explain one cause of unemployment among tertiary graduates in China. [3]

(e) Using the data provided and/or your own knowledge, discuss whether government investment in human capital alone is sufficient for a country to achieve sustained economic growth. [8]

[Total: 30]

Section B

Answer **one** question from this section.

3 **(a)** Explain using relevant examples, the concepts of price elasticity of demand and price elasticity of supply. [10]

(b) Assess the relevance of price elasticity of demand in aiding governments to make policy decisions. [15]

4 **(a)** Explain why a government aims to achieve low inflation. [10]

(b) Discuss whether fiscal policy is the most effective way to achieve price stability in a country. [15]

[End of paper]

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Question 1 **Global Oil Market**

Questions

(a) Describe the trend of world oil price from January 2008 to January 2016. [2]

It fell from Jan 08 to Jan 16. (1m)
Refinement: Sharp fall in Jan 2009, Jan 2015 or rose between Jan 2009 to July 2014. (1m)

(b) With the aid of a diagram, explain how technological advancements in shale extraction in the US could affect the economy's production possibility curve. [3]

PPC: 1m Axis (Axis + shift out)

Explanation of productive capacity: 1m
(if only state productive capacity increase, award only 1/2m)

Technology progress increase the productive capacity of the economy. (1/2m)
More of shale oil can be produced with the same amount of resources. (1m)

However, the maximum output of other goods remain the same, as the technology advancement only affect shale oil production.(1m)

(c) How far does the data in Figure 1 show that the change in US oil production was the key reason for the change in oil price between January 2013 and January 2016? [4]

Trend (1m)
Oil Price fell in the time period as US oil production rose. (1m)

Explanation (2m)
Rise in production of US oil, fall in demand for imported oil, thus, the demand for oil market fall. (1m)
Fall in US demand for oil, surplus, prices also fell. (1m)

*** If student explain supply rise, prices fell, award 1 out of 2 marks for the explanation of the trend.**

But it may not be the key reason because the extent of rise in US oil production is rather small as compared to the extent of the fall in world oil prices as seen in figure 1, especially in Jan 2015. Thus, it could be due to other factors such as slowing world economic growth as mentioned in extract 1.

Any reasonable possible assessment (1m)

(d) Comment on the impact of falling oil prices on the Japanese economy. [4]

Falling oil prices →PED<1 → import expenditure fall → (X-M) rise → AD rise → EG
COP fall → AS rise → rise in EG, GPL falls.

However, lower inflation is bad for the economy as it increases the risks of deflationary which may cause the economic growth to slow down in the future. (1m)

(Identify and explain AD and AS factors) 2m
Explain how the AD/AS change affect EG/GPL (1m) → No need simultaneous shift
Consequences of deflation (1m)

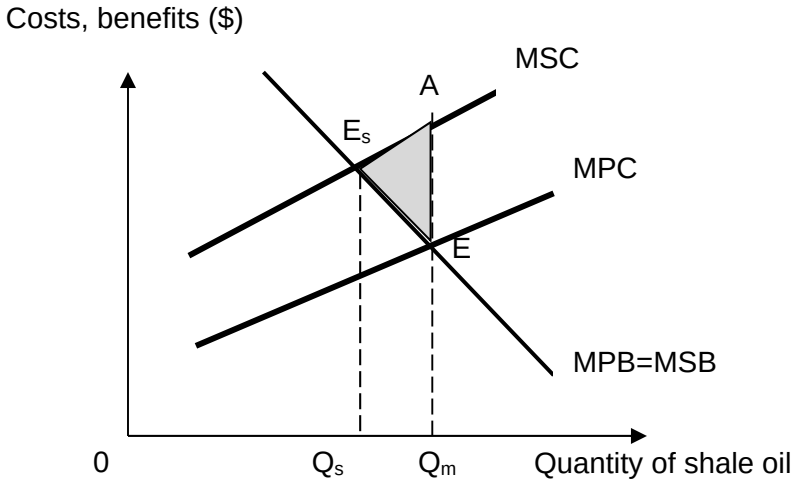
(e) With the aid of a demand and supply diagram, explain how declining oil prices caused the value of the Russian rouble to fall. [3]

Declining oil prices→ Price of exported oil fall → PED<1 → fall in export revenue → fall in demand for rouble → depreciation.

Explain fall in export revenue (1m)
Link to fall in demand (1m)
Diagram 1m

(f) **(i)** With reference to Extract 3, explain how the production of shale oil leads to an inefficient allocation of resources. [6]

The private cost of producing shale oil includes the wages to the workers, the cost of building the plants, cost of machines. The private benefit equals to revenue receives from the sale of shale oil. Assuming there are no positive externalities, the marginal social benefit of producing shale oil is equal to the marginal private benefit.



There is negative externalities in the production of shale oil, external costs are imposed onto third parties who are not directly involved in the production and consumption of the goods such as the farmers and those residents, and these people are not compensated for the costs incurred.

Due to shale oil production, residents may be affected by water contamination and may be affected by health problems, these medical costs are not compensated by the producers.
OR
Farmers around the region are also affected by the soil erosions, which affects the fertility of the land, and they may suffered from lower crops harvest and lower revenue received. These people are not compensated by the shale oil producers.

When there are negative externalities, the full opportunity cost of production to society is greater than the private cost. Thus, there is a divergence between the marginal social cost (MSC) and the marginal private cost (MPC) curves. The vertical distance between MSC and MPC curves is the marginal external cost. For example, in the figure above, the marginal external cost for the last unit of output $0Q_m$ is $AE.

The market equilibrium output level is determined by individuals who take into account only their private benefit and costs, ignoring all third party effects. Hence, the industry achieves

market equilibrium where MPB = MPC or when market demand equals to market supply at output $0Q_m$.

In contrast, the socially optimum level of output is attained at $0Q_s$ where MSB=MSC at point E_s. This output level is attained after taking into account both the private and external costs and private plus external benefits. At this output level, the benefit society gains from the last unit of this good (agricultural goods) is exactly equal to the opportunity cost of producing it.

The equilibrium output as determined by the market ($0Q_m$) is more than the socially optimum level of output ($0Q_s$). Hence, there is over-production or over-consumption of shale oil by Q_sQ_m amount.

For each additional unit from $0Q_s$ to $0Q_m$, the marginal costs to society are greater than the marginal benefit (MSC>MSB). Thus, each of these additional units produced and consumed results in a net welfare loss to society. By summing the excess of the marginal social cost over the marginal social benefit for all these additional units of Q_sQ_m, we arrive at a monetary measure of total deadweight loss to society which is equal to the area EE_sA.

Thus, we can see that when the market underestimates the true cost of shale oil production, it allocates more resources than desirable to production of shale oil and this results in over-production which leads to market failure.

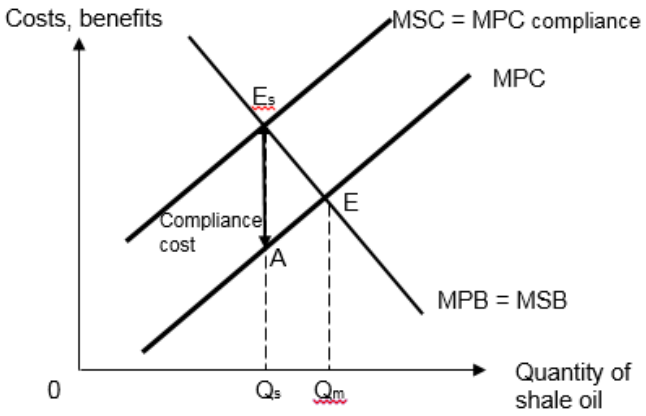
Mark Scheme

Levels	Descriptors
L2	Good explanation of negative externalities with clear understanding of third party effects. Explanation of how the market overproduced Explanation of DWL with diagram.
L1	Understanding of negative externalities and DWL is not evident.

(ii) Discuss the extent to which direct regulation of the fracking industry by the US government would lead to an efficient allocation of resources. [8]

Direct regulation by the US will help to reduce the production of shale oil, and it may help to achieve efficient resource allocation. However, the extent to which it is successful depends on the method of direct regulation and the ability of the US government to enforce the regulation.

US government can regulate by enforcing higher safety standards in the form of well constructions and waste disposal standards. This will raise the cost of production of producing shale oil as firms now have to incur higher cost to comply with the regulation in waste disposal. This will shift the firm's marginal private cost curve vertically upwards by the compliance costs for each additional unit of output. Firms reduces supply due to lower profitability. This results in a shortage of shale oil in the price and leads to higher prices of shale oil. This reduces the quantity consumed to Qs.



The strength of this policy is that the standards can be simple and transparent, and thus easy for firms to follow with the compliance.

Thus, the extent to which direct regulation can succeed depends on the extent of regulation and ability to comply. It is likely that direct regulation may not be very effective due to the complex nature of fracking activities. Government may not have the expertise to assess and implement regulation to force firms to internalise all the third party costs. Moreover, US being a big country with many shale oil production companies, it will take a lot of time and labour to enforce the regulation and ensure compliance. Thus, firms may have the incentive to cheat. In this case, the socially optimal output will not be reached. Lastly, the problem with direct regulation is that they tend to be a rather blunt weapon. Firms will not be incentivised to find the least cost method to reduce the third party effects. In this case, even if there is perfect information and 100% compliance, society will still not allocate resources efficient due to productive inefficiency.

All in all, direct regulation will not be able to solve the problem by a large extent due to the complex nature of shale oil production.

Levels	**Descriptors**
L2(4-6)	Explanation of direct regulation with use of DD/SS or MPB/MPC framework. Explain at least 1 reason why direct regulation may not reach Qs. Reason should have some relevance to the context of shale oil.
L1 (1-3)	Descriptive answer of policy. Did not address the end point of efficient resource allocation.
E1 (1-2)	Judgement is explained with good application to the context.

CSQ2: Economic Growth and Standard of Living

(a) With reference to Table 1
(i) Which country experienced the highest growth rate in nominal GDP? [1]

Answer: China

(ii) Explain how the information provided can be used to infer about the difference in the standard of living among the three countries. [4]

Answer:

The standard of living refers to the material and non-material well-being of the people in the country. **GDP per capita in current market prices** is the highest for Singapore and lowest for China. From this, we could infer that the standard of living of the average person in Singapore is the highest followed by Australia and China. A higher GDP per capita means that on average, each person in the country is able to purchase and consume more goods and services and hence enjoys a higher material standard of living.

Another piece of information that could be used is the **fixed broadband subscriptions** per 100 persons. The number of subscriptions is highest for Australia and lowest for China. Fixed broadband services allows the people to have better connectivity with the rest of the world through the internet, greater access to knowledge and ideas. This helps to improve the non-material aspect of living standard as people can make better decisions when they are more well-informed, relationships improve with greater connectedness and increased efficiency thereby more time for leisure activities.

Mark scheme

For each indicator, award as follows:

1 mark – identify indicator

1 mark – explain how that indicator reflects SOL differences between the three countries.

(iii) Suggest and explain one other piece of information, not in Table 1, that might be helpful in assessing the living standards of different countries. [2]

A useful indicator is life expectancy at birth. This indicator tells us the average lifespan of the people in the country. A higher life expectancy could reflect a higher living standard enjoyed by the people in the country in terms of better nutritional intake of food, more advanced healthcare services, and also better quality air and environment.

Mark Scheme

1 mark – identify indicator. Can accept indicator of material or non-material SOL e.g. literacy rate, infant mortality rate, PPP/cost of living, Gini coefficient.

1 mark – explain how that indicator is used to compare SOL between countries.

(b) Explain the statement: "Devaluation of the yuan will be a boon for exporters, but bad news for companies that depend on imported goods." [4]

Answer
Devaluation of the yuan will reduce the foreign currency price of China's exports to the rest of the world. Assuming that the demand for China's exports is price elastic, the fall in price will lead to a more than proportionate rise in quantity demanded. Hence China's exporters will enjoy a higher total incomes / export earnings and so devaluation of the yuan will be a boon for exports.

On the other hand, devaluation of the yuan will increase the domestic currency price of imports. For Chinese companies that import raw materials and other inputs, the devaluation of the yuan will thus mean a higher cost of production. If these inputs are essential raw materials, then demand tends to be price inelastic. As such the higher price of imported inputs will lead to a less than proportionate fall in quantity demanded and hence a rise in total import expenditure. The more dependent the firms are on imported inputs, the larger will be the rise in their costs of production. The higher costs will reduce the profits of these firms, ceteris paribus. Thus, devaluation of the yuan is bad news for these companies.

Mark scheme

2 mk each for exporters and companies that depend on imports.

(c) What information is required to support the view that Singapore will be the hardest hit among the Asian economies from the slowdown in China's growth. [2]

Answer

A slowdown in China's growth will affect Singapore through exports and investments. The information required is the share of Singapore's total exports that goes to China. Singapore will be hardest hit if its **share of total exports that goes to China** is the **largest** among Asian economies.

China's economic slowdown will lead to a smaller growth (or fall) in its demand for imports of goods and services. Hence, Singapore and other Asian economies will experience a smaller rise (or fall) in export demand, thus reducing the level of AD and consequently real GDP in Singapore and other Asian economies will rise at a slower rate (or real GDP falls). China is one of the most important final demand markets for Singapore. As such, China's economic slowdown could have hit Singapore hardest because its total exports will be more severely affected than that of other countries.

Mark scheme

1 mark – identify information

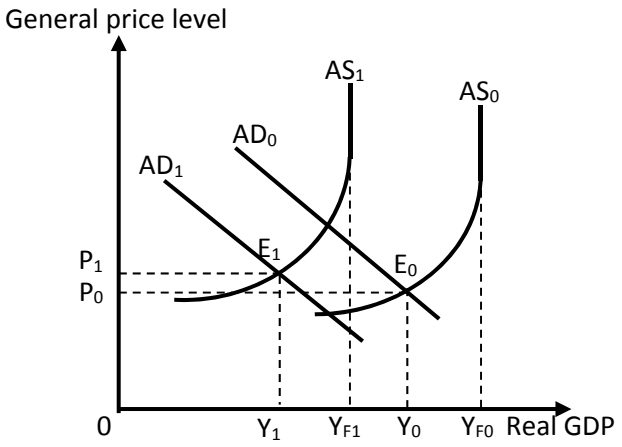
1 mark – explain

(d) With reference to Extract 6

(i) Using AD/AS diagram, explain the possible impact of an ageing population on the Chinese economy. [6]

An ageing population could lead to a fall in long run aggregate supply (AS). "*According to the United Nations, by 2030, China's working-age population (15-59 years old) will have fallen by 67 million from its 2010 level.*" An ageing population will reduce the size of the labour force as the number of people who leave the labour force due to retirement and old age is not replaced by the number of new entrants into the labour force. Not only that, the quality of the labour force could also be affected to the extent that the older workers in the labour force are less adaptable and slow to embrace new technologies and hence could be less efficient. Both the reduction in size and quality of the labour force lower China's productive capacity. Thus AS falls from AS_0 to AS_1.

An ageing population could also lead to a fall in AD. This could be due to fall in consumption expenditures as there is a fall in purchasing power / earned incomes as the elderly leave the labour force.



In the diagram above, the economy is initially in equilibrium with real GDP at Y_0 and the general price level at P_0. Assuming that the fall in AS is greater than the fall in AD, there will be a shortage of goods and services which will exert an upward pressure on the general price level. The new equilibrium occurs at point E1. Real GDP falls to Y_1. Price level increases to P_1.

However, if the fall in AS is smaller than the fall in AD, then this will create a surplus of goods and services which consequently will lead to lower prices. Real GDP will still fall. Hence, an ageing population would lead to a fall in real GDP but the effect on the general price level is indeterminate.

There will also be a fall in the full employment level of real GDP from YF_0 to YF_1 as the country's productive capacity falls.

Mark scheme

Diagram – 1 mark with shifts of AS and/or AD.

Explain how AD and AS are affected by an ageing population - 1 mk for each idea up to a total of 2 mk.

PAP (1)

Conclusion on equilibrium level of real GDP (½), GPL (½) and potential output (½), indeterminate effect on price (½)

(ii) Identify and explain one cause of unemployment among tertiary graduates in China. [3]

Structural unemployment exists among tertiary graduates in China as the country undergoes sectoral shifts in the economy, moving away from low value-added industries. "Inadequate (quality) education" was the reason given for the rising unemployment for this group of people. This could result in graduates having little relevant technical and vocational knowledge and skills such that they could not find jobs in new, growing "high-tech, high-value industries" in China. As a result of the mismatch of skills, these graduates are unemployed.

Identify: 1m

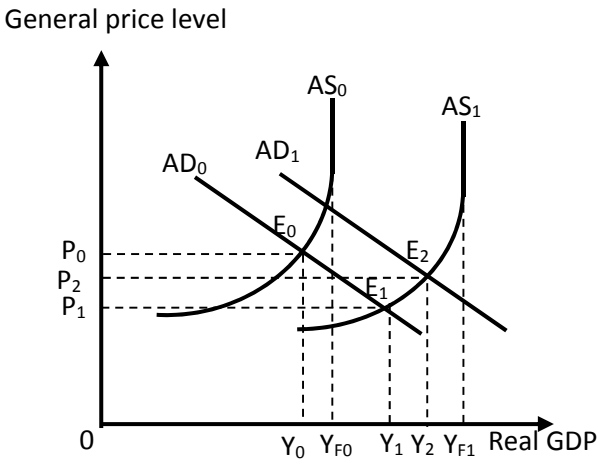
Explain: 1m

Application to Context: 1m

(e) Using the data provided and/or your own knowledge, discuss whether government investment in human capital alone is sufficient for a country to achieve sustained economic growth. [8]

Sustained economic growth is one of the key goals of the government. It will help to raise the standard of living of the people in the country as their real incomes rise and they are able to buy and consume more goods and services. Sustained economic growth is possible with increases in AD and AS.

Government investment in human capital involves expenditures in education and training so as to improve the quality/productivity of the labour force. When the workers are better equipped with relevant knowledge and skills, they are able to contribute more effectively in their work. Hence, total output increases as productivity rises. This leads to a rightward shift of the AS curve from AS_0 to AS_1. The price level falls from P_0 to P_1. As price falls, consumption expenditure as well as net export earnings rise as the country's exports become relatively cheaper and imports relatively more expensive than domestically produced goods and services. Real GDP rises from Y_0 to Y_1. Hence, the country enjoys a non-inflationary sustained economic growth. At the same, the country's potential output increases too from Y_{F0} to Y_{F1}.



Investment in human capital is affecting only one of the determinants of sustained economic growth – the quality of the labour force. There are other complementary factors as well such as the investment in capital goods such as plant and equipment, investment in R&D as well as the level of technology. Workers also need efficient tools and improved technology to be more productive. Hence there is also a need for the country to invest in these other factors of production to raise AS. Furthermore, people may be reluctant to go for training because they are not aware of the full benefits of doing so. As such, the level of training may not be optimal. Because of these, government needs to look at ways to increase AS through improving the quality of the other factors of production.

Whilst an increase in AS can bring about potential growth, it is not sufficient for sustained economic growth. When AD is weak, firms would not be incentivised to increase production even if they have the excess capacity to do so because it is not profitable. Thus, real GDP may be in equilibrium that coincides with high unemployment. Thus for sustained economic growth, AD must rise too.

The rise in government expenditure on education will increase AD at the same time. But it may not bring a great boost to the level of AD especially when government spending is constrained by its limited funds. The country needs to increase other components of AD such as consumer expenditure,

investment expenditure and export earnings through appropriate fiscal and monetary policies. For example, an expansionary fiscal policy that lowers tax rates on personal income tax increases households' disposable incomes and thus increases consumption spending. Hence, AD rises and AD curve shifts from AD_0 to AD_1. The rise in AD then increases the real GDP from Y_1 to Y_2. Although prices rose, it is only by a small extent because of the rise in AS.

Thus, increase in government investments in human capital alone is not sufficient to bring sustained economic growth because no matter how skilled the labour force is, they may not be able to perform well if they do not have the right tools, infrastructure and technology to support their work. Hence, there is a need to improve the quality of other factors of production. In addition, a country's economic growth is also dependent on the level of AD without which firms have little incentive to increase production. Hence, to achieve sustained growth, AS must rise to match the rise in AD.

Mark scheme

	Understanding, Analysis, Application
L2 (4 – 6)	Clear explanation using AD/AS analysis of how government investment in human capital can lead to economic growth. Clear explanation of the importance of other determinants of economic growth including AD, to achieve sustained growth. Relevant and well-explained diagram(s).
L1 (1 – 3)	Some explanation of how investment in human capital can lead to economic growth. Answer is one-sided. Did not consider other determinants of sustained economic growth.
Evaluation	Considers the limitations of investment in human capital to achieve sustained growth, and thus not sufficient.

3 (a) Explain using relevant examples, the concepts of price elasticity of demand and price elasticity of supply. [10]

(b) Assess the relevance of price elasticity of demand in aiding governments to make policy decisions. [15]

Part a

Introduction

- Define PED: degree of responsiveness of quantity demanded (Qdd) of a good due to a change in the price of good itself, ceteris paribus.
- Define PES: degree of responsiveness of quantity supplied (Qss) of a good due to a change in the price of the good itself, ceteris paribus.
- Direction: The concepts of PED and PES can be explained in terms of definition, sign and degree and examples.

P1: The sign of PED is always negative because of the inverse relationship between price and Qdd.

- The sign of PED is always negative because it reflects the Law of Demand which states that there is an inverse relationship between price of a good and its Qdd. For e.g., when the price of cars rises, consumers' purchasing power will be reduced → they are less willing and less able to buy cars → Qdd for cars fall, ceteris paribus.

P2: The absolute value of PED determines the degree of PED of a good.

- When the absolute value of PED is greater than one, it means that demand for a particular good is price elastic → for example, demand for holiday package from Tour Agency A (narrowly defined) is likely to be price elastic because there are many tour agencies offering similar tour packages. Any increase in price of a holiday package from agency A will lead to a more than proportionate fall in Qdd of its holiday package, ceteris paribus. This is because consumers can easily find another substitute e.g. Tour Agency B which does not increase its price for similar package.
- In addition, demand of a holiday package will be price elastic if it takes up a relatively large proportion of consumers' income. This is because a 1% rise of a high price of $10,000 means the absolute dollar amount of rise in price ($100) will be significant and it will mean that consumers are less able to consume out of their current incomes.
- On the other hand, when the absolute value of PED is less than one, it means that demand for a particular good is price inelastic → for example, demand for salt/pepper is price inelastic because being salt/pepper does not have other similar food enhancer within the same price range→ any rise in price of salt/pepper will lead to less than proportionate fall in Qdd of salt/pepper, ceteris paribus.
- Moreover, salt/pepper takes up a small proportion of consumers' income. A 1% rise of a low price of $1 means the absolute dollar amount of rise in price ($0.01) will be insignificant.

P3: The sign of PES is always positive because of the relationship between price and quantity supplied.

- The sign of PES is always positive because it reflects the Law of Supply which states that there is a direct relationship between price of a good and its quantity supplied. For example, when the price of wheat rises, the producers would be more willing and more able to produce wheat due to higher expected returns → Qss of wheat rises, ceteris paribus.

P4: The absolute value of PES determines the degree of PES of a good.

- When the absolute value of PES is greater than one, it means that supply of a particular good is price elastic → for e.g., supply of plastic water bottle is very likely to be price elastic since they are relatively cheap and easy to store due to the small size and hardy material. In addition, it takes a relatively shorter time to manufacture a water bottle as it can be mass produced by machines. So any rise in price of water bottle will lead to a more than proportionate rise in Qss of water bottle, ceteris paribus. This is because sellers can easily

draw from their inventory/stock and if the inventory runs low, production can be ramped up in a relatively short time. - When the absolute value of PES is less than one, it means that supply of a particular good is price inelastic → for e.g., supply of fresh seafood is relatively price inelastic because of its perishable nature where even with refrigeration, the taste and texture may deteriorate. Moreover, there is a long gestation period of 2-3 months on average for young fish fry to grow to the right size→ any rise in price of fresh seafood will lead to less than proportionate rise in Qss of the good, ceteris paribus.
<u>Conclusion</u> - PED and PES concepts are useful to a government in determining the extent of change in equilibrium price and quantity should there be a change in supply (PED) or demand (PES) respectively.

Level	**Knowledge, Application, Understanding and Analysis**
L3 (7-10)	• Detailed explanation of both PED and PES with sign, values, degree, determinants. • Well elaborated and relevant examples.
L2 (5-6)	• Sufficient explanation of PED and PES but may omit either price elastic or price inelastic egs. • Detailed explanation of PED but cursory reference to PES. • Detailed explanation of PED and PES without relevant examples.
L1 (1-4)	• Smattering of ideas and/or descriptive answers. • Glaring conceptual errors – e.g. confusing non-price determinants of DD as PED determinants and confusing non-price determinants of SS as PES determinants.

(b) Assess the relevance of price elasticity of demand in aiding governments to make policy decisions. [15]

Introduction:

- The concept of PED is useful to the government to a certain extent as it can help:
  1) Determine amount of tax revenue to be collected.
  2) Assess the implementation of taxation to reduce undesirable consumption of a demerit good OR subsidies to increase consumption of merit good and
  3) Assess the impact of currency depreciation policy in reducing a trade deficit.

P1: Knowledge of PED is useful <u>to determine the amount of tax revenue that can be collected</u> when a tax is imposed on various goods

- The government will impose an indirect tax on various goods and services. When a specific tax of (t) is imposed, costs of production will rise and supply curve shifts vertically upwards by the amount of tax (t) from S to S(tax).
- If demand of the good is price inelastic PED<1 (e.g.habit forming goods such as cigarettes and alcohol), Qdd falls less than proportionately than when PED >1, so the tax revenue which is determined by the amount of tax (t) multiplied by new lower quantity. The amount of tax revenue collected P_iE_iFG will be larger.

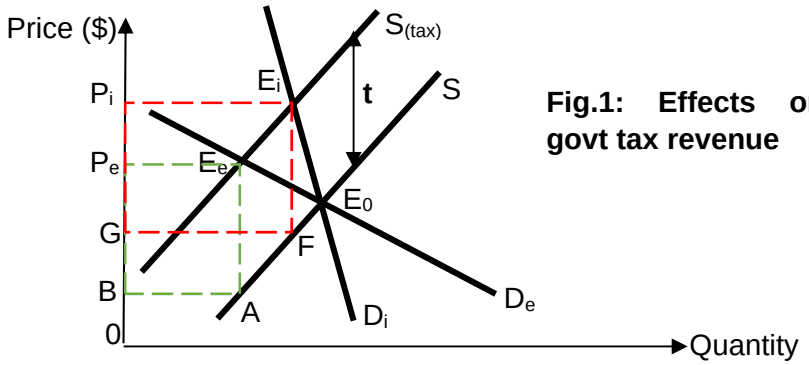


Fig.1: Effects on govt tax revenue

- If demand for the good is price elastic (D_e), Qdd falls more than proportionately with the price increase. Hence the total tax revenue collected (same tax amount (t) but multiply by new quantity) is the smaller area P_eE_eAB.
- Therefore, the government will be able to collect more tax revenue when it is imposed on goods whose demand is price inelastic and collect less tax revenue for goods whose demand is price elastic. Hence, PED is useful to estimate the total tax to be collected.

P2: Knowledge of price elasticity of demand enables the government to analyse the effectiveness of a tax policy in reducing undesirable levels of consumption of a demerit good.

- A demerit good is a good that the government considers to be socially undesirable and intrinsically bad for consumers. For example, the smoker is unaware of the full harmful effects of smoking and smoking also result negative externalities whereby a non-smoker also incurs medical costs of inhaling 2nd hand smoke. Thus, the use of tax to reduce consumption of socially undesirable goods is needed.
- Such tax will be successful the greater the PED. Demand of cigarettes is price inelastic (D_i) due to its habit forming nature, there has to be a substantial rise in the amount of tax in order to reduce consumption of it significantly to the socially optimal level of output (assume this is Qe).

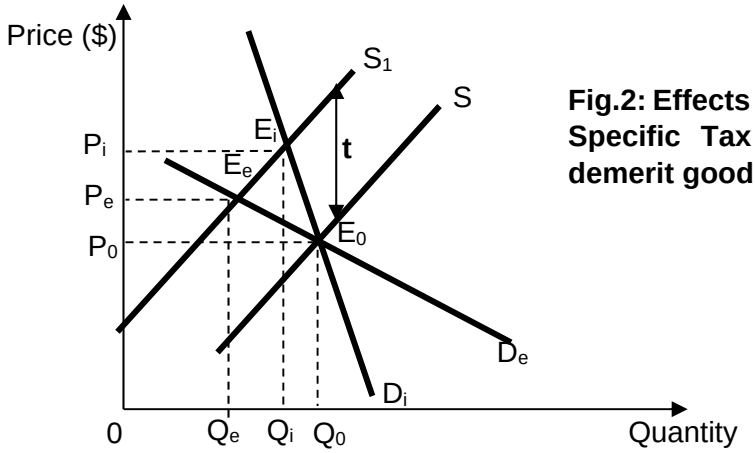


Fig.2: Effects of a Specific Tax on demerit good

- But if demand for a good is price elastic (D_e), then a tax will be relatively easier to reduce consumption to the socially desirable level Q_e.
- Hence, knowledge of PED is relevant to determine the effectiveness of a tax policy.

P3: Knowledge of PED can also determine the effectiveness of a currency depreciation policy when a country is faced with a trade deficit

- To reduce a trade deficit, the government can depreciate its currency to boost export competitiveness and it can do so by selling its domestic currency in the foreign exchange market. When domestic currency depreciates, the price of the country's exports in foreign currency will fall. Assuming the demand for its exports is price elastic (because of many substitutes produced by other countries), this will lead to a more than proportionate increase in quantity demanded for exports, ceteris paribus, and hence a rise in its export earnings. Currency depreciation will also increase price of imports in domestic currency. If the demand for imports is price elastic (because of domestically produced substitutes), a rise in price will result in a more than proportionate fall in quantity demanded for imports, ceteris paribus, leading to a fall in import expenditure. With a rise in the country's export earnings and a fall in its import expenditure, there will be a rise in net exports (X-M). The trade balance will improve. As long as the Marshall-Lerner condition where the sum of price elasticity of demand for exports and price elasticity of demand for imports is more than one, currency depreciation will lead to a rise in net exports expenditure.
- Thus, the concept of price elasticity of demand is relevant as the value of price elasticity of demand for the country's exports and imports will determine the outcome of this policy.

P4: However, in reality, there are limitations to the usefulness of the PED concepts to a government.

- This is because the concepts operate under "ceteris paribus" assumption. In the real world, more than one factor affecting demand can change simultaneously, for example, price, income and tastes and preferences can all change at the same time. For example, the government might impose a tax on a good whose demand is price inelastic in order to earn larger tax revenue. However, other factors such as a fall in income might result in a fall in demand resulting in a smaller amount of tax revenue earned.

- The value of price elasticity of demand of a good may also not be accurate for the following reasons:
    - Sample size and characteristics are too small to be representative.
    - Time period selected is far from the current period, hence data is outdated.

• Data collected is inaccurate for various reasons such as households do not reveal their preferences accurately due to personal reasons. Under such circumstances, the use of PED by a government is limited due to the inaccuracy of the data
Conclusion - Summary and personal opinion: • The concept of price elasticity of demand may be relevant to a government in formulating policies to achieve its goals. However, there are also limitations to the use of these concepts and government should be aware of the limitations in order to make accurate judgement of the likely outcomes of the policy. • In view of such limitations, the government must make an effort to constantly update the elasticity concept data through yearly consumer household expenditure surveys and also be aware of factors that might affect the demand or supply of the good or service in question.

Levels	Descriptors
L3 (9-11)	• Rigorous and clear explanation of how the PED concepts can be used to assess the effectiveness of micro and macro government policies. • Clear and relevant examples given in answer.
L2 (6-8)	• Good explanation of at least one use of PED concepts to the government. • Some understanding of how the PED concept can be used to help assess the effectiveness of various government policies (Micro or Macro).
L1 (1-5)	• Smattering of points, showing little or superficial application of PED e.g. claiming tax revenue is higher when PED<1 but no diagram is used. • Glaring conceptual errors e.g.confusing producer TR with tax revenue .
E2 (3-4)	• For an evaluative discussion, or one that is supported by rigorous economic analysis. Eg: ability to explain the limitations of using the PED concept with clear examples. • Able to provide a personal view.
E1 (1-2)	• For an unexplained judgment, or one that is not supported by analysis. E.g. merely stating PED is not relevant due to its key assumption.

4 (a) Explain why a government aims to achieve low inflation. [10]

(b) Discuss whether fiscal policy is the most effective way to achieve price stability in a country. [15]

Part (a)

Introduction:

- Inflation refers to the sustained increase in the general price level.
- A government aims to achieve low inflation as excessive price increase or decrease is harmful to the economy. Holding the rate at 1%-2% is considered as sufficiently low and desirable.

P1: Low inflation can result in economic growth and higher employment. (OR Severe inflation/deflation can cause negative economic growth and unemployment and so it is necessary to prevent prices from severe fluctuation) (Internal/domestic effects)

- In the case of mild/low inflation, it is usual for wage costs to lag behind the increase in prices of goods and services. Profit-maximising producers will be optimistic and motivated to increase production, leading to higher investment. Thus AD rises leading to a rise in real national output and thus actual economic growth. With higher level of production of goods and services, higher employment results as labour is a derived demand.
- In the long run, the rise in quantity of capital goods lead to rise in productive capacity and thus rise in AS. There will be a further rise in real national output and full employment output will rise signifying potential economic growth.
- Whereas, high inflation creates increased uncertainty and risk of future returns on investment and discourages investment.
- On the other hand, deflation (negative inflation i.e. falling prices) usually sets in when AD falls and the country slips into a recession. As inventories build up, firms reduce prices. But when prices are falling, consumers may postpone their spending in expectations of further fall in prices. Firms too lacks confidence that demand will pick up in the near future and so will cut back on investments and hiring.

P2: Low inflation reduce redistributive effects of inflation and deflation (Internal/domestic effects)

- Unanticipated inflation results in arbitrary redistribution of income as some people will be made better off but others are made worse off. Fixed income earners like pensioners and employees whose salaries are fixed by contract, lose. On the other hand, variable income earners (e.g. producers) gain during unanticipated inflation. The purchasing power of the fixed-income earners decreases because they have to pay more for products but their money income is unchanged. Conversely, producers gain because they are making higher profits as price may rise faster than cost. Lenders will lose and borrowers gain during unanticipated inflation. Borrowers gain because the real values of their debts are reduced by the price increase as the loan that is repaid in nominal terms is has lesser purchasing power. In contrast, lenders end up getting back a sum worth much less than agreed in real terms. Such arbitrary redistribution of income could lead to social unrest.

P3: Low inflation is beneficial to the balance of payments (external effects)

- When a country's inflation rate is relatively low and stable compared to its trading partners, her exports will be relatively cheaper and therefore more competitive. This will lead to an increase in demand hence, a rise in export earnings. On the other hand, its imports will be relatively more expensive than home-produced goods and thus demand for imports decreases and import expenditure will fall. Hence net exports increase which improves the current account.
- Stable prices will have a favourable impact on the capital balance. There is less risks and uncertainty (explained in P1) which will attract greater inflow of foreign direct investments. The capital inflow improves the capital balance. Hence, stable prices can result in an improvement of the overall balance of payments of a country.

Conclusion

- There are various benefits of low inflation while deflation and high inflation have detrimental effects on the economy. That explains why more governments are resorting to achieve low inflation.

Level	Knowledge, Application, Understanding and Analysis
L3 (7-10)	- 2 very well explained domestic (economic growth, employment, SOL using AD/AS analysis) AND external (BOP using appropriate DD/SS/PED analysis) effects. - Candidates must be able to link to why price stability is important. - Clear understanding of why low inflation is the aim vs high inflation and deflation.
L2 (5-6)	- Answer provides undeveloped explanation of the negative effects of high inflation or positive effects of low inflation. - Answer has only 2 domestic or external effects or undeveloped explanation of 3 effects
L1 (1-4)	- Descriptive answer of the effects/consequences of low inflation or high inflation or deflation. - Glaring conceptual errors.

Part (b)

Introduction:

- Price stability refers to low inflation where prices are rising at a low single-digit and not distorting relative prices severely. Several policies can be used but effectiveness of such policies will depend on cause(s) of inflation and characteristics/conditions of the economy.

P1: Contractionary fiscal policy is effective if the <u>root cause of inflation is excessive rise in domestic demand</u> when the country has little spare capacity (aka demand-pull inflation). An instance is the massive rise in consumption (C) and investment (I) leading to inflow of foreign workers raising C and I and bring the country near full employment.

- When the government cuts its expenditure (G) on goods and services, this will have the immediate impact of reducing the level of AD since G is a component of AD.
- The government can also increase direct taxes. For example, when personal income taxes are increased, the disposable income of households falls, leading to a **fall in C**. Higher corporate tax will reduce the firms' post-tax profits. Hence, firms will **reduce I**. The fall in C and I will lead to a fall in AD from AD_0 to AD_1.
- At P_0, AS exceeds AD resulting in a surplus and downward pressure on prices. As a result, firms would produce less. At the same time, the decrease in prices would raise the level of AD. The surpluses would be eliminated when the general price level has fallen to P_1.

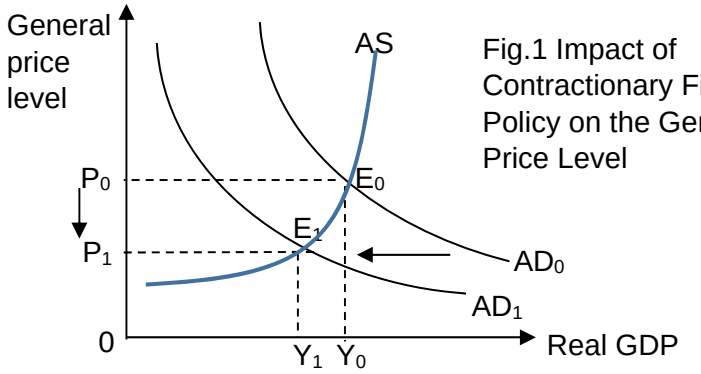


Fig.1 Impact of Contractionary Fiscal Policy on the General Price Level

EV1:

- However, for countries where the **<u>G expenditure as a percentage of GDP</u>** is **<u>small</u>,** it may be difficult for such countries to reduce G sufficiently to contain inflation. For e.g., the Singapore government's expenditure has averaged about 10-11% of GDP from 2010-2015 compared with those OECD countries, which range from 30% to 50% of GDP.
- In addition, the effects of <u>tax</u> increase on investment and consumption are **<u>uncertain</u>** as the extent to which people react to tax changes differ. For e.g. even with tax increase, C may fall less than proportionate if consumers are more concerned about future price rise. Thus, a smaller-than-needed tax increase will be ineffective.

P2 To control <u>inflation arises from external causes</u>, the government of a small and open economy can **<u>appreciate</u>** its currency. (Students can also bring in contractionary monetary policy)

- Currency appreciation means increasing the external value of the country's currency which is done by the government **buying its domestic currency** in the foreign exchange market.
- Currency appreciation has the direct effect of lowering the domestic currency prices of **imported final goods and services**. Moreover, the lower domestic currency prices of **imported inputs and raw materials** will lower the firms' cost of production. The short run AS will rise causing a fall in general price level assuming the firms pass the lower costs to the consumers. Thus, there will be a fall in import price-push inflation.
- Currency appreciation can reduce demand-pull inflation by lowering AD. When the domestic currency appreciates, the country's exports will be more expensive in foreign currency. At the same time, imports would be cheaper in domestic currency. As long as the **Marshall-Lerner condition** is met, i.e. the **sum of price elasticity of demand for exports and price elasticity of demand for imports is greater than one**, currency appreciation will lead to a fall in net export expenditure. Hence, AD also decreases leading to a fall in general price level.

EV2:

- The use of exchange rate policy is the more effective than fiscal policy and a more direct way of maintaining price stability in a country such as Singapore in which the main cause of inflation is imported inflation. Singapore is a small and open economy that is heavily dependent on imports due to the lack of resources. Out of every $1 spent, 51 cents leak out as imports. This implies that domestic prices are very much influenced by foreign prices. Hence, the inflation problem is usually due to external sources. Changes in the exchange rate would have a significant impact on domestic prices, either directly (through its impact on import prices) or indirectly (through its impact on export prices).
- But in the short run, the demand for the country's exports and imports can be highly price inelastic due to lack of substitutes and contractual agreements between firms. If the Marshall-Lerner condition is not met, then currency appreciation would not reduce net export expenditure, AD and the general price level. However, in the long run (commonly a year's time), the demand for the country's exports and imports should be price elastic (thus Marshall-Lerner condition is met) as firms and consumers can find substitutes from other countries and contractual agreements would have expired. Therefore, the currency appreciation would lead to a fall in net exports thus leading to lower inflation.

P3: Supply-side policies is a more effective way to curb demand-pull inflation due to infrastructure constraint and cost-push inflation caused by rise in wages exceeding than the rise in labour productivity.

- This policy involves increasing the country's productive capacity by increasing the productivity of workers through skills training and upgrading, the greater use of capital goods and the use of technology and innovation to reduce costs of production and to overcome resource constrains.
- Measures in Singapore such as SkillsFuture are subsidies given to workers to take up courses to develop themselves as well as to learn new skills so that the rise in labour productivity exceed the rise in wages. Subsidies are also given to firms to encourage them to engage in R&D so that they are less reliant on foreign labour and to use more capital and technology to produce goods. The government also keeps up with spending to increase the capital stock in the form of more infrastructure.
- The AS curve will shift to the right from AS_0 to AS_1. As a result, the general price level falls from P_0 to P_1.

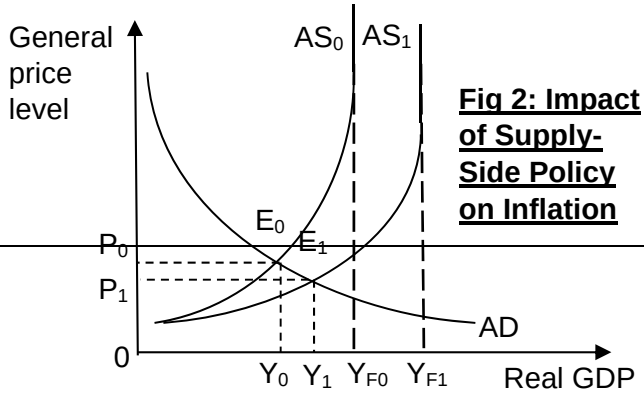


Fig 2: Impact of Supply-Side Policy on Inflation

EV3:

- However, supply-side policies suffer from a longer time to be effective in bringing down inflation than fiscal policy and monetary policy. It takes time to persuade employers and workers of the need for skills upgrading. Firms will be more concerned about loss of potential output especially when they are receiving more sales orders during demand pull inflation and so they are reluctant to send workers for training. Likewise, workers may be reluctant to attend training if they have to forgo their earnings.
- Also, it takes time for workers to acquire new skills to increase labour productivity – the more complex the skills, the longer the training time. Likewise, construction of infrastructure takes time and the amount time needed is substantially lengthened if the country is already densely populated with high built-up areas such that more time is needed to prepare the area for new infrastructure.

Synthesis/conclusion

- Generally, fiscal policy is not the most effective policy in bringing down inflation though the government may still use it by postponing non-essential government spending. So, the policy is of limited effectiveness.
- Next, supply-side policy is the preferred long term policy because fiscal policy of raising taxes is unlikely to raise labour productivity and thus supply-side policy of raising labour productivity is a more effective measure. Similarly, fiscal policy of cutting government expenditure on infrastructure may worsen inflation as infrastructure deteriorates over time resulting in bad supply bottlenecks and so the improvement of infrastructure is still key.
- Thirdly, the country's characteristics determine which type(s) of inflation it is more susceptible to and the severity and therefore which policies are more effective to reduce inflation. E.g. a small and open economy tends to face imported inflation will use exchange rate policy.
- Fourthly, the country can also experience several types of inflation (inflationary spiral) and thus it will use a mix of policies including the more targeted macro-prudential measures e.g. to stamp out property speculation (excessive Investments).
- Finally, use of policies is not just based on effectiveness of the policy.
    - Governments often also consider how the chosen policies may conflict with other macroeconomic goals of balance of payment (when the currency is too strong) and lowering economic growth when using fiscal and/or monetary policy and such conflicts may actually worsen inflation when investors lose confidence.

Level	**Knowledge, Application, Understanding and Analysis**
L3 (9-11)	- Well-explained analysis of how fiscal policy and 2 other policies (either interest rate OR exchange rate PLUS supply-side) help to achieve price stability. - Thorough analysis of fiscal policy and one other policy in achieving price stability.
L2 (6-8)	- Well explained fiscal policy and some mention of another policy in achieving price stability. - Thorough analysis of fiscal policy in achieving price stability. - 3 policies provided but links to price stability may not be explicitly evident.
L1 (1-5)	- Smattering of ideas. - Glaring conceptual mistakes - Only fiscal policy but no link to price stability.
E2 (3-4)	• Judgement based on analysis on effectiveness of policies including comparing which is the most effective policy and synthesis • Contextual examples to support "best".

E1 (1-2)	• Mainly unexplained judgement – e.g.merely stating of context or theoretical evaluation without application (e.g.citing time lag and inaccuracy of data for all policies)