



# ANDERSON JUNIOR COLLEGE

## JC2 PRELIMINARY EXAMINATION 2014 Higher 2

### ECONOMICS

9732/02

#### Paper 2

02 September 2014

Additional Materials: Answer Paper

2 hours 15 minutes

### READ THESE INSTRUCTIONS FIRST

Write your name, PDG and index number in the spaces provided on all the work you hand in.

Write in dark blue or black pen on both sides of the paper.

You may use a soft pencil for any diagrams, graphs or rough working.

Do not use staples, paper clips, highlighters, glue or correction fluid.

Answer **three** questions in total, of which **one** must be from Section A, **one** from Section B and **one** from **either** Section A or Section B. Begin your answer to **each question** on a fresh sheet of writing paper.

At the end of the examination, fasten your answers to each question separately.

Fasten this **cover page** in front of the first question attempted.

Indicate in the table below the **question numbers** of the **three** questions you have attempted.

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

Name: \_\_\_\_\_ ( )

PDG: \_\_\_\_/13

Question Number	Marks Awarded
	/25
	/25
	/25
<b>Total Marks</b>	<b>/75</b>

This document consists of 2 printed pages, including this cover page.

[Turn over]

Answer **three** questions in total.

### Section A

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

1. From McDonald's burgers in the United States to sugar in Bolivia and chillies in Indonesia, food prices across the globe are soaring. A 'perfect storm' of bad weather, rapid growth in emerging economies and low interest rates has sent prices for a broad range of farm and non-farm commodities climbing, often at double-digit rates.

Source: The Straits Times, February 7, 2011

- (a) Account for the sharp rise in the price of food. [10]
  - (b) Discuss whether an increase in the price of food always benefits the producers at the expense of consumers. [15]
2. Economic policies often result in inequity and inefficient allocation of resources. Discuss the view that government intervention results in inefficiency and inequity. [25]
3. Explain what is meant by productive efficiency, allocative efficiency and dynamic efficiency and discuss the extent to which the openness of an economy makes a firm more efficient. [25]

### Section B

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

4. An already sluggish global recovery shows signs of further weakness, mainly because of continuing financial problems in Europe and slower-than-expected growth in emerging economies.

Source: International Monetary Fund, Survey Magazine, July 16, 2012

Discuss the relative importance of the size of the multiplier, the interest elasticity of demand for investment and the crowding-out effect, in influencing governments' macroeconomic policy decisions to promote investment. [25]

5. "Social spending has consistently taken the biggest portion of the government's budget, almost doubling between 2006 and 2012. The biggest share in this sector has always gone to education, followed by national development."

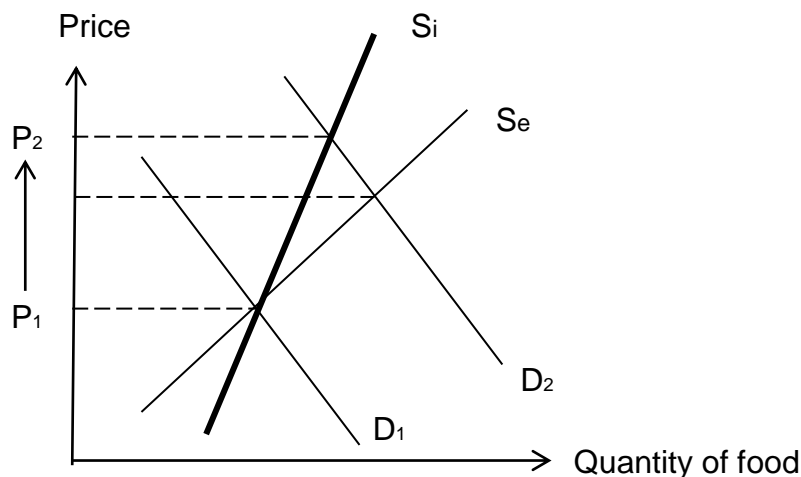
Source: The Straits Times, February 22, 2013

- (a) Using the concept of circular flow of income, explain how an increase in government expenditure can lead to a multiple increase in national income. [10]
  - (b) Discuss whether the Singapore government should change its current economic policies to achieve a higher standard of living. [15]
6.
  - (a) Explain the possible links between exchange rate and interest rate. [8]
  - (b) Discuss the view that external stability should be a country's main macroeconomic goal. [17]

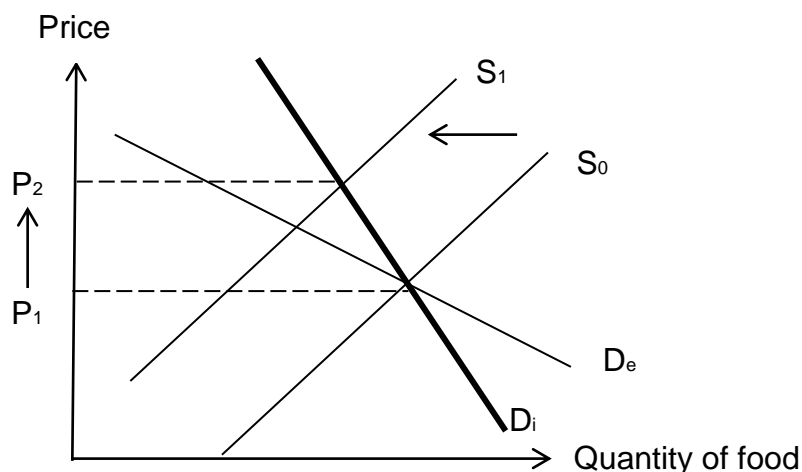
**End of Paper**

**Suggested answer for question 1(a)**

- Rapid growth in emerging economies → increase in income and hence purchasing power in the burgeoning middle class in these countries → tend to consume more luxury food items such as seafood and high-valued food → increase demand for food → upward pressure on price
- Low interest rates → lower opportunity cost to consume and lower incentives to save since rate of returns is lower → consumption increase → higher demand for food → upward pressure on price
- Food = normal good → likely to be income elastic → rise in income will lead to a more than proportionate increase in demand for such food items from  $D_1$  to  $D_2$  and price increases sharply from  $P_1$  to  $P_2$
- Agricultural food items require time to grow → supply of food is price inelastic in the SR since producers are not able to increase production immediately in respond to a price increase → rise in demand from  $D_1$  to  $D_2$  will lead to a very significant increase in price in the short run from  $P_1$  to  $P_2$



- Bad weather (e.g., drought) reduce agricultural produce → supply of food crops fall from  $S_1$  to  $S_2$  → upward pressure on price
- Demand for food is price inelastic as food is a necessity for survival and it also takes up a relatively small proportion of consumers' income now as income has increased → sharp increase in price from  $P_1$  to  $P_2$



- Overall, the decrease in supply is likely to be greater than the increase in demand
  - Massive destruction to the crops not only reduces the supply of food but also adversely affects the productivity of existing land available for cultivation
  - Rising demand for food is only seen in the emerging economies and unlikely to lead to a large increase in demand for food in general

### **Marking scheme**

<b>Knowledge, Application, Understanding and Analysis</b>		
L3	A <b>thorough</b> and clear, detailed explanation on how elasticity and extent of shift leads to the sharp increase in prices with reference to clear diagrams	7-10
L2	An answer that gives a <b>descriptive understanding</b> of demand and supply factors affecting price and elasticity concepts to explain sharp increase but lacking in depth and incomplete explanation	5-6
L1	For an answer that shows <b>descriptive knowledge</b> of demand and supply factors affecting price OR wrong use of economic framework i.e. AD/AS	1-4

### **Suggested answer for question 1(b)**

- Since the definition of “food” can span anywhere from major agricultural food crops to final processed food products, must refer to
  - Producers and consumers of agricultural food crops, as well as
  - Other producers and consumers down the supply chain such as food manufacturers and restaurants

**The increase in the price of food can benefit the producers at the expense of consumers when we are analysing the market for agricultural food crops as a whole**

- Considering producers to be farmers in the food-exporting countries like Thailand and the consumers to be from food-importing countries like Singapore
- Rise in price of food is due to a fall in supply as explained in part (a) → demand for food in general is highly price inelastic due to the lack of substitutes for food → will lead to a less than proportionate fall in quantity demanded and a rise in import expenditure from  $P_0E_0Q_0$  to  $P_1E_1Q_1$  in Figure 1 by the consumers in the food-importing countries → farmers in food-exporting countries will enjoy higher revenue of the same amount as well

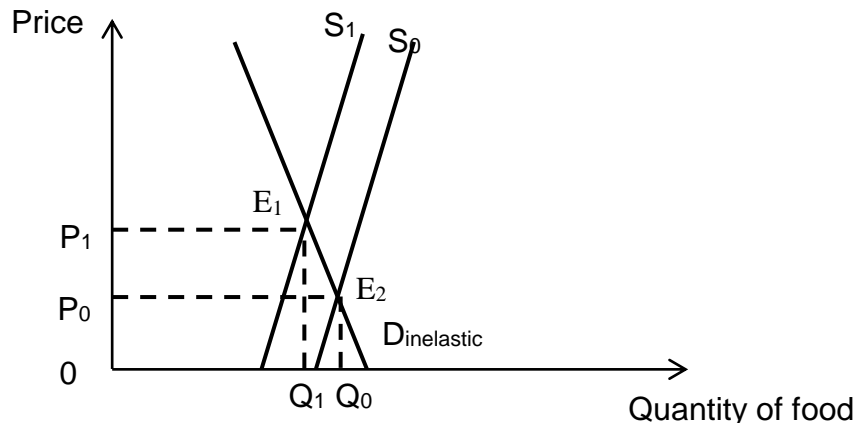


Figure 1: Market for food in general

- However, also have to consider the *total* cost to the producers in order to determine their profits → if total cost of production increases more than the total revenue, the profits of the producer will go down → producers can also be suffering together with the consumers

**An increase in the price of food need not always benefit the producers at the expense of consumers**

- Consider producers and consumers of more narrowly defined agricultural items
- Price of organic rice increases, due to a fall in supply caused by bad weather → quantity demanded falls more than proportionately due to the demand for organic rice being relatively price elastic as consumers can easily switch to a close substitute such as non-organic rice when the price of organic rice increases → farmer's revenue falls from  $P_0E_0Q_0$  to  $P_1E_1Q_1$  because consumers are cutting down on their expenditure

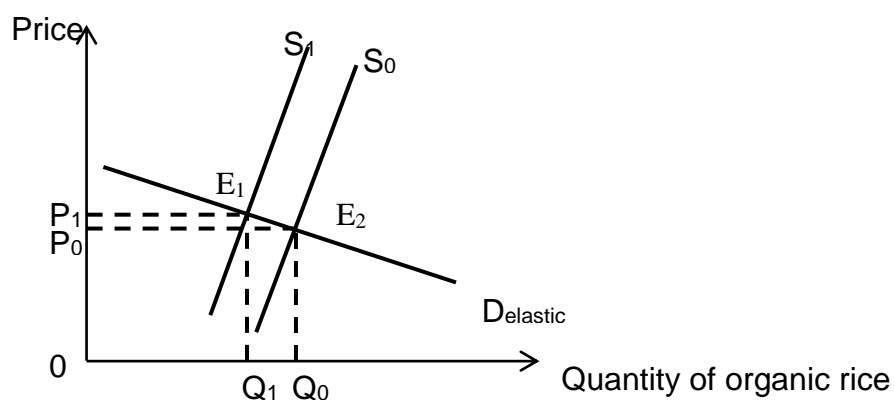


Figure 2: Market for organic rice

- In fact, the more price elastic demand is, the more difficult it is for producers to raise price and make the consumers pay more → consumers are benefitting from lower expenditure while the producers are faced with lower revenue
- Similarly, for final food products like MacDonald's burgers → price of burgers rises due to the increased cost of production in light of pricier ingredients →

demand for MacDonald's burgers is price elastic due to availability of many close substitutes → larger share of the cost burden borne by MacDonald's

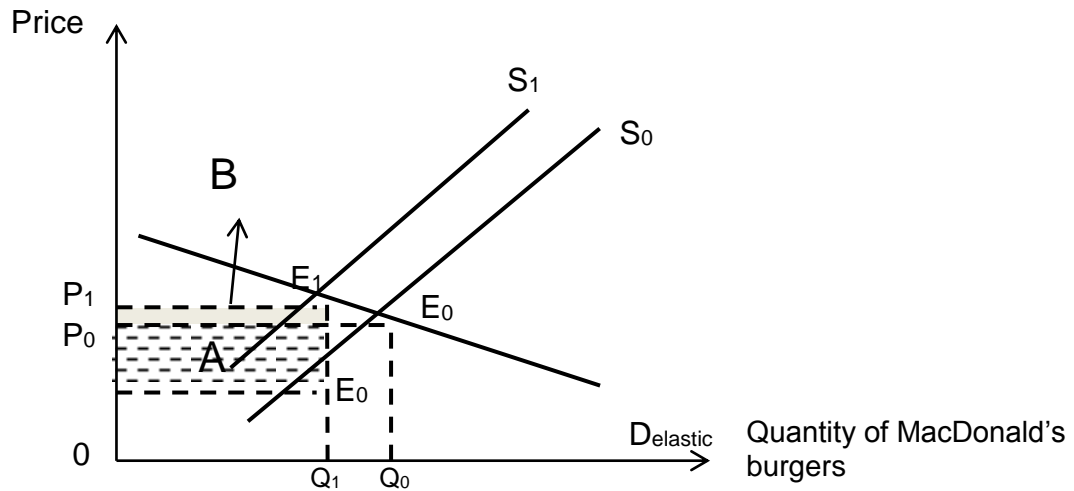


Figure 3: Market for MacDonald's burgers

- However, whatever the reasons for the fall in supply are, they are likely to have widespread impact on all kinds of food → increase in price of food is likely to be broad based, affecting all farmers and all food-related industries → other farmers or other food outlets are similarly going to raise price and the demand for organic rice or MacDonald's burgers might not be as elastic as assumed earlier

**It also need not always be the case of one party being made better off while the other party is made worse off. Both can benefit or suffer together**

- When the increase in price of food was due to the increase in demand of food → both consumer and producer surpluses rise → well-being of both improve
- Vice versa when increase in price is due to fall in supply of food

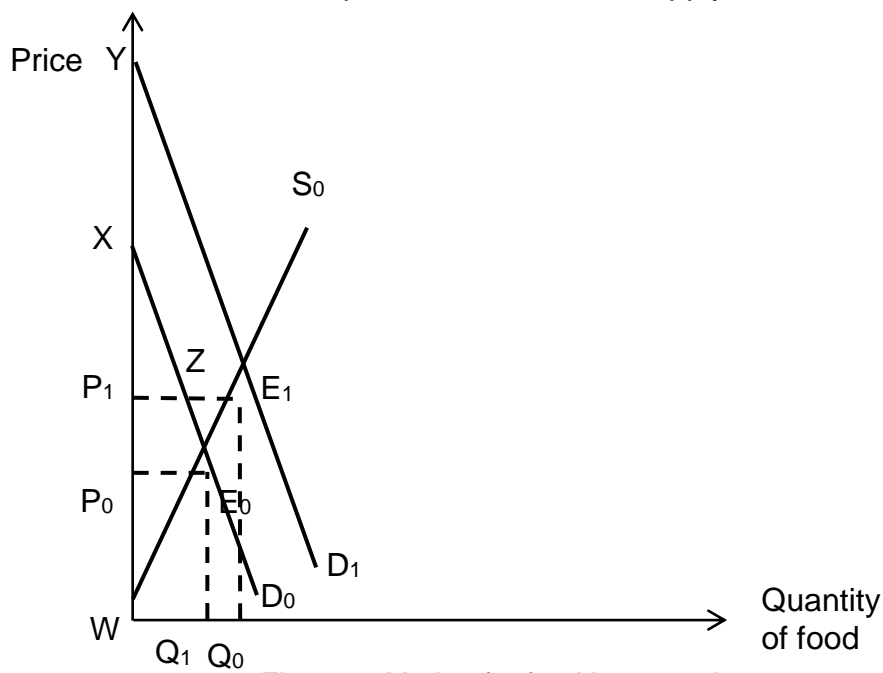


Figure 4: Market for food in general

- Overall, depends on
  - How broad or narrow the definition of “food” is
  - How “food” is interpreted (i.e. as a factor or as a product)
  - What are the root causes behind the rise in the price of food
  - What is “benefit” (i.e., expenditure/revenue or consumer/producer surplus)

### **Marking scheme**

<b>Knowledge, Application, Understanding and Analysis</b>		
L3	Balanced and well-developed analysis on the impact on consumers and producers. Considers all the relevant markets of food.	9-11
L2	Balanced but under-developed analysis on the impact on consumers and producers. Has made an attempt to address the question but not fully	6-8
L1	One-sided answer that is superficial. Has conceptual errors.	1-5
<b>Allow up to 4 additional marks for Evaluation</b>		
E2	For a judgment based on economic analysis/ adequately substantiated	3-4
E1	For an unexplained judgment, or one that is not supported by economic analysis	1-2

**Suggested answer for question 2**

**Thesis: Government intervention results in economic inefficiency and inequity**

Worsening inefficiency

- Imperfect information about the true value of an externality
  - Difficult to price the value of an externality in monetary terms
  - Underestimate or overestimate socially optimal level of output → under-production or over-production → another deadweight loss → allocative inefficiency
- High resource cost
  - Gain from government intervention may be outweighed by the costs of government intervention
  - E.g., administration or operational costs, costs incurred by the firms and household while hiring additional personnel to interpret and to implement the regulations stipulated by the government
  - May result in allocative and productive inefficiency due to waste of scarce resources
- Political objective
  - Intervening despite the lack of any real need
  - Allocative inefficiency results as it runs counter to the optimal level that could have been attained by market forces
  - E.g., fuel subsidies

Worsening inequity

- Imposition of taxes that impact lower-income population (e.g., fuel tax)
- Imposition of regressive taxes (e.g., GST)
- Imposition of minimum wage resulting in unemployment, especially if imposed on low-wage professions
- All these result in worsening income distribution → inequity worsens

**Anti-thesis: Government intervention is required to correct economic inefficiency and inequity resulting from other factors**

Need for govt intervention to attain efficiency

- Negative externalities
  - Fully explain the case for government intervention for goods with negative externalities
  - Because the market fails to allocate resources at the socially optimal amount and there is a need for the government to intervene, for instance, through taxation for the negative externality to be “internalised”
- Public goods
  - Fully explain the case for government intervention for public goods



- Non-marketable nature of the good means that the good will not be produced in the free market, and therefore necessitates government intervention through direct provision of the public good

### Need for govt intervention to attain an equitable distribution of income

- Occupational immobility in the labour market
  - Globalisation → high demand for skilled workers and hence upward pressure on their wages + lower demand for unskilled workers who are occupationally less mobile and hence downward pressure on their wages → widening of income gap between skilled and unskilled workers → free market functions such that those with higher incomes are likely to determine which goods and services will be produced → free market fails to allocate resources equitably → government needs to intervene generally through policies like progressive taxation and price controls to redistribute income

### **Synthesis**

- Trade-off between relatively fast correction with government intervention but with issues vs free market which can correct market on its own but takes long time
- Competition (potential or otherwise) can help achieve efficiency and equity, even in imperfect markets

### **Marking scheme**

Level	Knowledge, Application, Understanding and Analysis	Marks
L1	<ul style="list-style-type: none"> <li>• Mostly definitions</li> <li>• Severe conceptual errors</li> <li>• Largely descriptive</li> <li>• Unbalanced / undeveloped arguments (lack of clarity and coherence)</li> </ul>	1-9
L2	<ul style="list-style-type: none"> <li>• Focuses mainly on either of the inefficiency or inequity issues with balanced analysis</li> <li>• Some theoretical rigour</li> <li>• Minimal conceptual errors</li> </ul>	10–16
L3	<ul style="list-style-type: none"> <li>• A well-developed and thorough explanation of the 2 perspectives for both inefficiency and inequity issues</li> <li>• Attempt to provide <u>relevant real-life examples</u> (eg less developed, developed economies) used to aid the perspectives</li> </ul>	17-21
<b>Allow up to 4 additional marks for Evaluation</b>		
E1	For an unexplained assessment, or one that is not supported by economic analysis	1 – 2
E2	Judgment is based on economic analysis and adequately substantiated	3 – 4

**Suggested answer for question 3****Productive efficiency**

- Definition: achieved when a given level of output is produced at the lowest possible cost, given the technology available
- Condition: firm is producing on its relevant long-run average cost (LRAC) curve rather than above (i.e., using the least-cost factor combination)

**Allocative efficiency**

- Definition: achieved when society produces and consumes the combination of goods and services that maximises its welfare
- Condition:  $P = MC$  i.e., the value consumers place on the last unit of the good or service consumed equals the costs of all the factors of production involved in producing one extra unit
- Explain what happens if  $P > MC$ , if  $P < MC$ , and therefore, when  $P = MC$

**Dynamic efficiency**

- Definition: efficiency over time and involves technological progressiveness and innovation
- Firms must invest in research and development to engage in either process innovation or product innovation

**Openness of an economy**

- Openness to trade, capital movements and labour movements
- Absence of trade barriers on almost all imports of goods and services → willing to do business with any country
- Relaxation of any capital controls or restrictions on inflow of capital + active pursuit of foreign direct investment and encouragement of outward investment
- Ease of labour mobility into as well as out of the economy

**The openness of the economy can make a firm more efficient (or less inefficient)**

- Increases the degree of competition of markets particularly to domestic monopolistic or oligopolistic firms
  - Apple's stronghold on the smartphone market in the United States (US) is threatened with the entry of Korea's Samsung phone. Apple's market share will shrink as consumers now have more choices and will be switching from buying Apple phones to Samsung phones. Demand for Apple's phones falls and has also become more price elastic due to availability of more substitutes. Assuming no change to Apple's cost conditions, this leads to a fall in the price of Apple's phones from  $P_{e0}$  to  $P_{e1}$ , bringing it closer to the marginal cost. As such, Apple has become less allocatively inefficient.

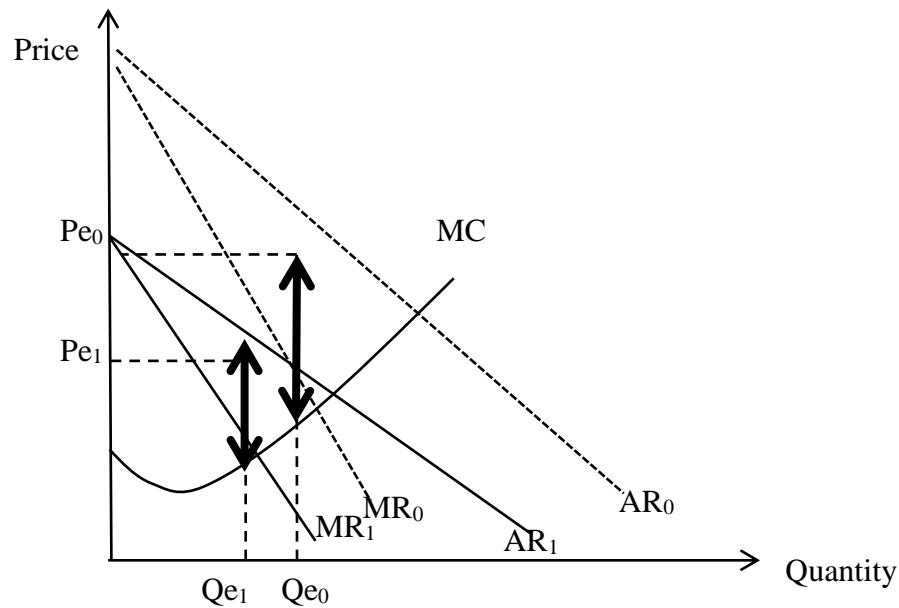


Figure 1: Less allocative inefficiency

- Exploiting economies of scale
  - Based on theory of comparative advantage, specialise and trade → allows for production on a larger scale (to serve larger export market) and be able to exploit economies of scale → downward movement down along the LRAC curve as output increases → greater productive efficiency.
- Competitive pressures on firms
  - More likely to seek cost-efficient methods to stay relevant
  - Aided by openness to imports and foreign labour, firms are able to source for cheaper inputs and low-wage foreign labour to lower their cost of production → increase more productively efficiency
  - Also have the incentive to engage in innovation to capture a larger share of the market → improves dynamic efficiency
- Ease of transfer of skills and technology
  - FDI → brings in skills and technological know-how → productivity improvements in local-owned firms, especially those that have strong linkages with foreign-owned firms → productive efficiency of local-owned firms

**However, the openness of the economy can also leave a firm less efficient.**

- Unable to cope with increased foreign competition
  - Erosion of supernormal profits → less able to engage in innovation → less dynamic efficiency
  - Venture and expand overseas only to experience diseconomies of scale later on (e.g., managerial problems may surface) → productive inefficiency
  - Firms may spend unnecessarily on advertisements and extravagant promotions as a means to maintain their market share in the face of

greater competition → scarce resources are wasted leading to inefficient allocation of resources

**Furthermore, there are other factors that can also make a firm more efficient.**

- Government policies with the specific intention to boost productivity and efficiency
  - E.g., Singapore's Productivity and Innovation Credit (PIC) scheme can push firms to employ more cost-efficient methods of production or to engage in more innovation thereby making them more productively and dynamically efficient respectively
- Price controls imposed by governments to prevent a monopoly or oligopoly from charging excessive prices can make these firms eventually more allocatively efficient (e.g., MC pricing)

### **Conclusion**

- On the whole, the openness of the economy does have a dominant influence on the efficiency of a firm. This is because it can alter the characteristics of the market the firm belongs to which in turn changes the way the firm conducts its business and ultimately its performance. For example, openness of the economy is closely tied to barriers to entry and number of sellers. When these are changed, so will the firms' pricing and output decisions which subsequently affect their achievement of allocative, productive and dynamic efficiency. However, what is less clear is whether the openness of the economy *always* makes a firm more efficient. This would depend on factors like the nature of the product the firm produces, the market structure in which the firm operates under and the resources the firm has.

### **Marking scheme**

<b>Knowledge, Application, Understanding and Analysis</b>		
<b>L3</b>	Provides different perspectives on whether openness of the economy can make a firm more efficient both in terms of possibility of negative impact and other factors. Good use of relevant examples.	<b>15 – 21</b>
<b>L2</b>	Provides different perspectives on whether openness of the economy can make a firm more efficient. Limited scope of analysis and use of relevant examples.	<b>10 – 14</b>
<b>L1</b>	For a one-sided answer with superficial analysis and minimal reference to efficiency concepts. No use of relevant examples.	<b>1 – 9</b>
<b>Allow up to 4 additional marks for Evaluation</b>		
<b>E2</b>	Judgment is based on economic analysis and adequately substantiated.	<b>3 – 4</b>
<b>E1</b>	For an unexplained assessment, or one that is not supported by economic analysis.	<b>1 – 2</b>

**Suggested answer for question 4**

- Investment is business spending on capital goods and inventories. In economics, investment always refers to the creation of capital stock and may be autonomous or induced
- In selecting appropriate macroeconomic policies to adopt for the purpose of promoting investment, a government could consider the size of multiplier and effect, the interest elasticity of demand for investment, and possibilities of the crowding-out effect setting in
- Relative importance of these factors would then depend on the size, openness, debt situation and the state of the economies

**Multiplier effect**

- Explain what the multiplier effect is and how the multiplier process works
- Size of multiplier is determined by MPW because it determines what proportion of income is spent on domestic output at each stage

**Interest elasticity of demand**

- Explain what interest elasticity is

**Crowding-out effect**

- An increase in public (or government) sector investment tends to drive up interest rates as the public sector competes with the private sector for loanable funds → increase in interest rate dampens (or crowds out) private sector investment
- Especially in countries whose governments tend to finance large budget deficits by borrowing from the non-bank private sector

**Size of multiplier is likely to be the most important in influencing governments' policy decisions to promote investment for emerging economies with strong growth and low public debt like China**

- China's multiplier size likely to be large (explain why) → China's national income is likely to be increasing at an increasing rate since national income increase more than proportionate from an increase in aggregate expenditure → need for new investment in order to increase production capacity to meet this increase in demand for final goods → increase in induced investment → China government is likely to adopt a proactive fiscal policy to boost domestic demand
- China is less influenced by the possibility of the crowding out effect as she does not need to borrow from private sector to finance this spending to promote investment
- Interest elasticity of demand for investment is also less important than the size of multiplier in making her policy decision → strong growth results in spontaneous optimism among investors that makes investment less responsive to a rise in interest rates and the demand for investment is deemed to be interest inelastic →

China government can employ her monetary tools to achieve price stability and her fiscal tools to provide infrastructure, R&D subsidy and tax incentive in order to promote domestic investment

- On balance, interest elasticity of demand is slightly more important than crowding out effect in influencing China's macroeconomic policy decisions in adopting a prudent monetary policy to dampen inflation as a means to provide a better investment climate

**However, for economies facing huge public sector debt and are in a recession such as the UK and the US in the recent years, crowding out effect as compared to interest elasticity of demand for investment and size of multiplier is the most important in influencing government's macroeconomic policy decisions to promote investment**

- These governments need to factor in the possibility of crowding out effect when trying to determine the impact of their policies
- Likely to engage an expansionary monetary policy and quantitative easing instead of an expansionary fiscal policy to promote investment since fiscal policy is no longer effective in stimulating investment → a fall in interest rate will still lead to a some rise in investment while a possible crowding out effect may reduce investment
- Economies cannot indefinitely lower their interest rates → need quantitative easing (to increase the availability of credit) would be another approach to increase investment → quantitative easing also addresses the crowding out effect
- That most governments in this situation are adopting a restrictive fiscal policy increasing tax rates is perhaps an indication that crowding out effect is the more important than the multiplier effect → income induced investment less likely to occur and worsening of the public sector debt due to the recession would have increased the possibility of a crowding out effect

**Given the increasing trend of globalisation where economies are more interconnected, interest elasticity of demand rather than crowding out effect is more important in influencing governments' decision taken to promote investment**

- During the global financial crisis in 2009, most economies' demand for investment is likely to be more interest inelastic as other non interest rates factors such as expectations of future expectations of global demand played a larger role in influencing investors' decision to invest → interest rate policy is less effect and governments should engage in fiscal policy with supply side effects to stimulate foreign direct investment → explain why countries facing possible crowding out effect are still spending to attract investment as they are focusing more on foreign direct investment and are less concerned about the crowding out of funds for domestic investment

- Size of multiplier may be of least importance → economies are now more open and marginal propensity to import is increasingly larger, making the multiplier effect to be less effective
- With access to the global market, their decisions to invest are now more dependent on global demand rather than national income → interest elasticity of demand is important to allow the governments to make appropriate policy responses to promote investment.

### **Conclusion**

The relative importance of the above factors ultimately depends on individual countries' perception of what would be the most important factor affecting investment. As income and interest rates are not the only factors that affect investment, one would also need to consider other factors such as the establishment of intellectual property rights and the reduction of red tapes to free up markets for investment. As such, the size of multiplier, interest elasticity of demand and crowding out effect may have some influences over governments' use of their demand management policies, these three concepts have limited relevance in affecting governments' decision in engaging in supply side policies to promote investment.

<b>Knowledge, Application, Understanding and Analysis</b>		
<b>L3</b>	For a comprehensive and well-balanced answer that clearly discuss the relative importance with the size of the multiplier, the interest elasticity of demand for investment and the crowding out effect, in influencing governments' macroeconomic policy decisions to promote investment with strong application to relevant real life examples.	<b>15-21m</b>
<b>L2</b>	For an undeveloped answer that attempts to weigh the importance with the size of the multiplier, the interest elasticity of demand for investment and the crowding out effect, in influencing governments' macroeconomic policy decisions to promote investment.	<b>10-14m</b>
<b>L1</b>	For an answer that shows appropriate knowledge of the size of the multiplier, the interest elasticity of demand for investment and the crowding out effect with minimal application to compare the three factors in influencing government's macroeconomic policy decision to increase investment. OR an answer that is largely descriptive with conceptual errors.	<b>1-9m</b>
<b>Allow up to 4 additional marks for Evaluation</b>		
<b>E2</b>	Assessment supported by sound economic analysis.	<b>1-2m</b>
<b>E1</b>	Unexplained assessment or assessment not supported by economic analysis.	<b>3-4m</b>

<b>Suggested answer for question 5(a)</b>
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- Define circular flow of income
- Diagram
- Explain clearly the flow of income between firms and households (i.e., factor payment and domestic consumption)
- Define and explain injections and withdrawals (and their components)
- Increase in G (give example) → injection into the circular flow of income → disequilibrium → G is assumed to be autonomous → multiplier process which causes a multiplied increase in national income → returns to equilibrium when injections are equal to withdrawals
- Explain at least two rounds of the multiplier process with a numerical example (emphasise injections and withdrawals)
- This multiplier process continues, and eventually will come to an end, when the initial increase in injection (in G) is “leaked” away as withdrawals from the circular flow of income
- National income of the country will rise more than the original increase in G →  $k = \frac{1}{\text{marginal propensity to withdraw (MPW)}}$  → eventual multiple increase in national income is  $k\Delta G = \$\_\_\_$  (based on numerical example)
- The extent of increase in national income depends on the size of multiplier → the larger the marginal propensity to withdraw, the larger is the leakages from the circular flow of income, the smaller the size of the multiplier, and hence the smaller the increase in national income

**Marking Scheme:**

Level	Knowledge, Application, Understanding and Analysis	Marks
L3	An answer that provides a clear and thorough explanation of the multiplier process situated with the framework of the circular flow of income. Diagrams and examples are used to support the explanation, and underlying assumptions are explicitly stated. Minimal errors/gaps are present.	7-10
L2	An answer that provides either a good explanation of one of the concepts (i.e., circular flow of income and the multiplier process), with little reference to the other concept. OR An answer that provides an underdeveloped explanation of both concepts, lacking in completeness and/or accuracy.	5-6
L1	An answer that demonstrates weak knowledge and application of the concepts of circular flow of income and the multiplier process, possibly with multiple conceptual errors.	1-4



## Suggested answer for question 5(b)

**Current economic policies**

- MAS has maintained the policy of a modest and gradual appreciation of the Singapore dollar nominal effective exchange rate policy band → mitigate inflationary pressures amidst sustained economic growth and rising global commodity prices → real wages can rise over time → increase in consumption of goods and services → higher material SOL
- Prudent fiscal policy in Singapore is aimed at promoting long term economic growth → accumulation of government reserves allows actualisation of the long-term objectives of government budgetary policy to promote and support sustained, non-inflationary economic growth and to focus government expenditure on delivering essential goods and services and programmes to protect the environment → improve both material and non-material SOL
- Social spending has consistently taken the biggest portion of the government's budget, almost doubling between 2006 and 2012 → based on the belief private sector is the main engine of growth and that government should encourage this growth via producing a stable and conducive environment → government funds channeled into developing productive infrastructure and support services, and areas which yield lasting returns such as education → raise non-material standard of living
- Focus more on income inequality in recent years → efforts to raise wages at the bottom and increase taxes on wealth at the top + cash handouts and supplemented incomes with Workfare Income Supplements for low-income earners → increase the material standard of living of low-income earners as wealth is now more evenly distributed

**Adjustment of policies**

- In view of the increasing share of services as a percentage of GDP, however, MAS may wish to moderate the strength of the Singapore dollar → strong Sing dollar is likely to hurt the price competitiveness of the invisible exports such as tourism and tourism related services which involved less import content
- Given a worldwide recession in recent years, and less imperative to control imported inflation in light of falling global demand → can review her current policy of a gradual modest appreciation → instead adopt a neutral stance to enhance the price competitiveness of Singapore's export → fall in the foreign price of export and a rise in the domestic price of import, assuming Marshal-Lerner Condition satisfied,  $(X-M)$  and hence can increase → mitigate the adverse impact on national income and material SOL
- Can be more selective in attracting FDI given her lack of resources → attracting FDI can be based on Singapore's potential comparative advantage + with a focus to enhance the non-material aspects of SOL (e.g., green technology)

- In view of world protectionism → supply- side policies to encourage more innovation, research and development in order to explore niche areas for exports as tariff are often imposed on final product rather than on the patented technology → necessary for the government to protect Intellectual Property (IP) → attract FDI into Singapore to produce innovative products for domestic consumption as well as for exports → over time, Singapore may develop a comparative advantage in such exports which will ultimately contribute to higher economic growth and higher SOL
- In light of an ageing population → increasing demands in the market for healthcare causing an upward pressure on prices → government might need to channel more funds into healthcare to help cope with rising healthcare costs → improve the non-material SOL

### Conclusion

- Singapore government should not change its current economic policies to achieve a higher standard of living but rather modify them in response to the challenges the economy faces internally and externally → may be a need to make significant changes to the policies implemented by the Singapore government when economic situations change
- Singapore government has modified main economic goal to achieving an inclusive growth (i.e., sustainable growth with more equal income distribution) → policies must therefore commensurate with this goal

### Marking scheme

Level	Knowledge, Application, Understanding and Analysis	Marks
L3	For a balanced and thorough discussion on whether the Singapore government should change its policies (FP, MP and Supply side policies) to achieve a higher SOL.	9-11
L2	For an answer with a balanced but underdeveloped discussion on whether the Singapore government should change its policies (FP MP and Supply side policies –any two) to achieve a higher SOL.	6-8
L1	For a superficial discussion on whether the Singapore government should change its policies to achieve a higher SOL. Answer may contain inaccuracies and/or irrelevant points.	1-5
<b>Allow up to 4 additional marks for Evaluation</b>		
E2	Evaluation is based on economic analysis and adequately substantiated.	3-4
E1	Evaluation may not be based on economic analysis and inadequately substantiated.	1-2

**Suggested answer for question 6 (a)**

- Define interest rate and link to loanable funds market
- Define exchange rate and link to foreign exchange market

**Interest rate affects exchange rate**

- Fall in US interest rate → relatively lower than that of Singapore's → "hot money" outflow from the US into Singapore as short-term capital investors stand to gain a higher returns from transferring their deposits into Singapore's commercial banks → increase supply of loanable funds into the Singapore economy → in order to deposit into Singapore's commercial banks, need to exchange for Singapore dollar → higher demand for Singapore dollar (higher supply of USD) in the foreign exchange market by selling USD → Singapore dollar appreciates against USD / USD depreciates against Singapore dollar (diagram with appropriate axes)
- China implements contractionary monetary policy centred on interest rate to curb its rising demand-pull inflation → interest rate in China will rise → rise in cost of borrowing that decreases domestic investment + the opportunity cost of spending on big tickets items will also increase as it is now more costly to finance consumer's borrowings → fall in C and I → fall in AD → fall in GPL → relative price of exports cheaper than that of its trading partners and its relative price of imports to be more expensive → assuming the demand for China's exports and imports are relatively price elastic in the long run due to greater availability of substitutes →  $Q_{dx}$  for China will rise by more than proportionately and  $Q_{dm}$  for China will fall by more than proportionately → overall rise in net X → greater demand for China's yuan by its trading partners to purchase its exports and a fall in supply for China's yuan as China residents are purchasing less imports and hence, require less supply of yuan to exchange for foreign currencies in the foreign exchange market → appreciation of yuan against other currencies

**Exchange rate affects interest rates**

- Appreciation of USD against Singapore dollar → lowers the domestic price of US imports from foreign countries and raises the foreign price US exports to foreign countries → fall in US net X (assuming the Marshall-Lerner condition holds) → fall in AD in the US → multiplied fall in national income level in the economy → fall in individuals' income level in the economy → lower purchasing power and consumer spending → firms will be less willing to invest (due to anticipated decline in consumption) → fall in demand for loanable funds → fall in interest rate (diagram)
- If appreciation of domestic currency is continuous → short-term capital investors will see the economy as one that is stable and will be more confident in channelling their funds (hot money) into Singapore's economy → increase in supply of loanable funds fall in interest rate (diagram)

### **Marking scheme**

Level	Knowledge, Application, Understanding and Analysis	Marks
L3	Both sides of the relationship are clearly and accurately explained <u>with detailed elaboration</u> of the market for loanable funds market and its implication on interest rate and the market for currencies (foreign exchange market) and its implications on exchange rate.	7 - 8
L2	Both sides of the relationships explained with <u>some elaboration</u> of the market for loanable funds market and its implication on interest rate and the market for currencies (foreign exchange market) and its implications on exchange rate.	4 – 6
L1	Only provided some fundamental knowledge of interest rate and exchange rate without clear linkages and with conceptual errors.	1 – 3

### **Suggested answer for question 6(b)**

Define external stability

- Stable exchange rate, not prone to huge fluctuations
- Healthy BOP (define BOP)
- A BOP surplus (net inflow of foreign currencies) will cause the exchange rate to appreciate while a deficit will cause a depreciation

### **External stability should be an economy's main macroeconomic goal**

- Nature of Singapore economy → import prices are a major threat to price stability → stable exchange rate (through a gradual and modest appreciation of exchange rate) is important to a small economy to minimise imported inflation and to achieve the goal of low inflation.
- Stable exchange rate gives investors greater confidence → if unstable, will discourage entry of FDI into a country due to uncertainty → FDI important for small country's long-term growth → important for small economy like Singapore to achieve external stability to help achieve the goal of sustained growth
- Should also be main goal if exchange rate depreciates rapidly due to an unhealthy (unsustainable) BOP deficit position → in urgent need to restore stability in BOP and exchange rate to prevent compromising internal instability → external stability is important to achieve other goals (i.e., inflation, growth, unemployment) of internal stability

### **External stability should not be an economy's main macroeconomic goal**

- For a large economy like the US → actual growth is driven largely by C and I → low inflation has more impact on growth than external stability (reduces business

uncertainty, keeps interest rate, thereby promoting C and I) → internal stability results in productivity in the US rising and US export goods becoming more competitive → external stability

- For a developing economy like Vietnam → vast under-utilised resources and high unemployment → aim for growth instead → also internal stability helps achieve external stability

### **Conclusion**

- In the LR, goal of external stability complements internal stability
- In the long run, an economy, small or large, open or less open, developed or developing would benefit if all four goals are viewed with equal importance

### **Marking scheme**

Level	Knowledge, Application, Understanding and Analysis	Marks
L3	<ul style="list-style-type: none"> <li>• Balanced argument for and against external stability as main goal using a range of factors (scope):               <ul style="list-style-type: none"> <li>○ nature of economies (eg size and openness of economies; development stage eg developing)</li> <li>○ state of economies (eg high inflationary pressure; recession)</li> <li>○ fiscal situation (eg large government deficit)</li> </ul> </li> <li>• Appropriate examples</li> <li>• Well-developed arguments</li> </ul>	11-13m
L2	<ul style="list-style-type: none"> <li>• Arguments for either external stability goal or another goal</li> <li>• Explanation without application eg no context/example of countries</li> <li>• Less developed arguments</li> </ul>	6-10m
L1	<ul style="list-style-type: none"> <li>• Descriptive explanation of the four macroeconomic goals and benefits</li> <li>• No consideration which macroeconomic goal is main goal</li> <li>• Conceptual errors eg external stability</li> <li>• Irrelevant points eg multiplier size</li> </ul>	1-5m
	<b>Evaluation</b>	
E2	Evaluative comments with justification.	3-4m
E1	Evaluative comments, unexplained	1-2m