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## 2015 Preliminary Examination 2 Pre-University 3

**ECONOMICS**

**9732/02**

Paper 2: Essay Questions

**18 September 2015**

Additional Materials: Answer Paper

**2 hours 15 minutes**

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### **READ THESE INSTRUCTIONS FIRST**

Write your name and class on all the work you hand in.  
Write in dark blue or black pen on both sides of the paper.  
You may use a soft pencil for any diagrams or graphs.  
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.

At the end of the examination, hand in your answers to the 2 sections together.

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

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

**[Turn over**

Answer **three** questions in total.

**Section A**

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

- 1 The government has raised the tax on alcohol and liquor in Indonesia. This spells bad news for both sellers and buyers of alcohol and liquor. At the same time, the economy is experiencing a downturn. The impact on different buyers – social drinkers and heavy drinkers - is different.
  - a) Using elasticity concepts, explain which party bears the greater burden of the tax increase. [10]
  - b) Discuss the effects of the tax rise and the economic downturn on the market of alcohol and liquor for both social and heavy drinkers. [15]
  
- 2 In theory, firms are assumed to be motivated by the profit maximising objective in its decision making process. However, in reality, this assumption about the behaviour of firms may not be totally true. Discuss. [25]
  
- 3 Under Singapore's Bus Service Enhancement Programme (BSEP), over 248 new buses were added to beef up 111 existing services. With more buses, more bus routes and greater frequency, bus travel in Singapore is going to be a more comfortable and convenient way to get around.
  - a) Explain why there is a need for governments to invest more in managing road usage. [10]
  - b) Assess whether the development of a more comprehensive public transport network is the best approach towards managing road usage in Singapore. [15]

**Section B**

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

- 4** Economic slowdown and rising unemployment has caused many governments to implement protectionist measures such as tariffs to help shield struggling sectors from growing competition from foreign firms.

Explain the types of unemployment in an economy and discuss whether protectionism can help governments solve these different types of unemployment. [25]

- 5** Prices in an economy can be affected by external factors as well as by domestic factors. Similarly, prices will affect the domestic and external sectors of the economy.

a) Explain how changes in the external value of a currency can affect the domestic price level. [10]

b) Discuss whether an increase in the general price level will affect the domestic sector more than the external sector. [15]

- 6** The trend in business and trade in recent years is towards globalisation.

a) Explain the trend towards globalisation. [10]

b) Globalisation and openness to the outside world have brought many benefits to the Singapore economy. Discuss. [15]

**End of paper**

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## 2015 PU3 H2 Econs PE 2

1 The government has raised the tax on alcohol and liquor in Indonesia. This spells bad news for both sellers and buyers of alcohol and liquor. At the same time, the economy is experiencing a downturn. The impact on different buyers – social drinkers and heavy drinkers - is different.

c) Using elasticity concepts, explain which party bears the greater burden of the tax increase. [10]

d) Discuss the effects of the tax rise and the economic downturn on the market of alcohol and liquor for both social and heavy drinkers. [15]

### Part (a) answer scheme

Tax is usually imposed on seller which will increase COP  $\rightarrow$  SS  $\downarrow$  ie SS curve will shift leftwards  $\rightarrow$   $P_e \uparrow$  &  $Q_e \downarrow$

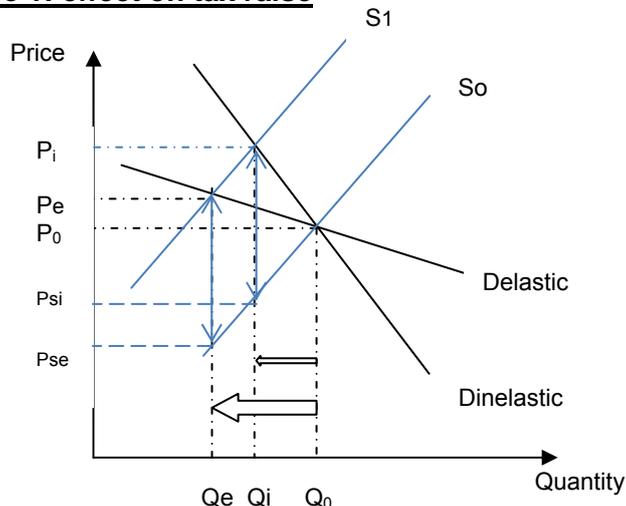
The extent of  $P_e \uparrow$  &  $Q_e \downarrow$  will dp on PED. With inelastic demand, the price increase is greater than elastic demand, thus the burden of the tax is absorbed more by the buyer if demand is more inelastic. In the figure 1 below, the unit tax is shown by the arrows, when  $PED > 1$ , unit tax is  $P_e P_{se}$ , price increase is  $P_o P_e$  (tax born by buyers), so sellers bear the remaining tax which is  $P_o P_{se}$

When  $PED < 1$ , unit tax is  $P_i P_{si}$  (same as  $P_e P_{se}$ ), price increase is  $P_o P_i$  (tax born by buyers), sellers bear the remaining tax which is  $P_o P_{si}$ .

It can be seen that the price increase is greater for the inelastic demand ie buyers bear the greater burden of the tax.

Heavy drinkers or those addicted to alcohol will bear the greater burden because they are dependent on the need to drink and thus, they will pay the price increase due to the tax. Social drinkers are those with little need to drink and thus, a slight price increase is likely to make them reduce their consumption by a greater amount, thus the price increase cannot be very high.

**Figure 1: effect on tax raise**

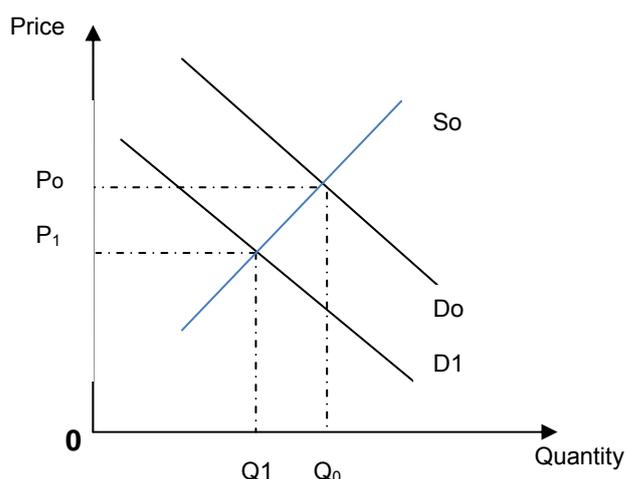


<b>Knowledge, Application, Understanding, Analysis</b>		
<b>L1</b>	<i>Basic understanding of concept but intent of question not understood.</i>	<b>1 – 3</b>
<b>L2</b>	<i>Addresses the question, concepts applied correctly, but answer lacks depth such as failure to look at different sub markets, fail to include diagrams.</i>	<b>4 - 7</b>
<b>L3</b>	<i>Good analysis and sound judgment of whether the demand is price elastic or not. Shows ability to analyze the different submarkets and examine the implications on elasticity.</i>	<b>8 - 10</b>

### Part (b) answer

With the economic downturn, people's income would fall. This will reduce people's demand on goods and services including alcohol consumption. When dd falls,  $P_e$  &  $Q_e$  will  $\downarrow$ . In figure 2, dd shifts leftwards from  $D_0$  to  $D_1$  and price falls from  $0P_0$  to  $0P_1$  and equilibrium output falls from  $0Q_0$  to  $0Q_1$

**Figure 2: effect of economic downturn**



### Combined effect

Tax is imposed on seller  $\rightarrow SS \downarrow \rightarrow P_e \uparrow$  &  $Q_e \downarrow$

Income falls  $\rightarrow DD \downarrow \rightarrow P_e \downarrow$  &  $Q_e \downarrow$

So combined effect :  $Q_e$  will fall but  $P_e$  depends on whether  $SS \downarrow$  is greater than  $DD \downarrow$  ie whether the tax effect on  $ss$  is greater than the fall in income due to the economic downturn. If  $SS \downarrow$  is greater than  $DD \downarrow$ , then the  $P_e$  will  $\uparrow$  and vice versa.

For heavy drinkers,  $YED$  is likely to be  $< 1$  ie the fall in demand is likely to be slight. So in this market,  $SS \downarrow$  is greater than  $DD \downarrow$ , then the  $P_e$  will  $\uparrow$  but for the social drinkers' market,  $YED$  is likely to be  $> 1$  ie the  $dd$  fall is likely to be great since social drinkers are not dependent on alcohol and can cut back on demand with the fall in income.

As seen in part (a),  $PED < 1$  for heavy drinkers will lead them to be willing to pay for the high price and the slight fall in  $Q_e$  when tax is imposed. Thus for this market of heavy drinkers, the impact of both tax and fall in income will have lesser effect on  $Q_e$  and  $P$  is likely to increase.

<b>Knowledge, Application, Understanding, Analysis</b>		
<b>L3</b>	<i>A balanced, in depth analysis showing clear understanding of how demand &amp; supply analysis affects the markets for both types of drinkers.</i>	<b>9 - 11</b>

<b>L2</b>	<i>Shows understanding of what question requires, but analysis lacks depth, points are not developed. Candidate does not show awareness of limitations</i>	<b>5 – 8</b>
<b>L1</b>	<i>Basic understanding of concept but intent of question not understood.</i>	<b>1 – 4</b>
<b>Evaluation</b>		
<b>E2</b>	<i>Evaluative assessment supported by economic analysis → Substantiation of an evaluative comment and/or conclusion</i>	<b>3 - 4</b>
<b>E1</b>	<i>An unexplained judgement → An unexplained evaluative conclusion/comment</i>	<b>1 – 2</b>

- 2 In theory, firms are assumed to be motivated by the profit maximising objective in its decision making process. However, in reality, this assumption about the behaviour of firms may not be totally true. Discuss. [25]

### Answer Scheme

#### Thesis: Traditional objective of firms

##### **Profit maximization**

Traditionally, it has been thought that a firm will seek to achieve as high a level of profit as possible. Profit is the difference between the total revenue received from selling the good and the total cost of producing the good.

The producer thus needs to know

- (i) costs incurred for the various levels of output produced.
  - (ii) revenue he can earn for the various levels of output produced.
- He will then be able to choose the level of output that maximises profits.

A firm will maximize its profit if it produces where marginal cost equals marginal revenue (i.e.  $MC=MR$ ).

**Marginal cost (MC) is the additional cost incurred to produce an additional unit of output.**

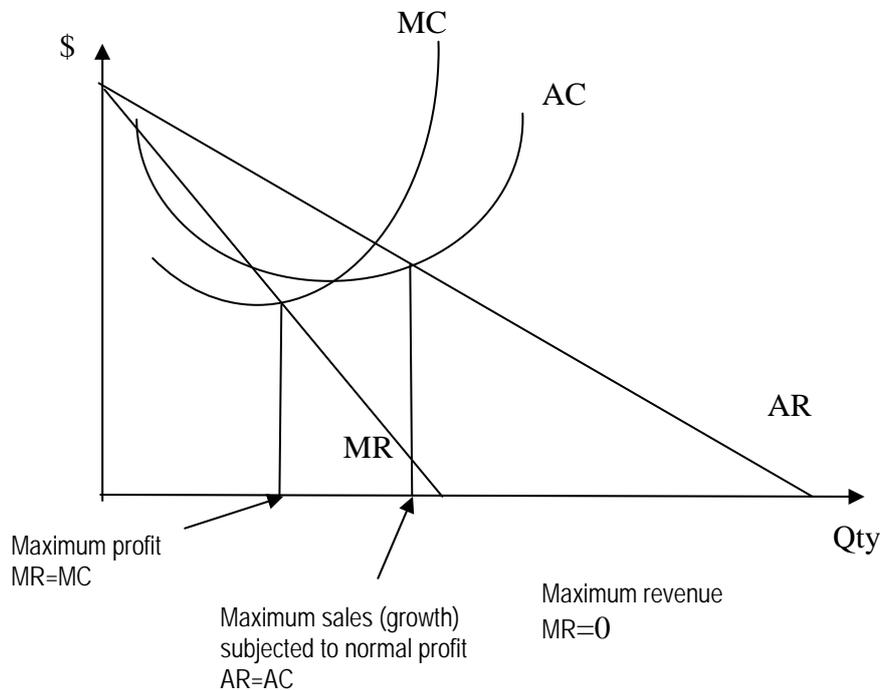
**Marginal revenue (MR) is the additional revenue from the sale of an additional unit of output.**

As long as the MR of a particular unit of output is  $>$  its MC, that unit of output will be produced. Thus the firm will continue producing its output until  $MR = MC$ . This is the firm's equilibrium.

##### **Problems with traditional theory**

Some economists claim that it can be difficult for firms to calculate marginal cost and marginal revenue and so to calculate the profit maximizing price and output. (In practice, many firms estimate their long run average cost and then add a profit margin). However, this does not invalidate the profit maximization theory if firms are still seeking to earn as much profit as possible and are moving towards the output where  $MC=MR$  (by finding the output where TR and TC are furthest apart). The main difficulty here however, is a lack of information. Firms may well use accountants' cost concepts not based on opportunity cost. If it were thereby impossible to measure profits, a firm would not be able to maximize profits, except by chance.

Figure 1



### **Anti-thesis : other objectives of firms**

Many large companies are owned by shareholders and run by managers, including chief executives. Shareholders are interested in high profits while managers may have other objectives e.g. obtaining status, prestige which is often more closely linked to the size of the firm than its profitability. High profits can also attract unwanted attention from the government, concerned that the firm may be exploiting consumers, or from other firms keen to acquire profitable assets.

### **Sales maximization (Growth maximization)**

Managers may be more interested in maximizing sales rather than profits i.e. to sell greater quantity and dominate the market. However, they are unlikely to be indifferent to profits even when pursuing sales maximization because they will not usually increase output beyond a point where average cost equals average revenue. As shown in Figure 1, a sales maximizing firm will produce at OQ3.

**Sales maximization** and profit maximization and the interests of managers and shareholders may conflict, especially in the short run. To increase sales a firm may spend a large amount on advertising and/or cut prices, which may initially lower profits. Shareholders are likely to want a high proportion of profits distributed as dividends, whereas managers, concerned about growing the firm, will want to reinvest most of the profits in equipment and buildings. However, in the long run the two objectives may be compatible and both shareholders and managers may be happy if the actions taken in pursuit of sales maximization increase market share and raise long run profits.

### **Sales revenue maximization**

Managers' actions may also be influenced by the level of sales revenue. High sales

revenue can make it easier for a firm to raise loans from bank.

If a firm is aiming to achieve **sales revenue maximization** it should produce **where marginal revenue is zero since at this point total revenue will be highest**. As shown in Figure 1, the sales maximizing firm will produce output OQ2. The level of output is likely to be beyond the profit maximization point, but whether the firm earns supernormal or normal profit or makes a loss will depend on the relationship between total revenue and total cost at this point..

### **Profit satisficing**

Studies of firms' activities have suggested that rather than trying to maximize profits, managers aim for a profit level that will keep shareholders happy. This may be because they are reluctant to accept the increased risks and pressures associated with fiercely competitive policies, or because they are seeking to satisfy not only shareholders but also other **stakeholders** in the firm. Stakeholders are people with a direct interest in the actions of the firm, including (in addition to managers and shareholders) workers, consumers, suppliers, the local community and environmentalists. These groups may have different objectives: consumers want low prices and high quality; workers want high wages, job satisfaction and security; suppliers want a high price; the local community want employment but an absence of congestion; and environmental groups want a clean environment and the conservation of flora and fauna.

Some of the objectives that may appear to conflict in the short run may be compatible in the long run. For example, showing concern for the environment, say by not selling genetically modified food or diverting a pipeline away from an area of natural beauty, is likely to raise a firm's costs. However, it may also provide it with good publicity and may increase demand for its products. In the long run revenue may rise by more than costs and so profit may increase. Similarly, raising workers' wages will increase costs in the short run but may reduce labour costs in the long run if the higher wages increase labour productivity and reduce labour turnover.

Some claim that seeking to please all the stakeholders can distract a firm from its main function of providing profits for shareholders. Others argue that firms have a responsibility to pursue not only profits but also high labour, environmental and ethical standards. If the public perceives that a firm is not following ethical policies, its sales and profits can suffer. For e.g., profits could be adversely affected by a consumer boycott to protest about the firm's unethical acts.

### **Conclusion:**

Despite needing a minimum level of profit to survive in the real world firms may not always seek profit maximization as its primary behavior. Yet its other objectives may not be in conflict with the primary profit maximizing objective.

Evaluation: Whether the behaviour of firms is determined by the need to maximise profits depends on

- Characteristics of the firms
- Time period
- Contestability of the markets.
- Sustainability of the barriers to entry.

<b>Knowledge, Application, Understanding and Analysis</b>		
<b>L3</b>	For a thorough and well-balanced answer that provides good analytical structure to assess whether in reality, behaviour of	<b>16 – 21</b>

	firms is determined by the need to maximize profits.	
<b>L2</b>	For a balanced but limited and undeveloped answer that has some analysis.	<b>8 – 15</b>
<b>L1</b>	For an answer that is largely descriptive and lacks a clear structure. Simple reasons for firms' price and non-price behavior with no reference to real world examples.	<b>1 – 7</b>
<b>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>

**3 Under Singapore's Bus Service Enhancement Programme (BSEP), over 248 new buses were added to beef up 111 existing services. With more buses, more bus routes and greater frequency, bus travel in Singapore is going to be a more comfortable and convenient way to get around.**

**a) Explain why there is a need for governments to invest more in managing road usage. [10]**

**b) Assess whether the development of a more comprehensive public transport network is the best approach towards managing road usage in Singapore. [15]**

(a) Suggested Answer:

- Governments usually intervene in selected markets for goods and services when the market itself failed to allocate resources efficiently. In the case of road usage, many developed countries are experiencing excessive usage of roads that lead to serious congestion issues that would lead to substantial costs to the economy as a whole.
- When a driver enters a road space, he receives some benefit (the mobility provided by the road) and faces some cost (the expense of driving, including time cost). What he doesn't have to bear is the cost of the congestion he creates by driving, which is borne by every other driver on the road. That's a negative externality; it means that too many drivers will use a road and cause it to become congested.
- The additional travelling time on the roads as a result of congestion would have an impact on the entire economy as employers take a longer time to arrive at their workplaces. Delivery costs would also rise pushing for the need to incur additional costs of production by purchasing more delivery vehicles, etc
- Diagram to illustrate mkt failure in the usage of roads (to be inserted)
- As shown in figure 2, assuming there is no external benefit in consumption,  $MPB = MSB$ .
- The **market equilibrium output is at  $Q_m$**  occurs where  $MPC = MPB$  with price at  $P_m$ .
- However, at  $Q_m$ , the **MSC exceeds the MSB**.
- The **society does not value an additional unit of the good as much as the additional cost needed to produce the good. Over consumption of road usage occurs.**
- The **socially optimal** level of output occurs where  **$MSB = MSC$**  is at  $Q_e$  with a higher price of  $P_e$ .
- There is a **deadweight loss**.

- The market outcome is **not allocative efficient**. Market price is lower than the true price that takes into account the negative externalities in production.
- **A case of market failure**. Thus, justify the need for the government to invest into the intervention of road usage

<b>Knowledge, Application, Understanding, Analysis</b>		
<b>L1</b>	For an answer that shows some knowledge of road congestion as a potential source of market failure	<b>1 – 3</b>
<b>L2</b>	For an underdeveloped explanation why road congestion is a source of market failure	<b>4 - 7</b>
<b>L3</b>	For a good analytical explanation of why road congestion is a source of market failure and therefore becomes a strong rationale for the government to intervene/invest in the management of road usage.	<b>8 - 10</b>

<b>Markers' Comments</b>

- (b) Comparison of at least 3 road usage management policies including the improving public transport system.

Making public transport network more comprehensive (Demand Management policy):

- Provide a **strong and attractive alternative** to using roads by private transport.

Strengths:

- To develop a comprehensive public transport system that presents a viable substitute to private transport. A more efficient mode of travelling on the road. The BSEP is a key initiative by the government to ensure waiting time for buses is reduced and the interconnectedness between key locations is enhanced. Commuters would then be incentivised to choose public transport over private transport

Limitations:

- However, due to scarcity of land, there is a limit to the number of buses and bus routes we could add. Having too many buses and too many bus routes may exacerbate the road congestion issue rather than alleviating it.

Evaluative Comparison:

- Improving the public transport system help to alleviate the road congestion issue by targeting the alternatives to private transport whereas the other two policies achieve the same objective by targeting different aspects of the demand of private transport

COE (Quota bidding system):

- Control the **ownership** of private cars by setting a quota on the availability of certificate of entitlement (COE)
- Effective in controlling the car population in Singapore
- However, due to rising affluence of Singaporeans and the high sunken costs of the COE, owners of cars has a higher tendency to use the car more often. This would then contribute to more road usage and therefore indirectly worsen the road congestion issue. It is also a blunt management as compared to the other polices as it applies to all car owners and not only to those who contribute more to the road congestion.

### Electronic Road Pricing (Road Usage Taxation)

- THE logic behind the Electronic Road Pricing, a form of **congestion pricing**, is to **tax road usage** to maintain free-flowing traffic conditions. The tax is set to be equivalent to the external costs of road usage at the societal equilibrium level of output.
- It is a more precise management tool than the COE policy as road users now have a choice whether they wish to pay the ERP charges.
- However, the ERP approach worsens equity as road users who are price sensitive are usually the middle to lower income group. The demand for road usage for these two groups of road users are price elastic since the costs of road usage tends to make up a larger proportion of their income. The rich are less likely to feel the pinch of paying the ERP charges and the one who would enjoy the most of a less congested road. The price sensitive road users have to sacrifice by choosing to use the road during off peak periods, take an alternative longer route to reach their destination or might even not use the road all together.
- [Evaluative Comparison]: The ERP targets directly the road usage component.

### [Weighted overall Evaluation]

A combination of all three policies is required to manage road usage as each policy targets a different aspect of road usage. The COE system addresses ownership of cars and ensures a sustainable the growth of car population in Singapore. The ERP is a targeted approach to manage road usage at congested areas during peak hours while a comprehensive public transport network provide a strong alternative for road users who are deterred from road usage as a private commuter due to the first 2 policies.

Level	Descriptor	Marks
L3	For a good analytic comparison on the effectiveness and limitations of each of the road usage management policies to alleviate the road congestion issue.	9 – 11
L2	For an underdeveloped comparison of the road usage management policies OR A one-sided answer (only covers effectiveness or limitations) OR Lack in scope of coverage (only cover 1 to 2 policies)	5 – 8
L1	For an answer that shows lack of knowledge on the policies	1 – 4
E2	Weighted judgement on the choice of policies upon evaluative comparison	3 – 4
E1	Judgement without evaluative comparison	1 – 2

### Markers' Comments

## Section B

- 4 Economic slowdown and rising unemployment has caused many governments to implement protectionist measures such as tariffs to help shield struggling sectors from growing competition from foreign firms.

**Explain the types of unemployment in an economy and discuss whether protectionism can help governments solve these different types of unemployment.**

[25]

### **Suggested Answer**

#### **Introduction**

Define unemployment.

Unemployment is commonly defined as the situation in which people who are willing and able to work are unable to find work at the prevailing wage rate.

#### **Development (1<sup>st</sup> Part)**

Identify and explain the main types of unemployment – demand-deficient, structural and frictional.

##### **Demand-Deficient Unemployment**

Demand-deficient unemployment is also known as Cyclical or Keynesian unemployment. Such unemployment rises during periods when real GDP falls (or grows at a slower-than normal rate) and decreases when real GDP grows rapidly. During periods of falling GDP, i.e. recession, firms find that they are unable to sell their current level of output. With the accumulation of unsold goods overtime, they will cut back on production and hence the number of workers they employ. Demand-deficient unemployment is a major cause of unemployment in Singapore because Singapore is a small and open economy and is heavily dependent upon exports for economic growth. When demand for exports falls due to negative external economic conditions, eg. in the 2008 Global Financial Crisis, Singapore's AD will fall and shift to the left, lowering national output and income via the multiplier process, while increasing demand-deficient unemployment.

##### **Structural Unemployment**

Structural unemployment is caused by the changing pattern of demand and/or supply in the economy. This results in a situation where the demand for labour is less than the supply of labour in an individual labour market in the economy. Adjustments to the equilibrium are not fast enough because of the difficulty and inability of workers with specific skills to find alternative employment. In short, there is a mismatch between the skills available and the requirements of new job opportunities. Hence structural unemployment arises due to occupational immobility. With globalisation, restructuring occurs in an economy due to its changing comparative advantage and structural unemployment arises. Employment in 'sunrise' industries will expand while those in 'sunset' industries will contract. For instance, Singapore has recently moved into the biomedical and R&D (Research and Development) industries and thus workers who can only work in the lower end manufacturing industries might find themselves unemployed since mass production work can be outsourced to India and China.

##### **Frictional Unemployment**

Frictional unemployment is also known as search unemployment. Such unemployment is due to poor information available in the labour market. Hence, there is time lag before people can find suitable jobs. This happens because employers are not fully informed about the type of labour that is available and workers are not informed about what jobs are available. Therefore, the more imperfect the information is, the longer the search time will be. This type of unemployment is inevitable but is short-term in nature. Thus, frictional unemployment does not present a serious unemployment problem. Such unemployment would normally account for about 1-2% of the economy's unemployment rate.

#### **Development (2<sup>nd</sup> Part)**

Define Protectionism

Protectionism is a policy of sheltering the domestic industries from foreign competition through the imposition of trade barriers on foreign goods and services. Tariffs and quotas are the most common forms of trade barriers.

Thesis: Yes, protectionism can help governments solve the different types of unemployment

Increases AD and Reduces Demand-deficient Unemployment

When there is an economic slowdown and a general depression in world trade, countries seek to boost domestic demand and tend to place restrictions on imports in order to ensure that income is spent on domestic goods, thus maintaining, if not raising, the level of employment in the home countries. Through protectionist measures like the imposition of tariffs on imported goods, prices of imported goods increase and this makes the domestic goods relatively cheaper. If the demand for imports is price elastic, the higher price of imports will lead to a more than proportionate fall in quantity demanded of imports, thereby reducing import expenditure. Net exports rise, ceteris paribus, leading to a rise in AD. At the same time, domestic consumers and firms are induced to switch their expenditure to the relatively cheaper domestic consumer and capital goods. The increase in consumption of domestic goods will raise the AD. Through the multiplier process, the real national income of the country will rise assuming the economy operates below full employment and more factors such as labour are needed to produce more good and services. Thus, demand for labour rises and demand-deficient unemployment rate falls. (AD-AS Diagram)

Evaluation

The success of protectionism depends on the price elasticity of demand for imports. If the demand for exports is price inelastic, an increase in the price of imports will lead to a less than proportionate decrease in the quantity demanded of exports. As such, import expenditure will increase instead and worsen the net exports leading to a reverse multiplier effect, worsening demand-deficient unemployment.

Protectionism measures also reduce the extent of withdrawal and make expansionary demand-side policies more effective in boosting domestic spending. Tariffs and quotas make imports more expensive and reduce the amount of imports available respectively. Thus, these protectionistic measures reduce the value of MPM and increase the size of multiplier (since  $k=1/MPW$  and  $MPW = MPS + MPT + MPM$ ). This means that households tend to spend a smaller proportion of additional income on imports. With a smaller MPM value, this lowers the amount of withdrawals and thus raises the size of the multiplier. When AD increases, it thus increases GDP by a greater extent. Hence, protectionism stimulates economic growth through expediting the success of government's expansionary fiscal and monetary policies.

Evaluation

However, raising AD is more appropriate for reducing cyclical unemployment rather than structural or frictional unemployment. Creating more jobs will not increase employment for those who lack the necessary education and skills. It will also be less effective in a country with low  $k$  (e.g. S'pore) than in USA.

Reduces Impact of Changes in Comparative Advantage and Structural Unemployment

Comparative advantages are constantly changing. A country could have lost its comparative advantage in certain industries because relative costs of production across countries have changed. This means that there are always some declining industries. If resources are mobile, they would move smoothly from the contracting industries to those in which the country now has a comparative advantage in. However, workers might not possess the relevant skills in industries with job opportunities. If the declining industries contract and start to retrench workers, structural unemployment will rise. Protection would allow the 'sunset' industry to decline gradually by maintaining the demand for its goods, thus allowing the workers sufficient time to be retrained and move to the 'sunrise' industries, reducing the problem of structural unemployment.

Evaluation

Temporary protection may be warranted to allow the mobility of resources to new industries.

Less vulnerable to external shocks -> greater growth stability and hence employment stability

International trade may make a country vulnerable to sudden changes in demand or supply. For example, if Malaysia specializes and trades only in rubber, massive unemployment will result when there is a fall in world demand. Protectionism will reduce the vulnerability of the economy to external shocks leading to greater growth stability and hence employment stability.

Anti-Thesis: No, protectionism cannot help governments solve different types of unemployment

Retaliation

Protectionism may trigger retaliation by the other trading partners hence minimizing its effects in promoting higher growth and employment. E.g. when US impose tariffs against its textile imports, its trading partners may respond by imposing tariffs on US exports. Retaliation often results in a fall in net exports as the fall in exports may be greater than the fall in imports. Protected industries such as textile industry in US may have already declined and can no longer compete on equal terms with China and other LDCs that have cheaper labour and better access to high grade raw materials. The protected industries will also not have incentives to improve efficiency. If US producers or consumers do not buy from China and other LDCs, they would not be able to buy US goods. Hence when US imposed protectionism on China's textile, US retailers will source for imported textile from other parts of the world such as Vietnam and Indonesia. Hence, jobs may not be maintained in the protected industries and at the same time, jobs are lost in the export industries, structural unemployment cannot be solved and demand-deficient unemployment is aggravated.

Evaluation

Protectionism has done little or nothing about the underlying causes of the loss in comparative advantage. Although jobs are maintained in the short-run, the root of the problem is still unresolved and ultimately in the long-run, the domestic jobs cannot be protected. Thus, a more effective policy to address this problem of structural unemployment is definitely not protectionism but supply-side policy to equip the unemployed workers with the relevant skills to take up jobs in these new industries. Hence, the government should work closely with the new industries and set up training centres to retrain the workers and encourage the new industries to take up these unemployed workers after their training stint. This would be a better policy as the economy will be allocating its scarce resources efficiently by focussing on its industries with comparative advantage rather than preserve those industries which have lost its comparative advantage artificially through protectionism.

Beggar-Thy-Neighbour Effect

In addition to retaliation, protectionism may also bring about beggar-thy-neighbour effect whereby it makes the trading partners poorer with a fall in their export earnings and thus AD. This will cause a fall in national income via the reverse multiplier process. Hence the trading partners (e.g. China) will have a lower purchasing power to buy the exports from the country that imposes protectionism (e.g. US). US's export earnings will fall, causing a drop in AD and national income and hence unemployment rises, contrary to the intent of the policy.

Solving Frictional Unemployment Requires Other Policies

To deal with frictional unemployment, policies focussing on improving labour market information to help improve efficiency in the labour market are needed. For example, job fairs are organised by the government to bring together employers of the same industries to hold a mass recruitments. Employment agencies and job-matching websites are set up to

collate potential employees' details and match them to the needs of prospective recruitment exercise where workers can seek out their most suitable jobs.

### Conclusion

Whether protectionism can reduce unemployment depends on the type of unemployment. It may be used to address cyclical unemployment but it may not be so helpful for reducing unemployment caused by a loss of comparative advantage or deterioration of the quality of exports. Protectionism could be used as a stop-gap measure to prevent unemployment from worsening while giving the government time put in place other more appropriate policies like expansionary demand management policies to raise AD or supply side measures to develop a new comparative advantage. Once it is able to develop comparative advantage in a new area, the protectionist measures can then be gradually lifted. However, in practice, protectionist measures once implemented are hard to remove.

The effectiveness of protectionism in solving unemployment also depends on the characteristics of the economy. Protectionism has harmful effects on an economy that is highly dependent on trade. For example, given the nature the Singapore economy, which is export and import dependent. Both the export revenue and import expenditure are more than 300% of real GDP. The higher import prices via protectionism would only serve to increase the cost of production for domestic producers. These producers in turn will raise their prices for their goods to maintain their profit margin. This increases the price of the final good and lowers the export competitiveness of Singaporean exports. This will further reduce the value of export earnings and worsen unemployment situation.

All in all, the notion of protectionism goes against the Theory of Comparative Advantage and the benefits accrued from free trade. While there may be possible benefits from protectionism in the context of a global economic downturn, in reality the costs outweigh the benefits both in the short and long run. Therefore, before imposing protectionist measures, a country should take into consideration the impact on economic stability, any unintended consequences, the times period under consideration and the nature of the economy.

### Mark Scheme

Level	Descriptor	Marks
L3	For a thorough explanation of at least 2 different types of unemployment and a well-developed and balanced discussion of whether protectionism can solve the different types of unemployment	15 – 21
L2	For a good explanation of at least 2 different types of unemployment and a good discussion of whether protectionism can solve the different types of unemployment or an excellent one-sided answer on whether protectionism can solve unemployment.	10– 14
L1	For an answer that shows some knowledge about the different types of unemployment and whether they can be solved with protectionism.  OR  Excellent explanation of the different types of unemployment only.	1 – 9
E2	For an evaluative discussion based on economic analysis.	3 – 4
E1	For an unexplained judgment, or one that is not supported by	1 – 2

analysis.	
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**5 Prices in an economy can be affected by external factors as well as by domestic factors. Similarly, prices will affect the domestic and external sectors of the economy.**

**a) Explain how changes in the external value of a currency can affect the domestic price level. [10]**

**(b) Discuss whether an increase in the general price level will affect the domestic sector more than the external sector. [15]**

**Part (a)**

The external value a currency refers to the exchange rate of the currency ie the price of on the domestic currency in terms of another currency. A change in this external value of currency can be either a depreciation or appreciation of the currency. Depreciation means the country can exchange a given amount of local currency for a lesser amount of foreign currency ie the external value of the currency has fallen.

Suppose there is a depreciation of a currency. This will lead to a fall in the price of exports in terms of foreign currency and a rise in the price of imports in terms of domestic currency. If the Marshall Lerner condition holds,  $P_x \downarrow$  leads to  $Q_x \uparrow$  more than proportionately and  $P_m \uparrow$  will lead to a more than proportionate fall in  $Q_m$ . The combined effect is an increase in net exports which represents an injection or increase in AD, resulting in increase in income and employment, through the multiplier. This is if there is the economy has yet to reach  $Y_f$ .

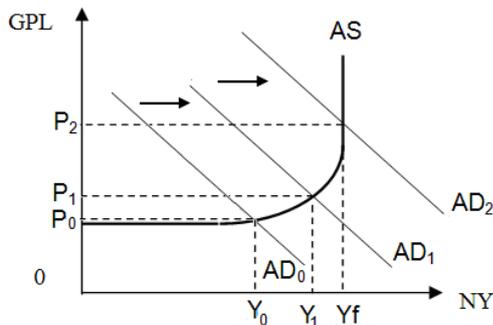


Figure: Effect of depreciation on NY and GPL

Referring to the figure above, if  $AD \uparrow$  from  $AD_0$  to  $AD_1$ , then  $NY$  will  $\uparrow$  from  $0Y_0$  to  $0Y_1$  ie there is an increase in national income and employment via the multiplier effect.

However, if  $Y_f$  is reached, it will lead to inflation in the economy. In the figure above, if  $AD \uparrow$  further from  $AD_1$  to  $AD_2$ , then the GPL will rise to  $0P_2$  ie inflation results because the economy has reached full employment ie output cannot increase and the general price level will rise. So a fall in the external value of the currency can lead to demand-pull inflation and the domestic price level rises.

A depreciation of currency can also lead to imported inflation if country has high dependence on imports. High import dependence, like Singapore is likely to experience a higher inflation rate if its currency depreciates. This is because the domestic producers who need to import raw materials will pass on the increased costs of production to the consumers. Thus, if PED for imports is inelastic, the country can end up with imported cost-

push inflation. Thus, a fall in the external value of a currency can cause the domestic price level to rise.

Similarly, an appreciation can lead to higher export prices and lower import prices. This may help to lower demand-pull inflation in the country ie lower the domestic price level when the ML condition holds. If PED of imports is inelastic, it can regulate imported inflation and is thus helpful to keep prices stable in such an economy like Singapore.

	<b>Marks</b>	
<b>L3</b>	Thorough explanation of the relationship between exchange rate and domestic price level with in-depth analysis	<b>8-10</b>
<b>L2</b>	Adequate explanation of the relationship between exchange rate and domestic price level but without clear analysis	<b>4-7</b>
<b>L1</b>	Some knowledge of concepts but cannot show relationship between exchange rate and domestic price level	<b>1-3</b>

**(b) Discuss whether an increase in the general price level will affect the domestic sector more than the external sector. [15]**

Inflation is a sustained increase in the general price level leading to a fall in the purchasing power of money. It causes problems for both domestic and external sectors of the economy, especially if it's high inflation.

#### **Effects on the domestic sector**

##### 1. Desirable effects:

- Mild inflation eg 2% might stimulate investment and expansion of firms who benefit if prices rise by more than costs leading to increase in profits. If rise in general price level is caused by increasing AD, firms will feel optimistic about the future. This might stimulate investment and expansion of firms and thus leading to NY increase ie economic growth for the economy.
- Inflation may also stimulate consumption if interest rate does not rise in tandem because real interest rates may be low or negative. Debt burdens fall and people may be encouraged to spend more eg those who borrowed money to buy houses may experience a fall in mortgage interest payments in real terms. At the same time, prices of their houses will be likely to rise more than inflation. Thus they feel better off and so may spend more on C.

##### 2. Undesirable effects:

- Inflation discourages people from holding money because inflation reduces the value of money. Opportunity cost of holding money becomes great at very high nominal interest rates that occur when inflation is high. People will buy necessities now if inflation is expected to go even higher. Money becomes a poor store of value as people will not want to keep money since purchasing power falls.
- People are reluctant to undertake investment that would expand the country's productive capacity because of uncertainty about future economic growth due to high inflation. This would greatly impact the economy as prices are distorted and investors/businessmen fear the effects on their production. The general

consumers who are salaried workers will end up buying less goods and services as real income falls.

- Redistribution of income will result in some to gain and others to lose. Borrowers tend to gain and lenders to lose because nominal interest rates usually rise more slowly than inflation rate → real interest rates fall with inflation. Those with fixed incomes will also lose out.
- The wage-price spiral will cause greater inflation. When workers experience higher prices of goods and services, they will demand higher wages to maintain their purchasing power. This will lead to even higher GPL and uncertainty about the future.
- Misallocation of resources - Prices are very important in allocating resources in market economies. Inflation may inhibit the ability of prices to act as reliable signals in the process, leading to wastage of resources eg producers seeing the price of their goods rising may increase output when this higher price is a result of inflation rather than increased demand.

### Effects on the external sector

1. Undesirable effects:
  - BOP problems in the current account as inflation makes a country's goods less competitive. Consumers at home and abroad may switch away from buying the country's goods and services, which may cause deficit to arise in the current account of the BOP
  - Uncertainty that arises from inflation may also discourage capital investment in the country ie there may be an outflow of FDIs as the cost of investment is not desirable in this economy.
  - Lower exchange rate due to fall in demand for country's goods and services and reduction in inflow of investment from abroad. With lower exchange rate, export price competitiveness is restored initially. However danger of import prices rising leading to cost-push inflation and then further fall in the exchange rate.
2. Desirable effects: However, if inflation rates are below those of its main competitors, the goods and services will become more competitive.

**Take a stand:** Whether inflation will affect the domestic sector more than the external sector depends on the nature of the economy. Inflation will affect the external sector more than the internal sector for Singapore as it is heavily dependent on international trade. As a small and open economy which is heavily dependent on imports for her economy to grow, one concern is imported inflation. Her main cause of inflation is imported inflation as she needs to buy foodstuffs and raw materials from others. As there is high import content in her exports, inflation is harmful for her export trade as well. It is also dependent on exports and foreign investment for economic growth, thus Singapore cannot afford to lose its export competitiveness and thus regulating prices and the inflation level is a big concern for the government of Singapore.

**Conclusion:** Inflation is detrimental to economic growth. An environment of low inflation, in comparison is essential for sustainable economic growth. However, inflation is not the only important factor influencing the internal and external sectors. Other factors that can affect EG of a country even with inflation include the quality of the products of the country and whether the country has good strategies for attracting FDIs eg a country may be able to sustain its output and sales at home and abroad if the quality of goods and services is rising and marketing strategies are successful.

	Marks	
L3	Thorough explanation of both the internal & external effects of inflation on an economy.	9-11
L2	Adequate explanation of both the internal & external effects	5-8

	OR Thorough explanation of either internal or external effects	
<b>L1</b>	Limited explanation of the effects	<b>1-4</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>

**6 The trend in business and trade in recent years is towards globalisation.**

**a) Explain the trend towards globalisation. [10]**

**b) Globalisation and openness to the outside world have brought many benefits to the Singapore economy. Discuss. [15]**

**Part (a)**

*Globalisation* refers to the development of an increasingly integrated global economy marked by free trade, free flow of capital and international movement of labour. The trend towards globalization occurs because of :

- a. Improved communication:** Advances in information and computer technology are increasing the ease with which consumers can find out about and buy products from other countries and the ease with which producers can coordinate production throughout the world. This leads to trade between countries, even countries that were considered too far and 'unknown' previously.
- b. Reduced transport cost:** Transport costs have been falling over time with the development of containerisation and the increasing use of larger ships and planes, facilitating the movement of goods & services between countries. Thus it is cheaper and faster to transport goods across continents. Besides trade, it also allows for greater labour mobility as costs of travelling is reduced and coupled with ease of communication, people are more willing to work outside their own country.
- c. Trade liberalisation:** Since World War II, there are decreased barriers to the free movement of goods, services and capital. With trade liberalisation and openness to FDI, the whole product chain is now globalized.

- d. Rise in skill levels throughout the world:** Increased productivity enables MNCs to assemble products and parts of products not only in industrialised countries but also in developing countries; for example, R&D for Apple products is developed in USA, the component parts comes from various parts of the world and the product is assembled in China.

	<b>Marks</b>	
<b>L3</b>	Thorough explanation of the reasons for globalisation	<b>8-10</b>
<b>L2</b>	Adequate explanation of the reasons for globalisation	<b>4-7</b>
<b>L1</b>	Some knowledge of globalisation	<b>1-3</b>

**b) Globalisation and openness to the outside world have brought many benefits to the Singapore economy. Discuss. [15]**

Globalisation has both positive and negative impacts for a small and open economy like Singapore.

**Effects on Trade**

Trade refers to imports and exports of a country; both in terms of raw materials and final products.

Benefits/Positive Effects

Rise in Trade Volume/Rise in Economic Growth

Being a small economy with little natural resources and a small market, the increasing trend towards globalisation has led to the rising trade volume. Such increase in trade is beneficial to our economy. Furthermore, Singapore, through IE Singapore, can gain access to markets further away geographically which will increase exports. With higher net export, AD increases and through the multiplier effect, increases NY and employment ie stimulates *economic growth*.

Greater variety of goods and service

Countries are also able to enjoy greater variety of goods and service. Further, due to lack of natural resources, small economies such as Singapore benefit much from the increased trade due to globalisation as it depends heavily on imported raw materials for survival. Globalisation allows Singapore to access the world market for resources that are needed for its manufacturing industries. This will lower COP in the economy.

Change in Pattern of Trade

Globalisation has also led to the change in the pattern of trade as the one based on the theory of comparative advantage. Due to globalisation, different countries can now *specialize* in the production of different parts of the goods and trade to benefit from the lower cost. For example, in the production of computers, the metal casing could be produced at a *lower cost* in an economy with abundance low-skilled workers while the electronic chips in Singapore with its capital-intensive industries and highly skilled workers. These parts can then be shipped to another country with abundant supply of cheap labour for assembly. The completed computer will then be exported to the global market. Thus, globalisation has made offshoring possible. Local firms can now outsource part of their production process to foreign firms which are able to produce at a cheaper cost. This cost savings can then be passed on to the consumers who benefits from cheaper goods.

Negative Effects/Challenges

Due to the higher volume of trade, there is now *greater interdependence* among countries. Changes in aggregate demand in one country can send ripples throughout the global economy. For example, the fall in aggregate demand by the US due to the financial crisis has reduced the exports and national income of many Asian economies including Singapore. The process whereby changes in trade by one country affect the national income in other countries is known as the international trade multiplier. The more open an economy, the more vulnerable it will be to changes in the level of economic activity in the rest of the world. This problem will be particularly acute if a country is heavily dependent on trade with other nations. This also explained why Singapore was the first Asian country to declare a recession due to the current financial crisis.

**Effects on Capital Flow**

Capital flows refer to foreign direct investment, portfolio investment (equity and debt securities), financial derivatives and other investments (including cross-border bank lending).

### Benefits/Positive Effects

As multinational corporations are being set up in a country, the country gains capital inflow, known as foreign direct investments (FDIs). FDI in a country measures the amount of investment by foreign investors in the country's affiliates. FDIs allowed *knowledge and technological transfer* to take place. Inwards FDIs *increases both aggregate demand and aggregate supply*, leading to *higher economic growth and lower unemployment level*. Further, such inflow of capital *improves the balance of payment position* via the capital account in a country. Thus, the economies with the largest share of foreign investment stand to gain most. This explains why numerous countries, including Singapore, are granting free access to MNCs to set up factories and other forms of investment in their domestic market.

Often, in the bid to attract these investments, the government provides a wide range of fiscal incentives and infrastructure facilities to edge out competitors. The ability to attract and retain FDI depends on the economic and political climate in the country. Important factors include the country's overall policy framework, economic conditions such as cost or market size, governance, and the quality and competitiveness of the producers, and institutional infrastructure, factors which are attractive in Singapore to FDI.

Singapore's economic development over the decades has been directly related to the international economic integration through free trade policies to attract multinational corporations (MNC).

Direct investment outflows enable local firms to increase their productivity at home by relocating some tasks to other countries where they can be accomplished more efficiently.

### Negative Effect

However, in the long run, countries that attract FDI may expect an outflow of remittances from profit repatriation. As such, the country may end up suffering from a balance of payment deficit via the capital account if the account is not being offset by the growth in export revenue.

Additionally, globalisation may also give rise to large flow of short-term financial capital across countries, known as hot money. These are investments that seek for highest return within the shortest time period. Examples are investments in stocks and bonds. These investments will flow into countries with the highest interest rate for better payoff. But since interest rate is very volatile, there are often large inflows and outflows of short-term financial capital across countries. This may, in turn, cause the exchange rates of countries to fluctuate, affecting their trade and investment negatively. This is especially true for small and open economies such as Singapore which is vulnerable to external shocks.

### **Effect on International Movement of Labour**

The rise of globalisation has also given way to the movement of labour across countries. Labour mobility across countries has increased over the years as people become more educated and aware of foreign labour market conditions and travelling and communication between countries become more convenient.

### Benefits/Positive Effects

The Singapore government has been attracting foreign talents to make up for the shortage in the domestic labour market, seeing foreign talent as a means to economic growth. Foreign talents would bring in skills and experience which benefits the economy without

having to bear the cost of raising this workforce to adulthood. Thus, the inflow of foreign talents will help a country's productivity to rise and move into higher value-added industries due to their expertise. This will, in turn, promote potential economic growth in Singapore and raise its standard of living.

Additionally, the declining population growth rate in many developed economies has also contributed to the liberalization of immigration policies. This is especially true for Singapore which is experiencing a declining birth rate. The inflow of not only the foreign talents but also foreign workers helps to increase our labour force and build up our pool of talent and entrepreneurs. Countries will usually allow inflow of low-skilled labour to fill the relatively low-paid jobs which their own citizens do not wish to do.

### Negative Effects

The international movement of labour may actually worsen income disparity in Singapore. This is because the local low skilled workers such as cleaners are being replaced by cheaper foreign workers. In order to compete with the foreign workers for jobs, the local workers will lower their wages as well. On the other hand, the establishment of MNCs not only increases the job opportunities for the highly skilled workers but also increases their job benefits. This is because to compete for the pool of highly skilled workers, both the MNCs and local firms will increase the employment benefits to attract them. As such, the highly skilled workers earn higher wages while the low skilled workers earn lower wages due to the rising international movement of labour, resulting in a worsen income disparity.

Additionally, globalisation can also cause structural unemployment. This is because globalisation brings in new machines and methods that make old skills obsolete. Since developed economies would have to stay competitive through the use of technological advanced production methods, there is a need for workers to be equipped with the relevant skills and in a timely manner is essential to remain employable. Thus, the inability to match up with the current skills required in a timely manner would result in structural unemployment.

Lastly, globalisation which gives rise to international trade has led to the influx of cheaper imports that compete directly with domestic producers. This may cause local producers to cut down on production or to close down, causing unemployment in the country.

<b>Knowledge, Application, Understanding and Analysis</b>		
<b>L3</b>	For a comprehensive and detailed answer that provides a balanced discussion on benefits and costs to the Singapore economy as a result of globalization.	<b>9-11</b>
<b>L2</b>	For an answer that provides a balanced but undeveloped discussion on benefits and costs to the Singapore economy as a result of globalization. OR For an answer that provides a one-sided but developed discussion on benefits / costs to the Singapore economy as a result of globalization.	<b>5-8</b>
<b>L1</b>	For an answer that is mostly descriptive, with some inaccuracies and is not in context.	<b>1-4</b>
<b>Allow up to 4 additional marks for Evaluation</b>		
<b>E2</b>	For a judgement based on economic analysis and is adequately substantiated.	<b>3-4</b>
<b>E1</b>	For an unexplained judgement, or one that is not supported by economic analysis	<b>1 -2</b>