



SERANGOON JUNIOR COLLEGE

JC2 Preliminary Examination

ECONOMICS
Higher 2

9757/01

Paper 1

10 September 2018

2 hours 15 minutes

Additional Materials: Writing paper

READ THESE INSTRUCTIONS FIRST

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

Answer **all** questions.

Start your answers to each case study question on a new sheet of writing paper.
At the end of the examination, fasten your answers to questions 1 and 2 **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.

Answer **all** questions.

Question 1: The Automobile Industry

Extract 1: Scarce, expensive cobalt essential for electric cars

Cobalt prices more than doubled in 2017, and rose to a record high early this year, driven by a rising demand for electric cars. Cobalt has been used for thousands of years to add blue colour in ceramics, glass and pottery, but now its main demand is as a key ingredient used in lithium ion batteries that power everything from Apple products to Tesla electric cars.

The supply side of the price equation is also boosting cobalt's price. Cobalt is mostly retrieved as a by-product of the copper and nickel mining industry. The prices of copper and nickel have been persistently falling, making production at many locations uneconomic, forcing mines to close. So even though there is strong demand for cobalt, if the rest of the industry is suffering, cobalt production will too.

Source: *www.theglobeandmail.com*, 27 Feb 2018

Extract 2: It's time to end subsidies for green vehicles

Norway reached a remarkable milestone in 2017, when it became the first country where zero-emission and hybrid vehicles accounted for more than half of new car sales in a calendar year. At the same time, however, the government of Norway announced that it wants to cut back lavish subsidies that allow citizens to save thousands of dollars on the price of a Tesla and other models, while sticking to its plan to make every new car sold a zero-emissions vehicle by 2025.

The Norwegian experience sums up the debate over how best to move away from fossil-fuel cars and onto the next generation of ground transportation – that is, whether or not subsidies for customers are worth it. But it also raises the question of whether that debate has become a moot point. The switch to electric vehicles appears to be speeding up globally, largely fuelled by innovation and government policy in major markets.

In China, the world's biggest car market, a company called Nio began mass-producing electric cars in 2017 with the help of heavy subsidies from a Chinese government that is eager to see the end of fossil-fuel cars in its polluted cities. More than 200 companies have also announced plans to manufacture electric cars to take advantage of the huge subsidies. However, some fear these subsidies may lead to overcapacity of electric vehicles, just like what happened to steel and solar panels. And questions also remain over how long it will take and how much will have to be spent before the industry is viable.

The push to increase sales of electric vehicles in the meantime is expensive, as Norway has learned. A recent study put out by the Montreal Economic Institute pegged the cost to taxpayers of lowering greenhouse-gas emissions in Ontario via vehicle subsidies at a whopping \$523 per tonne. It also said that, for Ontario to reach its goal of electric vehicles constituting five per cent of the new-car market, it will have to spend \$8.6-billion in subsidies over the next 13 years.

That is simply too much money for too little outcome. More critically, governments are subsidising a product that may not need the help. There is every indication that the world has reached a tipping point, and that natural competitive forces will soon start to bring down the cost of electric vehicles. Governments should therefore abandon their electric car subsidies.

Adapted from *www.ft.com*, 12 Oct 2017

Extract 3: China's automobile industrial policy

In terms of manufacturing scale, China has long established a position for itself as the world's largest automobile factory. On the level of individual manufacturers, however, Chinese manufacturers still lack international competitiveness. China exported less than 5 percent of locally produced automobiles and vehicle exports have been declining for the past two years, suggesting that China is failing to put its excess production capacity to practical use through exports. Chinese automobile manufacturers have also failed to make their presence in other major automobile markets. Chinese manufacturing sector is large but not yet strong. The government should be aware of the limitations of cultivating and supporting domestic enterprises under an automobile industrial policy that is weighted towards scale expansion.

Source: Yuichiro Koga, www.mizuhobank.com, 2 May 2017

Extract 4: Beijing lift restrictions on foreign investment in automobile industry

Since 1984, foreign carmakers have been allowed to produce cars in China — but only in joint venture with a local partner holding at least 50 per cent of the venture. In practice, the local partner is almost always one of six state companies.

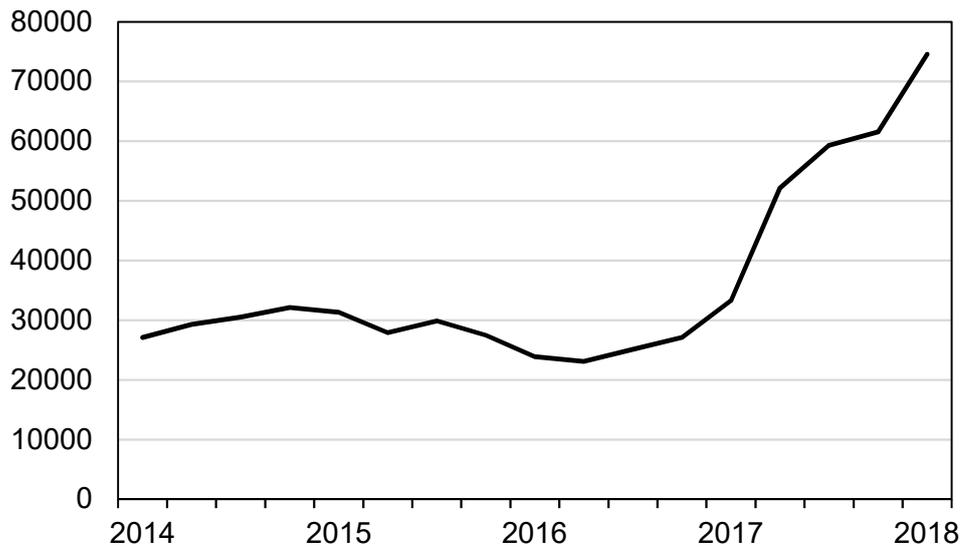
The results of the three-decade-old policy have been mixed. Rather than transforming Chinese car companies into technology giants, the joint venture companies have arguably made Chinese carmakers complacent, according to Chinese policymakers. Foreign brands still account for a majority of sales in Chinese passenger cars — and the country's carmakers have failed to export more than a handful of passenger cars under their own brands.

Recently, the Chinese government announced it would scrap the 50 per cent foreign investment cap on automobile joint ventures by 2022. This is expected to encourage global electric vehicle makers to set up wholly owned plants in China. Tesla has unveiled a plan to set up a manufacturing plant in Shanghai.

Mr Jochem Heizmann, head of Volkswagen's China operations, said that the liberalisation sent an "important" signal that other industrial policies that limit competition and innovation might be relaxed. Most US business lobbies however, have dismissed a series of recent market liberalisation measures in the auto and financial sectors — touted by China's president Xi Jinping in a speech on April 11 — as being "too little, too late".

Source: www.ft.com, 1 Sep 2017

Figure 1: Cobalt prices (US\$ per tonne)



Source: *tradingeconomics.com*

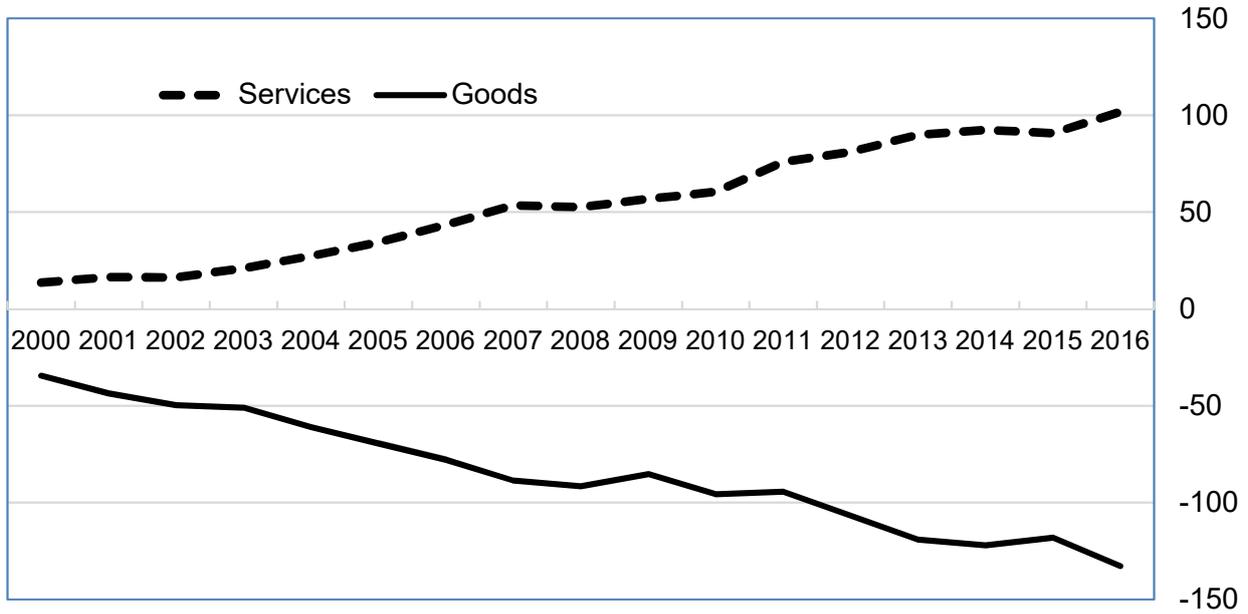
Questions

- (a) (i) Using Figure 1, describe the trend in price of cobalt over the period shown. [1]
- (ii) With reference to Extract 1, using supply and demand analysis, explain how falling prices of copper and nickel have contributed to the change in the price of cobalt observed in (a)(i). [3]
- (iii) Explain with the aid of a relevant diagram, how the level of profit of a producer of electric cars is likely to be affected by the change in price of cobalt. [3]
- (b) Discuss whether government subsidies for electric cars would help or hinder the attainment of economic efficiency in resource allocation. [8]
- (c) With reference to Extract 3, explain the reasoning that underlie the Chinese government's automobile industrial policy that is focused on 'scale expansion' and comment on the extent to which this policy has helped to improve the international competitiveness of the industry. [5]
- (d) With reference to the case material provided and your own knowledge, discuss whether on balance, the Chinese government's decision to open up the domestic market for cars to foreign investments will be beneficial for consumers, producers and the government. [10]

[Total: 30]

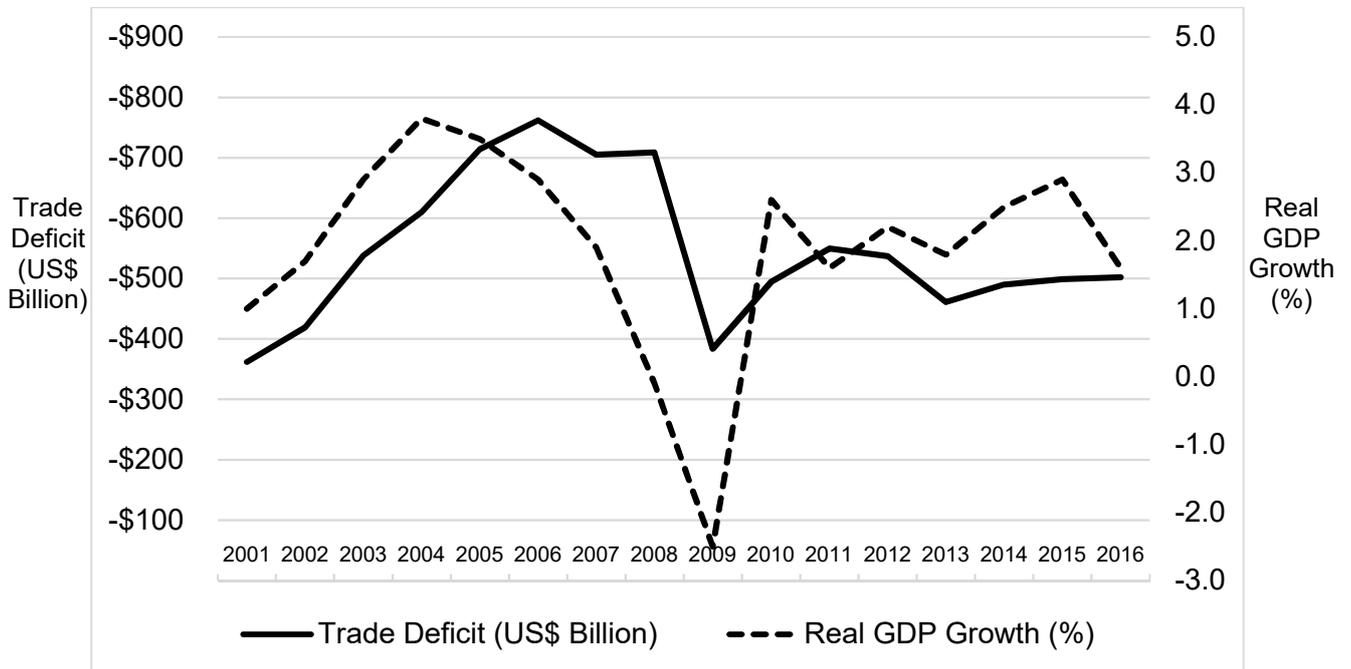
Question 2: Impact of Free Trade and Innovation on an Economy

Figure 2: UK's trade balances (£ billions)



Source: *Financial Times*, 18 December 2017

Figure 3: US's economic growth and trade deficit



Source: *Menzie D. Chinn and Michael W. Klein*, 20 January 2017

Extract 5: UK-EU¹ economic relations

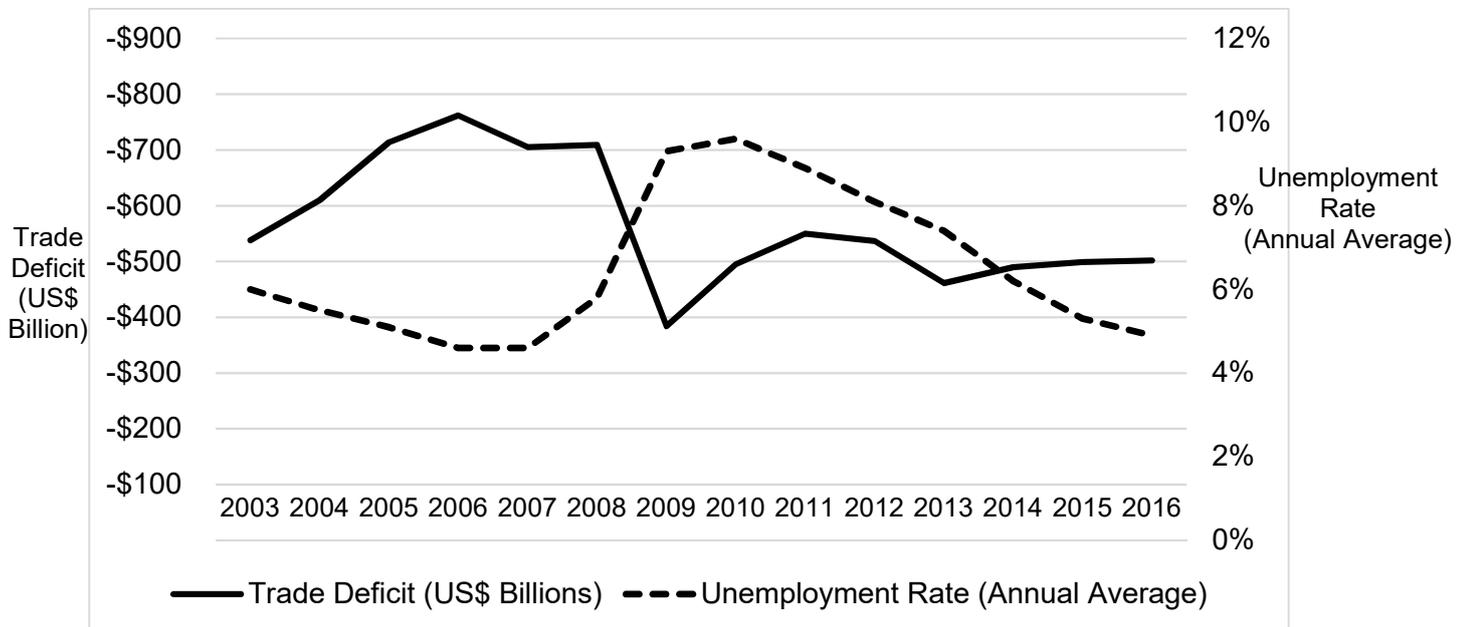
The European Union (EU), taken as a whole, is the UK's major trading partner, accounting for 44% of exports and 53% of imports of goods and services in 2015. However, the share of UK trade accounted for by the EU is lower than a decade ago. Both the current and previous governments have stated that over three million jobs are linked to exports from the EU. The EU is a major source of inward investment into the UK. In 2014, EU countries accounted for £496 billion of the stock of inward foreign direct investment, 48% of the total. The UK's net contribution to the EU Budget in 2015 is estimated at £8.5 billion. It is forecast to fluctuate between £11.2 billion and £7.3 billion a year between 2016 and 2020.

Various studies have attempted to quantify the economic benefit or cost to the UK of its membership of the EU. This is a very difficult exercise and depends on a wide range of assumptions. The Institute for Fiscal Studies (IFS) has commented that "there is an overwhelming consensus among those who have made estimates of the consequences of Brexit that it would reduce national income in both the short and long runs." Supporters of Brexit argue that the economic consensus has often been wrong in the past.

Outside of the customs union, trade with the EU won't be quite as "free" for the UK as before it exited the EU. Unless UK is inside the customs union, goods imported into the EU will need to provide proof of where and how they were made. Leaving the customs union would allow UK to sign free trade deals with other countries (It cannot do this as a customs union member). By leaving, UK would no longer be a part of existing EU trade deals with other countries, and would face tariffs on trade with other countries until free trade agreements were made.

Source: *Research briefings, Parliament UK and fullfact.org*

Figure 4: US's trade deficit and the unemployment rate



Source: *U.S. Commerce Department and Bureau of Labor Statistics*

¹ There is free movement of goods and services, capital and labour among the 28 member countries of the EU but members must abide by common rules and regulations such as rules on environment standards and competition.

Extract 6: Trump hates the trade deficit. Most economists don't.

For decades there has been a consensus that globalisation brought more jobs, higher wages and lower prices – not just for richer countries but also for developing and poorer nations. But there is now a growing movement of anger as people see jobs being taken by machines, old industries disappearing and waves of migration disturbing the established order.

Global trade flows are falling and trade deals are being ripped up. President Trump's fixation with America's widening trade deficit is fuelling his decision to impose stiff tariffs on steel and aluminium imports. Mr. Trump complains about the metric frequently, saying the trade imbalance is a measure of America's weakness on trade policy. "We lost, over the last number of years, \$800 billion a year," he said in the White House on Monday, while defending his tariffs against criticism from Republican leaders in Congress.

Mr. Trump has long argued that the trade deficit hinders economic growth, and that reducing it will accelerate American job creation. The sense of grievance in the US is clear: the manufacturing sector in the country has seen six million jobs disappear between 1999 and 2011, according to the Bureau of Labour Statistics.

Source: *New York Times*, 5 March 2018

Extract 7: Technology and the innovation economy

Innovation and entrepreneurship are crucial for long-term economic development. Over the years, America's well-being has been furthered by science and technology. Both public and private sector investment created jobs, built industries, fuelled innovation, and propelled the US to leadership in a number of different fields.

By adopting policies such as a permanent research and development tax credit, more effective university knowledge commercialisation, improving worker training, America can build an innovation economy and sustain its long-term prosperity.

Statistics shows that innovation remains a factor in the so-called Third Industrial Revolution, which began in the nineteen seventies and continues today. The development of electronics, robotics, biotechnology and especially the globalisation of the internet have all contributed to ongoing productivity growth. North American industrial productivity grew at an annual rate 4.1% between 1990 and 2000, a period of only ten years. Moreover, this productivity growth continued up until 2007 at a rate of 3.9%.

Scientific research has continued, and now there are new advances in transportation, with unmanned flights; in medicine, with progress in genetics; in 3D printing; and in the comprehensive integration of the internet in daily life, with "the internet of things". The positive effects on the economy from these innovations will be seen when they are applied and extended throughout society. However, this transformation is not immediate. The life cycle of a technology requires a passage of time between the scientific discovery, the creation of the innovation and the spreading of the technology.

Source: *Economy Weblog*, 2 October 2014

Extract 8: Technological advancement and long-term economic growth in Asia

Innovation depends on market-based incentives, and most importantly on the scope of the market itself. Developing a new idea requires a significant onetime investment of research and development (R&D), and this “fixed cost” of innovation must be recouped through subsequent sales. If the potential market for the innovation is large, it is obviously easier to recoup the one-time R&D expenses. A small market, on the other hand, will not justify the high onetime costs of R&D.

Source: *Jeffrey D. Sachs and John W. McArthur, ACM, Digital Library, 2002*

Questions

- (a) With reference to Figure 2, compare the UK’s trade in goods with trade in services over the period. [2]
- (b) Explain one possible cost and benefit to the UK economy of its exit from the EU. Assess whether they are likely to occur. [8]
- (c) With reference to Figure 3, state and account for the relationship between US economic growth and trade deficit. [3]
- (d) Extract 6 mentions that ‘Mr Trump has long argued that the trade deficit hinders economic growth, and that reducing it will accelerate American job creation.’
- How does Figure 4 show that President Trump’s concern about the US trade deficit and unemployment is unfounded? Explain why this is so. [4]
- (e) With the aid of a diagram, explain how a tariff on steel imports will reduce the comparative advantage that a steel exporting country has over the domestic country. [3]
- (f) Given that ‘Over the years, America’s well-being has been furthered by science and technology’, discuss whether an improvement in technology or free trade is the key to achieve a higher level of economic well-being for any country. [10]

[Total: 30]

End of Paper

SRJC H2 CSQ 1 Suggested Answers

(a) (i) Using Figure 1, describe the trend in price of cobalt from 2013 to 2017. [1]

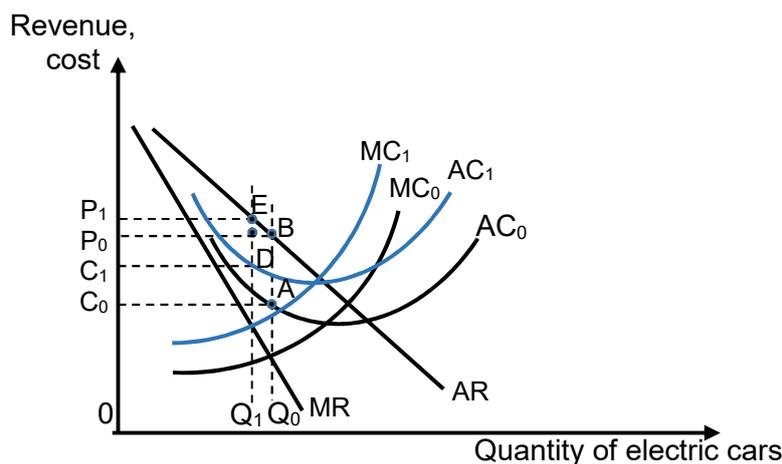
The price has generally **increased** over the period.

(ii) With reference to Extract 1, using a supply and demand analysis, explain how falling prices of copper and nickel have contributed to the change in price of cobalt observed in (a) (i). [3]

Cobalt is produced as a **“by-product”** from nickel meaning it is produced in **joint supply** with nickel and copper. This means when there is an increase in copper and nickel production, there will be a simultaneous increase in supply of cobalt. When prices of nickel and copper fall, there is a fall in quantity supplied of these metals as profits fall. Hence, mines shut down. This leads to a fall in supply of cobalt, causing a shortage that leads to an increase in cobalt prices as observed in a(i).

(iii) Explain with the aid of a relevant diagram, how the level of profit of a producer of electric cars is likely to be affected by the change in price of cobalt. [3]

Cobalt is a raw material used in producing rechargeable batteries which are used in electric cars (extract 1). As such, when cobalt price increases, the price of the batteries increases which in turn increases the cost of electric cars. This cost is a variable cost since the number of batteries and thus cobalt needed varies with the number of electric cars produced. This means both the marginal cost (MC) and average cost (AC) increase. MC and AC curves will shift from MC_0 to MC_1 and AC_0 to AC_1 respectively. Assuming the electric car firm is a profit-maximising firm, its output level falls from Q_0 to Q_1 and price increases from P_0 to P_1 . As demand is price elastic, the rise in price leads to a more than proportionate fall in quantity demanded. Hence the firm's total revenue falls. As profit is the difference between total revenue and total costs, the rise in cobalt prices will result in a fall in total profit of the car firm from area P_0C_0AB to area P_1C_1DE .



(b) Discuss whether government subsidies in the market for electric cars would help or hinder the attainment of economic efficiency in resource allocation. [8]

Answer

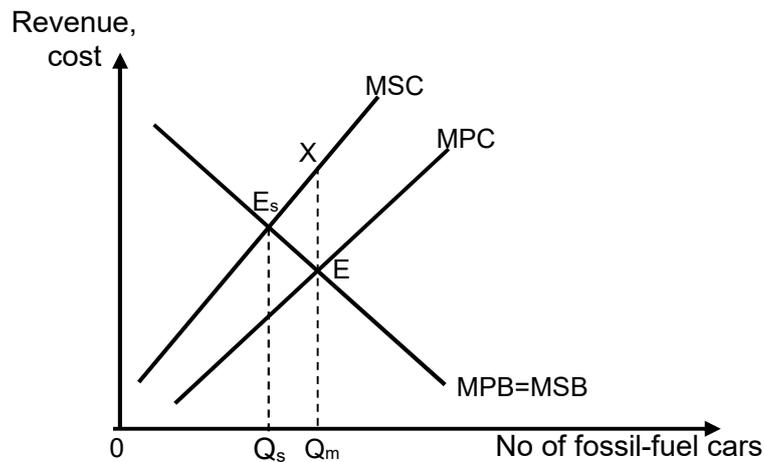
Introduction

Efficiency in resource allocation refers to a situation in which it is impossible to make someone better off without making someone else worse off. In the market, economic efficiency is attained when marginal social benefit (MSB) equals to its marginal social cost (MSC).

Body

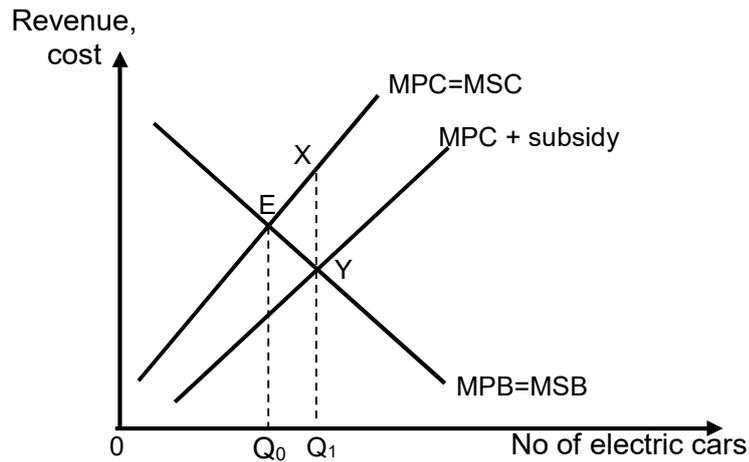
Some governments like in Norway and China subsidises electric cars in order to encourage its consumption through lowering price. This is aimed at reducing the level of pollution in the country and hence achieving a more efficient allocation of resources in the market for fossil fuel cars.

In the market for fossil-fuel cars, there is negative externality which refers to the costs to the third party who are not directly involved in the production and consumption of the good and they are not compensated for the costs they incur. This negative externality causes a divergence between the marginal social cost (MSC) and the marginal private cost (MPC) of car usage. The marginal private benefit (MPB) to the car users include value of time saved and comfort of travel by car. The market equilibrium level of consumption is $0Q_m$ where car users consider only the private benefits and costs. However, the social optimal level of consumption is $0Q_s$ where all costs, including external costs as well as external benefits are taken into account. There is thus overconsumption of $Q_m Q_s$ of cars and this results in a deadweight loss to the society – area E_sEX . This deadweight loss is a result of the excess of MSC over MSB for each additional unit of the good consumed between Q_m and Q_s .



When the government gives a subsidy to electric cars, it will lower the price of electric cars. Consumers will switch from fossil-fuel cars to electric cars as electric cars are relatively cheaper now. Hence, there will be a fall in the consumption of fossil-fuel cars which will also reduce/remove the deadweight loss as a result of over-consumption of such cars. So a subsidy for electric cars help to attain efficiency in resource allocation such as the right amount and type of cars are consumed.

This same subsidy however, can also hinder efficiency in the market for electric cars itself.



Assuming there is perfect information and no externality in the electric car market, the market equilibrium output and price as determined by $MPB=MPC$ will be socially optimal level since $MPB=MSB$ and $MPC=MSC$. This occurs at output $0Q_0$. However, with the government subsidy that lowers the cost to the producers, the new equilibrium output is $0Q_1$. This output level is now greater than $0Q_0$. With this intervention, the output of electric cars now will be more than social optimal. Hence, there is a welfare loss of area EXY as the $MPC > MPB$ (or $MSC > MSB$) for each additional output that exceeds $0Q_0$. Worse, these firms do not really need help or support by the government as they are profitable in themselves as mentioned in the extract.

Conclusion

The subsidy for electric cars may be needed to reduce the problem of over-consumption in the fossil-fuel car market i.e. subsidy helps to attain efficiency, especially in the short-run. However, in doing so, the government is distorting the electric car market as the subsidy encourages over-production and hence welfare loss. In view of this, the government needs to think about the right level of subsidy.

(c) With reference to Extract 3, explain the reasoning that underlie the Chinese government's automobile industrial policy that is "weighted towards scale expansion" and comment on the extent to which this policy has helped to improve the international competitiveness of China's car industry. [5]

Chinese government is trying to enable its infant car industry to grow when it is "cultivating domestic enterprises". It is likely that this policy helps firms to produce at a greater output level so that they may enjoy economies of scale. This lowers its long run average cost of production as more cars are produced. The firm can then lower its price to increase the quantity demanded for Chinese cars assuming that demand for China's car exports is price elastic, which is likely to be the case because of the many available substitutes for Chinese cars. Hence scale expansion increases the competitiveness of China's car industry.

This policy is likely to have succeeded to a limited extent in improving the competitiveness of China's car industry as Extract 3 mentions that China exported less than 5% of locally produced automobiles and this is further declining.

A likely reason for this is that Chinese cars are unable to compete based on quality and it is difficult for them to break into a market that may have strong brand loyalty. Consumers of cars may already have formed a brand loyalty to either German or Japanese cars because of the qualities that they possess. This perceived quality of such cars makes it difficult for Chinese cars to gain a larger market share because they are seen as inferior in quality to the more established car brands.

(d) With reference to the case material provided and your own knowledge, discuss whether on balance, the Chinese government's decision to open up the market for cars in the country to foreign investments will be beneficial to consumers, producers and the government. [10]

The Chinese government announced the scrap of the 50% foreign investment cap on joint ventures by 2022. This lowering of barriers to entry by foreign firms into the Chinese car market will be beneficial to consumers, the government and foreign producers. However, local producers are likely to be negatively impacted. Whether the policy is beneficial overall depends on how wide the impact is on the different economic agents and whether there are possible measures to mitigate the negative effects of the policy.

Chinese consumers are likely to benefit from this policy in terms of lower prices and greater variety. A local producer faces the cost and revenue conditions shown in the Figure 1 below.

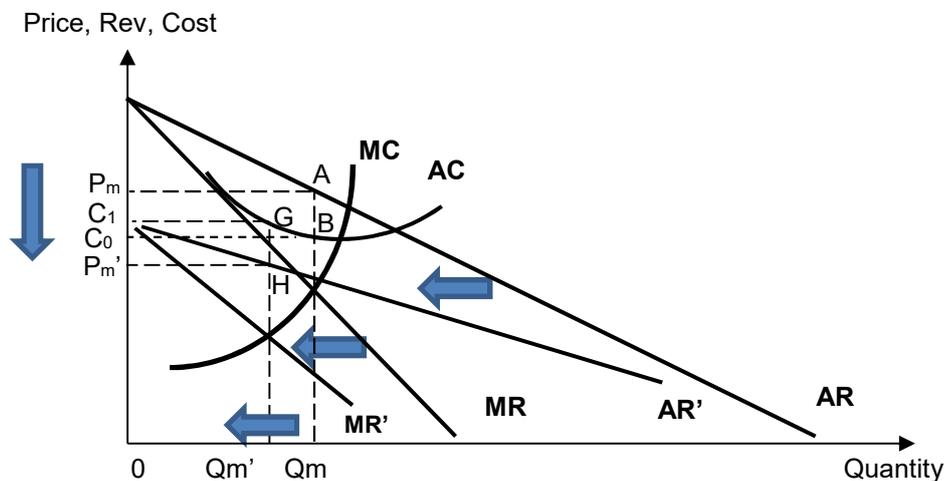


Figure 1: A Chinese car manufacturer's cost and revenue conditions

Consumers now have more options of car brands to choose from and so will reduce their demand for a given local manufacturer's cars. This is seen in the leftward shift of the Average Revenue (AR) curve along with its Marginal Revenue (MR) curve. The reduced demand will lead to a fall in prices for the firm's cars (from P_m to P_m') that consumers get to enjoy.

Furthermore, with the entry of new firms into the market, consumers are able to enjoy a greater variety and quality..

The government, representing society, also benefits from the liberalisation of the Chinese car market in terms of economic growth due to an increase in foreign direct investment. This leads to an increase in aggregate demand which in turn leads to a multiple increase in national income through the multiplier process.

However, local producers are likely to suffer a loss in profits. The initial supernormal profits of these firms, as seen in figure 1, is the area P_mABC_0 . However, as mentioned, their demand falls and this leads to a fall in the price and quantity of cars sold. This leads to a fall in profits and it can even become subnormal profits of area C_1GHP_m' . Furthermore, Extract 4 mentioned how these local firms are likely to be complacent because of the joint venture policy. Thus,

they are unlikely to be productively efficient and their higher costs will further worsen their profits.

On balance, it seems that it is more beneficial than not to implement the liberalisation policy since it benefits consumers and the government in terms of reaching its goals. However, this is also dependent on the impact on the local producers who lose profits. A substantial fall in profits for the Chinese firms could lead to an eventual shut down of the firms and would result in a fall in derived demand for the labour, leading to higher levels of unemployment in the country.

Suggested Mark Scheme:

Levels	Descriptors
L2	<ul style="list-style-type: none"> • Excellent explanation with good economic detail of both the positive and negative impacts of liberalisation on the different agents. • Answer is well applied to the Chinese context. • Logical, coherent arguments made and points are well organised.
L1	<ul style="list-style-type: none"> • Smattering of ideas • Answer is disorganised and lacking in clarity • Only 1 agent is addressed. • 1-sided argument.

Evaluation	Descriptors
E2 (2-3)	<ul style="list-style-type: none"> • Provides a reasoned conclusion as to why on balance, the policy is beneficial based on the impact of the costs and benefits.
E1	<ul style="list-style-type: none"> • States overall stand of whether on balance, the policy is beneficial or not. • Unjustified conclusion.

SRJC H2 CSQ 2 Suggested Answers

(a) With reference to Figure 2, compare the UK's trade in goods with trade in services over the period. [2]

- trade in goods is in deficit whereas trade in services is in surplus
- both shows an increasing trend i.e, deficit is getting bigger whereas the surplus for trade in services is getting larger

(b) Explain one possible cost and benefit to the UK economy of its exit from the EU. Assess whether they are likely to occur. [8]

Possible cost: 1) Fall in economic growth due to fall in AD

- As a member of a custom union, UK exports to the EU are not subjected to tariffs
- But now that it exited the custom union, this privilege is withdrawn. UK goods are taxed or subjected to other protectionist measures when sold in the EU as well as in other countries that EU has signed FTAs.

Analysis

- A tariff increases the price of UK exports to the EU and other non-EU countries → reduces UK export competitiveness → demand for UK goods likely to be price elastic as there are many substitutes in the EU market → **qty** demanded falls by more than proportionately → **export revenue** falls
- UK will be a less attractive destination for inflow of FDI. Many foreign firms locate production in UK to take advantage of the large EU market but now their exports will be affected by tariffs making their investments less profitable. In addition, cost of production would increase as UK too will impose tariffs on imports raw materials from the EU. This further makes UK exports less competitive.
- Due to the uncertainties with regard to the profitability of firms and the ability to continue to work in the EU, households may cut back on consumption as there is fear of loss of jobs.
- So with fall in C, I and X, AD falls and this will cause economic growth to fall.

Other costs

2) Higher unemployment

- There could possibly be a rise in demand-deficient unemployment. So when AD falls, firms will retrench workers to cut costs since firms are faced with increase unsold stocks. There is no need to hire additional workers since the demand for workers is a derived demand and the demand for goods has fallen. Over 3 million jobs are linked to exports to the EU and some of these workers will be unemployed.
- In addition, there may be increase in capital outflow due to the uncertainties linked to Brexit. As firms relocate to other countries, more workers will be unemployed.

OR 3) higher inflation rates

Possible Benefits

- 1) **Higher economic growth** due to increase in exports and increase in Govt spending
 - After exiting the EU, UK need not contribute to the EU → money saved can be used for domestic spending → increase in G → increase AD

- Being in the EU, UK cannot sign FTA with other non-EU member countries on its own which restricts her ability to increase trade **further**
- But after Brexit, UK can choose to sign FTA with those economies which are of benefit to her such as emerging economies like BRICS. China, for eg, is growing more strongly than the EU. Due to the rising middle income class, their ability to spend may be greater than the EU which has been suffering from slow economic growth. UK's trade with the EU has been declining anyway which shows that even though there is free trade, UK is not benefitting from it. Breaking out of EU in search for high growth economies to trade is more beneficial for its exports → increase in exports → increase in AD
- UK may not have benefitted from free trade with EU but may benefit more from free trade with non-EU members. A possible reason could be that the opportunity cost difference for the goods traded between EU and UK may not be that big since they may have similar factor endowments or that UK may be losing comparative advantage in manufactured goods to countries like Germany. But this may not be the case between UK and other countries where the difference in factor endowments may be greater and therefore having FTA with them will give UK exports an edge.
- Overall, with exports and government spending increase, AD increases → higher economic growth

Other benefits

2) There may be increased economic efficiency as UK may not need to abide by rules and regulations imposed by the EU.

Stringent environment standards such as high tax rates set by the EU may increase UK cost of production making her goods uncompetitive in the world market. But now after exiting EU, UK can set its on environmental standards which may be more in line with its own pollution standards and thereby benefitting domestic firms.

OR 3) Brexit will reduce trade diversion for UK.

How likely will the UK experience the above cost and benefit.

In the short run, Brexit is more likely to be negative for the UK economy.

- (i) Regardless, the EU is a huge market which is not easily replaced in the short run.
- (ii) (UK would have to negotiate FTA with the EU as well with other non-EU countries which may be a very long and complicated process. The uncertainties with regard to the ability of the UK in signing **favourable** free trade agreements and the extent EU will impose barriers on UK may weigh heavily against firms' decision to invest in the near future.

(c) With reference to Figure 3, state and account for the relationship between US economic growth and trade deficit. [3]

When growth rate is high, the trade deficit is large but when growth rate is low, trade deficit becomes smaller. (or increase in growth rate , increase in trade deficit and when growth rate falls, trade deficit falls)

- Trade deficit is where imports are greater than exports
- High ec growth → bigger trade deficit because rise in imports > rise in exports
High US econ growth rate → large increase in income → increase in purchasing power → $YED > 1$ (or high YED) or MPC is very high → increase demand for goods and services including imports → import expenditure increases

Export revenue did not increase by as much probably due to foreign YED not as high as US demand for goods or protectionist measures or slower economic growth

(d) Extract 6 mentions that 'Mr Trump has long argued that the trade deficit hinders economic growth, and that reducing it will accelerate American job creation.'

How does Figure 4 show that President Trump's concern about the US trade deficit and unemployment is unfounded? Explain why this is so. [4]

President Trump thinks that the rising trade deficit will cause rising unemployment. As US increase its imports, domestic firms will not be able to compete and so domestic production falls causing the demand for labour to fall as it is a derived demand and firms need to cut costs when revenue falls.

However, Figure 4 shows that trade deficit increases, unemployment rate falls.

Possible reasons

- There may be a rise in unemployment in those industries that are producing goods that are close substitutes of imports but there may be rise in production of goods from other industries where cheap imports cannot compete with the US. For example, high tech goods as well as services.
- $(X-M)$ is just one component of AD. There could be rise in both domestic and foreign investments as well as government spending.
- There could be increased capital inflow from those countries that have a trade surplus with the US. If this is long term capital flow in the form of direct investments such as the setting up of plants and offices, more jobs could be created in the US

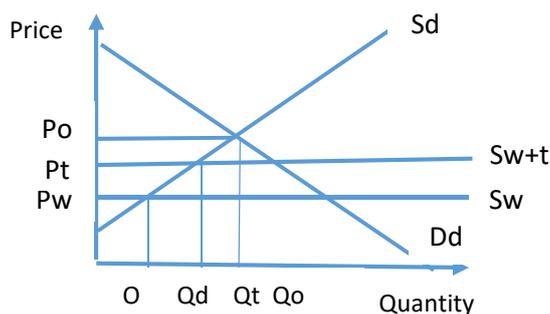
(e) With the aid of a diagram, explain how a tariff on steel imports will reduce the comparative advantage that a steel exporting country has over the domestic country. [3]

Steel exporting country has a comparative advantage in producing steel means that its opportunity cost of producing steel is lower compared to the domestic country. As $P=MC$ and MC represents the opportunity cost of producing the good, the difference in opportunity cost is reflected by the different price charged for steel by the exporting and domestic country.

At Q_0 , the opportunity cost of producing steel for the domestic country is P_0 as seen from the S_d curve. However, for the exporting country, the MC is lower at P_w as seen from the S_w curve. The opportunity cost difference which is reflected as price difference is P_0P_w .

This makes the domestic country's steel uncompetitive. Thus, it imposes a tariff which is a tax on imported steel to reduce this price difference. So when the tariff is imposed, the price of steel now increases to P_t . The foreign steel is now more expensive by P_wP_t making it less competitive.

Thus a tariff artificially reduces the comparative advantage the exporting country has over the domestic producers.



- (f) Given that 'Over the years, America's well-being has been furthered by science and technology', discuss whether an improvement in technology or free trade is the key to achieve a higher level of economic well-being for any country. [10]

Introduction

A country that has a higher level of economic wellbeing is one where its people have more goods and services to enjoy. This is usually reflected by the real per capita income. Wellbeing includes also the non-material aspects of life such as the quality of the environment and leisure. The production possibility curve can be used to represent wellbeing as it shows the various combinations of two goods that an economy can produce when all resources are fully and efficiently utilized with a given amount of resources and a certain level of technology.

P1: Trade based on CA will enable a country to consume beyond its PPC and therefore a higher level of economic wellbeing.

According to the theory of comparative advantage, even if a country has an absolute advantage in the production of all goods, as long as it is able to produce a good at a lower opportunity cost, specialisation and trade will be mutually beneficial to all countries.

Below shows the PPC of the USA and China. The USA can produce more of both cars and wheat but from the slope of the PPC which measures the opportunity cost of producing cars, its opportunity cost is lower than China (1 car to 1 wheat vs 1 car for 4 wheat) and for wheat production, China's opportunity cost is lower. US will then specialise and export cars and China wheat production. To trade, a mutually acceptable terms of trade must be established. This should lie between the two countries opportunity cost. For eg. 1 car = 2 wheat. So if US were to export all her 1000 cars, it will be able to import 2000 wheat, more than if she were to produce itself. Likewise for China. Figure 1 shows the consumption possibility curve above the PPC. This shows that after trade, both China and US are able to enjoy more of both cars and wheat which means a higher level of economic wellbeing.

Non-material wellbeing increases as well as a country can enjoy a greater variety of goods from imports that come from all over the world.

This is confirmed in Extract 2 which said that globalisation which includes free trade, brought more jobs, higher wages and lower prices - not just for richer countries but also for developing and poorer nations. This shows that specialisation and trade improves welfare.

P2: Improvement in technology will shift an economy's PPC outward, enabling the country to enjoy more goods and services and therefore a higher level of wellbeing.

However, improvement in technology could also give the same result. Technological improvements can increase the quantity and quality of resources and thereby increases a country's productive capacity, thereby shifting the production possibility curve outward. With technological advances, productivity can increase, more and better quality resources can be created and there can be new products invented as well. For example, the development of electronics, robotics, biotechnology and especially the globalisation of the internet have all contributed to ongoing productivity growth in the USA. Robots, for eg, are a new type of capital goods which replace human labour and are more efficient as they can be used continuously without having to take breaks. Advances in IT helps to increase efficiency and more goods can be produced in given time period. Advances in technology make it possible for the USA to discover shale oil. Societies today are able to enjoy better modes of transport such as cars, mass rapid transit, aeroplanes which reduce travelling time, more food due to GM food and Green Revolution, more houses built with less material, more land reclaimed for housing and for commercial purposes. All these are the

outcome of technological improvements which shifts the PPC outward allowing the society to enjoy a higher level of wellbeing.

Non-material wellbeing also increases as society has more time for leisure due to higher productivity and development in certain technology also reduces pollution. For eg, the use of solar and wind power replace highly polluting coal generated energy.

P3: Which is the key in determining welfare is dependent on several factors.

But between the two, which is the key to a higher level of wellbeing? As analysed above, both increases the wellbeing of a country. However, for some countries, they do not have the factor endowment to develop new technology. For example very poor countries have a high level of illiteracy and lacks a pool of scientists and researchers as well as the necessary infrastructure for research. It is difficult for them to have major new innovations. That is why most of the technological advances come from mainly developed countries like the USA, Japan and Germany as they have the necessary factor endowments. Due to these constrains, for developing countries, trade is the key to a higher level of wellbeing. For example, they can specialise in the production of food products or raw materials if they have in abundance and exchange that for manufactured goods and thereby allowing them to enjoy a higher standard of living.

However, in the long run, a country that has backward technology, through trade, will acquire new technology. Over time, they could adopt the technology of the exporting countries like the US and if they do so, their PPC will shift outwards. Japan for eg used to be very backward but over the years, it learned from the West and eventually it emerged as a country that too has advanced technology.

Secondly, trade is able to increase level of wellbeing in the short run but without technological improvements, well-being is not sustainable as growth itself will not be sustainable. Take the example of the progress Singapore made in terms of standard of living. By the 1980s, Singapore has reached full employment and if there are no technological improvements, with AD rising continuously, inflation will set in and this will cause growth to be unsustainable.

Conclusion

In conclusion, for countries that lack the ability to innovate, trade is the key to economic wellbeing in the short run but in the long run, technological advancements will also spread to them and so they too will benefit from it. For countries that have the factor endowments for technological advancements both trade and improvements in technology are both important in increasing welfare



SERANGOON JUNIOR COLLEGE
JC2 Preliminary Examination

ECONOMICS
Higher 2

9757/02

Paper 2

18 September 2018

2 hours 15 minutes

Additional Materials: Writing paper

READ THESE INSTRUCTIONS FIRST

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

Answer **three** questions in total, of which **one** must be from Section A, **one** from Section B and **one** from **either** Section A or Section B.

Start your answers to each essay question on a new sheet of writing paper.
At the end of the examination, fasten your answers to **each** question **separately**.

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

This document consists of **3** printed pages and **1** blank page.

Answer **three** questions in total.

Section A

One or two of the three chosen questions must be from this section.

- 1 The rising price of healthcare is coming under closer scrutiny as medical inflation rate climbed up to 15% in 2015.
- (a) Explain the role of prices in addressing the fundamental problem of economics. [10]
 - (b) Discuss the relative importance of demand and supply factors in influencing Singapore's medical inflation rate. [15]
- 2 Falling labour productivity squeezes the profits of firms as their earnings fail to keep pace with rising labour costs. Fourth-quarter profits ~~for-of~~ US's top 500 companies have fallen to the lowest in two years.
- Source: adapted from *cnn.com*, 17 February 2015.
- Assess the extent to which the type of market structure ~~can influence the sustainability~~ determines the survival of a firm given a fall in labour productivity. [25]
- 3
- (a) Using relevant examples from the goods and services market, explain how imperfect knowledge and asymmetric information lead to market failure. [10]
 - (b) Evaluate the measures that are currently used by the Singapore government to correct these sources of market failure. [15]

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Section B

One or two of the three chosen questions must be from this section

- 4** In the past decade, we have seen an explosion of technological advances in the way we work, live and play. Whilst this has impacted economic growth, some gains from technology do not always show up in the growth numbers.
- (a) Explain the factors that can affect sustainable economic growth of a country. [10]
- (b) Discuss the problems associated with using gross domestic product (GDP) as a measure of the standard of living of a country and why it might be increasingly challenging to rely on GDP for this purpose. [15]
- 5** Explain why a government should be concerned with deflation and assess the relative effectiveness of alternative demand-side policies that a country could adopt to tackle this problem. [25]
- 6** In recent years, the globalisation trend witnessed both threatening protectionist moves and increasing attempts at free trade agreements and economic cooperation. In Singapore, additional challenges are posed to its fundamental shift to become a mature economy with a high rate of local innovation.
- (a) Explain why in some cases protectionism may be justified. [10]
- (b) Discuss how a country like Singapore should increase its competitiveness in a globalised world which might become increasingly protectionist. [15]

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2018 JC2 Preliminary Examination
9757 H2 Economics Paper 2
Suggested Answers

- 1 The rising price of healthcare is coming under closer scrutiny as medical inflation rate climbed up to 15% in 2015.
- (a) Explain the role of prices in addressing the fundamental problem of economics. [10]
- (b) Discuss the relative importance of demand and supply factors in influencing Singapore's medical inflation rate. [15]

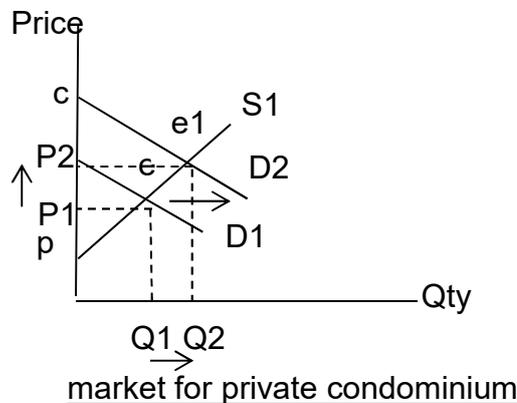
Introduction

The fundamental problem of economic is that of scarcity where there is limited resources to fulfil the unlimited wants. As a result that there is a need to make decision about resources allocation regarding what & how much to produce, how to produce and for whom to produce. This essay aims to explain how price mechanism will help address the above decisions such that resources will be allocated efficiently.

Body

P1: In a free market economy, prices help determine what and how much to produce

The free play of market forces of demand and supply determines price which then acts as a signal to firms to allocate scarce resources. The consumers signal their demand for the goods by offering a price that they are willing and able to pay for the good. The producers will then respond by producing the quantity of the goods that they are willing and able to produce for the price that is offered to them.



For example, in Figure 1, the initial equilibrium price is at P1 and the equilibrium quantity of private condominium exchanged between consumers and producers is Q1.

If demand for private condominium rises and supply remains unchanged, a shortage will occur as quantity demanded is greater than quantity supplied. As a result unsuccessful consumer will signal their willingness and ability to purchase the good by bidding up the prices. Producers will then respond to the price signal by increasing allocating more resources towards the production of it to increase the quantity supplied since it is now more profitable to do so. At the same time consumers who are unwilling to pay the higher price will reduce the quantity demanded. Price will rise until new equilibrium is reached at price P2 and quantity Q2.

At output Q1, quantity demanded equals to quantity supplied and consumer surplus and producers surplus are maximised as shown by area P2ce1 and P1ep respectively. The right amount of goods is thus produced from society's point of view, assuming no externalities.

L1: Hence prices which is driven by demand and supply forces helps address the problem of what goods and how much to produce such that there will be efficiency in resource allocation.

P2: In addition, prices also help determine how to produce

Firms make decisions on how to produce based on their profit maximising objective. The decision making process concerns on how to produce include many decisions, for example, should the firm use more machines or labour, where should the factory be located and how should the factors of production should be combined to generate an efficient combination of resources to ensure a profit maximising level of output.

In the long run all inputs are variable and therefore the firm is able to choose the best combination of inputs that gives the firm the lowest unit cost possible. Firms tend to use more of resources with lower prices and less of resources with higher prices. If capital is relatively cheaper than labour, then to lower his costs, the firm will switch to using more capital and less labour. For example the rising labour cost in Singapore as seen many restaurants turning to using iPad to take orders instead of relying on waiter.

L2: Thus prices of factor of production will help firms determine how to produce such that the least cost combination of input is used and there is no wastage in the use of resources.

P3: Lastly, prices also help determine for whom to produce

Different people are willing and able to pay different prices for a good. This is partly due to differences in incomes and tastes and preferences. In a market economy, consumers' dollar votes or the willingness and ability of consumers to pay for a good determine the pattern of resource allocation. Those who are able and willing to pay a higher price will exert a greater influence on resource allocation.

L3: This illustrates that price consumers are willing to pay largely influences resource allocation decisions where the consumer is king in the free market.

Conclusion

Due to the problem of limited resources and unlimited wants, factors of production must be utilised as efficiently as possible to produce the goods and services most desired by the society. Economists believe that prices that are driven by demand and supply forces will address the problem without government intervention.

L3: 8-10	<ul style="list-style-type: none"> • Good knowledge and explanation of the fundamental economic problem • Clear explanation of how prices can help address the question of what and how much to produce, how to produce and for whom to produce. • Answer should also show the role of prices in achieving allocative and productive efficiency • Detailed price adjustment process with well labelled diagram
L2 5-7	<ul style="list-style-type: none"> • Some understanding of the fundamental economic problem. • Some attempt to explain how prices can help address the question of what and how much to produce, how to produce and for whom to produce • Weak/no attempts to show the role of prices in achieving allocative and productive efficiency • Diagram and price adjustment process explained in answer.

- (b) Discuss the relative importance of demand and supply factors in influencing Singapore's medical inflation rate. [15]

Introduction

Prices of medical services in Singapore has risen rapidly as evident from the climb in medical inflation rate to 15% in 2015. In this essay we will be examine the demand and supply reasons for the sharp rise in prices and determine the most important factor that drives the rising price of medical services in Singapore.

Body

P1: Ageing population in Singapore is the most important demand reason for the rise in medical inflation rate.

In Singapore the number of citizens aged 65 and above is increasing rapidly, as population growth slows. The size of this group of citizens doubled from 220,000 in 2000 to 440,000 today, and is expected to increase to 900,000 by 2030. As such demand for healthcare services is expected to increase significantly. This is because older people are more likely to develop complex and chronic diseases, like diabetes. Furthermore one such disease is also likely to cause another and stay with us for life.

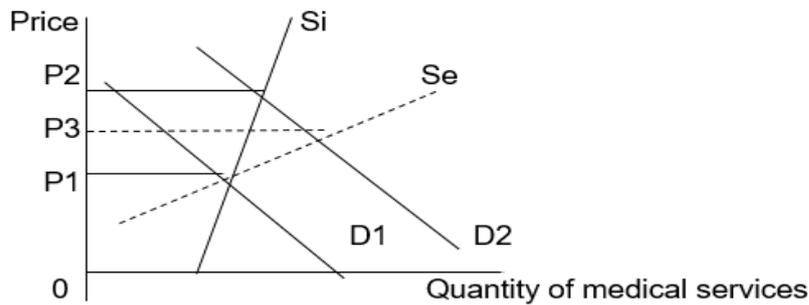
P2: The rise in medical tourism could be another demand factor that contribute to the medical inflation rate.

There has been a growing number of overseas patient seeking treatment in Singapore. This increasing numbers of patients could be largely due the increasing number of excellent medical infrastructure in Singapore. Several world-class medical facilities have been added in the recent past. One such example of the quality healthcare service provided can be seen in the four-year-old Mount Elizabeth Novena Hospital. The hospital has 13 operating theatres and provides a wide range of specialised medical and healthcare services. It attracts a large number of foreign patients and has built a reputation for offering top-of-the-line medical care as well as facilities that are on par with five-star hotels.

Ev: Although Singapore may still be among the region's top dogs when it comes to medical tourism, its neighbours are swiftly closing the gap. Lower costs and the growing availability of quality care in neighbouring countries are luring medical tourists away from Singapore and also encourage patients to stay home for treatment. This therefore dampens the impact that medical tourism has on demand for healthcare services in Singapore. Hence the main demand factor the influences the medical inflation in Singapore is likely to be that of ageing population.

P3: Price elasticity of supply for medical services is also contributes to the extent of the price increase in medical services.

Supply of medical services is likely to be price inelastic as construction of new hospitals and training of medical staff takes a few years. Hence the lack of ready staff and hospital beds available will make it difficult to increase the quantity supplied of medical services. Any increase will thus only bring about a less than proportionate increase in quantity supplied. As such when there is an increase in demand, a sharp price increase from P1 to P2 will be required to eliminate the shortage. This is in contrast to when supply is price elastic where there is only a small price increase from P1 to P3 as demand increases.



Ev: However the supply for certain healthcare services such as those provided by eldercare centres and private general practitioner clinic may be price elastic. This is because construction of such clinics and centres and the training of staff in these areas (e.g. care staff and clinic assistant) takes a much shorter time. Hence the price elasticity of supply may not be the main reason for the sharp increase in price of medical services.

P4: The rising cost of production which affects the supply also influences the medical inflation rate

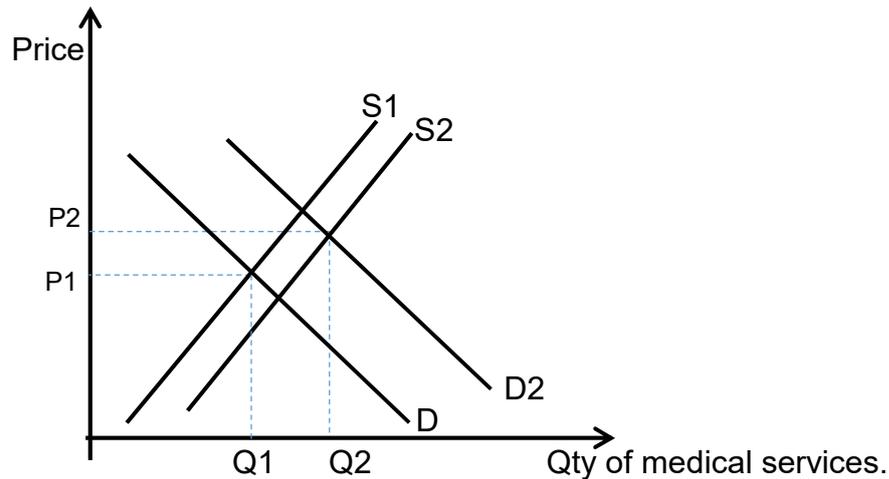
The cost of running a medical practice has gone up tremendously over the past few years. Singapore's ageing population and the tightening of the immigration policies has led to an acute shortage of skilled medical personnel. Nurses, therapists, dieticians, pharmacists, attendants, radiographers and receptionists are in short supply. Furthermore rental cost are also on the rises in a land scarce Singapore. The rent of private medical clinics have also gone through the roof. The price of a medical suite at established private hospitals is more than twice that of the most-expensive condominium on Orchard Road. In addition medical innovations which open new (though often expensive) treatment options also adds to cost (in the form of new medicine and new medical equipment). All these increases in will eventually lead to higher medical fees.

Ev: Despite the rising cost of proving healthcare services the supply of healthcare services is likely to increase

This is because Singapore government has pledge to spend more on healthcare in order to cope with the rising demand. Within the next five years, Singapore will build six more general and community hospitals, four new polyclinics and more nursing homes and eldercare centres across the island. Therefore the rising supply should dampen medical inflation rather than contribute to it.

P5: However there is still an increase in price of healthcare services as the increase in demand outweighs the rise in supply

With the changes in demand and supply, there is now a shortage of medical services. The shortage exerts an upward pressure on prices. Those who are willing and able to buy will offer a higher price to get the medical services they desire and producers in respond to it will increase the quantity supplied. There is both an upward movement along D2 and S2 and eventually the shortage is eliminated. The market is now at a new equilibrium where price has increased from P1 to P2 and quantity traded has also increased.



Conclusion

In conclusion, Singapore medical inflation is largely due to the rise in demand for healthcare services as a result of the ageing population. The ageing population trend also looks set to continue with Singapore's birth rate having been in decline since the 1960s. However with the supply become more price elastic in the long run and the further increase in supply the medical inflation rate is likely to fall in the future.

L3 8-10	<i>Thorough explanation of demand and supply factors with good use of examples. Answer makes good use of concepts of elasticity Choice of demand and supply factors highly relevant to the context of healthcare Well labelled and explained diagrams</i>
L2 5-7	<i>Demand and supply factor explained but no/weak use of examples. Concepts of elasticity not/poorly used Choice of demand and supply factors is poor Use of diagrams to support answer</i>
L1 1-4	<i>Splattering of points. Limited analysis. Cursory or weak journalistic approach. No use of examples.</i>
Ev3 4-5	<i>Synthesis and personal judgement. Considered all the factors raised when making judgement. Good use of analysis to support judgement</i>
Ev2 2-3	<i>Some attempt to explain why certain factor may be more important than others</i>
Ev1 1	<i>General statements without analytical support</i>

- 2 Falling labour productivity squeezes the profits of firms as their earnings fail to keep pace with rising labour costs. Fourth-quarter profits of US's top 500 companies have fallen to the lowest in two years.

Source: adapted from *cnn.com*, 17 February 2015

Assess the extent to which the type of market structure determines the survival of a firm given a fall in labour productivity. [25]

INTRODUCTION

Definition: labour productivity measures the output one unit of workers is able to produce and it affects the unit cost of production.

Direction: The labour productivity would affect firms in different ways depending on the market structure in which they operate. This essay will show how the type of market structure, the strategies of a firm and government intervention will determine the sustainability of a firm given a fall in labour productivity.

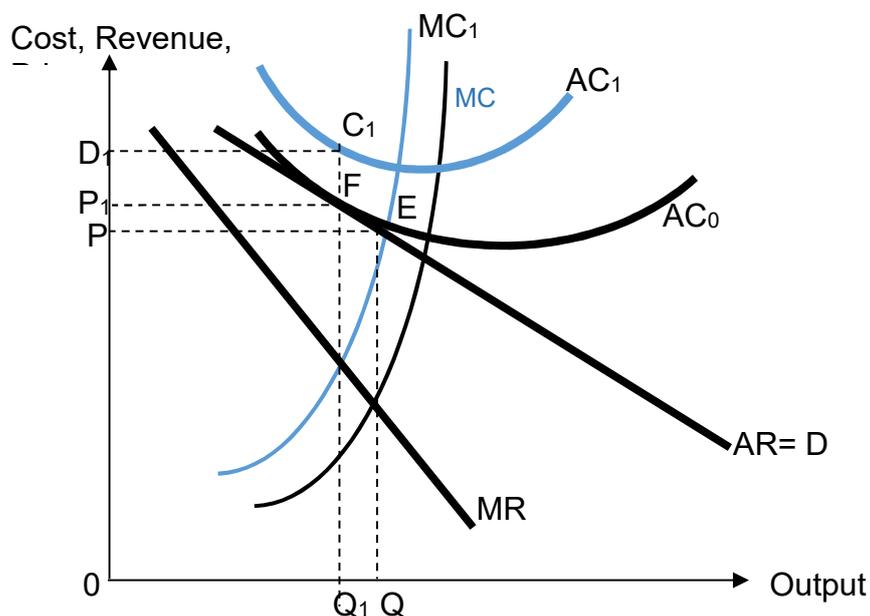
BODY

P1: A fall in the labour productivity will lead to higher average cost and marginal cost.

To determine the profit-maximising output level, the firm will produce up to the level where the **addition to total revenue from the sale of the last unit of output equals to the addition to total cost that results from the production of that last unit** at the rising portion of marginal cost (MC) curve. In other words, marginal revenue (MR) is equal to marginal cost of the last unit of output produced, and MC is rising.

Assume that a firm makes normal profit initially. Suppose the market price is OP . The firm's profit is maximised at output OQ . Total revenue (TR) is the area $OPEQ$ while total cost (TC) is also area $OPEQ$. Since TR is equal to TC, the firm earns only normal profit (breaks even).

When there is a fall in the labour productivity, average cost (AC) curve will shift up from AC_0 to AC_1 . MC rises from MC_0 to MC_1 . As a result, its new equilibrium price rises to OP_1 and output drops OQ_1 respectively. The new TR experienced by the firm is OP_1FQ_1 . And the new total cost is $OD_1C_1Q_1$. Hence, its profit would fall from zero to $P_1FC_1D_1$ which is a loss.



P2: In the short run, the sustainability of a firm depends on whether its total revenue is more or less than total variable costs.

E: Fixed costs are costs that do not vary with the level of output. A firm will incur fixed costs in the short run even if it does not produce any output. Examples of fixed costs are rent and cost of administrative staff. Variable cost is the cost of hiring the variable factors. It varies directly with the level of output. When output is zero, total variable cost is zero. When output increases, total variable cost increases. Examples include the total wage payment for workers and the cost of raw materials. The firm's fixed costs are irrelevant in this decision-making process because the firm has to incur fixed costs whether he decides to produce or not produce in the short run.

a) Sustainable despite making a loss if $TR > TVC$

When $TR > TVC$, this means that the firm is able to cover not just its variable costs but also part (not all) of its fixed costs. Hence, its loss is equal to only a portion of its fixed costs that is not covered by its total revenue (see Example A below).

Example A

Total Revenue	=	\$4 500	
Total Fixed Cost	=	\$2 000	
Total Variable Cost	=	\$3 000	
Total Loss	=	\$500	if the firm continues production.

On the other hand, if the firm were to shut down, it will still incur total fixed costs of \$2000. However, since it shuts down, it cannot earn any revenue. Hence, it will incur a loss that is equal to its total fixed costs (TFC) = \$2000.

By comparing the two scenarios, the firm will minimise its loss if it continues production.

b) Unsustainable if $TR < TVC$

However, when a firm is unable to cover its total variable costs i.e. total revenue is less than total variable cost, it should cease production immediately. In Example B below, if it stops production, its loss = \$2000 (= TFC only).

However, if the firm stays in production, it will incur a greater loss of \$2 500. (= TFC + part of TVC).

Example B

Total Revenue	=	\$2 500	
Total Fixed Cost	=	\$2 000	
Total Variable Cost	=	\$3 000	
Total Loss	=	\$2 500	if the firm continues production.

Thus, in this case, loss is minimized only if the firm shuts down completely and leaves the industry.

P3: However in the long run the sustainability of a firm will depend on whether total revenue is more or less than total cost.

E: In the long run, since all factors are variable, there are no fixed costs. In other words, all costs in the long run are variable costs. A firm that is making subnormal profit in the long run is unsustainable and will leave (force out of) the industry to minimise loss since TR is unable to cover its TC.

L: Thus even though losses are made due to the falling labour productivity, the firm might not be forced out of the industry in the short run. However it will exit the industry in the long run if the losses persist.

P4: The type of market structure can influence the sustainability of a firm given a firm in labour productivity as the market structure determines the long run profits the firms earn.

E/E(a): Firms in monopolistic competitive industries tend to make normal profits in the long run due to free entry and exit. With a fall in labour productivity, average cost rises and the firm will be making a sub-normal profit. If total revenue is unable to cover its total variable cost in the short run it will be unsustainable and the firm will have to shut down. Even if total revenue is greater than total cost, the firms may still be unsustainable in the long run if the loss persist. The firm will have to shut down if its total revenue is less than its total cost.

In contrast, firms in industries with high barriers to entry and relatively lesser competition, such as firms in monopolistic or oligopolistic industries may be less affected by falling labour productivity. Barriers to entry are obstacles that prevent new rival firms from entering the industry. Examples of barriers to entry are large economies of scale, high initial cost of starting the business, government licensing and control of key resources or raw materials. Due to the protection from competition by high barriers to entry, the less competitive firms can enjoy supernormal profits in the long run. Even with the rise in average cost, firms in these industries may still be able to make supernormal profits and be sustainable. However, the supernormal profit is less than what the firm was making before.

E/E3b: In addition since firms in monopolistic or oligopolistic industries can earn supernormal profits in the long run due to the presence of high barriers to entry, they have the ability to innovate. As a result, oligopolistic firms may be able to influence the taste and preferences of consumers and boost demand and hence total revenues despite falling labour productivity. For example, Apple continues to roll out new phones each year even when the global economy was still weak. With successful marketing, Apple captured a larger market share in the smartphone market. Innovation could also result in lower cost of production if it results in a more efficient method of production. Hence, oligopolistic firms that successfully innovate may still be able to enjoy rising profits despite falling labour productivity and be sustainable.

EV: However, the sustainability of such firms is not guaranteed. Firstly if the fall in labour productivity results in a significant rise in cost of production, a loss might be incurred and variable cost could still be higher than the revenue. Secondly firms could also face the threat of creative destruction. For example, the video rental market in many countries used to be dominated by Blockbuster Video. However with the advancement in technology, Blockbuster video lose its barriers to entry as firms could turn to the online platform to rent out videos instead of rely on physical stores to rent out videos. With that more firms like Netflix began entering the market and Blockbuster began losing its market share and eventually had to file for bankruptcy and shutdown.

P5: The sustainability of a firms also depends on the strategies the firms employ to deal with falling profits as a result of falling productivity.

Different firms would apply different strategies to deal with the falling profits. Apart from R&D firms could also look to simple product differentiation to boost their revenue and thus profits. For example bakeries often come out with new flavours for the bread to attract customers and boost their demand. Other firms may also look to reduce their cost by sourcing for cheaper alternatives. For example a printing company can now easily source for cheaper ink cartridge from overseas market as globalisation and advancement in digital technology has made it easier to purchase goods from overseas market.

EV: However such strategies may not be effective in keeping the firms sustainable. This is because demand strategies to differentiate their products can sometimes be easily replicated by others. This would thus negate any initial impact it had on revenue.. Strategies to source for cheaper alternative could also compromise quality of the final product and thus demand.

This is because the cheaper alternative may be of inferior quality. If the fall in revenue as a result of a fall in demand outweighs the cost savings profits will still fall.

P6: Government intervention could also affect the sustainability of a firm.

For example, certain firms may continue to operate despite heavy losses. One such example is Ceylon Electricity Board which is a state owned firms. With a market share of nearly 100%, it controls all major functions of electricity generation, transmission, distribution and retailing in Sri Lanka. The government continues to sustain the firm through revenue it gets from direct or indirect taxes as electricity is an essential market and it cannot afford to shut it down. Alternatively governments could also subsidise firm in infant industry and thus allow firm to continue operating despite its losses. This is because the government believe that firms in this industry will eventually grow and gain comparative advantage. This would allow them to turn their losses into profits.

EV: However if the government revenue does not increase and government decides to increase spending on other areas, (e.g. healthcare or training of workers) the support for these firms could eventually be removed. Such a firm may then become unsustainable and shut down. For example Tanzania announced recently that it plans to shut down all loss making state own companies as it seeks to grow its economy to a middle income economy. Similarly support for infant industry may be withdrawn by the government if they feel that the industry is not growing as expected and is unlikely to become profitable.

Conclusion:

Although market structure can influence the sustainability of a firm to a certain extent, a firm's sustainability in the long run is still largely dependent on how the firms react to the ever changing cost and revenue conditions. This is because regardless of the market structure or government intervention, a firms can make losses. These losses will persist in the long run unless effective strategies are employed to turn them into profits.

L3 15-20	<i>Answer shows good understanding that the sustainability of a firm is linked to shut down condition. In addition answer should also consider how firms can remain sustainable in the long run (i.e. continue remaining profitable) Detailed explanation of shutdown condition in short run and long run Clearly explaining at least 2 different ways in which market structure has an impact on the sustainability of a firm given the falling labour productivity Carefully considered at least 2 other factors that could affect the sustainability of a firm Appropriate use of diagram(s) and examples</i>
L2 9-14	<i>Answers should show some understanding of sustainability of a firm Some attempt was made to explain the shutdown condition of firms Understanding of how labour productivity affects profits levels and thus sustainability should be reflected in answer Answer must have explain at least one factor that could affect the sustainability of a firm Limited/Weak use of diagram(s) and/or examples</i>
L1 1-8	<i>Splattering of points. Limited analysis. cursory or weak journalistic approach. No use of examples.</i>
Ev3 4-5	<i>Synthesis and personal judgement. Considered all the factors raised when making judgement. Good use of analysis to support judgement</i>
Ev2 2-3	<i>Some attempt to evaluate certain factors.</i>
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- (b) Evaluate the measures that are currently used by the Singapore government to correct these sources of market failure. [15]

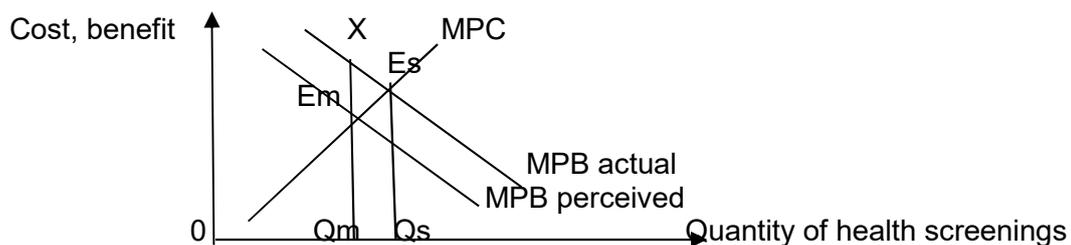
Intro

Market failure refers to a situation where resource allocation concerning what, how, how much and for whom to produce by the market mechanism fails to achieve efficiency in resource allocation and thus there is welfare loss to society.

Body

P1: Imperfect knowledge leads to partial market failure as the consumers fail to recognize the true benefit/cost of consuming a good to themselves and therefore under or overconsume it thus leading to allocative inefficiency

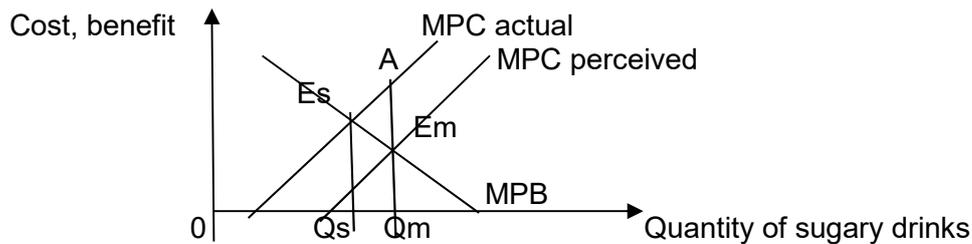
- **Imperfect knowledge** arises when consumers fail to recognise the **true private** benefits/costs **to themselves** of consuming certain goods and services due to incorrect/incomplete information about the **actual private** benefits/costs.
- An example would be health screening to detect early signs of illnesses. Consumers underestimate the true private benefit of regular health screening to themselves due to inaccurate information regarding their effectiveness or underestimate the likelihood of them contracting an illness. As such, consumer's perceived MPB < actual MPB. This leads to underconsumption of health screening



- Market equilibrium output level is OQ_m where $MPB_{perceived} = MPC$
- Social optimum output level is where true costs and benefits are taken into account and there is perfect information. Assuming no externality, this occurs at OQ_s
- Since $OQ_m < OQ_s$, there is underconsumption of health screenings and partial market failure results
- Deadweight loss due to underconsumption is represented by area $XEmEs$
- Net benefit to society from consuming each additional unit of output $Q_m Q_s$ are not realised due to imperfect knowledge

Alternatively, students can explain how overconsumption leads to market failure

Take the example of market for sugary drinks. Since the consumer underestimates the true private costs of consuming the good to themselves, perceived MPC < actual MPC. They fail to take into account the additional healthcare costs to be incurred in the long term to treat medical problems like obesity or diabetes from overconsuming sugary drinks.



- Market equilibrium output level is OQ_m where $MPB = MPC$ perceived
- Social optimum output level is when true costs and benefits are taken into account and there is perfect information. Assuming no externality, this occurs at OQ_s
- Since $OQ_m > OQ_s$, there is overconsumption of sugary drinks and partial market failure results
- Deadweight loss due to overconsumption is represented by area $AEmEs$. Each additional unit of output consume beyond OQ_s results in welfare loss to society because marginal cost $>$ marginal benefit due to imperfect knowledge

P2: Asymmetric information leads to partial market failure in the form of causing adverse selection. This would lead to under consumption/under provision of a good leading to failure to achieve allocative efficiency.

Adverse selection is one outcome of asymmetric information which leads to market failure. It arises when the economic agents involved in a transaction have different amounts of information. It results in inefficient outcomes since the uninformed side of the market must choose from an undesirable or adverse selection of goods. An example is the market for second-hand cars.

Assume there are two kinds of 2nd hand cars sold in the market – low versus high-quality ones. If there is perfect information where both sellers and buyers know the quality of a used car, there would be separate markets for low and high quality cars. But because buyers could not tell the differences in their quality, there will only be one market for all used cars sold at a single price.

Sellers often have more information than buyers about the condition of the used cars they want to sell, be it knowledge of their defects, true mileage, whether the cars have met with any road accidents etc. In order to profit, sellers tend to conceal these relevant information about the low quality used cars in order to sell them at a higher price.

Worried that they might end up buying low quality used cars, buyers would offer a lower price. This in turn cause owners of good quality used cars to exit the market as they are reluctant to sell at the lower price. Hence, there is zero transaction of high quality used cars.

This will result in a situation where only lower quality used cars are sold since high quality ones are pushed out of the market. There is **market failure** as too many low quality product and too few high quality product are sold in the market. Asymmetric information results in the used car market adversely selecting against higher quality used cars in favour of lower quality used cars.

Adverse selection can potentially lead to a total market failure of a missing market for 2nd hand car market. This is because consumers are discouraged from buying altogether as all remaining cars in the used car market are of poor quality.

OR students can explain how moral hazard problem causes consumers to overconsume particular goods or service that may cause some risk OR underconsume

particular goods or service that can minimise potential losses, thus leading to allocative inefficiency

Moral hazard arises when the party who has more information about his own actions/intentions, take more risks than he normally would (that the other agent with less information cannot observe) because costs that could result would not be borne by himself.

An example would be health insurance. The individual because of the availability of health insurance may be less inclined to take care of himself since the payment from an insurance company lessens his financial burden when he is hospitalised. As such, underconsume preventive health care goods and services and instead overconsume food that are bad for his health in the long run. This leads to allocative inefficiency and the market fails.

Conclusion

In conclusion, the presence of imperfect knowledge and asymmetric information prevent an efficient allocation of resources in the markets for different goods and services. There is thus a need for government to intervene to correct such market failure so as to improve resource allocation to increase society's welfare.

Level	Descriptors
L3 8-10	<ul style="list-style-type: none"> An answer that explains both types of market failure – imperfect knowledge & asymmetric information (for asymmetric information, <u>only 1</u> of moral hazard or adverse selection is expected) Answer uses approp econ theory, examples, diagrams to show how market fails
L2 5-7	<ul style="list-style-type: none"> An answer that explains only 1 type of market failure well OR explain both types of market failure but lacks rigour with regards to econ theory
L1 1-4	<ul style="list-style-type: none"> Answer is generally descriptive with little or no economic analysis Able to define concepts of imperfect knowledge & asymmetric info Able to express idea that mkt will produce a qty that does not maxi. social welfare

- (b) Evaluate the measures that are currently used by the Singapore government to correct these sources of market failure. [15]

Note:

Of the 3 measures, 1 of them has to correct either adverse selection or moral hazard. Remaining 2 measures are to correct imperfect knowledge - can be public education cum campaigns, regulation, subsidies/taxes

Intro

Government intervention in the case of imperfect knowledge and asymmetric information aims to improve information flow between buyers and sellers to help them correct information failure in different types of products. The measures will be assessed in terms of - ability to address the root cause of market failure - effectiveness in achieving social optimum output level or at least lower welfare loss - whether the benefits exceed the cost of intervention (long term fiscal sustainability)

P1: To correct market failure associated with ignorance due to imperfect knowledge, government uses public education, campaigns and regulations.

E/E1: Public education and campaigns help to reduce imperfect knowledge in different markets such as health screening, sugary drinks, cigarettes, alcohol etc. For example, by educating the people on the harm of sugary drinks, they become more aware of the true MPC of consuming sugary drinks.

Quantity consumed will reduce to the social optimal level to close the gap between actual & perceived MPC. Public education and campaigns thus address the root cause of imperfect knowledge as it provides consumers with information about the true MPB or MPC to themselves. Deadweight loss would be eliminated to achieve allocative efficiency.

To educate the public on the dangers of consuming too much sugar, the Health Promotion Board updates frequently diabetes awareness messages and programs on their website, encourage schools to stop selling or sell less sugary drinks, organise competitions to promote healthy food preparation etc. Government has also installed more water coolers in public spaces to encourage people to cut down on flavoured drinks. There are also guidelines drawn up to get food manufacturers to reduce the amount of sugar used in their products.

Strengths & limitations of public education & campaigns

(+) Their strength lie in the ability to **encourage and change** public's perception of the good.

(-) However the effectiveness in bringing consumption level to the social optimum level is uncertain as they are **not enforceable by law**.

EV1: Their effectiveness depends on the consumers' receptivity, government's ability to message convincingly as it is difficult to change peoples' mindsets and habits within a short time span. People may not heed the advice due to ingrained habits that are hard to change. To complement the above, government in Singapore has used **regulation** such as labelling

P2: Government subsidies are used to correct market failure arising from imperfect knowledge in the market for health screening

E/E: Besides public education and campaigns, subsidies will also help greatly to reduce imperfect knowledge particularly in the market for health screening. Subsidies will induce consumers to **increase quantity demanded to the social optimal level that is efficient from society's point of view as it closes the gap between actual & perceived MPB. Deadweight loss would be reduced if not eliminated to achieve allocative efficiency.**

In a move to raise Singaporeans' health level through early detection and treatment of medical problems as well as to prevent bills from spiralling out of control later, the government in 2017, launched a highly subsidised national health screening programme. They can get tested for diabetes, cholesterol, blood pressure and cervical cancer for \$5 at most, at the Community Health Assist Scheme (CHAS) clinics across the island. Thus heavy subsidy from government will reduce the underconsumption and correct market failure.

Strength: Effective measure to raise quantity demanded to social optimal level if $PED > 1$

Limitation: Government may suffer from incomplete information. If it overestimates the actual MPB and grants a subsidy per unit that is more than optimal, this would lead to consumption level that exceeds the socially desirable level.

EV: An opportunity cost will always be incurred whenever the government decides to give a subsidy. By subsidizing the national health screening programme, it would mean less government budget to spend on other social aspects like education. This opportunity cost may be too high for a country to bear. **Though Singapore has enjoyed past accumulated budget surplus, government still have to consider** its budget position when implementing policies to correct imperfect knowledge for healthcare services which require substantial government funding.

As for asymmetric information

P3: To address adverse selection, government's legislation is used to correct the market failure

E/E1: Governments can address adverse selection through implementation of **Lemon Law**. It requires retailers to replace, exchange or give refunds for defective goods to the consumer within 6 months of delivery date when they unknowingly purchase a faulty or low-quality product while thinking they were purchasing a high-quality one. When such a law has been implemented, consumers are now willing to pay a price as if they are purchasing a high-quality car even when they are unsure. This would ensure that prices are kept high enough that the sellers of high-quality cars do not exit the market and thus preventing the problem of adverse selection.

Strengths and Limitations

(+) Lemon law reduces the risk that consumers take when facing adverse selection as they are able to recover their money if they unknowingly buy a low quality product. Thus they do not incur a loss of welfare.

(-) Lemon law may not always be well understood. Some consumers may misunderstand this to be like a warranty and be careless with the second-hand cars they buy and trying to claim a refund for damages that they cause themselves. This causes a situation of moral hazard if they successfully abuse the lemon law as they no longer bear the cost of their reckless behaviour. This abuse could lead to sellers of second-hand cars to be reluctant to sell their cars as they are wary of being taken advantage of by unscrupulous buyers. In such a situation, the government intervention is undesirable as it could potentially collapse the market for second-hand cars.

EV

- effectiveness of legislation depends heavily on government's ability to successfully implement and monitor it to prevent abuse by consumers. Clear education on the rationale and usage is required to reduce abuse and misinterpretation. Countries with a well-educated population who can understand the law and a transparent legal system would likely find such a policy effective.

Conclusion

Singapore government addresses the information gap with a mix of policies. To ensure relevance and effectiveness, government needs to regularly review the effects of its intervention on market outcomes. Of all the measures explained, legislation can be considered to be relatively more effective as it ensures certainty of outcomes. Appropriateness of measures depends on availability of government funds of which Singapore does not have too much of a problem because it can tap on its past accumulated budget surplus.

Level	Descriptors
L3 7-10	<ul style="list-style-type: none"> - An answer that explains 3 measures (2 in detail), addressing both sources of market failure (suggestion: 4m, 3m, 2m for 3 measures, 1m float) - Answer must include an analysis of strengths / weaknesses of measures - Include application to Singapore's context
L2 5-6	<ul style="list-style-type: none"> - explains at least 1 government measure in detail - <u>OR</u> 2 government measures adequately done

L1 1-4	<ul style="list-style-type: none"> - A generally descriptive answer lacking in economic analysis - Limited explanation of different government measures to deal with the market failure
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Level	Description
E3	<p>For an answer that uses analysis to support an evaluative conclusion or judgement. Made reasoned attempt at evaluation on limitations of policies relevant to the question</p> <p>Articulates clear criteria on how to judge when measures are effective</p>
E2	<p>For an answer that makes some attempt at evaluation or a judgement</p> <p>Attempts to justify the conclusion but answer is lacking in rigour</p>
E1	For an answer that gives largely unsupported evaluative statement(s)

- 4 In the past decade, we have seen an explosion of technological advances in the way we work, live and play. Whilst this has impacted economic growth, some gains from technology do not always show up in the growth numbers.
- (a) Explain the factors that can affect sustainable economic growth of a country. [10]
- (b) Discuss the problems associated with using gross domestic product (GDP) as a measure of the standard of living of a country and why it might be increasingly challenging to rely on GDP for this purpose. [15]

INTRODUCTION

Define sustainable economic growth : rise in real GDP into the long run, at a rate which can be maintained without creating significant economic problems such as price instability, environmental and resource depletion for future generations.

Direction of answer: State that the factors which can affect sustainable rise in real GDP includes factors that can bring about a sustained rise in both aggregate demand and aggregate supply.

BODY

P1: The rise in aggregate demand for domestically produced goods and services such as from the household sector, firms, government and the foreign trade sector can be caused by a rise in the income of a country.

E For example when there is a rise in its national income, the level of **consumption** for consumer goods and services such as normal and luxury items such as electrical and electronic household goods, houses and cars can also rise as household's power increases. In the same way if there is global economic growth, a country's **net exports** are given a boost. This has been true for trade dependent countries like Singapore where world economic growth brought about a rise in global purchasing power and hence witnessed increased demand for Singapore exports such as high end electronic, pharmaceutical and petrochemical products. This will incentivise firms to increase **investment** on capital goods and expand their business to meet the rise in consumption and exports. The **government** can also increase aggregate demand by encouraging more spending through an **expansionary** fiscal policy by increasing its own capital expenditure such as building physical infrastructure and/or reducing taxes to increase the level of AD in the country.

E A rise in this injection will shift the aggregate demand curve outwards to AD1, boost production and income not just by the initial amount of the injection but also a multiplied amount due to induced consumption arising from this initial rise in income. Hence bringing about actual economic growth. The extent of the rise depends on the size of the multiplier which is inversely related to the marginal propensity to withdraw. The smaller the propensity to withdraw, the bigger the size of the multiplier and effect on the rise in real GDP. This would be true of countries like USA where there is less leakages out of their circular flow of income through savings and imports as compared to Singapore (*alternative explanation : the resulting shortage will cause price to rise which incentivises greater production by the profit maximising firms, causing a movement along ASo curve. At the same times, as price rises, the level of AD falls along AD1. This price adjustment process continues until the shortage is cleared and a new equilibrium is achieved with greater output at OYFo as seen in figure 1 below*)

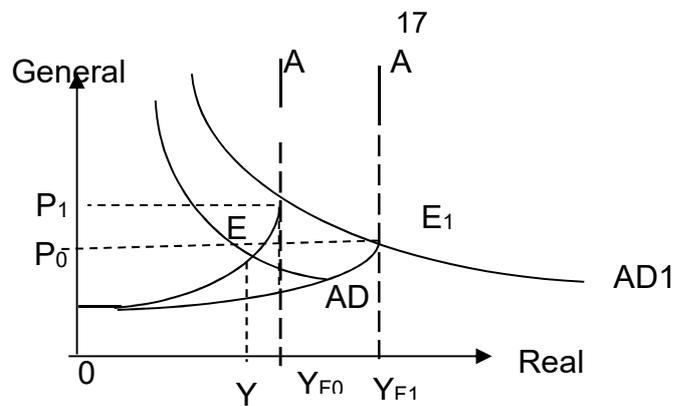


Figure 1 : Sustainable rise in real GDP

P2: However, a rise in aggregate demand *alone* will not ensure sustainable economic growth. This is because an economy will overheat and raise the general price level to OP_1 when it reaches full employment of resources. Real GDP remains stagnant whilst the country struggles with rising prices. Hence another key factor to ensure real GDP continues into the long run would involve increasing the quantity and quality of resources and the level of technology.

E: An example would be a country's human resource development where many countries keep a tab on population growth data and size of their labour force. In particular, countries with challenges of ageing population like Singapore, China and Japan have seen government's *continued investment in human capital* to improve the quality of their workforce of both young and old through skills deepening and lifelong learning to sustain a rise in aggregate supply. Shortage of skilled labour would constrain economic growth in the long run due to a limit to the rise in its potential growth.

Singapore labour productivity drive can be seen in Enhanced Continuing Education and Training (CET) Masterplan in 2014 which include online training courses that adult learners can access at their own pace, in their own time. In addition, the 2015 **SkillsFuture** attempts to develop an integrated system of education, training and career progression for Singaporeans, promote industry support for workers to advance based on skills, and to foster a culture of lifelong learning. This will increase the productive capacity of the country and enable the aggregate supply to continuously shift outwards. Figure 1 shows a rise in both greater potential output to OY_{F1} and actual output in the long run at OY_{F0} and a lower price at OP_0 .

P3: In addition, this sustainability depends on whether factors of production will be depleted in the long run eg non-renewable resources such as oil. Similarly, environmental issues arising from greater production can affect sustainability. In such a case, a factor ensuring sustainability would be new technology that harnesses environmental friendly and efficient methods of production

Conclusion

Hence, factors influencing the rate of growth of aggregate demand and aggregate supply can determine whether a country's economic growth is sustainable. It requires both actual and potential growth as well as a sustainable environment and resources pool in the long run.

<p>Level 3 8-10</p>	<ul style="list-style-type: none"> • Thorough explanation of factors affecting AD and AS and hence real GDP. Eg: national or global incomes, quantity, quality of resources and technology. • At least 3 clear factors. • Well labelled Diagram included and weaved into answer.
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	<ul style="list-style-type: none"> • Concept of sustainable economic growth is clear: actual, potential, price stability and environmental and resource depletion issues.
Level 2 5-7	<ul style="list-style-type: none"> • Sufficient explanation of how a component of AD and AS can raise/or reduce a country's real GDP • Sufficient explanation of a factor that could affect AD and AS. Or 2 factors well explained either AD/AS [Marked to max 6marks with other peripherals]. • May or may not have illustrated graphically.
Level 1 0-4	<ul style="list-style-type: none"> • Splattering of points • Some mention of rise in real GDP as endpoint • Some mention of AD and AS as factors that can raise or reduce GDP <p>Some mention of actual and potential and or environmental and resource issues</p>

- (b) Discuss the problems associated with using gross domestic product (GDP) as a measure of the standard of living of a country and why it might be increasingly challenging to rely on GDP for this purpose. [15]

Introduction

Define terms:

GDP: total value of goods and services produced in the country per period of time. The **standard of living** measures the well being of the average citizen and refers to both the level of material and non-material well-being of an individual or household. Material well-being is measured by the quantities of goods and services **an average household** can consume while the non-material well-being is measured by other factors affecting quality of life.

Direction of answer: Problems associated with using GDP are both statistical and conceptual as it measures only the material standard of living and even so, there are inaccuracies and limitations in using it to measure material standard of living.

Body

P1: One problem associated with using GDP is that it measures only the total income of the country and does not take into consideration the population size and how this national income is distributed amongst the various groups of people.

GDP is a common yardstick used to assess the well-being or standard of living of the people in a country. The higher the GDP, the higher national income earned. Assuming the real income has increased after discounting for inflation in the country, the higher will be the ability of its people to buy more quantities of goods and services. With more wants being satisfied, the material standard of living is thus said to have increased.

Explain problem: However, the population size also needs to be taken into consideration in order to arrive at what an average household is able to consume. This is because a large total income of the country could be due to a large labour force. For example, China's GDP could have risen but if its population also rises and rises by a greater rate, its real GDP per person would have fallen. Hence, care need to be taken to use real GDP per capita or GDP per household as a more reliable indicator for any country.

Explain 2nd problem: In addition, real GDP per capita is just a statistical mean and it does not reflect **the income distribution** among the people in the country. This is because firstly GDP figures do not necessary coincide with employment figures. Secondly, it says nothing about the income earned between the entrepreneurs and the rest of the labour force. Hence, an increase in real GDP per capita does not mean that all individuals benefit equally from economic growth as there could be wide disparity in the distribution of income, even within the

labour force. If the distribution of income become more unequal as the country enjoys economic growth such that the MINORITY rich become richer, for example high skilled workers, while the majority of the poor remains poor with low wages in low skilled jobs, then on average, SOL has worsened.

For example, in some years, in spite of its continuous growth in GDP figures, Singapore's income gap, as measured by the Gini coefficient has increased. In fact, its income gap is one of the widest among developed countries at **0.478** before factoring in government assistance and redistributive measures.

Discuss problem: Nevertheless this is largely a statistical problem. Using both real GDP per capita and a supplementary measure such as the Gini coefficient which measures the degree of income gap would enable a more accurate assessment the country's material standard of living.

P2: In addition, the size of the contributions of the **various components to GDP** also pose a problem in ascertaining standard of living. GDP measured by the expenditure method comprised spending by government, households, firms and foreign sector. Hence, if the large GDP value is due to government expenditures on defence and war overseas, it does not necessarily convert equally to a rise in national income for its citizens.

Other statistical problems concerns the fact that GDP takes into account only the value of market transactions. "Do- it- yourself" services like painting your own house instead of paying for the service of a contractor, which may be substantial, do not enter into GDP computation and may understate the actual value of economic activity if it had been provided at a fee in the market. In addition, the proliferation of many online transactions and free digital services are not captured in the GDP figures. Free whatsapp services provided by various agents and online surfing does away with the need for services at a fee. The problem is that GDP assigns a zero value to goods with a zero price, and so the value of a flux of free apps today does not enter into GDP figures

Discuss problem:

Hence, some caution should be exercised as the GDP figure would either overstate or understate the material standard of living. This fundamental problem of including only market transactions and quantity figures therefore is made more difficult in today's technological age. ***(any one statistical problem on material standard of living thoroughly explained)***

P3: The other problem is that even economists agree that indicators more intricate than just GDP are needed to ascertain if life is better or has improved for individuals as it does not measure the non-material SOL

Explain problem

E Real GDP per capita figure represent value of *output* of final goods and services produced in a year, but does not reflect changes in the *quality* of goods and services nor the non-material standard of living. While output in quantitative terms has improved over the years, the *quality* of life may have suffered. This is especially true of countries where rapid industrialization has been accompanied by high level of water and air pollution with the dumping of waste carbon emissions from the running of factories. These negative externalities, i.e. external costs, are ignored in national income accounting even though they diminish the quality of life eg increase health problems.

In addition, an increase in the real GDP may occur because the labour force is working longer hours or putting in more effort per unit of time. If it is true, fewer hours are available for leisure, for families and friends. Hence, the non-material standard of living may not have improved. It might even lead to higher level of stress and medical problems and adverse social effects like

neglected children and juvenile delinquency. A U.S. Bureau of Labour Statistics report indicates that of the 20 countries covered, average annual hours worked were highest in Singapore at well over 2000 hours, in 2011. In contrast, Singapore was ranked 20th in terms of GDP per hour worked (an indicator of a country's productivity).

The lack of social amenities and education services will also affect the non material aspect of life. Hence, a high GDP figure itself can overstate the standard of living of a country.

Discuss the problem: Increasingly the stress level does not appear to have abated for some in many developed countries, even as some value work life balance and measure quality of life with less income but more quality time for self and family. A case in point is the recent case of "superstar CEO" like electric car manufacturer, Tesla's, Elon Musk who has been reported to spend long nights at his Tesla factory. Hence, the non-material standard of living of the quality of life may suffer and GDP could have grossly overstated its measure of the standard of living

The issue is to what extent GDP per capita is a fundamental measure of standard of living as one would need a reasonable level of material of standard of living to have a roof over the head, food on the table and education. A higher material standard of living can also increase the quality of life with the consumption of more goods and services Therein lies the **extent of the problem** of using GDP.

Evaluation

Hence, there have been continuous attempts to have supplementary measures to reflect better a country's material and non material standard of living. The Physical Quality of Life index (PQLI) pioneered in 1979 by the Washington-based Overseas Development Council supplements Real GDP per capita with infant mortality rate and life expectancy, Another more comprehensive and holistic indicator of measuring SOL is the Human Development Index (HDI) provides a composite measure of three dimensions of human development: living a long and healthy life (measured by life expectancy), being educated (measured by adult literacy and gross enrolment in education) and having a decent standard of living as measured by GDP at purchasing power parity. The MEW (measure of economic welfare) is an attempt to factor in the values gained from leisure, social amenities and the costs of externalities like pollution.

Even so, these statistical and conceptual difficulties can become increasingly challenging in today's world, especially for countries that arrives at a more sophisticated stage in its development and people seek to **redefine and measure quality of life**. For example, increasingly the stress level does not appear to have abated and debates of quality of life continue. Issues of widening **income equality** may also continue to be a challenge in a rapidly globalised world.

Conclusion

Whilst statistical problems may be technically easier to resolve with increased sophistication in data collection, the challenge remains in the measure of the non material aspect of life such as happiness and quality of life can be subjective and hence differs within the same country. Hence more robust studies on quality of life issues will help improve GDP as a measure of standard of living. (*Increasingly with the quickened pace of globalisation where a country's citizens seek employment out of the country, attention should also be given to GNP that measures the contribution to national income of its citizens*).

Level 3 7-10	<ul style="list-style-type: none"> • Explained and discussed clearly and thoroughly (at least 3, with at least 1 non material measure problem) • Competent Technical grasp of concept
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	<ul style="list-style-type: none"> • Good use of examples.
Level 2 5-6	<ul style="list-style-type: none"> • <i>Explained sufficiently at least 3 pertinent problems for material and non material sol</i> • <i>Discussed sufficiently the problem, eg, extent, nature of problem, statistical, conceptual.</i>
Level 1 1-4	<ul style="list-style-type: none"> • <i>Splattering of points. Limited analysis. Cursory or weak journalistic approach.</i>
Ev3 4-5	<ul style="list-style-type: none"> • Personal voice/synthesis on whether it might be increasingly difficult and why/why not (any one well explained with mention of a second) • Insights on current difficulty of measuring technology impact on cost and benefit on GDP and quality of life.
Ev2 2-3	<ul style="list-style-type: none"> • <i>Some support for stand or clear statement on which discussion is based.</i> • <i>Eg, income inequity rising with globalisation trend</i> <i>Definition of quality of life is subjective using Singapore examples</i>
Ev1 0-1	<ul style="list-style-type: none"> • General statements without analytical support • Listing of relevant points that relates to body of answer

- 5 Explain why a government should be concerned with deflation and assess the relative effectiveness of alternative demand-side policies that a country could adopt to tackle this problem. [25]

Intro

Deflation is a situation where the economy faces a **persistent** fall in general price level. Governments should be concerned especially when it is caused by a **persistent fall in AD** which has adverse consequences on a country's **macroeconomic goals**.

Body

P1: Deflation may lead to further fall in consumption which can worsen recession and cyclical unemployment

- Deflation often follows a prolonged recession. As AD falls, firms sell their unsold stocks at reduced prices and consumers delay their current spending as they **expect further price fall** (non-income determinant of consumption).
- Fall in current consumption leads to **further fall in AD**, ceteris paribus → multiplied fall in real NY which deepens the recession.
- As firms reduce output further, **derived demand** for labour falls and cyclical unemployment rises.

P2: Deflation leads to a fall in actual and potential economic growth as investments fall due to business pessimism

- During a deflation, **business sentiments** worsen due to falling revenue caused by falling consumers' demand. It leads to firms reducing output and investment.
- Ceteris paribus, the fall in investment leads to a fall in AD thereafter multiplied fall in real NY and actual economic growth.
- Less incentive to invest in capital equipment will also reduce growth in economy's productive capacity. LRAS falls leading to a fall in potential economic growth.

P3: Deflation may worsen a country's balance of payment due to capital outflow

- During deflation, poor business sentiments arising from fall in real NY and GPL may lead to capital outflows as firms move their operations overseas. **Capital account** thereafter the country's balance of payments will worsen, ceteris paribus.
- The impact of deflation on country's **current account is uncertain**. It depends on the price elasticity of demand for its exports as well as whether its trading partners will implement any counter measures eg. currency depreciation to curb the rise in its quantity demanded of cheaper imports from country facing deflation.

Level	Descriptors
L3: 8 – 10	<ul style="list-style-type: none"> • Thorough explanation of at least 3 concerns of government where deflation adversely affects economic goals • Correct use of AD-AS framework with assumptions made (eg. assume other AD components eg, net X remain constant etc)
L2: 5 – 7	<ul style="list-style-type: none"> • Thorough explanation of 2 concerns • Adequate explanation of 3 concerns • Thorough explanation of 1 concern and 2 others adequately explained • Incomplete/inadequate explanations of how deflation adversely affects economic goals of government

L1: 1 – 4	<ul style="list-style-type: none"> • Explanation was mostly brief, limited or inaccurate with conceptual errors • End points (ie. govt's economic goals) are not clearly identified
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Assess the relative effectiveness of alternative demand-side policies that a country could adopt to tackle this problem.

To effectively tackle deflation, expansionary demand-side policies need to address the root cause and the economic conditions in the country.

P5: The government could implement aggressive expansionary monetary policy to address deflation caused by weak demand and overcapacity in the economy.

E/E1: When the root cause of deflation is the lack of a sustained increase in AD, the government could implement expansionary monetary policy to raise AD. When money supply is increased to reduce interest rates hence cost of borrowing, investors will be more incentivised to borrow and invest while consumers will be enticed to borrow to spend more on big ticket items. The rise in consumption and investment will lead to a **large rise** in AD, resulting in a shortage of goods and services as the economy moves closer to full employment. The policy thus addresses the problem of fall in economic growth and rise in unemployment seen during deflation. The large rise in AD not only helps to raise the general price level to stop the persistent fall in GPL, it also mops up the overcapacity caused by an excessive rise in capital goods which left many resources underuse in the economy.

EV: However, addressing the **root cause** of weak AD alone does not necessarily mean expansionary monetary policy is effective in tackling deflation. It also depends on the **prevailing economic conditions** in the country. A main limitation of the policy is that it depends on the responsiveness of consumption and investment to a fall in interest rates. If economic outlook for the future is bleak especially when deflation is caused by weak AD (**economic conditions**), the interest elasticity of C & I will be low. An extremely low or even zero interest rates may not encourage sufficient spending as households prefer to save more due to fear of wage cuts or retrenchment during a recession. Firms are also not keen to borrow to invest due to anticipated low returns. In addition, borrowing is further deterred since **real** interest rates will still be positive even when **nominal** interest rate is zero during deflation. This is seen in **Japan and Eurozone** where despite the central banks cutting interest rates aggressively, there was only a minimal rise in inflation rate due to a bleak economic outlook. Thus, when the rise in consumption and investment expenditure is not sustained, AD will not rise large enough to address problem of deflation.

E/E2: When above conventional monetary policy fails, governments even turn to unconventional monetary policy such as **quantitative easing**. It involves the central bank buying bonds from banks which then increases their money supply to encourage more lending by banks.

However the high risk of bad loans in a weak economy usually mean banks are reluctant to lend. This is why European Central Bank implemented a bigger than expected QE package in 2015 which help some countries in the euro zone to return to inflation levels close to 2%.

P6: When monetary policy has above limitations, government needs to combine it with fiscal expansion in order to bring about a sustained rise in AD to tackle deflation.

EV1: Unlike monetary policy whose effectiveness hinges on the willingness of private sector to spend, fiscal policy is more predictable since it is about increasing the government spending

to kick start the economy to create a positive multiplier effect on growth to reach its inflation target. Hence fiscal stimulus may be more effective than monetary policy.

E/E: When deflation is caused by a persistent fall in AD due to prolonged recession, an aggressive fiscal policy should be implemented to raise government spending and/or reduce personal income and corporate tax rates. The former will increase households' disposable income which lead to rise in consumption while a rise in firms' post tax profits will encourage investment expenditure. In all, there will be a **large rise in AD** to shift the economy out of spare capacity alongside a rise in general price level. In 2016, Japan government set aside 28 trillion yen on building critical infrastructure projects such as earthquake resistant roads, bridges and tunnels.

EV2: For fiscal policy to be effective in tackling deflation, there must be a **substantial rise** in G to bring about a **sustained rise** in AD. But the government will run into a budget deficit. Government borrowing money from the banks may lead to crowding out effect as it competes with firms for limited supply of loanable funds. Interest rates will rise which may deter investment and consumption. However due to deeply entrenched pessimism, crowding out effect tends to be minimal thus the rise in AD is expected to tackle deflation. However, fiscal stimulus policy may not be available to every government. Some eurozone countries like Spain, Greece are constrained by debt restriction which prevents the government from borrowing to finance its spending.

P7: To address deflation caused by external factors, currency depreciation would be a more effective policy than expansionary monetary and fiscal policies.

E/E1: When a country's key trading partners face a recession, it will lead to fall in demand for its exports. The fall in AD due to fall in net exports would result in a sustained downward pressure on general price level if the overseas recession is prolonged.

Government could depreciate its currency by selling it and buying more foreign currencies in the foreign exchange market. Prime Minister Abe depreciated the yen to cause the price of exports to fall in foreign currency and price of imports to be higher in domestic currency. Assuming demand for both are price elastic, net exports will rise, assuming Marshall-Lerner condition is met (sum of price elasticity of demand for exports and imports are more than 1). When net exports rise, AD will rise alongside general price level thus tackling deflation.

EV: However a weakened currency does not always lead to a rise in its net exports. The country has to consider the **economic conditions** of its trading partners. If latter are facing a recession, even with depreciation, net exports might not rise. Furthermore, their trading partners might see it as a form of protectionist move and might retaliate. Increase in net exports hence AD will be limited hence it might not tackle deflation.

The **characteristics of the country** must also be considered to gauge the effectiveness of currency depreciation. If the country exports mainly primary commodities, there will be a less than proportionate rise in quantity demanded for its exports thus export revenue will fall instead. An import reliant country will also face a rise in import expenditure as import demand is price inelastic. Thus the rise in net exports via depreciation is limited, reducing its effectiveness in addressing deflation.

Assuming all the above 3 demand side policies are effective, they will lead to multiple rightward shifts of AD curve via the **multiplier process**. An initial rise in injections (G, I, X) will lead to an equal rise in national income which leads to a rise in induced consumption and withdrawal. Higher the MPC value, greater is the rise in induced consumption and national income. With multiple rise in induced consumption, it will mop up the spare capacity leading to a shortage as economy moves closer to full employment level. The shortage will result in an upward pressure on price thus tackling deflation (where economy operates on the elastic portion of AS curve).

Conclusion

Government must act swiftly to prevent deflationary expectations from being entrenched. Latter when set in, implies firms and households expect prices to keep falling which would render monetary and fiscal stimulus ineffective in stimulating domestic demand. Once there are indications of negative inflation rates, government needs to respond promptly with policies that not only address the root cause, but also take into account the country's characteristics and prevailing economic conditions. As each policy has their limitations, they must therefore work alongside each other to ensure a large/sustained rise in AD to create growth in real GNP so as to reach its inflation target.

Level	Descriptors
L3: 7 – 10	<ul style="list-style-type: none"> • Thorough explanation of at least 3 policies to tackle different causes of deflation • Ideas are well-supported by economic analysis with attempt to make reference to real world examples
L2: 5 – 6	<ul style="list-style-type: none"> • Thorough explanation of 2 policies correctly applied to solve deflation • Thorough explanation of 1 policy & adeq explanation of 2 others • Adequate explanation of 3 policies
L1: 1 – 4	<ul style="list-style-type: none"> • Explanation was mostly brief or inaccurate with conceptual errors • Undeveloped analysis
E3	For an answer that uses analysis to support an evaluative conclusion or judgement. Made reasoned attempt at evaluation on limitations of policies relevant to the question
E2	For an answer that makes some attempt at evaluation or a judgement
E1	For an answer that gives largely unsupported evaluative statement(s)

6 In recent years, the globalisation trend witnessed both threatening protectionist moves and increasing attempts at free trade agreements and economic cooperation. In Singapore, additional challenges are posed to its fundamental shift to become a mature economy with a high rate of local innovation.

(a) Explain why in some cases protectionism may be justified. [10]

(b) Discuss how a country like Singapore should increase its competitiveness in a globalised world which might become increasingly protectionist. [15]

Introduction

Define protectionism:

Protectionism is the use of government measures such as tariff and non tariff barriers to prevent free entry of imports to protect domestic economy/industries from foreign competition. It can involve the use of subsidies to promote the growth of exports.

State direction of answer: These measures are justified only in cases of infant industry with CA and in the short run, dumping and restructuring period.

Body

P1: Whilst protectionism may be argued to be on balance to be detrimental to countries' GDP growth in the long run, it may be justified based on the Infant industry argument

E This is because newly-established indy with potential source of CA are not yet able to compete internationally. Starting out as smaller outfit means that these firms are unable to reap substantial economies of scale and will not be price competitive. Keeping out international competition into the domestic market through protectionistic measures like tariffs on imported substitutes will enable these firms to grow and reap lower cost of production such as technical and marketing economies of scale which will also help them to compete internationally in the long run.

This is because the import tariff raises the price of the import and allows the domestic producer to compete at the same higher price but reduces the amount of import. Alternatively, the rise in prices of imported goods, price of local goods unchanged means that local consumers will be drawn to its relatively cheaper products. This enables greater output and hence economies of scale, enabling it to lower its unit cost of production in the long run.

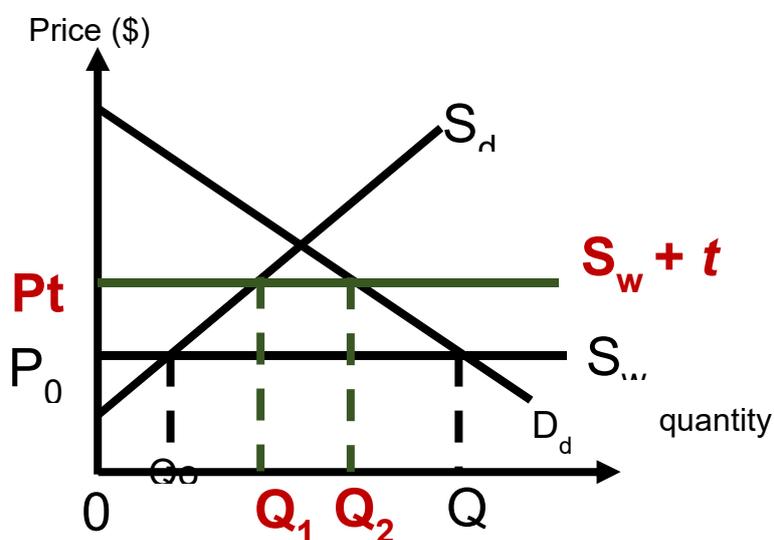


Diagram is not critical. If properly use, it enhances rigour & answer. Candidates May use **alternative basic** illustration of a shift in demand for the locally produced good that in competition with the imported substitute

However, it should remove such protectionist measures after a period of time as firms will become complacent if these protective barriers remain permanently.

Hence, subject to protectionist measures being temporary and for companies with potential comparative advantage, such measures are justified and allowed under World Trade Organisation rules. The case study of the Malaysian car company Proton Saga is a case in point where Malaysia wanted to develop their own national car and imposed tariffs on imported cars from Japan and China for a period.

P2: Protectionism is also justified in cases where there is unfair competition such as Dumping

E Dumping occurs when a good is sold in foreign mkts at a Price below the marginal cost (MC) of production. This gives the exporter an unfair advantage that is not based on comparative advantage, the basis on which free trade is mutually beneficial. Hence countries are justified to *impose an import tariff to equalise competition*.

It can be further argued that this could be a strategy by foreign producer to lower price temporarily at below cost in domestic mkt to oust out domestic producers with the aim of gaining monopoly position. This then allows them to increase price to the detriment of consumers as they are exploited with their consumer surplus transferred to the foreign producer. This reduces the welfare of consumers.

It is for this reason the International Trade Watchdog, World Trade Organisation disciplines dumping actions and it is often called the “Anti-Dumping Agreement” under its world trade ruling. The agreement allows governments to act against dumping where there is genuine injury to the competing domestic industry. In order to do that the government has to be able to show that dumping is taking place, calculate the extent of dumping (how much lower the export price is compared to the exporter’s home market price), and show that the dumping is causing injury or threatening to do so.

Hence to justify anti-dumping tariff, countries must be able to prove that the exporter has indeed sold below its marginal cost of production before they can raise protective walls as it may not be a case of predatory dumping but sporadic dumping to clear stock. Some examples include China’s tariffs on American cars, accusing it of dumping into its domestic market at a time when China was trying to protect its own car market and dumping could cause substantial damage to its attempt to grow its own car industry. American tariff has imposed on China solar panels and India’s tariffs on imported steel on various countries such as China and Japan.

P3: In cases where restructuring is needed when local firm have lost their comparative advantage, protectionist measures may be used to enable more economic stability as the country goes through the process of restructuring, eg from low end to high end manufacturing or services.

E This is because if firms have lost their comparative advantage, it would mean they have to *shut down* if their total revenue cannot cover cost of production. This forces firms to retrench workers and hence cause massive **unemployment** especially if it constitutes a big sector of the economy. Hence **protectionism prevents significant job loss** & unemployment as the measures give economy time to shift resources from sunset to sunrise industries and low for training and retraining of workers appropriately

Conclusion

Hence, despite the warranted fears that protectionism may be bad news for both a national and international economy, protective barriers to support local industry is justified in cases of

need to develop an infant industry with CA for the short run, to help in its restructuring process due to loss of comparative advantage and to counter unfair trade practises such as dumping practices of its trading partners.

Level 3 8-10	The 3 key reasons well explained & justified based on clear assumptions & qualifications. Good use of examples. May or may not have used a graphical illustration
Level 2 5-7	Explained well at least 2 reasons. Explain the need for assumptions and qualifications for justifications. May have included a diagram on impact of protectionism on local industry in terms of output, economies of scale and employment.
Level 1-4	Splattering of points concerning employment and other listing. Descriptive narration.

- (b) Discuss how a country like Singapore should increase its competitiveness in a globalised world which might become increasingly protectionist. [15]

INTRODUCTION

Set context:

Globalisation is the increasing integration of countries arising from freer mobility of goods, services, resources and technology. This has propelled the economic growth of many national economies especially in the last few decades with prospects of bigger markets for all. Protectionist moves will raise prices of exports and block economic projects and affect Singapore's ability to compete in the world market.

Concept of competitiveness and how to bring it about/direction of answer:

The current Global **Competitiveness** Index measures the set of institutions, policies, and factors that sustain **economic** growth and places Singapore at 34th place. In this light, Singapore should increase its competitiveness by taking due consideration some of these factors to continue to penetrate the world market based on cost and quality of its goods and services.

BODY: (any 3 measures cohesively presented)

P1: If protective tariff barriers are increasingly imposed by trading partners, Singapore will need to find ways to reduce its actual cost to still enable lower prices to compete in the international market.

E This is because a tariff on its exports would instantly increases the price of its exports to the country. To counter this and still be able to compete successively, Singapore would need to continue to maintain price competitiveness in these markets. One measure Singapore can continue to use is her **exchange rate policy** to manage a relatively strong sing dollar. This is because she is a resource scarce country reliant on imported raw materials where it constitutes 60% of the total cost of production. Hence, a strong sing dollar will reduce the price of imported raw materials in domestic currency. This means cheaper cost of production and can help alleviate the price of the final goods and services she produced like pharmaceutical and petrochemical products. Examples include imported natural gas to power electricity and machinery, oil for transportation services provided by airport and ports, and basic intermediate primary products like wheat, poultry and seafood or manufacture of food products for exports.

This will continue to manage the **price competitiveness** of its exports as long as the rise in price of exports due to a strong exchange is mitigated sufficiently by the cost savings from a lower cost of production.

Antithesis: However this measure might be seen to be an artificial competitiveness as it does not look at the *actual* cost of production itself.

P2: Hence, the limitation of this measure means that Singapore need to also look into reducing the *actual* cost of production itself. As such, she should also continue to calibrate her supply side polices to decrease unit cost of production.

Given that Singapore's only resource is its people, she should seek to increase the quantity and quality and mobility of factor so production and to reward and encourage local enterprise. Rapid technological and disruptive changes taking place in the *global* marketplace will make workplace old skills irrelevant. Hence measures must be in place in Singapore to reskill and focus on highly specialised areas such as medical technology and data analytics.¹ With higher education and skills training, the labour force becomes more productive, versatile and adaptable. Therefore it should continue to review its Continuing Education and Training (CET) Masterplan where since 2014, CET has been enhanced to include online training courses that adult learners can access at their own pace, in their own time. Such platform allows courses to be more accessible and gives more flexibility to learners juggling between work and study. In addition, the 2015 **SkillsFuture** attempts to develop an integrated system of education, training and career progression for Singaporeans, promote industry support for workers to advance based on skills, and to foster a culture of lifelong learning. This will increase Singapore Government funding to an average of over \$1 billion per year from now to 2020.²

Discuss/strengths: (1 thesis, 1 "antithesis" well analysed) Training and Education improves labour productivity and mobility and must rightly comprise formal and informal education for the labour force. Improvement in the quality of the workforce can raise the productivity level of the labour force, enable more to be produced at a lower unit costs of production. This increases its global competitiveness and at the same time mitigating the rise in price due to tariff by certain trading partners.

It should also continue to monitor its wage policy through its tripartite system of engaging employers and trade unions and the National Wage Council such that wage rise will not outstrip productivity rise. This will curb any undesirable rise in unit cost of production that could reduce its ability to compete especially in markets where tariffs worsens the competition. Although it has been a concern that workers and firms would not be receptive to such programmes, recent data suggest that there has been a good take up rate as more than 126,000 Singaporeans have used the SkillsFuture Credit to up-skill or re-skill themselves by end December 2016. As this is a critical expenditure to increase its competitiveness to ensure productivity, lower cost and quality products, it should remain a key area that Singapore must pursue to ensure sustainable economic growth.

This measure accompanied with an industry transformation map to identify key areas of growth with which Singapore can develop new comparative advantage will also help her to break into areas that are not likely to be protectionist as these countries are unable yet to produce them.

It also increase our competitiveness in terms of attracting foreign direct investment into the country as a productive workforce enables foreign firms to produce at lower cost and in turn compete in the international market.

P3: In addition, in view of increasing protectionism, Singapore should continue to sign free trade agreements (FTAs). FTAs can expand the international economic space for Singapore-based companies with the reduction of trade barriers. Singapore has successfully ratified the CETrans-Pacific Partnership (TPP). Asia-Pacific Economic Cooperation (APEC) members like Australia, Brunei, Chile and Vietnam. These countries collectively represent about 26% of global GDP and 17% of world trade. In addition, she should remain an active participant in regional integration initiatives like the Association of Southeast Asian Nations (ASEAN) and the AEC aims to achieve a single market and production base, with free flow of goods, services and investments by 2015.

Strength: This is because there remains big growth areas and new areas of cooperation such as Africa, Brazil, Russia and India. These emerging economies would want the much needed trade for growth and the likelihood of them imposing protectionist measures is minimal.

In this way, bigger markets allow our local companies to expand and enjoy **economies of scale** of production such as technical, marketing and financial economies of scale. This reduces the **average cost of production** and enable firms to charge a lower price to continue to compete successively in new and penetrate even protected markets. Hence, Singapore should look into regional cooperation if the big players from the West and China threatens to be become increasingly protectionist.

Conclusion

Personal opinion: It serves Singapore well to recognize the importance of adapting to both the opportunities presented by the global economy and the possibilities of countries implementing protectionist moves to protect their own national economy. Singapore must take both a short and long term perspective in dealing with competitiveness, whether threatened by protectionism or otherwise. In essence, she should will continue to pursue an appropriate exchange rate policy and relevant supply side policy to create a globalized, entrepreneurial and diversified economy that ensures sustainable growth. Singapore should continue to pursue regional trade agreements to keep economy open.

Level 3 8-10	Thorough explanation of at least 3 measures and impact on cost, price and non price. Thesis and anti-thesis is evident
Level 2 5-7	Sufficient explanation of at least 2 relevant measures to increase competitiveness in terms of price and non price appeal. Impact of context of protectionism (and globalisation) in terms of raising prices is evident Anti-thesis is also attempted.
Level 1 1-4	Smattering of points. Lack of understanding of term "competitiveness"
Ev3	At least 2 criteria well evaluated Eg: Need to keep own economy open to FDI Need to look for new markets as viable solution. Recognised need for appropriate supply side measures and a policy mix of eg, appropriate exchange rate, free trade agreements
Ev2	Criteria is supported with analysis Eg: human resources as its key resource Need to gain new comparative advantage with government policies. Recognised need for supply side measures.
Ev1	Listing of criteria.