Name:_____ Centre No. / Index No.:_____/_____ Class:_____

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PIONEER JUNIOR COLLEGE, SINGAPORE
JC2 Preliminary Examination 2017
Higher 1

ECONOMICS 8819/01

Paper 1 14 September 2017

3 hours

*PJC/8819/Paper 1/ 2017

Additional Materials: Answer Paper

READ THESE INSTRUCTIONS FIRST

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

Section A
Answer **all** questions.

Section B
Answer **one** question.

Please begin your answer to each question on a fresh piece of writing paper.

At the end of the examination, fasten your work for Questions 1, 2 and 3 or 4 separately.

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

This document consists of **6** printed pages.

Answer **all** questions in this section.

Question 1 **The impact of climate change**

Table 1: Food Price Index (2002-2004 = 100)

The table below shows an index of food prices over the period of 2006 to 2015.

Year	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Index	127.2	161.4	201.1	160.3	188.0	229.9	213.3	209.8	201.8	164.0

Source: *Food and Agriculture Organisation of the United Nation*

Extract 1: The Paris Agreement

A historic, legally binding climate deal that aims to hold global temperatures to a maximum rise of 1.5 degrees celsius above pre-industrial levels, starving off the worst effects of catastrophic global warming, has been secured.

The culmination of more than 20 years of fraught United Nations (UN) climate talks has seen all countries agree to reduce emissions, promise to raise $100 billion a year by 2020 to help poor countries adapt their economies, and accept a new goal of zero net emissions by later this century.

Source: *The Guardian*, 13 December 2015

Extract 2: Climate change and the continual demand for economic growth

The agreement reached at the climate change talks in Paris is certainly a great improvement on anything that has gone before. Whether it is enough to save the planet is questionable. It was suggested that the agreement will create more jobs and economic growth driven by investment in clean energy sector. But growth, even “green growth”, is precisely the problem. In order to reduce the consequences of climate change such as rising carbon emission, growth could be sacrificed. We live on a finite planet with finite resources which we are already exploiting to the limit and beyond. The aim must be to achieve a steady-state economy, with resources fairly shared, but that is incompatible with conventional growth strategy, which was to simply raise output.

Adapted from: *The Guardian*, 14 December 2015

Extract 3: Climate change and food prices

Due to climate change, extreme weather events that impact food production could be happening in seven years out of ten by the end of this century. Poor harvests and low stocks of grains in 2008, combined with a host of other factors resulted in a spectacular rise in food prices. In 2010, a heat wave in Russia led to the country's worst drought in 40 years, destroying the grain harvest and leading indirectly, to food riots in North African countries as prices of bread rose rapidly.

In addition, increasing population will drive demand for food up by 60% by 2050 in any case, so there is going to be significant pressure on food production. The biggest impact of these production shocks were likely to be felt across Africa and the Middle East.

Countries like the UK and the US would be able to cope because more processed food is consumed in the wealthier regions so the changing price of basic commodities was less of a factor in the final price of the product. The most vulnerable countries that are going to be worst affected are low income food-deficit countries, predominantly those in sub-Saharan Africa. This is because the poorest households in these sorts of countries are spending about 50% of their income on food. So if food prices increase by 50-100%, it would leave the citizens in sub-Saharan Africa in an almost unbearable position. The researchers say that international trade worked well when food was in

plentiful supply but when global demand increased, countries often imposed export controls which usually made the situation worse.

Hence, governments must try to understand the risks, rather than simply stockpiling food and grains. There should be efforts to reform world trade so that countries don't retreat behind barriers when crops fail. Significant research on agriculture must be carried out to ensure it can cope with increased demand and increasing temperatures.

Source: *BBC*, 14 August 2015

Extract 4: Is there an economic case for tackling climate change?

What is the economic case for tackling climate change? Economists have been wrestling with the question since the early 1980s.

There are externalities: emissions produced by a person or business lead to costs - and sometimes benefits - for others which the emitter has no incentive to consider. The mainstream economic view of how to deal with an undesirable externality is that you tax it. In this case it is greenhouse gas emissions that would be taxed. This approach is generally known as a carbon tax or sometimes as a carbon price.

There are alternatives, notably emissions caps with tradable permits. The idea is that the curbs in emissions would be made by those businesses that could do it at the lowest cost. There have been experiments with this approach, notably in the European Union. If implemented effectively, the approach does have much in common with a carbon tax. Emitters have to pay and in doing so are in effect forced to take account of the externality. The other main approach has been to use regulation or subsidies to promote particular low emissions technologies, especially in electricity generation. Markets are generally seen as more effective than governments, although needing a bit of a nudge in cases of market failure, such as climate change. Moderate warming might actually be beneficial at least for some, with reduced heating costs and cold weather related health problems, and increased crop yields in some places.

Source: *BBC*, 28 November 2015

Questions

(a) Using Table 1, compare the overall change in food prices between 2006 and 2010 with that between 2011 and 2015. [3]

(b) With reference to Extract 2, define opportunity cost and give an example. [3]

(c) With reference to Extract 3, explain whether supply or demand factors are likely to be more important in explaining changes in the price of food. [6]

(d) With reference to Extract 3, explain why countries like the UK and the US are able to cope better compared to Africa and the Middle East in view of the significant rise in food prices. [4]

(e) With reference to Extract 3, explain whether the use of export controls by governments to prevent rising food prices is justified. [6]

(f) Discuss the view that the problem of negative externalities caused by carbon emission from firms can best be solved by using a policy of tradable permits. [8]

[Total:30]

Question 2 Economic Performance, Prospects and Lessons

Extract 5: The Rise of Anti-Globalisation and its Impact in Asia

There is no question that globalization has been a good thing for many developing countries who now have access to more markets and can export cheap goods. However, globalization has become deeply discredited in parts of the developed world. The general complaint about globalization is that it has made the rich richer while making the non-rich poorer. In developed countries, jobs are lost and transferred to lower cost countries. Workers in developed countries like the US and EU face pay-cut demands from employers who threaten to export jobs.

Globalization is an economic tsunami that is sweeping the planet. We can't stop it but there are many policies and strategies we can use to make it more equitable. We can enforce the trade laws, force the competition to play by the same rules, and stop giving our competitors the tools (technology and R& D) to ultimately win the global war. The anti-globalists claim that globalization is not working for the majority of the world. The United Nations Development Program reports that the richest 20 percent of the world's population consume 86 percent of the world's resources while the poorest 80 percent consume just 14 percent. Wage stagnation, insecure jobs and widening inequality between rich and poor are just some of the factors that led to rising anti-globalisation and increase protectionism sentiment seen in the West.

The increase in protectionist measures have profound implications for cross border global flows and negatively impact Asia that have built their fortunes on exports.

Adapted from *Forbes, 6 May 2015*

Extract 6: EU slaps anti-dumping duties on China stainless steel

The EU announced that it will impose anti-dumping duties on imports of flat-rolled stainless steel used to make products like washing machines, dishwashers, medical tools and automobiles from China. Duties of around 25% will be imposed for the targeted Chinese firms including industrial giant Baosteel.

This came about after European industry complained of stainless steel products being dumped on the market at below cost price, putting thousands of jobs at stake. In the absence of measures, the dumped imports from the China will continue to force EU industry to sell at loss-making prices. The EU industry concerned suffered a production volume decline of five percent, which led to an eight percent drop in capacity utilisation.

Adapted from *Eurativ, 26 March 2015*

Extract 7: Economic Review for China

In 2015, China's economy grew 6.9 percent, one of the slowest growth rates among the recent years.

Facing shrinking external demand, expanding overcapacity, increasing competition, intensifying trade protectionism and growing trade disputes, China is in the midst of a fundamental transition. She is moving from an investment-intensive, export-led model of growth, to a consumption and innovation-driven one. Last year, China's outbound foreign direct investment (FDI) surpassed its inbound FDI for the first time. More investments were made in North America, Europe and other developed economies, where there are more high-quality targets to obtain advanced technologies that can be deployed domestically. For example, Haier, a Chinese consumer electronic appliances multinational corporation, announced the acquisition of General Electric's Appliances business for USD 5.4 billion, which will not only allow Haier to expand its presence in the US market, but also provide Haier with great products, state-of-the-art manufacturing facilities and a talented team. China's FDI are also going into developing countries such as India as Chinese manufacturing sector is struggling with rising wages at home.

Back home, e-commerce is turning into a pillar of growth: reducing costs and other barriers to entry, increasing competition, driving down prices, and unlocking new demand. The role of e-commerce has become a dominant feature in the consumer spending landscape. In 2015, the online retail sales of goods and services totalled RMB 3.8 trillion, an increase of 37.2 percent. Recent economic data shows that the contribution from consumption as a percentage of GDP in China is rising, accounted for 52.7 percent of China's GDP in 2015, up from 51.4 percent in 2014. By comparison, consumption expenditure in the US accounted for 68.4 percent of the US GDP in 2015.

To meet the challenges of China's rapid rate of urbanisation such as traffic congestion and poor regional connectivity, the government has implemented a series of initiatives. The 'New-type Urbanization Plan' aims to connect ecological progress, urbanisation quality, expanding domestic demand and rural-urban coordination while the 'Belt-and-Road Initiative' is an infrastructure development plan proposed to improve the connectivity of the country.

Adapted from *China Outlook 2016, KPMG's Global China Practice*, March 2016

Table 2: China: Selected Economic Indicators 2011 – 2015

	2011	2012	2013	2014	2015
Real GDP growth (Annual %)	9.5	7.9	7.8	7.3	6.9
Inflation (annual % change in CPI)	8.2	2.4	2.2	0.8	0.1
Government budget balance (% of GDP)	1.53	1.27	0.76	0.84	-
Unemployment rate (%)	4.3	4.5	4.5	4.6	4.6
PM2.5 air pollution (micrograms per cubic meter)	57	57	57	58	58
Internet users (per 100 people)	38.3	42.3	45.8	47.9	50.3

Source: *Various*

Questions

(a) Describe the change in China's real GDP between 2011 and 2015. [2]

(b) Extract 7 suggests an increase in China investment overseas.
Comment on the likely effects of this on China's balance of payments. [4]

(c) Explain the case **for** the use of protectionist measures by the EU government. [4]

(d) With reference to Extract 7, using AD/AS analysis, explain how the 'Belt-and-Road Initiative' impacts the Chinese economy. [4]

(e) Discuss whether the data provided are sufficient to assess changes in standard of living of China over the period of 2011 and 2015. [8]

(f) In view of the anti-globalisation sentiments, discuss whether globalisation should be the driver of growth for emerging economies such as China. [8]

[Total: 30 marks]

Section B

Answer **one** question from this section.

3 **(a)** Explain what might cause price elasticity of demand to be different for different products. [10]

(b) Profits are earned when revenue exceeds costs of production. Discuss whether it is both possible and beneficial for producers to change the price elasticity of demand for their products. [15]

4 **(a)** Explain how weakening of a country's foreign exchange rate can cause inflation rates to rise. [10]

(b) Discuss whether the use of supply side policy as a means of solving the problem of inflation is likely to be effective. [15]

PJC 2017 H1 Prelim Exam Paper 1

Question 1: The impact of climate change

(a) Using Table 1, compare the overall change in food prices between 2006 and 2010 with that between 2011 and 2015. **[3]**

Suggested answer:
Food prices from 2006 to 2010 has been increasing while food prices from 2011 to 2015 has been falling.
Food prices rose at a faster rate (47%) from 2006 to 2010 while food prices from 2011 to 2015 fell at a slower rate (28.6%).
There was a fall in food prices from 2008 to 2009 while the fall in food price trend from 2011 to 2015 has been consistent.

(b) With reference to Extract 2, define opportunity cost and give an example. **[3]**

Suggested answer**:**
Opportunity cost is the next best alternative foregone.

Firms have to choose between investing in clean energy sector and investing in capital good to increase output. If firms choose to invest in clean energy sector, they would forgo the profit that they would earn from increasing their output.
Or
Governments have to choose between spending in clean energy to reduce negative externalities and promote steady sustainable growth, and to spending to promote actual economic growth. If they choose spend to ensure sustainable growth, they would forgo current growth.

Note: Due to question requirement 'reference to extract 2', answers from extract 1 or not related to climate change/growth will not be accepted.

(c) With reference to Extract 3, explain whether supply or demand factors are likely to be more important in explaining changes in the price of food. **[6]**

Suggested answer**:**
With reference to Extract 3, changes in food prices can be affected by reasons such as rising population, weather changes, price elasticity of demand and supply and R&D.

Demand factor
As world population rises, there will be more mouths to feed and this will lead to a rise in demand for food as food is necessary for survival. The rise in demand for food will lead to a shortage at the original price, and with an upward pressure on price, price of food will increase. As food crops require time for gestation and as a perishable good (mentioned in Extract 3 Para 1), the rise in demand against a price inelastic supply curve will cause food prices to rise significantly.

Supply factor
Poor weather conditions have made food crop cultivation unfavourable. This implies that food production will be disrupted, leading to a fall in supply for food in the market for food. With demand for food being price inelastic as it is a necessity to all and supply falling drastically, the price of food will increase significantly.

Overall judgement/conclusion

In the short run, supply side factors seem to be more influential in terms of affecting food prices as producers and countries may not be able to pre-empt and tackle such changes effectively. With stocks being low, the inelastic supply of food makes changes in food prices even more volatile.

However, in the long run, when food supply becomes more stable and increases as R&D efforts pay off (Extract 3, last para), demand factors possibly due to a rise in income and population may play a bigger role in affecting food prices. This is because the nature of food will not change and it is almost impossible to curb demand for food when population and income both rise over time.

(d) With reference to Extract 3, explain why countries like the UK and the US are able to cope better compared to Africa and the Middle East in view of the significant rise in food prices. **[4]**

Suggested answer**:**
In UK and US, consumers consume a considerably greater amount of processed food compared to Africa and the Middle East. Hence when food prices rise, the cost of production for processed food will rise as fresh food is used as a factor input to produce processed food. This would result in a fall in the supply of processed food and a rise in the price of processed food. In comparison, this increase in the price of fresh food will be felt to a greater extent by consumers in Africa and the Middle East as they consume mainly fresh food and relatively less processed food, implying that consumers in UK and US will be able to cope better when food prices rise significantly.

In addition, due to differences in the absolute level of income, the proportion of income spent on food by UK and US consumers is relatively lower compared to consumers in Africa and the Middle East. This is supported by evidence from Extract 3 where it was mentioned that the poorest households in Africa and the Middle East are spending about 50% of their income on food, implying that when fresh food prices rise and with a lower absolute level of income compared to UK and US consumers, they will be more affected.

(e) With reference to Extract 3, explain whether the use of export controls by governments to prevent rising food prices is justified. **[6]**

Suggested answer**:**
The reason for imposing export controls cited in Extract 3 was to cope with rising food prices which affected poorer households greatly and worsens equity.

The use of export controls by governments of food producing countries is justified.

By imposing export controls, this will increase the supply of food for the domestic economy (from S_D to S'_D). At the original price, quantity supplied will outweigh quantity demanded, resulting in a downward pressure on price, leading to a fall in the price of food. The fall in the price of food will alleviate the pressures felt by poorer households. This is necessary as food is a necessity to all households and government has an obligation to ensure food prices are affordable to all.

However, the use of export controls is protectionistic in nature and may result in retaliatory actions taken by the country's trade partners. Such actions will reduce the export revenue of the country that implemented the export controls and bring about a contractionary impact on the economy. The impact will be even more significant if the country depends on trade greatly as a key driver of economic growth. In addition, protectionism goes against the comparative advantage theory, perpetuating inefficiency and limits the gains from trade.

Conclusion/Judgement

Export controls are at most a short term measure to deal with ising food prices. In order to stabilize food prices and reduce food price volatility, there must be efforts put in to raise supply through use of advanced farming techniques and technology.

(f) Discuss the view that the problem of negative externalities caused by carbon emission from firms can best be solved by using a policy of tradable permits. **[8]**

Suggested answer**:**

Intro

Negative externalities are generated from carbon emission from firms. This result in market failure, where the free market fails to achieve economic efficiency without government intervention. Hence, **governments would consider whether market failure due to the carbon emission can best be solved by using a policy of tradable permits (Claim).** However, its feasibility and effectiveness may cause it not to be the best policy to correct market failure.

The policy of tradable permits is the best to correct market failure.

The carbon emission from firms will result in external cost borne by third parties who are not directly involved in the production or consumption of goods, which is not considered by firms. For example, high carbon emission resulting in severe climate change that damaged food crops. When the governments introduce the policy of tradable permits, it would force the firms to find the lowest possible cost method to reduce emission.

Governments will distribute tradeable permit to different firms up to a certain quota. These permits would allow firms to produce a certain level of output (Qs) and pollution. If firms need to produce more, they will either buy more permits or adopt a more efficient production method, whichever is cheaper, If firms find producing in a more efficient method that could reduce carbon emission (e.g.: investing in clean technology to meet new emission quota), it would reduce the external marginal cost (negative externalities). As seen in Fig 1, This will reduce the divergence between the private marginal cost (PMC) and social marginal cost (SMC) from SMC to SMC2. This would increase social optimal output of production from Qs to Qs2 (where SMC2 = SMB), which reduce deadweight loss from area AGF to area HJF.

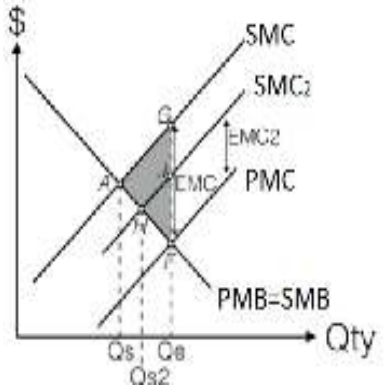

Figure 1

If firms want to produce beyond the emission quota, they would need to pay for the permits to do so. This will force them to internalise external cost, causing them to incur higher private marginal cost (from PMC to PMC2) as seen in Fig 2. This would cause the firm's output level to fall to Q2 (where PMC2 = PMB). Hence, the deadweight loss to society has reduced from area ADE to area ABC, reducing market failure.

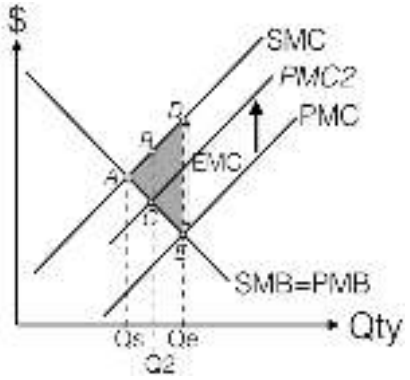

Figure 2

This policy is beneficial to create a profit incentive that encourages firms to cut emission and develop methods of production over time. For those who do not cut emission would then have to pay the true cost of production by internalising the external cost of production.

However, governments might not find it feasible to implement it as they would face large administrative costs to monitor and measure emission level of individual firms when they produce goods and services. Failure to monitor them closely would make the policy ineffective as firms would have little or no incentive to cut emission. There will also be unintended consequences as firms may shift production overseas to avoid incurring higher cost of production through investing in cleaner technology and paying for permits. This could lead to higher unemployment in these industries, and even a fall in exports.

Hence, to reduce cost of production as firms try to meet emission quota, governments should also give subsidies to firms which use low emission technology. This would allow them to reduce the external marginal cost of production without firms from incurring higher cost of production. This would be better than tradable permits as the firms would have more incentives to use cleaner methods of production to reduce carbon emission while maintaining its profit.

This policy however, might be unsustainable for governments which have budget deficit as they might incur higher opportunity cost when diverting its funds from other projects (education, healthcare, national defence) to reduce carbon emission.

As there is no effective policies that does not require government to monitor carbon emission, governments will need to set aside funds to ensure constant monitoring. However, it does create the incentive for firms to invest in research and development if is cheaper than buying tradable permits. However, it is not the best policy to solve market failure in the long run, especially if the price of permit is less than spending on clean technology. Thus, it had to be complemented with other policies to prevent firms who are facing higher cost of production due to the new initiative from moving away from the country. Hence, if government the subsidies given to firms which promote cleaner production, it would be a long term solution to reduce the effect of climate change. This would increase incentive for firms to invest technology to reduce carbon emission instead of moving away due to the introduction of tradable permits.

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Question 2: Economic Performance, Prospects and Lessons

(a) Describe the change in China's real GDP between 2011 and 2015 **[2]**

Suggested answer**:**
China's real GDP increases at a decreasing rate between 2011 and 2015.

(b) Extract 7 suggests an increase in China investment overseas.
Comment on the likely effects of this on China's balance of payments **[4]**

Suggested answer**:**
An increase in China investment overseas will lead to a deterioration of her capital account in the short run as this is recorded as a debit entry in the long run capital account. Ceteris paribus, her BOP will deteriorate. However, in the long run her balance of payment may improve as investment overseas reap returns in the form of investment income such as profits and dividends. These are remitted back to China and are recorded as credit entry in China's Current account in her Balance of Payment.

(c) Explain the case **for** the use of protectionist measures by the EU government **[4]**

Suggested answer**:**
The argument advanced for protectionism is to save jobs as dumping of cheap stainless steel product has "put thousands of jobs at stake' in the EU stainless steel industry. With China dumping cheap stainless steel in the EU market below cost, many EU firms are forced to sell at 'below cost price' as they cannot compete with cheap China made stainless steel. As a result, many were force to cut back production and hence employment.

To prevent such massive job losses, governments have resorted to protectionism such as imposition of tariff so that imported stainless steel products are more expensive and EU stainless steel producers can still sell their products and hence prevent job losses. This will allow an increase in demand for domestic produce stainless steel and reduce demand for imported stainless steel. When demand rises, there will be an increase in production and hence a rise in derived demand for labor, hence preventing further job losses. In this way jobs may be saved.

(d) With reference to Extract 7, using AD/AS analysis, explain how the 'Belt-and-Road Initiative' impact the Chinese economy. [4]

Suggested answer**:**
The 'Belt-and-Road Initiative' is an infrastructure development plan proposed to improve the connectivity of the country. As this project is undertaken by the Chinese government, it represents an increase in G and hence an increase in AD of which G is a component. Through the multiplier process, this will bring about an increase in actual growth in the short run as seen in the increase in real GDP. As real GDP increase, firms hire more labour to produce more output. This improve the employment of the economy as well. In the long run, an improvement in infrastructure increase connectivity and efficiency. Better infrastructure leads to time save on the road and allows time for productive activity. This increases workers productivity and a fall in per unit cost represented by an outward shift of the LRAS. This will result in a fall in GPL and an increase in long run economic growth. The fall in GPL may also help improve her BOP as this enhances her exports competitiveness.

(e) Discuss whether the data provided are sufficient to assess changes in standard of living of China over the period of 2011 and 2015. [8]

Suggested answer:

Define SOL

Standard of living of a country refers to the social and economic well-being of a country which includes both the material and non-material aspects of life. The material well-being is determined by the quantity and quality of goods and services for consumption while the non-material well-being is the quality of life and environment which ones lives determined by the intangible factors such amount of leisure and life expectancy.

Real GDP is the total money value of final output produced within the geographical boundary of the country, regardless of ownership of factors of production, over one year and before adjustment for depreciation excluding the effect of inflation. The real positive GDP growth data shows that the level of real GDP rose during the period. This means that there are more goods and services produced in the economy. Assuming that the population size rises marginally, real GDP per capita implies that on average citizens have more goods and services available for consumption. A higher level of good and services led to an increase in demand for labour, resulting in an increase in wages. A higher wage means Chinese households was earning higher income and disposable income and they had higher purchasing power to buy more and better quality goods and services.

If the increase in real GDP is due to longer working hours of workers, this meant that the Chinese had less leisure time and rest. This could lead to a declining health condition and an increase in stress level. As a result, the workers could have experienced a fall in a quality of life. Hence, we need to know whether there is an increase in working hours to determine whether the workers could have experienced a fall in a quality of life.

Unemployment rate measures the % of the labour force who is willing and able to work but cannot find a job despite an active search. An increase in unemployment rate from 4.3 to 4.6. A rise in unemployment rate could be due to China's transition from export led model of growth to a consumption and innovation driven one which could cause structural unemployment as workers do not have the necessary skills required in the labour market. With a rise in unemployment, it would lead to lower wages and hence lower ability to consume and lower material SOL. However, given that unemployment rose marginally by 0.3, it had minimal effect on the standard of living in China as the improvement in the standard of living due to the high real GDP growth in the same period outweighed the effects of unemployment on the standard of living.

PM2.5 air pollution represents the atmospheric particulate matter that have diameter less than 2.5micrometers which is the air quality report from environmental authorities. PM2.5 air pollution has increased. This could imply that the quality of air had dropped due to a greater amount of pollutants in the environment. Thus, we could expect an increase in health problems such as respiratory problems which reduced the quality of life of individuals staying in China.

Given data is necessary but not sufficient to assess how China's average SOL has changed over time. There is a lack of information to indicate the change in the both material and non-material well-being. E.g. the higher growth may bring about greater pollution and less leisure. Thus, a higher real GDP may not necessarily lead to higher SOL if people's health is affected by pollution and greater stress. To have better assessment of SOL, more indicators such as PSI, literacy rate and working hours are required. Composite index such as measure of economic welfare (MEW) could be given to indicate change in material and non-material SOL. MEW adds to GDP intangibles such as leisure and services of public amenities which will increase the non-material

well-being and deducts negative externalities such as pollution which will reduce the non-material well-being. Thus, it is a better indicator for assessing changing of SOL.

(f) In view of the anti-globalisation sentiments, discuss whether globalisation should be the driver of growth for emerging economies such as China. [8]

Suggested answer:
Claim: Globalisation should be the driver of growth for emerging economies such as China.

Globalisation is the greater integration of the global economies due to greater trade and capital flows. With globalisation, China can gain access to more markets and can export more of its goods that it has comparative advantage (CA) in to the rest of the world resulting in higher export earnings (X). This causes her AD to rise in resulting in her NY rising by a larger extent via k effect. This can be seen in the positive economic growth rates of more than 6% as shown in Table 2. In addition, greater flow of investment resulted in transfer of knowledge and technology from foreign MNCs to China's firms, and subsequently expands China's AS. As stated in Extract 7, China firms like Haier are now able to produce better quality products as they obtained improved manufacturing facilities and talents through increased outbound FDI. Capital flows also allow China to gain presence in new markets, which will benefit the economy as an additional source of export earnings. Lastly, as China struggles with rising wage rates and cost of production, globalisation and ease of capital flows will allow firms to tap on pools of resources in other developing countries with more competitive cost of production such as India.

As a whole, globalisation should be the driver of growth for China as it brings about increases in AD and AS leading to a sustained economic growth in China.

However, while increased trade and capital flows due to globalisation helps an economy achieve sustained economic growth, it has also led to greater interdependence among countries. If China focuses on globalisation as a driver of growth, China will be vulnerable to changes in the level of economic activities in the global economy. As mentioned in Extract 7, in the face of shrinking external demand, rising trade disputes and protectionism as well as other factors that result in China losing its competitiveness in low cost of production, the Chinese government wants to move the economy towards a consumption and innovation driven one. This is evidently important, as seen in the economy's success in bringing up the percentage contribution of consumption expenditure (C) towards its GDP. On top of that, as mentioned in Extract 5, globalisation threatens the employment of jobs in developed countries that are in direct competition with developing countries, particularly low-skilled jobs. Even though China is also a developing country, it is a fact that the economy is suffering from rising wage rates and overall cost of production. This puts its low-skilled workers in a vulnerable position as they may lose their jobs if firms decide to outsource the production to economies with lower cost of production. In light of rising cost of production, China's government needs to focus on improving the economy's productivity so as to improve its competitiveness in the global economy. Lastly, globalisation led to rapid urbanization of China, exposing the country to various environmental and income distribution challenges. The Chinese government has implemented many relevant initiatives and plans such as the Belt and Road and the New Type Urbanization Plan to tackle these issues.

Despite the challenges, globalisation should still be the driver of growth for emerging economies such as China. The economy will benefit from increased trade and capital flows, as long as the government put in place appropriate policies to minimize the negative impacts of globalisation and must not be complacent and should regularly review their policies. In the long run, China needs to balance its economic growth

dependence on external and internal demand. The government can also retrain their workers and reallocate their resources to industries where they have CA, this would enable them to promote greater growth and welfare than if they had resisted globalisation through putting up more protectionistic barriers.

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Question 3:

(a) Explain what might cause price elasticity of demand to be different for different products. [10]

(b) Profits are earned when revenue exceeds costs of production. Discuss whether it is both possible and beneficial for producers to change the price elasticity of demand for their products. [15]

Price elasticity of demand (PED) measures the degree of responsiveness of quantity demanded due to a change in the price of the same good, ceteris paribus. Demand for some products are price elastic when a change in the price causes a ***more than proportionate*** change in the quantity demanded. This means that the value of PED (ignore the negative sign) is more than one. For products that have price inelastic demand, the value of PED is between 0 and 1 as a change in the price causes a ***less than proportionate*** change in the quantity demanded. The value of price elasticity of demand tends to be different for different products due to factors such as availability of close substitutes, proportion of income spent on the good and nature of the good.

The value of price elasticity of demand tends to be different for different products due to availability of close substitutes.

The greater the number of substitutes and the closer the substitutes for the good, the more price elastic will be the demand for the good. The presence of close substitutes enables consumers to respond and switch to other substitutes when the price of the good rises. This causes the quantity demanded of the good to fall significantly when price rises. For example, the demand for Nike shoes will tend to be price elastic as there are many close substitutes available in the market such as Adidas, Reebok and New Balance shoes. On the other hand, demand for petrol is price inelastic as there are no close substitutes available in the market.Hence, the more close substitutes a good has, the more elastic will be its demand.

The value of price elasticity of demand tends to be different for different products due to the proportion of income spent on the good. The higher the proportion of income spent on a good, the more price elastic will be the demand for the good. For example, if the price of ballpoint pen increases by 20% (from $1 to $1.20 per pen), consumers are unlikely to cut down the use of ballpoint pen significantly since expenditure of ballpoint pen is only a very small proportion of consumers' income. In contrast, if the price of a winter holiday package increases by 20% (from $2000 to $2400), it is likely to affect the consumer's spending ability to a large extent as expenditure on a winter holiday package takes up a much larger proportion of consumers' income. Thus, a consumer is more likely to be more responsive to a change in price for goods when consumer expenditure takes up a large proportion (%) of his income.

Lastly, the nature of the good also determines the value of price elasticity of demand. Necessities are goods that are considered to be essential or necessary. Thus, necessities such as rare-earth and diabetes medication tend to have an inelastic demand. Producers of televisions and computer screens require the use of rare-earth in producing electronic goods are not sensitive to a price increase. Similarly, diabetic patients' demand for diabetes medication is also price inelastic. In addition,goods which are addictive goods such cigarettes tend to be more price inelastic in demand since habitual cigarette smokers are not responsive to a price increase. On the contrary, demamnd for luxuries such as fine dinning is price elastic. As luxuries are not considered to be indispensable, consumers will be sensitive to price changes. For example, if the price of fine-dinning rises by 15%, quantity demand is expected to fall by more than proportinately. Thus, the nature of the good does affect the value of price elasticity of demand for the good.

From the above we can see that the determinants of price elasticity of demand are as follows: availability of close substitutes, proportion of income spent on the good and nature of the good. It is important for a producer to know the value of price elasticity of demand for the firm's good as price adjustments has a direct impact firms' total revenue.

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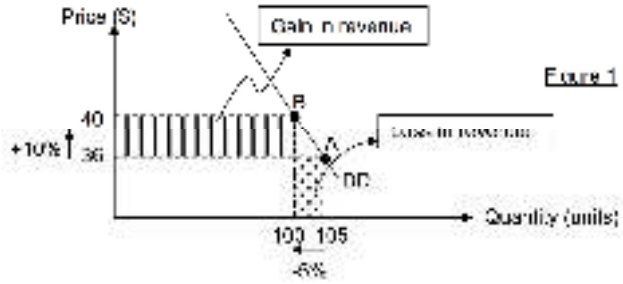
Question 3:

(b) Profits are earned when revenue exceeds costs of production. Discuss whether it is both possible and beneficial for producers to change the price elasticity of demand for their products. [15]

It is possible and beneficial to change the price elasticity of demand for the product.

Producers can change the price elasticity of demand for a product by making the demand for the good to be more price inelastic. This aims to make consumers less sensitive to price changes. A producer can make the demand for a good to be more price inelastic via advertising or long-term research and development to improve the product quality. These strategies will reduce the number of close substitutes available in the market. Effective advertising can convenience consumers that the firm's product has features that are unique. As for R&D (research and development), it results in improvement in quality of the good which helps to differentiate the firm's products from others.

If the producer is successful in making the demand for the good to be price inelastic, prices can be raised to increase the total revenue. Total revenue is the money received by firms when they sell a good. Total revenue is equal to price of the good multiply by the quantity of the good sold (TR = PXQ). When demand for a good is price inelastic, an increase in price causes a rise in total revenue. This is because a rise in price will result in less than proportionate fall in quantity demanded, and hence, total revenue will increase. Graphically, this can be seen in Fig 1.



Refer to Figure 1. A rise in price from $36 to $40 (+10%) leads to an fall in the quantity demanded of the good from 105 to 100 units (-5%).

At price $36 (point A), Total revenue = $36 X 105 = $3780
At price $40 (point B), Total revenue = $40 X 100 = $4000

From the above, we can see that total revenue rises as price increase for inelastic demand. This is because when price falls, quantity demanded increases less than proportionately. (↓ TR = ⇓ P X ↑ Q)

For a given supply curve, the more price inelastic the demand for a good, the higher will be the tax borne by the consumers. This is because the producers are able to increase the price of the good after the tax by a large extent as the quantity demanded will only decrease by a relatively small extent given the inelastic demand curve.

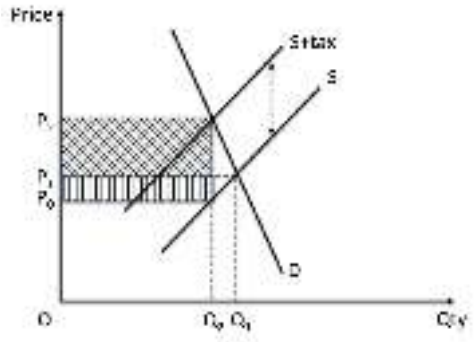


Figure 2

The original equilibrium price and output is OP_1 and output is OQ_1. With the imposition of a specific tax, the supply curve shift from S to S+tax as shown in Figure . As a result, the price increases to OP_2.

Government's tax revenue is represented by the shaded areas: 

The consumers' burden of the tax for each unit of the good is represented by the increase in the price = P_1P_2. Thus, the total consumer burden for OQ_2 units is shown by the shaded area  .

The total producers' burden for OQ_2 units is shown by area  .

Given the price inelastic demand (relative to the supply), the consumer is bearing a greater burden than the producer.

Hence, from the above, it is possible and beneficial to change the price elasticity of demand for the product.

Nevertheless, producers need to consider the impact on profits. An attempt to reduce the value of PED is likely to raise costs. Since profit = total revenue – costs, costs may rise more significantly than total revenue. Hence, profit may fall. Hence, firms may not benefit from reducing the PED value of its products.

Furthermore, in reality, it is difficult for firms to determine the value of the price elasticity of demand and set price their products accordingly. When we calculate the PED value, we need to assume the ceteris paribus condition. This means that we have to separate out all the other factors that influence the demand for the product and just measure the impact of the price change alone on quantity demanded. However, these non-price factors such as consumers' preference and income could have changed over time.

To sum up, it is possible and beneficial to change the price elasticity of demand for the product. However, producers need to carefully consider (i) the impact of changing the change the price elasticity of demand for the products on (i) revenue and costs and (ii) the accuracy in determining the price elasticity of demand and (iii) whether the assumption of ceteris paribus condition holds true.

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Question 4:

a) Explain how weakening of a country's foreign exchange rate can cause inflation rates to rise. [10]

b) Discuss whether the use of supply side policy as a means of solving the problem of inflation is likely to be effective. [15]

a) Explain how weakening of a country's foreign exchange rate can cause inflation rates to rise. [10]

Inflation is a situation where there is a sustained increase in the general price level. There are mainly two types of inflation, namely demand-pull and cost-push inflation. A weakening of a country's foreign exchange rate causes prices of exports in foreign currencies to fall and prices of imports in domestic currency to rise. This can cause both demand-pull (rising AD) and cost-push (falling AS) inflation.

Weakening of the exchange rate causes demand pull inflation. When a currency weakens, it means that the decrease in value of the currency in foreign currencies. Thus, with depreciation, the prices of exports fall in foreign currency while the price of imports in domestic currency rise. With a fall in price of exports, trading partners will increase their quantity demanded for exports. Assuming that the demand for exports is price elastic (PEDx>1), quantity demanded of exports will rise more than proportionately. Hence, export earnings in foreign currency will rise. Imports are more expensive to the locals. This will result in a fall in quantity demanded for imports. Assuming that the demand for imports is price elastic (PEDm>1), quantity demanded of imports will decrease more than proportionately. Thus, expenditure on imports will decrease following appreciation.

The rise in export earnings and the fall in import expenditure will mean that the current account will improve. Based on the explanation above, current account will improve if elasticities of demand of imports and exports (PEDx>1 and PEDm >1) are present. With a rise in (X-M), it causes a rise in AD resulting in higher utilization of resources. This increase in utilization soon leads to firms having to pay more for factor inputs such as office space. The increase in rentals and demand for office spaces thus depletes the scarce resources even more resulting in demand-pull inflation.

The rise in AD when the economy is at or near full employment will cause a rightward shift in AD curve, from AD1 to AD2 and thus will cause a rise in the GPL, assuming AS remains unchanged. This leads to a rise in the quilibirum general price level from P1 to P2. As resources in the economy are utilized,, the shortage of unemployed resources drives up prices that producers pay for factor inputs and they expect higher prices to produce the real output Yf. Thus, demand pull inflation occurs.

Weakening of the exchange rate causes cost-push inflation through imported inflation especially in countries such as Singapore due to her reliance on imports. With a weakening of the exchange rate, imports will become more expensive. Countries who relies heavily on imported products such as oil or primary products such as tin for its production will experience a higher cost of production for many firms. This causes firms to respond by raising the prices of their goods and services to protect profit margins. This causes AS curve to shift upwards from AS1 to AS2 and raises the equilibrium GDP from P1 to P2. Thus, weakening of the exchange rate will cause imported inflation in Singapore.

With a depreciation of a country's currency, it can cause demand pull and cost push inflation in a country. In response, the government takes active policies to deal with inflation.

b) Discuss whether the use of supply side policy as a means of solving the problem of inflation is likely to be effective. [15]

Low inflation is an objective of the government as it helps the economy develop and achieve greater efficiency and equity. Inflation can be caused by both demand pull and cost-push inflation. To achieve low inflation, the government adopts supply-side policy to reduce the impact of rising costs and rising AD. The effectiveness of supply side policy in addressing problem of inflation depends on whether it addresses the root cause of inflation.

Supply-side policies are effective in controlling inflation to reduce the impact of rising costs and rising AD in the long term.

Supply side policies aim to improve the productive capacity of the economy via improving the quantity, quality and efficiency in the use of the 4 factors of production. With training and innovation, assuming labour productivity rises more than wages, firms' average costs will fall and the economy's productive capacity will rise. These lead to outward shifts in the AS curve as rising labour productivity increases the productive capacity of the economy, this means reduced likelihood of demand pull inflation since when AS shift from AS1 to AS2, an increase in AD from AD1 to AD2 only increases GPL from P1 to P2. Thus, the economy is able to accommodate increase in AD without having to bear with sudden price increases.

(Insert an AD/AS diagram)

Hence, supply-side policy should be adopted as it is seen as a proactive measure that have the ability to maintain a low and stable rate of inflation but usually with results only in the long run as skills training and upgrading takes time. In addition, retraining and skills upgrading is costly, which could give rise to problems of a depletion of national reserves or a national debt if such policies are financed through borrowing. This would be detrimental to the future generation in terms of lower standard of living and lower incomes if higher taxes are imposed to service the debt. Countries who are in debt may not be able to carry out supply side policies extensively due to debt problems.

Supply-side policies have to be complemented with other short run policies to ensure effectiveness in addressing inflation especially in the short run.

If the root cause of inflation is imported inflation and demand pull inflation from rising exports, exchange rate policy is more effective. For economies like Singapore, who is highly dependent on imports due to small economy lacking resources, are susceptible to imported inflation when world prices of raw materials and essential goods rise. Through an appreciation of exchange rate, Singapore is able to keep the price of her imports low so that she can reduce her rate of inflation due to high price of imports. By keeping the prices of these imported raw materials low, this will enable our firms to keep the cost of production low, hence lowering cost push inflation in Singapore. The lower price of foodstuff ensures that a lower cost of living for her residents and hence they will not demand for high wages thus helping once again to minimise cost push inflation. With an appreciation of exchange rate, it will increase the price of exports in foreign currency and fall in price of imports in domestic currency. Assuming that demand for exports and demand for imports is price elastic, this will lead to a fall in (X-M). This causes a fall in AD reducing demanding pull inflation. Thus exchange rate policy is effective in addressing imported inflation and demand pull inflation from rising exports.

If the root cause of inflation is demand pull inflation from rising domestic demand such as consumption and investment, interest rate policy is more effective.

Suppose an economy experiences demand-pull inflation due to excessive rise in C and I (rise in domestic demand). A government can use contractionary monetary policy (centered on interest rates) to control inflation via raising interest rates. Central bank can raise interest rates (i/r) causing a rise in cost of borrowing. This will result in a fall in consumption of big ticket item and a lower C. A higher interest rate will cause a rise in return to savings meaning a higher opportunity cost to consume leading to a fall in C. Higher i/r, given the same expected returns to investment would meant that less investment projects are profitable and Investment falls. A fall in C and I would cause a fall in AD. An initial change in AD will trigger the reverse multiplier because a fall in investment and autonomous consumption lead to further reduction of spending. In view of the fall in AD, inflationary pressure will ease.

However, contractionary monetary policy is less effective when firms expect returns to more than offset the higher cost of borrowing. For example, under demand-pull inflation where the excessive demand is high relative to supply, the increased profits can more than offset the extra cost of borrowing. Hence, despite the high cost of borrowing due to the increase in interest rates, firms will still continue to borrow to expand their business because of the strong demand for goods and services coupled with the high level of business optimism.

To conclude, supply side policy is effective as a means of solving the problem of inflation as it can reduce the impact of rising costs and rising AD. However, supply-side policy is ineffective as it may not directly address the root causes of inflation in the short run. Thus, the government should adopt a mix of policies such as exchange rate policy and interest rate policy to address the root cause of the inflation as a short term policy and supply side policy as a long term policy.