

National Junior College Economics Department

Preliminary Examination 2015 Answer Booklet

**Senior High 2
H1 Economics**

(Syllabus 8819)

Section A: Case Study Questions**Suggested Answer Scheme****Question 1:**

- (a) Using Table 1, compare the overall change in global palm oil prices between 2009 and 2011 with that between 2012 and 2015. [2]**
(i)

Similarity:

- The price of palm oil fluctuates for both periods of time.

Differences:

- The price of the palm oil has increased between 2009 and 2011, but decreased between 2012 and 2015.
- The increase in the price of palm oil between 2009 and 2011 is more significant than the decrease in its price from 2012 to 2015.

1m each, 2 comparisons.

- (a) Using demand and supply analysis, account for the change identified in (a)(i). [4]**
(ii)

The increase in the price of the palm oil between 2009 and 2011 is due to the rising demand for palm oil in EU. [Extract 2] By 2010, EU members need to replace 5.75 percent of all transportation fuels with biofuel. This increases the demand for biofuel. The demand for palm oil is derived from the demand for biofuel (palm oil is used to produce biofuel and it is cheaper to produce than other vegetable oils). Therefore, this leads to the increase in the demand for palm oil, which drives the global prices of palm oil upwards between 2009 and 2011.

[Extract 1] The price of palm oil has decreased between 2012 to 2015 due to the record high output in Southeast Asia and the weakening of demand in China and India who are the top buyers of palm oil. India may set higher tax imports on edible oil imports and China launches strict quality curbs for imports on 1st Jan 2013. These regulations will decrease the demand for palm oil. On the other hand, there is a record high supply of palm oil in the palm oil producing countries. Therefore this leads to a surplus of palm oil at the existing price level, which will have a downward pressure on the price of palm oil.

2m each for explaining the reasons for the direction of the price changes.
 1m for using the data and 1m for explanation using dd-ss analysis.

- (b) Explain why the government in India may want to set a higher tax on edible oil imports from Indonesia. [2]**

This is to protect the oilseed farmers in India. It may be cheaper for the producers of edible oil in India to import the products from Indonesia instead of producing it in India. This will decrease the demand for oil as a raw material. As such, this decreases the revenue of the oilseed farmers.

Marks to be awarded to students if they are able to link to the revenue or profits of the oilseed farmers.

- (c) **With reference to Extract 2, explain how negative externalities arise in the palm oil production.** [4]
(i)

Define negative externalities [1]:

Negative externalities occur when the production and/or the consumption of a good or service impose external costs on third parties who are not involved in the production and/or consumption of the good or service for which no appropriate compensation is paid.

Explain how the air pollution problem arises from the production of palm oil:

The farmers use the slash-and-burn method to clear patches of land for oil palm plantation. Under this practice, farmers cut down part of the vegetation on a patch of land and then set fire to the remainder. The fire is extremely difficult to stop and produces thick and pungent smog. It pollutes the environment and deteriorates the air quality.

Identify the third parties involved and explain the external cost on them [3]:

The residents living in Malaysia and Singapore could likely have more breathing difficulties and subject to an increase in medical costs.

If the haze problem persists, the tourists may refrain from travelling to these places such as Singapore. The tourism-related industries such as retails, sales, hotels, food and beverage will suffer a decline in their business and hence profits.

Marking tips:

2 mark for identifying one 3rd party and the external cost to the 3rd party.

Capped at 3 if definition of negative externality is not given.

- (c) **Discuss whether the use of a Pigovian tax or a system of tradable permits is more effective in tackling the problem of negative externalities in the production of palm oil.** [10]
(ii)

Explain the market failure in the production of palm oil

Private cost: cost of raw materials, salaries paid to the workers and etc to produce the palm oil

Private benefit: profits made from selling palm oil

External cost: as mentioned in (c)(i)

Show there is a divergence between private costs and social costs.

Diagram that is well explained to show how the market failed in optimal resource allocation with clear identification of $MPB = MPC$ and $MSB = MSC$.

At the free market equilibrium, producers and consumers will only consider private costs and benefits and produce at $MPB = MPC$.

With the existence of negative externality, $MSC > MPC$. Assuming that $MSB = MPB$ (no positive externality), the market will consume at the output Q_m where $MPB = MPC$, which is greater than the socially optimal output of Q_s where $MSC = MSB$.

The free market leads to an over production of palm oil by $Q_s Q_m$ units, where the welfare loss to society is represented by area AE_1E_0 thereby resulting in allocative inefficiency.

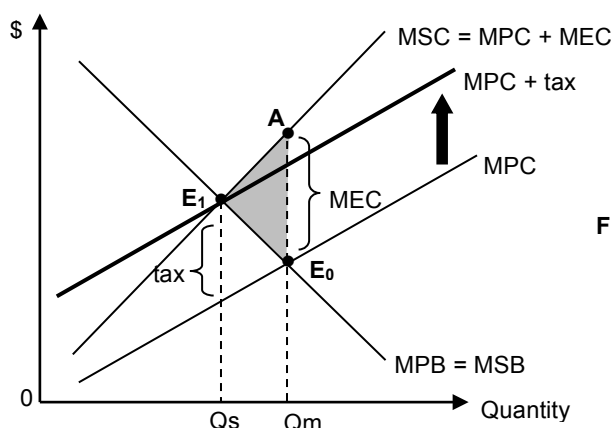


Figure 1: Internalising negative externality through taxation

Analyse the use of Pigovian tax:

The government can levy a specific tax that approximates the money value of external costs (known as Pigovian tax), created by the negative externality, generated per unit of output at the socially optimal level of output.

For example, in figure 1, a specific tax at the socially optimal level of output OR will increase the firm's unit cost, shifting the supply curve from MPC to $MPC + tax$. The result is that the equilibrium output will decline so that it corresponds with the socially optimum level of output of OR units. There would therefore be no over-production of the good as $MSB = MSC$ and allocative efficiency is attained.

The taxation forces the palm oil producers to internalise the externality hence producing at the socially optimum level of output where MSB equates MSC , this outcome removes the dead-weight loss to society (AE_0E_1); the gain due to the reduction in production ($AE_1Q_sQ_m$) offsets the lost due to the reduction in consumption ($E_1E_0Q_mQ_s$), but it does not remove the external costs entirely.

Limitations: However, there are problems with the imposition of Pigovian taxes. There is the problem of accurately assessing the exact monetary value of external costs at the socially optimal level of output (e.g. measuring the external costs generated by negative externalities like noise pollution), which in turn implies that the appropriate level of tax is difficult to determine. Despite this, the use of Pigovian Tax is more effective than a system of tradable permits as the firms know for sure how much the cost savings from each tonne of emission reduction is. The return from investment in green technology is more uncertain under the tradable permits system. The cost savings to be had from investment in green technology depends very much on the price of the tradable permits which fluctuates from year-to-year depending on the demand and supply conditions. It is this uncertainty that is keeping firms from spending on R&D and investing in green technology.

In addition, the administrative costs of collecting the tax may be very high. Firms may also have the incentive to evade such taxes, for example by not registering the operation of the companies which has made it more difficult for the government to track the source of fires in Indonesia.

Analyse the use of a system of tradable permits:

Under a system of tradable permits, the government has to first decide on the amount of negative externality (assume to be pollution) which is associated with the socially optimal level of output. The government then issues permits and distributes them to palm oil producers/firms. Firms who want to pollute must have a permit, and hence the emissions produced will equal to the level which is socially optimal. Firms which pollute less than the amount of permits they have been allocated can sell these to other firms which require them at a price which is determined by the market for tradable permits (determined by the demand and supply of these permits)

While the overall level of emissions is determined by a command-and-control method, their distribution is determined by the market, making it a market-based approach to tackling the problem of negative externality.

The main advantage of tradable permits over the use of Pigouvian tax is that the government can simply settle total amount of permitted discharge according to the ability of the environment to absorb the pollutants; it can do this without any knowledge of the specific costs and benefits of individual firms. The market in tradable permits can then allocate the reduction in pollution to where it can be achieved at least cost.

Limitations: However, governments still need to agree on the total amount of pollution which is associated with the socially optimal level of production and a system to distribute the permits fairly to all firms.

Currently, the government also do not have the precise information on the proportion of burning done by large companies versus medium-sized operations. Therefore if the government allocate the numbers of permits equally to all firms, it may lead to unfair trading of the permits in the free market as the smaller firms may not need that many permits and can sell to the bigger firms who need the permits more. If the government allocate the number of permits according to the size of the firms, it may not decrease the burning effectively as the size of firms doesn't mean that proportion of burning done.

This policy is likely to allow the more polluting firms to continue producing and polluting (unlike the use of Pigouvian tax mentioned above), since firms whose methods are more polluting usually also have very high clean-up costs. These firms may find it cheaper to outbid the less polluting firms in order to get the permits, rather than to incur the cost of cleaning up the pollution or to reduce production which decreases firms' revenue.

Synthesis:

As mentioned in Extract 3, there are other information not known such as the updated information on where oil palm companies are operating and if the proportion of burning is done by large companies or medium-sized operations. The poor farmers do not have other alternatives to clear the land. The slash-and-burn method is the cheapest and fastest way to clear the land for palm oil plantation. By using Pigouvian tax or a system of tradable permits, it may hurt the livelihood of the poor farmers or worsen the land conflict issues between the farmers or the large companies.

Both policies are not effective to use in the short term as many sets of data are unknown. Other than having more in-depth investigation to find out the root cause of the burning problem, the government can help the poorer palm oil

farmers to find other cheaper alternatives to clear the land for use, while enforcing the “no burn” policies on the bigger palm oil companies.

Mark Scheme

<p>L3 6-8 marks</p>	<p>For an answer that shows:</p> <ul style="list-style-type: none"> • Excellent depth in analysis: <ul style="list-style-type: none"> ○ Accurate and clear use of economic concepts and analysis throughout • Excellent breadth in analysis: <ul style="list-style-type: none"> ○ Consider the problem of negative externalities in the production of palm oil ○ Consider the pros and cons of the use of Pigovian Tax in tackling the problem ○ Consider the pros and cons of a system of tradable permits in tackling the problem ○ Compare the use of Pigouvian Tax and the system of tradable permits. • Supported by <ul style="list-style-type: none"> ○ Well labelled and well referred to market failure diagram(s) ○ Arguments are contextualised and well supported by examples and reference to case materials ○ Logical structure
<p>L2 4-5 marks</p>	<p>For an answer that shows:</p> <ul style="list-style-type: none"> • Sufficient depth in analysis: <ul style="list-style-type: none"> ○ Accurate use of economic concepts and analysis in most explanations • Sufficient breadth in analysis: <ul style="list-style-type: none"> ○ May or may not consider the problem of negative externalities in the production of palm oil ○ Consider the use of Pigovian Tax in tackling the problem but may not include the cons of the policy ○ Consider the use of a system of tradable permits in tackling the problem but may not include the cons of the policy • Supported by <ul style="list-style-type: none"> ○ Well labelled and well referred to market failure diagram(s) ○ Some reference to case materials
<p>L1 1-3 marks</p>	<p>For an answer that shows:</p> <ul style="list-style-type: none"> • Insufficient depth in analysis: <ul style="list-style-type: none"> ○ Accurate use of economic concepts and analysis in some explanations • Insufficient breadth in analysis:

	<ul style="list-style-type: none"> ○ May not consider the problem of negative externalities in the production of palm oil ○ Consider either the use of Pigovian Tax or a system of tradable permits and/or the cons of the policy in tackling the problem ○ Little reference to case materials
E2	Well-reasoned evaluative conclusion supported by analysis and evidence from case materials.
E1	Attempt at a reasoned conclusion that is not supported by analysis.

- (d) **Extract 4 explains how the falling commodity prices and the current events in China economy can be a blessing in disguise for Indonesia. To what extent do you agree that these events would be beneficial to Indonesia?** [8]

Introduction:

Identify the events – falling commodity prices, rising wages in China and the appreciation of Chinese yuan since 2005

The events would be beneficial to Indonesia in terms of the 4 macro goals, SOL, efficiency and equity.

Body:

Thesis: Positive effects on Indonesia

1. The falling commodity prices means a lower cost of production within the economy. This will help to increase the SRAS. With a higher SRAS, there will be economic growth if the economy is not a full employment.

Illustrate using an AD-AS diagram.

Evaluation: if the economy is a full employment (Keynesian range), this increase in SRAS may not be relevant.

2. Indonesia has a comparative advantage over China in the production of labour-intensive goods as it can produce the goods at a lower opportunity cost, i.e.: it has to forgo less of other goods in order to produce it. The falling commodity prices in Indonesia and the rapidly rising wages in China can increase the relative profitability and attractiveness of Indonesia as a manufacturing base. The appreciation of Chinese yuan since 2005 has also made the Chinese exports less price competitive. Therefore, Indonesia has been attracting investment in recent years in the automotive and consumer-goods sectors. This will increase FDI → improves KFA and hence BOP. This also increases AD, LRAS, actual and potential economic growth.

Illustrate using an AD-AS diagram.

Evaluation: the profits earned from these FDI will be remitted to the home country in the future. This will worsen the current account of Indonesia in the long run.

3. Indonesia has been attracting investment in recent years in the automotive and consumer-goods sectors, both for export and to meet growing demand domestically. – Increases X, AD and actual growth, and also decreases cyclical unemployment.

Evaluation: if the economy is near full employment, the increase in AD may result in demand-pull inflation.

Anti-thesis: Negative effects on Indonesia

1. The development of the manufacturing industries may lead to rising structural unemployment as the Indonesian farmers are not equipped with the knowledge and skills to work in the manufacturing industries.

Evaluation: the workers can learn the skills to work in the manufacturing industries and it would be relatively easy and quick for them to do so as the skill needed is still quite labour-intensive.

2. These low skilled workers in Indonesia may be exploited by these big foreign firms that employ them. The abundance of low skilled labour in the developing countries may actually cause their wages to be depressed as MNCs being profit-motivated will not be willing to pay them higher wages, and can decide to relocate to other low-cost countries once labour becomes too expensive. The large foreign investors may exploit the farmers and/or the workers by having them to work for long hours and/or in unfavourable working conditions.

3. The increase in the manufacturing plants will degrade the environment and exhaust the natural resources which is proven by the fires problem due to the burning of forests for palm oil plantations in Indonesia.

Conclusion:

The events are largely beneficial to the Indonesia economy. However, these benefits are largely based on the theory of comparative advantage. In reality, comparative advantage is dynamic and can be created, acquired or shifted through various factors such as foreign direct investments (FDI), demographic changes, technology changes, innovation and government policy. It means that Indonesia can lose the CA in the production of labour-intensive goods one day. Hence, in order to maximise the current situation, there is a need to improve labour productivity, infrastructure and legal system quickly. China may gain the same comparative advantage if there is a large devaluation of their currency (which is happening now).

Mark Scheme

<p>L3 5-6 marks</p>	<ul style="list-style-type: none"> • Excellent two-sided discussion of why the falling commodity prices and other events would be beneficial to Indonesia • Excellent depth and rigour of analysis based on analytical framework such as AD/AS diagram and theory of comparative advantage to explain the impact on the economy • Excellent breadth and scope of analysis covering a variety of arguments for both thesis and anti-thesis (at least 3 different arguments eg. 2 for thesis + 1 for antithesis or 1 for thesis and 2 for anti-thesis) • Arguments are contextualised and well supported by examples and reference to case materials
<p>L2 3-4 marks</p>	<ul style="list-style-type: none"> • Two-sided discussion of why the falling commodity prices and other events would be beneficial to Indonesia, but may not be well-developed OR the discussion may one-sided but fairly well-developed with well-substantiated arguments • There is some rigour of analysis in using AD-AS concepts,

	<p>although depth may be limited</p> <ul style="list-style-type: none"> • Some breadth and scope of analysis covering a variety of arguments for both thesis and anti-thesis (at least 2 different arguments eg. 1T + 1A or 2T or 2A) • Some reference to case materials to support arguments
L1 1-2 marks	<ul style="list-style-type: none"> • A brief or superficial answer that is not well-developed and lacking in analysis • Or largely irrelevant answer with a few relevant points that are incidental rather than coherently argued • There may be conceptual errors in the explanation • Little reference to case materials
E2	A reasoned conclusion and judgement supported by analysis
E1	Some attempt at an evaluative conclusion not supported by analysis

[Total: 30]

Question 2:

- (a) **Compare the change in China's current account balance with that of the United Kingdom between 2009 and 2013.** [2]

China's current account balance shows a decrease in its surplus [1 mark] over the period whereas the UK's current account balance shows an increase in its deficit [1 mark] over the same period.

Marking tip:

No marks if student states that the current account balance has "decreased/declined" without mentioning surplus/deficit.

- (b) **Explain one example of how a government's tackling of an immediate economic problem could lead to a challenge in the longer term.** [2]

Several possible answers:

- Using expansionary fiscal policy to tackle the immediate problem of recession could lead to excessively high government debt. By increasing government spending and reducing taxes to stimulate the economy, the government may end up with a large budget deficit which has to be financed by borrowing. This leads to an increase in the government debt. This could pose a challenge in the future as the government might have difficulty repaying the debt and thus trigger a debt crisis.
- Using expansionary monetary policy such as quantitative easing to tackle a current recession could lead to an excessive increase in money supply. This could lead to high inflation in the longer term when the economy has recovered and there are supply constraints, resulting in "too much money chasing too few goods", thus causing prices of goods and services to increase rapidly. If inflation becomes too high in the future (eg. hyperinflation), it can be difficult to control. (Can also explain in terms of increase in AD reaching full employment resulting in DD-pull inflation eventually)
- Government encouraging investment in high skill and high technology industries to tackle an economic slowdown could lead to structural unemployment in the longer term, as unemployed workers do not have the right skills to be redeployed to the growth sectors and become structurally unemployed in the long term.
- Government adopting protectionistic policies eg tariff barriers to correct a current trade deficit or protect domestic industries to save jobs could lead to uncompetitiveness of domestic industries, greater inefficiency and wastage of resources in the longer term.

Any reasonable example and explanation which has the following:

1. A government action/policy to tackle a current economic issue
2. A problem in the future caused by the government action/policy. The problem in the longer term should be fairly serious and long term in

nature (hence a “challenge”) and not just a short term cyclical movement that can be easily tackled by stabilisation policies.

1 mark for giving a correct example. 1 mark for the explanation.

- (c) **With reference to Extract 3, explain a possible reason why despite a massive devaluation of the pound, UK’s current account deficit rose further.** [2]

One possible reason for the increasing current account deficit is that UK’s expenditure on imports continued to rise despite the devaluation of the pound. This could be due to UK’s demand for imports being price-inelastic which causes the fall in quantity demanded to be less than proportionate to the increase in price of imports, resulting in an increase in import expenditure. As mentioned in Extract 3, the British seem to have an “addiction for all things foreign”, suggesting that their demand for imports may be price-inelastic. (Can also accept if students explain the dd for imports may have increased due to their preference for foreign goods)

1 mark for identifying the rise in imports as the possible reason

1 mark for the explanation.

- (d) **With reference to the data, explain how urbanisation would affect China’s economic well-being.** [6]

Urbanisation refers to an increase in the proportion of people living in urban areas (ie cities and towns) compared to rural areas (ie the countryside). According to Extract 2, the China government has embarked on a 10-year urbanisation plan with the aim of bringing 400 million people to the cities, and increasing the proportion of the population living in urban areas from 50 percent to 60 percent by 2020.

One of the main effects of urbanisation is **a reduction of income inequality**. As mentioned in Extract 2, China currently has high income inequality, with 13 percent of China’s population living on less than \$1.25 per day and average urban disposable income just 21,810 yuan (US\$3,500) a year. People living in rural areas tend to be poor due to the relatively backward and undeveloped state of these areas, where many may be unemployed or underemployed in traditional farms. By moving to the urban areas, they will be able to find better-paying jobs and increase their income. This helps to reduce the income gap between the rich and poor, and thus increase the economic welfare of the people.

Another effect is the **increase in consumption** which will then contribute to the growth of the economy. As mentioned in Extract 2, urbanisation could help to put China “on a path to domestic consumption-led growth to replace three decades of investment and export-driven development.” As people move from rural to urban areas, they not only experience an increase in their income through getting better-paying jobs, they are also likely to spend more on consumption as a result of the change in lifestyle and greater variety of goods and services available. This increase in consumption means an increase in AD which would help to generate further increases in income through the multiplier process, resulting in a more than proportionate increase in national income. The increase

in economic growth generated by the rising consumption would also mean an increase in the economic well-being.

In addition, urbanisation also helps to generate economic growth through the **increase in government spending**. As mentioned in Extract 2, the government “will build homes, roads, hospitals and schools” to cater to the increasing urban population. The increase in government spending leads to an increase in AD which will result in a multiplied increase in national income through the multiplier effect. This also means an increase in per capita income and thus an increase in the economic well-being of the people. Also, government spending on public goods and merit goods such as transport and recreational facilities can be said to improve the material aspect of standard of living directly and thus economic well-being. Moreover, the government spending on infrastructure also increases the productive capacity of the country, thus increasing the potential growth of the economy and hence future economic well-being as well.

Marking Tip:

2 marks for each effect explained.

No credit for discussion of non-material/qualitative aspects of SOL (or social well-being)

- (e) **Discuss why the economic growth in the UK might be “the wrong sort of growth”.**

[8]

Introduction:

Define economic growth – increase in real national income or GDP over a period of time.

Explain that economic growth comprises actual growth and potential growth.

Actual growth – actual increase in real output or equilibrium national income.

Can be due to increase in AD or SRAS

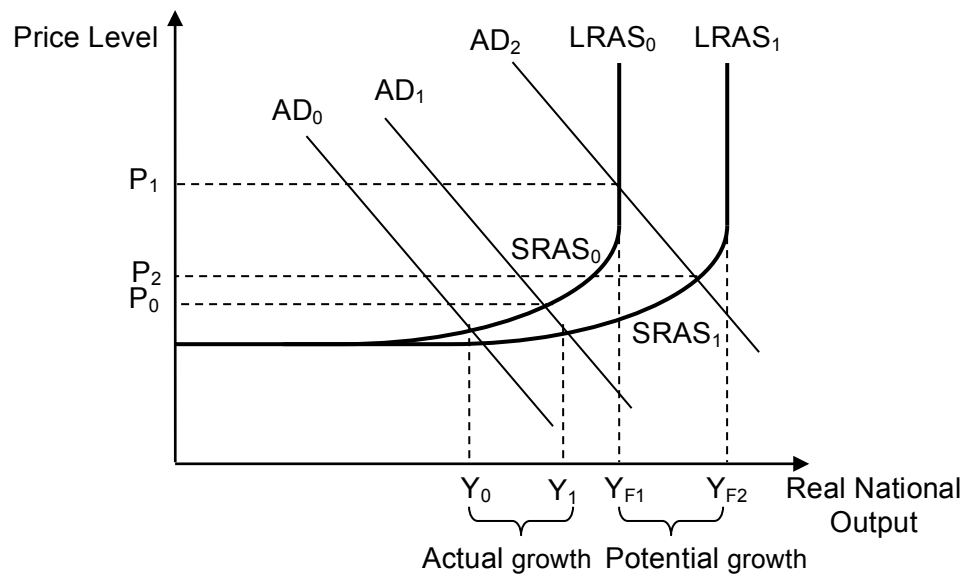
Potential growth – rate of increase in potential output or productive capacity.

Shown by increase in LRAS.

- **Explain the significance of actual and potential growth**

For economic growth to be sustainable in the long term, actual growth should keep pace with potential growth. If actual growth is too low and falls below potential growth, there will be increase in spare capacity and unemployment. If actual growth exceeds potential growth, it could lead to increase in inflation as the economy eventually reaches full employment and there is a lack of capacity to increase output to meet rising demand.

Illustrate using AD/AS model:

Figure 1: Actual vs. Potential Growth using AD/AS model

As shown in Fig 1, the increase in AD from AD_0 to AD_1 and increase in SRAS from $SRAS_0$ to $SRAS_1$ leads to an increase in real output from Y_0 to Y_1 , which represents actual growth. Without any increase in productive capacity, the increase in AD from AD_1 to AD_2 will lead to inflationary pressure causing price level to increase from P_0 to P_1 . However, with potential growth shown by the increase in LRAS from $LRAS_0$ to $LRAS_1$, there will be an increase in spare capacity, bringing the price level down to P_2 . Hence, increase in potential growth enables an economy to achieve sustained economic growth without inflationary pressure.

- **Thesis: Explain why UK's economic growth is the "wrong sort of growth"**

UK's economic growth is driven mainly by demand, particularly consumption, without improvements in supply conditions. As mentioned in Extract 3, low interest rates and improved credit conditions have helped to fuel an increase in demand, driving house prices up in the process. This leads to an increase in the actual growth of the economy. However, without any increase in productive capacity or potential growth, the economy will face a lack of capacity to increase output, leading to inflationary pressure. This is evident from the statement that the government has introduced "measures to boost demand in what remains in many sectors a profoundly supply-constrained economy."

Economic growth that is driven only by consumption demand may also conflict with external stability. The increase in consumption may mean that the country is spending more on imports resulting in a balance of trade deficit. This seems to be the case in the UK as the current account deficit has been increasing over the years as shown in Table 1. According to Extract 3, the British appears to have an "addiction to all things foreign" as they continued to increase spending on imports despite the devaluation of the pound which makes imports more expensive.

Another indication that the UK is having the wrong sort of growth is the relatively low level of investment measured by gross fixed capital formation. At just 14 per cent of GDP, it is by far the lowest among the advanced countries.

The low level of investment means that there is little growth in productive capacity, which aggravates the supply constraints faced by the economy. This means that actual growth is likely to outstrip potential growth, resulting in increase in inflationary pressure.

- **Anti-Thesis: Explain why UK's economic growth might not be the "wrong sort of growth"**

As shown in Table 1, UK's unemployment rate is still relatively high at around 8%, while its growth rate has been weak since the recession in 2009. This suggests that there is still spare capacity in the economy as it has not reached its full employment equilibrium yet. The supply constraints could be applicable only to certain sectors rather than to the whole economy, and may be tackled by improving factor mobility. Hence, stimulating actual growth by increasing demand may not be wrong based on the current economic conditions in the UK. When the unemployment rate has fallen and the economy approaches full employment, the government can then focus on supply-side policies to increase the productive capacity of the economy.

Consumption-led growth can also be appropriate as it reduces the country's vulnerability to external factors compared to growth that is driven by exports. For example, China's export-driven economic growth has resulted in global trade tensions, which prompted the government to focus on increasing domestic consumption as the new driver of economic growth. In a global recession, most countries will likely reduce their spending on imports, thus causing the UK's exports to fall. Hence, the government may have to rely on increasing consumption spending to stimulate economic growth, as export demand will likely be weak. In this case, UK's consumption-led economic growth might not be the wrong sort of growth.

Conclusion & Evaluation:

Whether UK's economic growth is the wrong sort of growth depends on the economic conditions and the time period. In the short-run, as the economy is still recovering from the global recession and unemployment is still relatively high, it may not be wrong to stimulate economic growth by increasing consumption demand to tackle the immediate problems. However, in the long run, consumption-led growth alone will not increase productive capacity and the lack of potential growth could result in higher inflation instead. It also depends on the openness of the economy and its balance of payments position. If the country is highly import reliant and is experiencing a high current account deficit, then consumption-driven economic growth such as that of the UK may not be appropriate as it could worsen the country's current account deficit. However, if the country has been experiencing a persistent and high balance of payments surplus, it may not be wrong to increase consumption to drive economic growth even if it reduces the balance of payments surplus.

Mark Scheme

L3 5-6 marks	<ul style="list-style-type: none"> • Excellent two-sided discussion of why UK's economic growth might or might not be the wrong sort of growth • Excellent depth and rigour of analysis based on analytical framework such as AD/AS diagram to distinguish between actual and potential growth
-----------------	--

	<ul style="list-style-type: none"> Excellent breadth and scope of analysis covering a variety of arguments for both thesis and anti-thesis (at least 3 different arguments eg. 2 for thesis + 1 for antithesis or 1 for thesis and 2 for anti-thesis) Arguments are contextualised and well supported by examples and reference to case materials
L2 3-4 marks	<ul style="list-style-type: none"> Two-sided discussion of why UK's economic growth might or might not be the wrong sort of growth, but may not be well-developed OR the discussion may one-sided but fairly well-developed with well-substantiated arguments There is some rigour of analysis in distinguishing between actual and potential growth, although depth may be limited Some breadth and scope of analysis covering a variety of arguments for both thesis and anti-thesis (at least 2 different arguments eg. 1T + 1A or 2T or 2A) Some reference to case materials to support arguments
L1 1-2 marks	<ul style="list-style-type: none"> A brief or superficial answer that is not well-developed and lacking in analysis Or largely irrelevant answer with a few relevant points that are incidental rather than coherently argued There may be conceptual errors in the explanation Little reference to case materials
E2	A reasoned conclusion and judgement supported by analysis
E1	Some attempt at an evaluative conclusion not supported by analysis

- (f) **According to Extract 1, “resilient dynamism means tackling immediate problems and long-term challenges at the same time.” With reference to the data and your own knowledge, discuss the appropriate policy measures you would recommend for China to achieve “resilient dynamism”.** [10]

Introduction

To achieve “resilient dynamism,” China will need to tackle its immediate economic problems while at the same time looking into the longer term challenges. The appropriate policy measures will thus need to address the current economic issues and the long term challenges faced by China.

1. Current economic issues faced by China

- High income inequality

One of China's main economic issues is the high income inequality. As mentioned in Extract 2, about 13 percent of China's population still live on less than \$1.25 per day, but yet China has one fifth of the world's billionaires. It can be seen that despite the high double-digit growth enjoyed by China over the past few decades, poverty is still quite prevalent especially in the rural areas. It is hence the government's priority to “spread the fruits of economic growth more evenly in the country of 1.3 billion” and “close the chasm between the country's urban rich and rural poor.”

- Growth slowdown

It can be seen from Table 1 that China's growth has been slowing down to 7.8% in 2013 compared to the double-digit growth rates in the previous decades. Given China's large population of 1.3 billion, this could have an adverse impact on the economic well-being of its people. Unemployment, however, remains stable at around 4% which is possibly close to full employment level.

- Worsening Current Account balance

China's current account surplus has been declining in recent years, indicating a worsening balance of payments position. However, it still has a fairly high current account surplus of over US\$180 billion in 2013, so this may not be a significant problem

2. Longer term challenges of China

- Re-balancing growth

China is facing the need to re-balance its growth away from the investment-driven and export-oriented model to one driven by domestic demand. Although investments and exports have helped to generate high economic growth in China, it could lead to longer term challenges in the form of inefficiency, wastage of resources, instability due to global trade tensions and vulnerability to external shocks. As mentioned in Extract 2, "there are growing concerns that more fixed-asset investment would simply add to the inefficiency of China's state sector". Excessive investment can mean an over-expansion of productive capacity resulting in underutilisation of capacity and wastage of resources. For example, over investment in property development has resulted in large numbers of apartments and offices being unoccupied, reflecting a misallocation and wastage of resources.

- Pollution

China's high growth has been fuelled by the rapid expansion of manufacturing industries which have contributed to a severe pollution problem, even forcing people indoors and factories to close temporarily. If not tackled, the pollution problem can have a severe impact on the well-being of future generations and affect the future economic health of the country.

3. **Appropriate policy measures for dynamic resilience** – the government will need to combine policies to address the current economic issues with measures to tackle the longer term challenges

3a Addressing Current Economic Issues:

To tackle income inequality:

- Redistributive policies

To deal with the high income inequality, the government can implement redistributive policies such as giving more subsidies and welfare aid to the poor. At the same time, the government can increase the progressivity of the income tax structure, taxing the rich at a higher rate while reducing the rate of tax on the poor.

Evaluation:

- Giving more transfer payments to help the poor could be a strain on the government budget and divert public funds from other more productive uses such as spending on infrastructure.
- Giving more welfare payments to the poor may encourage a "dependency" attitude as people may rely on getting government aid rather than work hard to increase their own income.
- If the tax structure becomes over progressive, it may be a disincentive for people to work hard to increase their income. This could result in a

fall in work effort and productivity.

- **Urbanisation**

The government can encourage urbanisation by building more homes, schools and hospitals and use public campaigns and information dissemination to persuade people to move from rural to urban areas. With better jobs available in the cities, people's income will increase and this will help to reduce the income gap between the rich and poor. The government can also set up job agencies in the urban cities to help migrants from the rural areas to find jobs in the cities.

Urbanisation also helps to tackle the longer term issue of rebalancing growth. With increased proportion of people living in urban cities, there will also be an increase in consumption spending, thus expanding domestic demand and reducing the economy's dependence on investment and exports for growth.

Evaluation:

- Spending on building infrastructure in the cities to promote urbanisation is also a strain on the government budget and could result in the government incurring a budget deficit and lead to high government debt
- Urbanisation also comes with its associated problems such as overcrowding, increased crime rate and social tensions. If there are insufficient jobs in the city for the migrants from the rural areas, it could result in more jobless and homeless people in the cities.

3b Addressing Longer Term Challenges:

To promote economic growth and re-balance growth:

- **Stimulate consumption spending**

As mentioned in Extract 2, unleashing the power of China's consumers is vital to China's economic future. There is a need to rebalance growth by reducing the reliance on investments and exports and expanding domestic demand. The government can implement policies to increase the disposable income of consumers such as reducing taxes especially for the lower income (as mentioned above as part of redistributive policies). As lower income households tend to have higher marginal propensity to consume (mpc), their increase in disposable income will lead to an increase in consumption spending. The government can also put money directly into people's pockets by giving direct subsidies or transfer payments to the poor such as shopping vouchers or welfare grants. This increases their disposable income and will thus encourage them to spend more. Urbanisation as mentioned above will also help to increase consumption as the lifestyle in the urban cities could encourage people to spend more compared to living in rural areas.

At the same time, increasing consumption leads to an increase in AD which induces further increases in consumption through the multiplier effect and eventually results in a multiplied increase in national income, thus addressing the problem of economic slowdown.

Evaluation

While increasing domestic consumption can help to reduce the economy's reliance on investments and exports and thus reduce the inefficiency and instability caused by over-reliance on them, it must also be balanced with appropriate supply-side policies to increase AS. Over-expansion of consumption demand may bring the economy to the Classical range of the AS, resulting in high inflation without any increase in real output as the economy has reached its full employment level. Hence, the economy still needs to maintain a certain level of investment to increase its productive capacity and ensure there is potential

growth to prevent inflationary pressure from building up.

To address the challenge of environmental degradation and pollution

- Taxation – Pigovian tax

The government can impose a Pigovian tax to make firms pay for polluting the environment. This has the effect of internalising the negative externalities generated by firms as they have to pay a tax on every unit of the good they produce. If the tax is equivalent to the marginal external cost due to pollution, then it will help to bring the market equilibrium to the social optimal output, thus achieving allocative efficiency.

Evaluation:

- It is difficult to determine the right amount of tax to impose. If the tax is too high, it could lead to under-provision of the good and reduce consumer welfare. If the tax is too low, it fails to reduce pollution sufficiently and inefficiency will persist in the economy.
- The tax revenue can be used to fund R&D to encourage the development and adoption of cleaner and greener technology by the manufacturing industries.

- Regulation

The government may impose regulation to control pollution. Such regulations may include imposing a limit to the amount of pollution firms are permitted to emit and imposing a fine if they exceed the limit. For example, during the Beijing Olympics, the Chinese government introduced a road rationing regulation in which only cars with even-number license plates are allowed to enter the roads on one day while those with odd-number license plates are allowed to enter the following day. The policy helped to reduce vehicle emissions significantly.

Evaluation:

- While regulation can help to reduce pollution effectively, it can also cause distortions in the market and can lead to inefficiency. A blanket restriction of the amount of pollution allowed to be generated by firms does not encourage the more efficient firms to cut down their emissions. It may even induce firms with lower emissions to increase their pollution level as they see it as a right given to them.
- Regulation has to be properly enforced to be effective, resulting in enforcement costs to society. Resources will need to be spent on enforcing the regulation such as monitoring the pollution levels of firms, pressing charges and collecting the fines from the firms etc. The costs of enforcing the regulation need to be weighed against the benefits of the reduction in pollution.

Conclusion:

For China to achieve resilient dynamism, it will need to reduce its high income inequality and stimulate economic growth, while at the same time rebalancing its growth to focus more on increasing domestic demand and addressing the longer term challenge of reducing pollution and improving their living environment. A combination of different policy measures will thus be required to address these issues and challenges. For example, redistributive policies such as progressive income tax may help to reduce income inequality but will not address the challenge of reducing inefficiency of investments and environmental pollution. It thus needs to be supplemented by policies such as regulation or taxation to reduce pollution from factories and thus ensure the long term sustainability of its economy. Moreover, each policy has its own limitations and will not be able to address both the short term issues and long term challenges of the country at

the same time. Hence a mix of policies is recommended to tackle both the short term and long term issues faced by the country.

Mark Scheme

L3 6-8 marks	<ul style="list-style-type: none"> Excellent discussion of appropriate policy measures to address both current economic issues and longer term challenges faced by China Excellent analysis of the current economic issues and longer term challenges faced by China with reference to case materials (at least <u>one short term issue</u> and <u>one long term challenge</u>) The policy measures are well explained and evaluated. (At least 3 policies well explained) Effective use of case materials as well as 'own knowledge' to support arguments and/or discuss the policies.
L2 4-5 marks	<ul style="list-style-type: none"> Good discussion of appropriate policy measures to address both current economic issues and longer term challenges faced by China Good analysis of the current economic issues and longer term challenges faced by China with reference to case materials but may not be well developed The policy measures are appropriate but may not be well explained or may not be evaluated. (At least 2 policies well explained) Limited use of case materials as well as 'own knowledge' to support arguments and/or discuss the policies.
L1 1-3 marks	<ul style="list-style-type: none"> The answer is largely irrelevant with a few relevant points that are not clearly explained' Current economic issues and/or longer term challenges may not be accurately identified Policies may be inappropriate and/or do not address the issues and challenges directly No reference to case materials or lack of recognition of context.
E2	Well-reasoned evaluative conclusion supported by analysis and examples
E1	Attempt at a reasoned conclusion that is not supported by analysis.

Section B: Essay Questions**3. (a) With the use of examples, explain the concepts of scarcity, choice and opportunity cost. [10]**Introduction

- The problem of scarcity arises because human wants are unlimited, but limited resources are not enough to meet all of society's wants.
- As a result, scarcity necessitates choice, such that the society allocates limited resources to produce a certain combination of goods and services that satisfies maximum wants.

Body

- Explain the scarcity.
 - The problem of scarcity arises because human wants are unlimited, but limited resources are not enough to meet all of society's wants.
 - Resources are limited because the world has only a given amount of them at any given period of time constrained by the level of technology at that time period. Examples of resources are land, labour, capital and entrepreneurship. On the other hand, there are unlimited wants where the desire for even higher levels of consumption to gain greater utility occurs once a particular consumption level is achieved. Similarly, desires increase over time as old wants are satisfied and new wants are created to gain greater utility.
- Explain the concepts of choice and opportunity cost
 - Individuals are assumed to be rational in their decision making by weighing the benefits and costs carefully when making a choice, which involves sacrifice. Choice is the act of selecting among alternatives and it involves the need to make sacrifices. For example, the country can choose to allocate resources in numerous ways to produce different combinations of consumer goods and capital goods, i.e. the country can choose to produce more consumer goods but less capital goods or to produce less consumer goods but more capital goods.
 - The sacrifice of alternatives in the production or consumption of a good or the carrying out of an action is known as its opportunity cost, which is the next best alternative foregone. This represents the real cost of the good consumed or produced or the activity being carried out. For example, given the amount of resources and the state of technology, an additional unit of consumer goods produced implies giving up the opportunity to produce capital goods. The more consumer goods a nation produces, the less resources available to produce capital goods, due to scarce resources.
 - Scarcity of resources puts a limit on how much goods and services an economy is capable of producing to satisfy maximum wants and thus contribute to the living standards of people. Every time an economic agent makes a choice, there is a trade-off for the use of that resource for one or more alternative use(s). The extent of the trade-off is known as the opportunity cost.
- Explain the PPC / PPF.
 - The concepts of scarcity, choice and opportunity cost can be illustrated graphically by using a production possibility curve (PPC) or production possibility frontier (PPF).
 - Figure 1 is the PPC / PPF that shows all the possible combinations of two goods (for e.g. capital goods and consumer goods) that a country can produce with all its available resources / factors of production fully and efficiently employed within a specified period of time with a given state of technology.

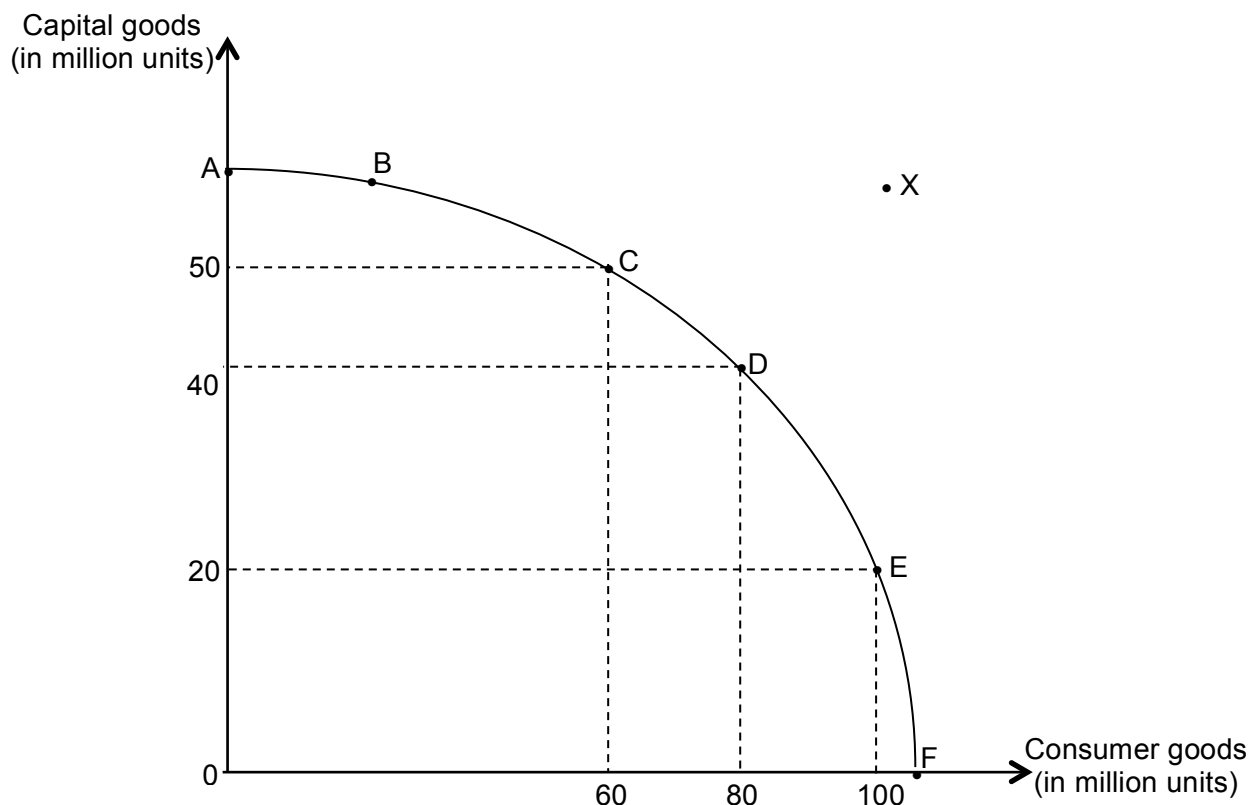


Figure 1: Production Possibility Curve (PPC) or Production Possibility Frontier (PPF)

- Explain the central economic problem, using the PPC diagram.
- By definition, the PPC indicates the maximum quantity of one good that can be produced for a given quantity of the other good produced. Thus, combinations beyond the boundary are unattainable with the economy's given resources and current state of technology. Hence, the central economic problem is represented by the unattainable combinations of consumer goods and capital goods, which lie outside of the PPC (e.g. Point X).
- Movement along the PPC represents the concept of choice. For example, the country can choose combination A that consists of all capital goods and no consumer goods produced or combination F that consists of all consumer goods and no capital goods produced. Combinations B, C, D and E consist of both capital goods and consumer goods produced, with the amount of each good differing. Since it is impossible to increase the production of consumer goods without reducing the production of capital goods, the movement along the PPC also represents the concept of opportunity cost.
- The concept of opportunity cost is also illustrated by the negative slope of the PPC. The PPC is downward-sloping from left to right illustrating that scarce resources have alternative uses and the trade-off as we move resources from one industry into the other. If the country wishes to produce more of consumer goods, it will have to give up some units of capital goods. Referring to Figure 1, suppose the country is currently producing at point C and it wishes to increase the production of consumer goods by 20 million units. To do so, it will have to divert resources away from the production of capital goods, thereby reducing the output by 10 million units, moving from point C to D. If the country wants to further produce another 20 million units of consumer goods, it will have to divert resources away from the production of capital goods, and this time reducing the output by 20 million units, moving from point D to E. As the country wants to produce equal successive increases in the amount of consumer goods, it has to

have up increasingly greater amounts of capital goods, reflecting the law of increasing opportunity costs (which is represented by the increasingly negative slope of the PPC).

- The opportunity costs increase because factor inputs are not perfect substitutes of one another, hence are not equally suited for producing different goods.
- As an economy increases the production of consumer goods, e.g. agricultural goods, eventually it has to use resources (e.g. labour) that are less suitable for producing agricultural goods (but are better suited for producing capital goods e.g. machinery). This means that increasingly more resources must be used to produce additional equal amounts of agricultural goods. Consequently, increasing number of machinery is given up to obtain additional equal amount of agricultural goods.
- Similarly, if the country moves upward along the curve and produces more capital goods, this also involves increasing opportunity cost as it would have to use resources which are less suitable for producing capital goods but more suitable for producing agricultural goods. The first resources that are transferred from agricultural / crop production to machinery production will likely be those that are least suited for crop production. For example, the least suited labour in growing crops (e.g. highly skilled labour) is first transferred from growing crops to machinery production. Subsequently, progressively more proficient labour that grows crops well such as farmers will have to be foregone to produce more machinery in order to produce additional units of capital goods.

Conclusion

All societies face the problem of scarcity because resources are limited and human wants are unlimited. Scarcity forces society to choose between the competing uses of the limited resources. It is scarcity that gives rise to the central economic problem i.e. the allocation of resources among competing uses for the satisfaction of maximum human wants.

Mark Scheme

Levels	Descriptors
High L3 9-10	<ul style="list-style-type: none"> • For an answer that shows: <ul style="list-style-type: none"> ➤ Excellent depth in analysis. <ul style="list-style-type: none"> ✓ Accurate, precise and clear use of economic concepts and analysis in all explanations. ✓ PPC framework is used. ➤ Excellent breadth in analysis (3 out of 3 concepts are considered) <ul style="list-style-type: none"> ✓ Concept of scarcity, ✓ Concept of choice, ✓ Concept of opportunity costs • Supported by <ul style="list-style-type: none"> ➤ Well-labelled and well referred to diagrams. ➤ Contextualised examples. ➤ Logical structure.
Low L3 7-8	<ul style="list-style-type: none"> • For an answer that shows: <ul style="list-style-type: none"> ➤ Very good depth in analysis.

	<ul style="list-style-type: none"> ✓ Accurate and clear use of economic concepts and analysis in most explanations. ✓ PPC framework is used. ➤ Very good breadth in analysis (at least 2 out of 3 concepts are considered and well-developed). <ul style="list-style-type: none"> ✓ Concept of scarcity, ✓ Concept of choice, ✓ Concept of opportunity costs • Supported by <ul style="list-style-type: none"> ➤ Well-labelled and well referred to diagrams. ➤ Contextualised examples. ➤ Reasoned structure.
L2 5-6	<ul style="list-style-type: none"> • For an answer that shows: <ul style="list-style-type: none"> ➤ Sufficient depth in analysis. <ul style="list-style-type: none"> ✓ Accurate use of economic concepts and analysis in some explanations. ✓ PPC framework is used. ➤ Sufficient breadth in analysis (at least 2 out of 3 concepts are considered). <ul style="list-style-type: none"> ✓ Concept of scarcity, ✓ Concept of choice, ✓ Concept of opportunity costs • Supported by <ul style="list-style-type: none"> ➤ Well-labelled and well referred to diagrams. ➤ Examples are provided.
High L1 3-4	<ul style="list-style-type: none"> • For an answer that shows: <ul style="list-style-type: none"> ➤ Insufficient depth in analysis. <ul style="list-style-type: none"> ✓ Accurate use of economic concepts and analysis in some explanations. ➤ Insufficient breadth in analysis (at least 1 out of 3 concepts is considered). <ul style="list-style-type: none"> ✓ Concept of scarcity, ✓ Concept of choice, ✓ Concept of opportunity costs
Low L1 1-2	<ul style="list-style-type: none"> • For an answer that: <ul style="list-style-type: none"> ➤ Is largely irrelevant. <ul style="list-style-type: none"> ✓ Examples are not related to the concepts of scarcity, choice and opportunity cost ➤ Contains fundamental conceptual errors in analysis.

3 (b) Discuss the significance of the characteristics of the Singapore economy in determining her pattern of trade with other countries.

[15]

Introduction: Background on Singapore's characteristics:

- Singapore is a small size with limited resources. It has a small land area of 718.3km, which is less than 3% of UK's land size. It does not have a lot of natural resources and the most valuable resource is labour.
- It is very open to trade and capital flows.
- Total merchandise trade is more than 3 times of GDP, with exports of goods amounting to over 180% of GDP and imports over 160% of GDP.
- Traditionally, Singapore has been a major entrepot centre because of its location along major international shipping routes. Over 50% of its total imports or over 45% of total exports comprised of re-exports (ie goods which are exported in the same form as they are imported apart from minor processing such as sorting, grading, splitting into lots, re-packing, etc.)
- Domestic exports are exports of Singapore origin ie grown, produced, manufactured, assembled or processed in Singapore. Singapore's main domestic exports are refined petroleum products (30%), chemicals and chemical products (17.5%), electronics products (26%), and non-electronic machinery and equipment (including transport equipment) (12%). (Figures based on 2010)
- Singapore is one of the major oil refining centres in the world, importing crude oil and exporting refined petroleum to Asian countries such as Malaysia, China, Hong Kong, Indonesia and Vietnam, as well as some European countries.
- The main destinations of Singapore's non-oil domestic exports are Europe (mainly UK, Netherlands, France and Germany), US, China, Malaysia, Hong Kong, Indonesia and Japan.
- The main origins for imports are Europe (mainly Germany, France, UK and Netherlands), Malaysia, US, China, Japan, South Korea, Indonesia, Taiwan and Saudi Arabia

Thesis: The characteristics of Singapore economy is significant in determining her pattern of trade with other countries

- The differences in resource endowments determine the comparative advantage of Singapore economy. Comparative advantage is determined by relative opportunity costs between countries.
- a) Singapore's comparative advantage determines its domestic exports
- Singapore has a relatively skilled and well educated labour force, with 90% having at least primary education and about 40% educated at tertiary level (diploma or degree). Singapore's workforce came in amongst the top in various international research and ranking reports by the International Institute for Management Development (IMD), Business Environment Risk Intelligence (BERI), Political & Economic Risk Consultancy (PERC) and World Economic Forum (WEF)
 - Singapore also has a strategic location, with a natural deep-water harbour located along the major international trade routes
 - Singapore has depended heavily on foreign direct investments (FDI) to spearhead its economic development. The government has also invested heavily in infrastructure such as developing Changi airport, Mass Rapid Transit (MRT) systems, expressways, industrial parks, Science parks, etc.
 - Based on resource endowments, Singapore is likely to have lower opportunity cost and hence comparative advantage in capital-intensive, knowledge-based or high technology industries. Hence, the country has specialized in capital-

intensive industries such as oil-refining, chemical industries, electronic products and machinery and equipment. These products are exported to developing countries in Asia as well as developed countries in Europe and America.

- Singapore also has comparative advantage in port services due to its strategic location. Hence the PSA is one of the busiest port in the world, providing port and transshipment services to countries all over the world.
- b) Singapore's lack of comparative advantage determines its imports
- As Singapore's is poor in natural resources, it is likely to have higher opportunity cost in producing agricultural products (eg. the opportunity cost of using a plot of land for agriculture would be much higher given its limited land resource). Hence Singapore does not have comparative advantage in agriculture and mining products. The labour cost in Singapore is also relatively higher than developing countries, so it has no comparative advantage in labour-intensive industries. Over the past 2 decades, many labour-intensive industries have relocated from Singapore to other countries in the region such as Indonesia, Thailand and Vietnam, which have lower labour costs.
 - Hence, Singapore depends on imports of primary products, raw materials and labour intensive manufactures from countries in the region such as Malaysia, Indonesia, Thailand and China. It also imports crude oil from oil exporters such as Saudi Arabia and Brunei.

Anti-Thesis: The characteristics of Singapore economy is not significant in determining her pattern of trade with other countries as there are other determinants

a) Government policy

In Singapore, government policy plays a part in influencing the trade pattern beyond static differences in comparative advantage.

- Promoting potential high-growth industries – the government identifies industries which have high growth potential and promotes the development of such industries by attracting leading companies in such industries to operate in Singapore and, if necessary, the foreign talent required to spearhead these industries. It also provides training to the workforce in the skills required for the identified industries. Examples are biotechnology, aerospace and digital animation. This also includes services such as Integrated Resorts, medical services, financial services and education (eg. developing Singapore as an international financial centre, regional medical hub and education hub)
- Developing industries of strategic importance – the government may also develop certain industries which have strategic significance such as national security and defense. The government formed the Singapore Technologies group which produces military weapons among other goods considered essential to national interests. Over time, the state-owned company has improved its efficiency and competitiveness and began exporting such products as well.
- Free trade agreements – the government pursues bilateral free trade agreements with other countries, thus facilitating greater access to export markets in these countries. This in turn influences the type and volume of exports to the respective countries.

b) Intra-industry trade

Comparative advantage theory assumes that countries specialize in particular products and exchange them for other products in which they do not have comparative advantage. However, in reality countries may also trade in the same products or different components of the same product.

- Product differentiation (horizontal intra-industry trade) – While Singapore exports some consumer electronics goods (eg. television and computers), it also imports these goods from other countries. This is because different countries may produce different brands of the same product with differences in quality, design and features.
- Fragmentation of production process (vertical intra-industry trade) – The production of a product may be broken up into several stages, with different countries producing different components of the product. For example, Singapore may export disk drives and other computer components, which are then assembled into computers in other countries. At the same time, Singapore may import other electronic components used in the manufacture of its disk drives, as well as the finished computer products from other countries. It might appear that Singapore is exporting and importing the same product group ie. computer related products. However, this is not inconsistent with comparative advantage as it means that different countries have different comparative advantage in different stages of the production process. The issue is how to classify the products more specifically to reflect the different stages of production involved.

c) Demand-side factors

The theory of comparative advantage focuses on the supply side (based on relative opportunity costs in production). In reality, the pattern of trade in terms of countries which Singapore exports to and imports from is also determined by demand factors. These demand factors include:

- Tastes and preferences with regard to variety of differentiated products – This could explain why Singapore exports and imports similar type of goods in some industries eg. consumer electronics.
- Income of other countries – As the income of a country increases, its demand for imports tend to rise. The high income growth in China partly explains why Singapore's trade with China has increased over the years.

Conclusion:

In general, the pattern of trade in Singapore can be largely explained by comparative advantage theory that is determined by its characteristics. However, the theory of comparative advantage is based on a static analysis of relative opportunity costs. In reality, comparative advantage is dynamic and can be created, acquired or shifted through various factors such as foreign direct investments (FDI), demographic changes, technology changes, innovation and government policy. Moreover, comparative advantage may determine the broad product groups the country should specialize in eg. capital-intensive industries, but not the specific products the country should produce for export eg. disk drives or telecommunications equipment. Therefore, some adjustments may need to be made to allow for dynamic changes in comparative advantage and other influences on trade patterns such as government policy and intra-industry trade.

Mark Scheme

Levels	Descriptors
High L3 11	<ul style="list-style-type: none"> • For an answer that shows: <ul style="list-style-type: none"> ➤ Excellent depth in analysis. <ul style="list-style-type: none"> ✓ Accurate, precise and clear use of economic concepts and analysis in all explanations.

	<ul style="list-style-type: none"> ➤ Excellent breadth in analysis <ul style="list-style-type: none"> ✓ Comparative advantage is considered ✓ Other factors influencing patterns of trade are considered (at least 2 factors) ✓ Include the impact on the following: (all 3 areas are considered) <ul style="list-style-type: none"> ○ Type of goods and services Singapore exports and imports ○ The relative volume of goods and services Singapore exports and imports ○ The major trading partners of Singapore • Supported by <ul style="list-style-type: none"> ➤ Well-labelled and well referred to diagrams (if there is). ➤ Contextualised examples. ➤ Logical structure.
Low L3 9-10	<ul style="list-style-type: none"> • For an answer that shows: <ul style="list-style-type: none"> ➤ Very good depth in analysis. <ul style="list-style-type: none"> ✓ Accurate and clear use of economic concepts and analysis in most explanations. ➤ Very good breadth in analysis <ul style="list-style-type: none"> ✓ Comparative advantage is considered ✓ Other factors influencing patterns of trade are considered (at least 2 factors) ✓ Include the impact on the following: (at least 2 out of 3 areas are considered) <ul style="list-style-type: none"> ○ Type of goods and services Singapore exports and imports ○ The relative volume of goods and services Singapore exports and imports ○ The major trading partners of Singapore • Supported by <ul style="list-style-type: none"> ➤ Well-labelled and well referred to diagrams (if there is). ➤ Contextualised examples. ➤ Reasoned structure.
L2 6-8	<ul style="list-style-type: none"> • For an answer that shows: <ul style="list-style-type: none"> ➤ Sufficient depth in analysis. <ul style="list-style-type: none"> ✓ Accurate use of economic concepts and analysis in some explanations. ➤ Sufficient breadth in analysis <ul style="list-style-type: none"> ✓ Comparative advantage is considered ✓ Other factors influencing patterns of trade are considered (at least 1 factor) ✓ Include the impact on the following: (at least 2 out of 3 areas are considered) – cap at 6 if consider 1 area. <ul style="list-style-type: none"> ○ Type of goods and services Singapore exports and imports ○ The relative volume of goods and services Singapore exports and imports ○ The major trading partners of Singapore

	<ul style="list-style-type: none"> Supported by <ul style="list-style-type: none"> Well-labelled and well referred to diagrams. Examples are provided.
High L1 3-5	<ul style="list-style-type: none"> For an answer that shows: <ul style="list-style-type: none"> Insufficient depth in analysis. <ul style="list-style-type: none"> ✓ Accurate use of economic concepts and analysis in some explanations. Insufficient breadth in analysis <ul style="list-style-type: none"> ✓ Comparative advantage is considered ✓ Include the impact on the following: (only 1 area is considered) <ul style="list-style-type: none"> Type of goods and services Singapore exports and imports The relative volume of goods and services Singapore exports and imports The major trading partners of Singapore
Low L1 1-2	<ul style="list-style-type: none"> For an answer that: <ul style="list-style-type: none"> Is largely irrelevant. <ul style="list-style-type: none"> ✓ Factor(s) is not related to patterns of trade ✓ Characteristics discussed is not related to Singapore economy Contains fundamental conceptual errors in analysis.

Levels	Descriptors
E2 3-4	<ul style="list-style-type: none"> For a well-reasoned criteria-based judgement that answers the question on the significance of the characteristics of the Singapore economy in determining her pattern of trade with other countries
E1 1-2	<ul style="list-style-type: none"> For an unexplained criteria-based judgement that answers the question on the significance of the characteristics of the Singapore economy in determining her pattern of trade with other countries

4. (a) Explain the possible causes of unemployment in Singapore. [10]

Define unemployment – refers to a situation whereby people who are of the legal age, and are **willing** and **able to work**, are **unable to get suitable jobs**. Full employment is a situation in which all available resources are fully utilised such that the economy is operating at a point on the production possibility frontier (PPF).

Achieving full employment would therefore mean eliminating unemployment as far as possible. Although unemployment may include other types of resources, we shall only be discussing **labour unemployment**.

The types of Spore's unemployment are cyclical, structural and frictional.

Explain causes of **cyclical** unemployment from Spore's perspective:

- Demand deficient unemployment – applicable during global recession. As the external sector is large in Singapore, firms aiming to maintain export competitiveness try to reduce costs of production by reducing output & employment.
- Workers are retrenched and unemployment rises.
- Singapore has gone through 3 major periods of high unemployment in 5 years from 1998 – 2003 due to external shocks. External influences play an important role especially since Singapore is very dependent on external demand.
- Singapore is still largely dependent on electronics exports and hence its economy has to suffer from the volatile cycles experience by the electronics sector.

Explain causes of **structural** unemployment in Spore:

- Structural unemployment – due to structural factors (eg. labour immobility, mismatch of skills) which prevent unemployed from getting jobs in industries or areas where labour is in demand.
- There is a growing threat of structural unemployment due to the workforce demographics coupled with changing economic structure. While the working population is ageing, about a quarter of the resident workforce (ie citizens and PRs) still have below secondary education.
- As Spore's economy has to cope with globalization and outsourcing, it has to restructure its economy, and in the process structural unemployment will also result.
- E.g. the economy is moving increasingly towards higher technology and higher value added industries such as bio-medical, pharmaceuticals, info-communications, etc. which require higher skills. Manufacturing industries which are labour intensive are relocating to lower cost countries in the region such as Indonesia, Malaysia, Vietnam and China. It is likely that older low-skilled workers who are displaced by structural change will find it difficult to find jobs in the growing sectors of the economy.
- Even in service sector, there is intense competition regionally. For example, ports around the region, such as Port Tanjung Pelepas in Malaysia have upgraded its facilities and offers competitive services to shippers as well. With fewer businesses, Spore's PSA have to layoff its workers if their productivity is not higher.

Explain causes of **frictional** unemployment in Spore:

- Frictional unemployment arises because it takes time for workers to be matched with suitable jobs. The unending flow of people into and out of the labour force and the process of job creation and job destruction create the

need for people to search for jobs and for firms to find suitable employees. Since both employers and employees spend time searching what they believe will be the best match available, frictional unemployment arises.

- Frictional unemployment could arise when workers leave declining industry for expanding ones. It could also arise when the recurring stream of students passing out from schools and institutions of higher learning start to look for jobs but have not found them yet.

Conclusion: Unemployment **generally low** in Singapore ranging mainly **1-3%** over the past 20 years, except during the recession periods of 2002-2004 and 2009 when the unemployment rate rose above 3%. Such declines in economic activity and employment, however, tend to be short-term in nature. Her unemployment level is very much caused by internal & external factors. Structural unemployment is the most significant problem as the economy restructures in the face of globalization.

Mark Scheme

Level	Descriptors
Level 3 7-10	For an answer that shows: <ul style="list-style-type: none"> - Excellent depth in analysis: <ul style="list-style-type: none"> o accurate use of economic concepts and analysis throughout - Excellent breadth in analysis: <ul style="list-style-type: none"> o Answer demonstrates a thorough analysis and explanation on at least 2 main causes of unemployment in Singapore o (for 9-10m): At least 3 causes of unemployment explained - Supported by <ul style="list-style-type: none"> o Well labelled and well referred to market failure diagram(s) o Contextualised examples o Logical structure
Level 2 5-6	For an answer that shows: <ul style="list-style-type: none"> - Good depth in analysis <ul style="list-style-type: none"> o Accurate use of economic concepts and analysis in most explanations. Use of economic concepts and analysis may not be precise. - Good breadth in analysis: <ul style="list-style-type: none"> o Answer demonstrates a good analysis and explanation on at least 2 main causes of unemployment in Singapore o Max 5: for one cause of unemployment well-explained - Supported by <ul style="list-style-type: none"> o Well labelled and well referred to market failure diagram(s) o Examples
Level 1 3-4	For an answer that shows: <ul style="list-style-type: none"> - Insufficient depth in analysis <ul style="list-style-type: none"> o Inaccurate use of economic concepts and analysis in most explanations. - Insufficient breadth in analysis: <ul style="list-style-type: none"> o Some analysis and explanation on at least one main cause of unemployment in Singapore. o Some effort to contextualise
1-2	For an answer that <ul style="list-style-type: none"> - Is largely irrelevant - Contains fundamental conceptual errors in analysis. - Largely descriptive answer

- (b) Suppose a country such as Singapore were to experience a period of high unemployment and inflation rates. Discuss the extent to which supply-side policies could be adopted to address these problems.

[15]

Explain **what are supply-side policies**.

Policies aimed at shifting the SRAS or LRAS to achieve the macroeconomic aims i.e. low unemployment, low inflation, healthy BOP and economic growth. May be categorized into:

- **Market-oriented policies** – promoting competition and enterprise, and reducing structural rigidities and market imperfections → allow the market to work more efficiently
- **Interventionist** – direct interventions by government to influence economic activities or behaviour of firms and individuals

Cause of high unemployment and inflation rates: this may be due to the rising cost of production in the economy, leading to the decrease in SRAS and the rise in GPL and unemployment rates in the economy.

Thesis: Supply-side policies can be adopted to address these problems.

Policies to increase SRAS:

Market-Oriented

- Promoting greater competition to reduce cost-push factors – through pro-competition policies like competition act and corporatisation. For e.g.: converting a government agency providing certain goods or services into a company that is run on a profit-making, commercial-oriented basis but still wholly owned by the government. This will ensure market discipline and thus promoting efficiency which will cause a downward shift of SRAS.
- The government corporatised some of its statutory boards by converting them into companies that continued to be owned by the government. In 1995, the Public Utilities Board (PUB) corporatised its electricity and gas services to form Singapore Power. In 1997, the Port of Singapore Authority was corporatised to form PSA Corporation. Other statutory boards that have been corporatised over the years include the restructured hospitals (SGH, TTSH, CGH, AH, NUH etc.), the public universities (NUS, NTU) and the Commercial and Industrial Security Corporation (CISCO).
- Note: Other pro-competition policies can be identified and explained in the context of Singapore.

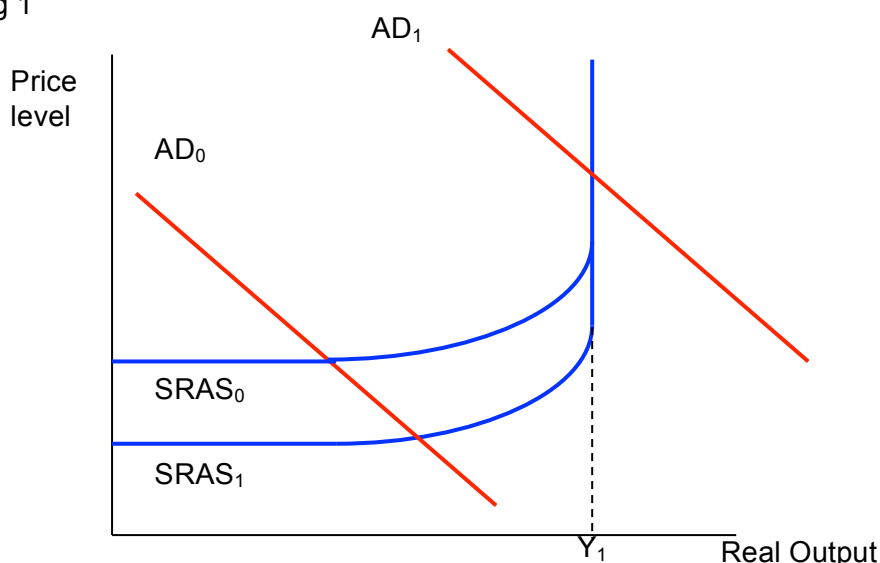
Limitations:

- Large monopolistic corporations are necessary if the economy is able to enjoy substantial economies of scale from mass production. Allowing more competition may result in lower efficiency as economies of scale are not fully exploited, resulting in higher costs.
- For services which are important to society e.g. telecommunications, public transport and power supply, corporatisation could be detrimental to the public interest if the private monopoly created becomes too concerned with achieving its profit targets and abuses its monopoly power or if the business fails due to poor management.
- Private enterprises may also not invest much in training for workers as the investment in these workers will be lost when the workers leave (especially to rival firms).

Interventionist

- The government may introduce measures to reduce cost of production directly eg. wage subsidies, rental rebates, utility rebates, etc. which may induce firms to increase output and employ more workers. This is shown by a downward shift of SRAS, which leads to an increase in Y , bringing it closer to the full employment level.
- Providing guidelines and information to influence wage, price or production decisions. National wage guidelines may be issued to prevent excessive rise in wage costs and ensure wage increase corresponds to productivity growth. In this way, it can keep per unit cost of production at its minimal and hence avoids cost-push factors.
- From Figure 1, with the policies to increase SRAS, the curve will shift downward from $SRAS_0$ to $SRAS_1$. This will increase the real output which thus reduces cyclical unemployment and inflation levels.

Fig 1

Limitations:

- Opportunity cost of giving wage subsidies, rental rebates, utility rebates for firms to reduce costs.
- Imposing too many regulations and controls may give rise to inefficiency due to government bureaucracy and corruption. Over-regulation of industries may also result in lack of responsiveness to market conditions or technological improvements, resulting in stagnation and loss of competitiveness.

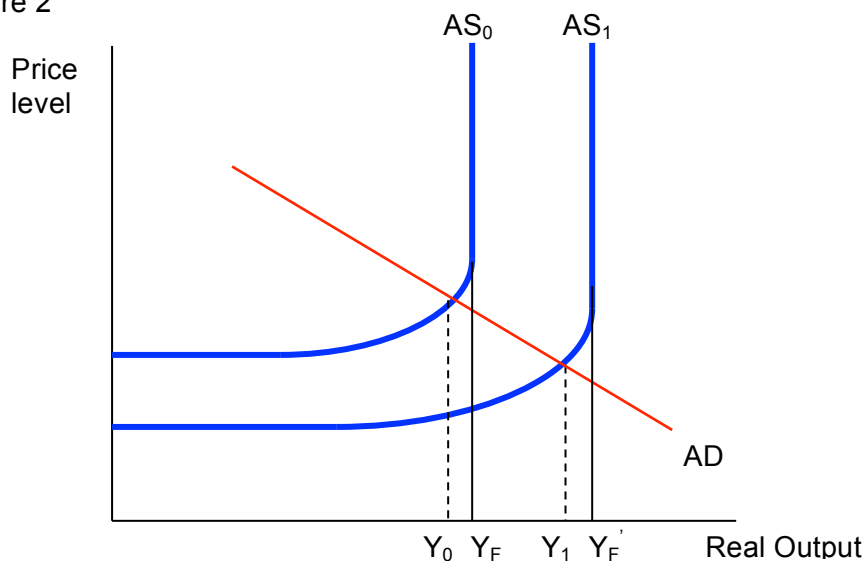
Policies to increase LRAS:Market-Oriented

- Reducing unemployment benefits: Unemployment welfare benefits are seen as encouraging people to remain unemployed, especially if the difference between the take-home pay of being employed and the welfare benefit is small. It is therefore argued that reducing or removing unemployment benefits would encourage the unemployed to try harder to find jobs, thus reducing unemployment. As more long-term unemployed persons re-enter the labour force, the increased size of the labour force leads to higher potential output in the economy, possibly leading to a rightward shift of the LRAS.

Interventionist

- Promoting Continuing Education and Training (CET) – Establishing the Workforce Skills Qualifications (WSQ) system and providing subsidies to promote skills training. For example, the Skills Training for Excellence Programme (STEP) provides subsidized training courses to upgrade the skills of Professionals, Managers, Executives and Technicians (PMETs) in Singapore. These aim at improving the skills and productivity of the workforce, making workers more employable and enhancing their occupational mobility, so that they can take up jobs in the expanding sectors of the economy. Another scheme, the Workfare Training Support (WTS) scheme provides incentives and subsidies for low wage workers to upgrade their skills. The incentives include absentee payroll for companies who send their low skill workers for training and training allowance for low wage workers who sign up for the relevant training on their own. These policies aim to reduce structural unemployment.

Figure 2



From Fig 2 – Original equilibrium Y_0 already near full employment. Shift in AS results in further increase in real output from Y_0 to Y_1 with increase in employment. The increase in employment may come from a reduction in structural and frictional unemployment. This will also decrease the price level.

Limitations:

- Training wastage could arise if the unemployed take up the wrong courses which do not help them to get jobs. This could be due to their imperfect knowledge of job market conditions and future trends.
- SS-side policies such as skills training may take a long time before their effects are seen.
- Interventionist policies may also result in inefficiencies due to government failure (eg. wrong decisions, corruption or excessive bureaucracy) or over-reliance on subsidies.

Anti-Thesis: Supply-side policies cannot be adopted to address these problems

If the cause of the inflation is due to demand-pull inflation (as shown in Figure 1 above, AD_1) and the main cause of unemployment is due to structural unemployment, policies to decrease COP are not effective to solve the problems.

If the economy is at Keynesian range (possibly facing high cyclical unemployment and import price push inflation), policies to increase LRAS are not effective to solve the problems.

Therefore, other policies such as contractionary AD-management policies are needed to control demand-pull inflation. In the recent years, the high inflation rate is also caused by the increase in the price of big-ticket items such as transport and housing. As such, policies like cooling measures for the housing, improvement on public transport system and increase in the numbers of COE issued are implemented to decrease the prices of these products.

If the cause of the inflation is due to import price push inflation, appreciation of the SGD will be more appropriate than supply-side policies. With the appreciation of currency, the price of imported goods in terms of local currency will be lower thus mitigating the increase in cost of using these raw materials.

Given the reliance of Singapore economy on imported raw material, this can be a more probable case if there is any increase in the global price of essential raw material like crude oil. Therefore the appreciation of currency is able to mitigate the inflation problem immediately.

Conclusion

Appropriateness of SS-side policies to decrease unemployment and inflation rates **depends on the nature and causes of these problems**. The root cause could be high commodity prices such as high oil prices from the exporting countries that increase the cost of production in Singapore significantly. In this case, SS-side policies may not be as effective as a strengthening of the Singapore dollars to control import price push inflation in the short run. In the long run, SS-side policies are more appropriate as the economy would likely be operating at or near full employment, and there is a need to address structural and frictional unemployment. It can also ensure sustainable growth with low inflation rates.

Given the **characteristics of the economy** (small and open), Singapore will be susceptible to global recession (which will lead to decline in economic activities within Singapore due to the decrease in the exports demanded by other countries) and import price push inflation (as mentioned above). Additionally, in the face of globalisation, the country may face a significant structural unemployment problem as the economy restructures. Therefore, the country cannot depend on supply-side policies to overcome the high rates of inflation and unemployment rates. The characteristics of the economy allow us to anticipate the potential economic problems and take appropriate actions now to avoid these problems.

Mark Scheme

Levels	Descriptors
High L3 11	<ul style="list-style-type: none"> • For an answer that shows: <ul style="list-style-type: none"> ➤ Excellent depth in analysis. <ul style="list-style-type: none"> ✓ Accurate, precise and clear use of economic concepts and analysis in all explanations. ➤ Excellent breadth in analysis <ul style="list-style-type: none"> ✓ At least 3 different policies are considered (must be one

	<ul style="list-style-type: none"> market-oriented and one interventionist stated explicitly) ✓ The impact on both inflation and unemployment rates is considered ✓ The impact on both SRAS and LRAS is considered. ✓ Limitations of most policies are considered. <ul style="list-style-type: none"> • Supported by <ul style="list-style-type: none"> ➤ Well-labelled and well referred to diagrams. ➤ Contextualised examples. ➤ Logical structure.
Low L3 9-10	<ul style="list-style-type: none"> • For an answer that shows: <ul style="list-style-type: none"> ➤ Very good depth in analysis. <ul style="list-style-type: none"> ✓ Accurate and clear use of economic concepts and analysis in most explanations. ➤ Very good breadth in analysis <ul style="list-style-type: none"> ✓ At least 3 different policies are considered (can be either market-oriented or interventionist) ✓ The impact on both inflation and unemployment rates is considered ✓ The impact on both SRAS and LRAS is considered. ✓ Limitations of most policies are considered. • Supported by <ul style="list-style-type: none"> ➤ Well-labelled and well referred to diagrams. ➤ Contextualised examples. ➤ Reasoned structure.
L2 6-8	<ul style="list-style-type: none"> • For an answer that shows: <ul style="list-style-type: none"> ➤ Sufficient depth in analysis. <ul style="list-style-type: none"> ✓ Accurate use of economic concepts and analysis in some explanations. ➤ Sufficient breadth in analysis <ul style="list-style-type: none"> ✓ At least 2 different policies are considered (can be market-oriented and/or interventionist) ✓ The impact on both inflation and unemployment rates is considered ✓ Max 6 if consider the impact on either inflation or unemployment rate. ✓ Different impact on AS is considered (either SRAS or LRAS) ✓ Limitations of some policies are considered. • Supported by <ul style="list-style-type: none"> ➤ Well-labelled and well referred to diagrams. ➤ Examples are provided.
High L1 3-5	<ul style="list-style-type: none"> • For an answer that shows: <ul style="list-style-type: none"> ➤ Insufficient depth in analysis. <ul style="list-style-type: none"> ✓ Accurate use of economic concepts and analysis in

	<p>some explanations.</p> <ul style="list-style-type: none"> ➤ Insufficient breadth in analysis (at least 1 out of the 4 macroeconomic objectives is considered). <ul style="list-style-type: none"> ✓ One policy is considered (either market-oriented or interventionist) ✓ Consider the impact on unemployment or inflation rate. ✓ Different impact on AS is considered (either SRAS or LRAS) ✓ No or limited consideration of limitations of policies.
Low L1 1-2	<ul style="list-style-type: none"> • For an answer that: <ul style="list-style-type: none"> ➤ Is largely irrelevant. <ul style="list-style-type: none"> ✓ Impact on inflation and/or unemployment is not related to the use of supply-side policies. ✓ Use of supply-side policies is not related to inflation or unemployment ➤ Contains fundamental conceptual errors in analysis.

Levels	Descriptors
E2 3-4	<ul style="list-style-type: none"> • For a well-reasoned criteria-based judgement that answers the question on the extent to which supply-side policies could be adopted to address the problems of high inflation and unemployment rates
E1 1-2	<ul style="list-style-type: none"> • For an unexplained criteria-based judgement that answers the question on the extent to which supply-side policies could be adopted to address the problems of high inflation and unemployment rates