## **St. Andrew's Junior College**



## **Economics Department** JC 2 Preliminary Examinations (2014)

**Suggested Answers** 

# H2 Economics Paper 2

## (Syllabus 9732)

packaging and garbage disposal services. Assess how relevant markets could be impacted by the above developments. [25] **Suggested Answer Question Analysis:** Impact on markets relate to Pe, Qe and TR. • Markets to be analysed: The good/service itself 0 0 Substitutes • Complements • Factors of production Competitive supply 0 **Note**: there is no need to repeat the analysis of the above 5 sub-markets for each of the three goods/service given in the pre-amble. However, all five markets should be showcased in the entire essay to gain top marks. Demand and supply framework as well as relevant elasticity concepts are required to produce an analytical response to this question. **INTRODUCTION** • Increased environmental awareness and improvements in green technology were factors that led to changes in demand for and supply of the various markets and also related markets such as their substitutes and complements as well as their respective factor markets. • Impact on such markets refers to the change in Pe and Qe as well as Total Revenue. Such impact differs both in direction and extent of change, depending on the nature of the goods in question. BODY Framework to be used – Demand and Supply. With aid of diagram, briefly explain how Pe and Qe might change given a change in factors affecting demand and/or supply. Detailed workings of price mechanism as well as the assumptions are not required. 1) <u>More Environmentally-friendly Electrical Appliances and Packaging Materials</u> • Increased environmental awareness  $\rightarrow \uparrow$  demand for such goods. Assume constant supply and that PES is high (manufactured goods), there will be increase in Pe and more than proportionate increase in Qe. TR will increase. • Improvement in green technology  $\rightarrow \uparrow$  supply of such goods due to reduced cost of production. Assume constant demand and that PED is low (due to increased awareness), there will be fall in price and less than proportionate increase in quantity sold. TR will fall. Combined effects: Assuming that the increase in demand is higher than the increase in supply, Pe and Qe are likely to rise and hence, TR is likely to rise as well. a) Markets for Factors of Production

With higher Qe, demand for factors of production fop expected to rise as well. Hence, Pe and Qe as well as the TR in the factor market should also rise, assuming

In recent years, there have been increased environmental awareness and

improvements in green technology. These have led to changes in demand for and supply of products and services such as electrical appliances, materials used for

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constant supply in the factor market.

#### **Evaluation**

- Despite the improvement in energy efficiency of certain electrical appliances, there may still be a fall in demand for them due to the increase in awareness. These include energy hungry appliances such as air-conditioners, iron (green technology producing wrinkle-free materials for the garment industry). Similarly, improvement in green technology may also reduce use of packaging materials due to improved product design IKEA's flat packaging for self-assembling by customers, slimmer home TV screens, etc.
- Such fall in demand may negate increase in demand for electrical appliances and packaging materials, thereby reducing the likely increase in TR.

#### b) <u>Substitutes</u> – Less Environmentally-friendly Electrical Appliances and Packaging Materials (e.g. fridge)

- Demand likely to fall due to change in taste and preference towards ecofriendly products. The fall is likely to be significant as both kinds of fridges satisfy very similar wants.
- As both eco-friendly and non-eco-friendly fridge usually use the same types of factors of production (trays, door panels, handles, etc), there is likely to be a fall in supply of the non-eco-friendly fridge. Supply curve shifts to the left. [Competitive in Supply]
- Given both a fall in demand and supply, Qe will fall. Assuming a larger fall in supply due to producers being more keen to shift production to more eco-friendly fridges to meet consumer demand, the price of non-eco-friendly fridge will rise.

#### c) <u>Complements [to non-eco-friendly fridge such as electricity]</u>

- XED of electricity with respect to change in price of non-eco-friendly fridge tends to be high as those fridges definitely needed electricity to run! Hence, with a rise in price of non-eco-friendly fridge and a fall in number of such fridges being used (see preceding point), the demand for electricity will fall significantly as well.
- Whether there is a high or low PES value, Pe and Qe are likely to fall and so will TR.

#### 2) Garbage Disposal Services - General

- ↓ demand for general garbage disposal services due to increased practising of 3Rs Reduce, Re-use, Recycle (increased environmental awareness)
- ↑ supply of such services due to reduced cost of garbage collection/disposal (improvement in green technology). This could be due to more efficient garbage compacting machines/lorries, etc.
- Combined effects: Fall in Pe, indeterminate Qe. Hence, indeterminate TR for garbage collection firms. Assuming that improvement in technology to reduce cost of garbage disposal has limited effect on reducing cost, TR of garbage collection firms would fall.

#### a) Garbage Disposal Services – Segregated

- Increased environmental awareness  $\rightarrow \uparrow$  demand for <u>segregated</u> garbage disposal bins plastic, paper, metal, glass, etc.
- This will also indirectly increase demand for more recycling bins/bags to contain separate types of garbage. Market for recycling bins/bags: ↑ in Pe and Qe, hence TR (assuming constant supply).

L3 (15 - 21)how the two triggers could affect at least 4 markets. Real-world applications should be included to secure high marks. Analysis of various natures of the same type of goods and services should be presented to avoid generalisation of arguments and uniformity in answers to these goods of different nature. (e.g. normal garbage versus recyclable garbage).L2 (10 - 14)Gaps in explanation of possible outcome in at most 3 markets. Lack real- world applications. Grasp of basic demand and supply analysis, together with elasticity concepts is observed. Tend to discuss goods and services in silo (single category, without differentiation).L1 (1 - 9)Lack of use of even basic demand and supply framework to explain cause and effect. Fatal errors abound which make the response incoherent or illogical. Listing rather than explaining the points with little economic analysis.Allow up to 4 marks for Evaluation			
aggressive use of advertisements. Such producers will be able to gain most significant increase in market share at the expense of those producers who could not keep up with th production of greener goods and services, nor possess the necessary technology to cu costs in the long run.Marking SchemeKnowledge, Application, Understanding and AnalysisLavel (Marks)A thorough and clear explanation based on sound economic framework of how the two triggers could affect at least 4 markets. Real-world applications should be included to secure high marks. Analysis of various natures of the same type of goods and services should be presented to avoid generalisation of arguments and uniformity in answers to these goods of different nature. (e.g. normal garbage versus recyclable garbage).L2 (10 - 14)Gaps in explanation of possible outcome in at most 3 markets. Lack real- world applications. Grasp of basic demand and supply analysis, together with elasticity concepts is observed. Tend to discuss goods and services in silo (single category, without differentiation).L1 (1 - 9)Lack of use of even basic demand and supply framework to explain cause and effect. Fatal errors abound which make the response incoherent or illogical. Listing rather than explaining the points with little economic analysis.E2 (3 - 4)Evaluative comments on the overall impact on the various markets based on sound economic analysis. This could involve generic comments such as the validity/reliability of the elasticity values in determining the new Pe and Qe.E1For a judgement that is nothing more than a mere statement. Summary	<ul> <li>Provide develop</li> <li>E.g</li> <li>proma</li> </ul>	suitable arguments to justify which market will be most affected by the ments. . tapping on the increased awareness and improvement in green technology, oducers who can produce the most energy-efficient appliances and packaging terials will be able to swing most votes among the consumers, thereby enjoying	
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2	The first wave of mergers and acquisitions in Singapore took place in 1998, when Development Bank of Singapore (DBS) acquired Post Office Savings Bank (POSB). A DPM Lee (2001) stated, "if we want strong banks, then they have to be big banks, an if they are to be big banks, then we must have fewer banks." Singapore has three loca banks now – DBS, United Overseas Bank (UOB) and The Overseas-Chinese Bankin Corporation Limited (OCBC) – which have the highest average credit ratings amon banking systems globally.	
		Adapted from The Straits Times, Jul 17, 2014
	(a)	Explain the rationale for mergers and acquisitions among firms.[10]
	(b)	In the light of the above, examine whether local banks in Singapore should aim to be big in order to stay competitive globally. [15]
	Note genen horiz <u>Intro</u> Defir Merg Acqu comp Expla Merg (i	<ul> <li>ested Answer for part (a)</li> <li>For part (a), there is no need to use only the context of banking as the question is a 'al one not specific to the context given. As such students should look beyond just the ontal mergers as given by the context but look at least one other type of merger.</li> <li>duction:</li> <li>the mergers &amp; acquisitions</li> <li>ters: is a combination of two companies to form a new company,</li> <li>isitions: takeover where a dominant firm buys up the shares of smaller firm letely, or a dominant firm buys more than 50% of the shares of another firm.</li> <li>thin mergers and acquisitions</li> <li>ters: could be horizontal, vertical or conglomerate</li> <li>Horizontal merger: 2 or more firms in the same industry and same stage of production merge. E.g. DBS merged with POSB in 1998.</li> <li>i) Vertical merger: firms in the same industry but at different stages of production. E.g. Microsoft &amp; Nokia (upward vertical merger)</li> <li>ii) Conglomerate: firms in different industries merge. E.g. General Electric – electrical, financial, telecommunication, etc.</li> </ul>
	Expla 1. In T F p r c st c c c a e F m F a a m F	<b>lopment:</b> <b>ain the rationale for mergers and acquisition</b> <b>here ase Market Share and Market Power</b> here is a limit on how much a firm can grow through internal expansion. or firms as stated above with oligopolistic characteristics with almost similar roducts and services, strategy implemented such as reducing the minimum amount equire to open a saving account would possibly result in other banks adopting similar rrategy → this render the strategy as ineffective as it will not lead to increase in ustomers' willingness to choose one bank over another → therefore it is more dvantageous for firms to expand through merger or acquisition to provide greater kposure and increasing convenience and providing better services. or example, UOB acquired Overseas Union Bank Limited (OUB) in 2001 to enlarge its market share. acebook acquired mobile photo sharing app Instagram in 2012 for \$1billion in cash and stock and mobile messaging service WhatsApp in 2014 for \$19billion. The cquisition positions the company for even stronger growth where advertising now makes up the majority of its revenue. It also strengthens its toehold in China as acebook is blocked in the world's largest Internet market; whereas WhatsApp and hstagram are permitted to operate there.

- Increase and acquire new capacity and hence capture additional consumer demand. This will allow the firm to enjoy higher total revenue.
- Through mergers and acquisitions, competition would be reduced and the bigger firm can exert more market power by controlling a greater proportion of the total market supply. With less competition, demand for their products would be less price elastic and hence firms could influence the price of the good. If demand becomes inelastic, the firm could raise price to increase total revenue.

#### 2. Expand its Market Size in Global Market

- Firms may attempt to expand its market size by merging or acquire foreign firms in other countries. As foreign firms in their domestic country would have better knowledge and information about its market condition and their domestic consumers' tastes and preferences due to different cultures and needs. Merger and acquisition would provide an easier and quicker avenue for expansion and tap into foreign markets, allowing the merged firm to enjoy larger consumer base and therefore higher total revenue.
- Example, Singapore has a small domestic market hence expansion to global market would allow local firms to increase its sales, access to new distribution channels and tap into niche markets. OCBC announced its acquisitions of Hong Kong-based Wing Hang Bank this year to tap into economic growth of China, widen its product capabilities and access larger funding base denominated in Chinese Yuan, HK dollars and US dollars and accelerating their growth through its network size, customers base and market coverage between the two banks. Another local example that can used for (a) is the acquisition of Asia-Pacific Breweries by Heineken.

#### 3. Diversification

- With recent economic outlook and global competition posed by competitors  $\rightarrow$  diversification through mergers or acquisitions would allow firms to produce a larger range of products. Through mergers, number of competitors would be reduced. It could also reduce the need for greater promotion and advertisement or resort to decrease price to attract customers, hence reduce the costs of competition.
- Firms may also face a saturated market for its products. Hence a need to diversify and venture in producing new products and / or services so as to increase its revenue. Merger and acquisition would provide a faster and quicker means to diversify as compared to internal expansion. Firms would also be able to leverage on the acquired firm's existing technology and expertise

#### 4. Reap Economies of Scale (EOS)

- Through mergers and acquisitions, firms would be able to exploit internal EOS due to its larger scale of production and hence reduce their average cost of production.
- Example, horizontal mergers allowed firms to achieve greater specialisation as firms are at the same stage of production. Thus attain managerial, administrative and technical economies of scale.
- Vertical mergers also allow firms to carry out their production in a continuous sequence and reduce uncertainty with better control of supply of raw materials and processes of manufacturing due to lesser vulnerability to changes in market conditions.

Marking S	Scheme for part (a)
Level	Knowledge, Understanding, Application, Analysis
	- Well-developed and clear explanation on at least 3 reasons of mergers and
	acquisitions among firms.
	- Must have at least 1 cost, 1 revenue advantages <u>AND</u> two types of mergers
L3	with real life examples application.
7 – 10	- Clear analysis with application on only cost or revenue advantages. Max $\overline{a}$
	7m.
	- Very well-developed but only 2 reasons given with real life application
	including 1 cost & 1 revenue advantages due to mergers and acquisition
	Max. 8m
L2	- Well-developed and clear explanation without real life application. Max 6m.
5 - 6	- Under-developed explanation of both cost and revenue advantages. Max
5-0	5m.
	- Explanation only anchored on cost and revenue advantages of firms
	without application to mergers and acquisitions. Max. 4m
L1	- Answer that shows some basic knowledge of advantages due to merger and
1 - 4	acquisition among firms.
	- Some conceptual errors are evident.
Suggostor	Answer for part (b)
<u>Introduct</u>	
•••	is an international centre for banking and finance and a leading financi
	ub in the Asia-Pacific region. With sound economic fundamentals, stror
regulatory	framework, pro-business environment, Singapore is an appealing country for
many big f	inancial institutions in the world. Even during touch time such as financial crisi
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However, Singapore acquisition greater con Developm Thesis: Lo Exercise Local that ge global would Govt. i POSB, compe both le manage financi Local b locally downw quanti banks differe Differe	hks have triumphed with solid capital positions and superior risk management Singapore has a small domestic market, hence in order to compete globall government encouraged local banks to expand through mergers and is to better compete globally, tapping on bigger market to accelerate growt verage of goods and services and larger funding base to strengthen its position. <b>Nent:</b> <b>Cal banks in Singapore should aim to be big to stay competitive GLOBALLY</b> <b>Advantages:</b> banks still considered too small to engage in foreign markets in the same way lobal financial leaders do. Hence to compete effectively in the <b>new era of isation</b> , local banks need to double their current market capitalisation whice only be possible through consolidation. nitiatives on their first wave of mergers and acquisitions where DBS acquired increase their market power to increase barriers to entry → this is to reduce tition through high <b>barriers to entry</b> → strengthening their banking position <b>coally and globally</b> → be a regional leader in wealth management, premier rise ment centre for Asia-Pacific, creating an attractive business environment for al institutions. banks aim to be big so as to better cater to different customers' preferences both and globally. As even with significant market power, firms will still face vard-sloping demand curve → when price increases it will lead to a fall in ty demanded. Hence firms need to diversify their goods and services. Loc

mergers and acquisitions, it would **allow local banks to expand to overseas markets**, thus increase its quality of loan portfolios and hence greater funding base and resources, allowing local banks to achieve greater efficiency and thus increase profitability.

• Local banks growing in size would allow them to have more resources to engage in product differentiation to gain even bigger market share → possibility of attaining higher revenue and therefore higher profits.

#### Cost Advantages:

Local banks would be able to reap substantial revenue from overseas markets by expansion and growing in size. This would increase their ability to erect higher barriers to entry and enhance their ability to reap internal Economies of Scale (EOS) → achieving a greater competitive advantage against any foreign entry → this reduces the average cost of production

Give an explanation on the different types of EOS local banks could reap. E.g. technical / financial EOS, and thus incur lower LRAC.

- Technical economies: larger banks have greater ability to engage in R&D to perhaps developed better products or enhance their existing facilities to provide faster and better services to the customers. With advance technology and facilities, local banks would be more competent to compete globally and develop their competitive advantage.
- Risk bearing economies: Local banks increasing in size would also have greater resources to diversify their products and services range  $\rightarrow$  hence increasing their ability to differentiate from other international financial institutions  $\rightarrow$  allowing them to gain bigger market share as a result due to branding and product differentiation.
- Administrative and marketing economies: when firms are big, they can better utilise and increase their ability to enhance their existing expertise and managerial skills thus lowering cost further.
- Financial economies: local banks would be able to acquire larger capital outlay to compete more efficiently with funding and resources.
- With greater efficiency  $\rightarrow$  reaping EOS  $\rightarrow$  might also lower cost for consumer.

Overall, with a fall in average cost and a rise in revenue, local banks might increase their profit margins, hence allowing them to be in a better position to compete globally.

### Anti-Thesis: Local banks in Singapore should not aim to be big to stay competitive <u>GLOBALLY</u>

- A larger bank may produce beyond the Marginal Efficiency Scale (MES) and incur internal diseconomies of scale (disEOS) → e.g. managerial disEOS as there could be communication breakdown and clash of corporate culture → E.g. in 2008, OCBC acquired 67% shareholding in PacificMas Berhad, an investment holding company in Malaysia, which provides hire-purchase, leasing, factoring, and other related financing services etc. → thus LRAC may rise. Large banks may not reap EOS significantly. Also, they would incur high cost (e.g. legal fees, accountancy fees) in the process of integration.
- Larger banks might result in greater risks due to the adverse market conditions. They are less able to change or implement strategies efficiently and quickly due to larger bureaucracy, higher managerial diseconomies, red-tape in decision making and greater resistance to change.
- Large banks would also face greater regulatory restriction. A series of strict new rules has raise compliance costs and faced massive fines. For example, product mis-selling, breaches of anti-money laundering controls, etc.

- To stay competitive globally, local banks should not aim to be big as focusing on their market is key so as to reduce the risk of diluting their offering and services. Hence able to establish and build better customer services → this would allow local banks to present a more consistent services to foster greater trust which is crucial for banking industry.
- If total revenue does not rise faster than total cost, local banks' profits may fall → thus reduce their ability to compete globally instead.

#### Evaluation:

Due to our limited resources and domestic market, local banks in Singapore might need to be big in order to leverage on global market and resources to stay competitive globally and fuel our economic growth. Bigger firms thus have better opportunity to compete with other global players in the industry with better control on cost, hence reaping cost advantages and increase their revenue to conduct R&D.

However, there are other factors that would also allow local banks in Singapore to strive globally. Local banks possessed systematic stability and good customer and personalised services catered to huge fund flowing in and out of Singapore with strict regulations and supervision of individual banks and great environmental and economic stability and public support for the system as a whole. Hence, local banks can still compete globally as customers would have greater confident in our system, financial stability and expertise. Hence local banks could also strengthen their existing services and reputation and capitalise on their resources to avoid the possibility of disEOS as well.

Marking So	Marking Scheme for part (b)		
Level (Marks)	Knowledge, Understanding, Application, Analysis		
L3 (9 – 11)	Well-developed answers considering both thesis and anti-thesis of whether firms should aim to be big to <i>compete globally</i> . Good application with illustrative examples relevant to the context.		
L2 (6 - 8)	Good explanation with both sides considered but lack of clear application to local banks to compete globally but answers anchored mainly on why local banks aim to be big. Max. 7m Well-developed one-sided answers application to the context given. Max 6m Well-developed answers with limited economic framework analysis. Max 6m. Answers demonstrated the ability to balance both arguments but little or no application to the context given. Max 6m		
L1 (1 - 5)	Answer shows some knowledge of analysis, e.g. cost and revenue advantages but no clear focus to the question. Max. 4m Answer contains only a few valid points made incidentally in an irrelevant context. Conceptual errors. Allow up to 4 marks for evaluation		
E2 (3 - 4) E1	For an evaluative judgment based on economic analysis and supported with a strong conclusion. Candidates can consider other factors that would allow local banks to compete globally not just in term of size.		
(1 – 2)	For an unexplained judgment that is not supported by economic analysis or justification.		

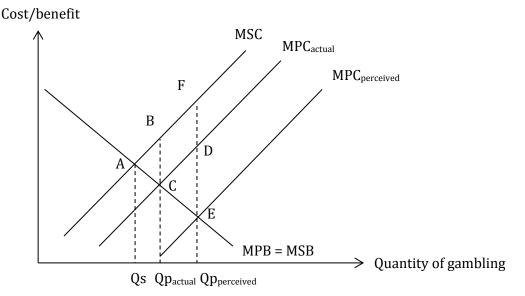
(a)	Explain how the concept of marginal analysis can be used to understand w the Singapore government may intervene in the market for gambling. [10]
(b)	Discuss whether existing policies to deal with gambling are still relevant view of the changes in perceptions towards gambling amongst Singaporea in recent years. [1]
	ested Answer for part (a)
	duction:
	licroeconomic aims $\rightarrow$ efficiency in resource allocation and equitable distribution
	ncome and wealth
	efine market failure
• H	Iarket for gambling → poses a case for market failure → allocative inefficiency lence, the Singapore government may choose to intervene in such situations in or o achieve their microeconomic aim of allocative efficiency
• G	overnment should intervene because gambling is a demerit good that is deemed to ocially undesirable by government.
• S	ources of market failure in the market for gambling, a demerit good:
6	As the preamble suggests, gambling could lead to an unhappy family life. E.g. most common problem is the loss of money - savings, property or belongings not just gamblers, but their families as well. Stress, anxiety and depression a common the families of gamblers, and the stress of gambling problems sometim cause health problems for family members. Gambling problems may also lead physical or emotional abuse of a partner, elder parent or child. → spillover costs others who not the consumers of the good.
(	ii) Information failure The government believes that individuals may not act in their own best intered due to imperfect information about the benefits/costs derived from consumption of gambling, and may individuals may therefore have a low perceived cost of gambling than its actual cost on the individual.
	Hence, the Singapore government may intervene in the market to correct mar failure and bring about efficiency if resource allocation.
	<b>r:</b> the concept of marginal analysis can be used to understand why the Singap rnment may intervene in the market for gambling:
They exter const	eir pursuit of self-interest, gamblers consider only their private costs and benef do not take into account the actual costs or benefits to themselves or third party nal costs or benefits in making their decisions. Hence, the market equilibrium leve umption occurs at the point where consumers, motivated by self-interest, equate the to MPC.
	Iarginal Private Benefit (MPB): the benefit enjoyed by individual from
	onsumption of an additional unit of gambling e.g. the satisfaction of winning

- Marginal Private Cost (MPC): the cost faced by the individual in the consumption of an additional unit of gambling e.g. the bets placed
- If MPB > MPC → individual will increase consumption of gambling as the additional unit of gambling consumed provides greater additional private benefit than cost
- If MPB < MPC → individual will decrease consumption of gambling as the additional unit of gambling consumed provides less additional private benefit than cost

However socially optimal level of output is determined where MSB = MSC

- Marginal Social Benefit (MSB): the benefit enjoyed by the society in the consumption of an additional unit of gambling
- Marginal Social Cost (MSC): the cost incurred by the society in the consumption of an additional unit of gambling
- If MSB > MSC → society will increase consumption of gambling as the additional unit of gambling consumed provides greater additional social benefit than cost
- If MSB < MSC → society will decrease consumption of gambling as the additional unit of gambling consumed provides less additional social benefit than cost

Due to imperfect information, there is a divergence between a gambler's perceived MPC and his actual MPC (DE), where a gambler's perceived MPC is lower than his actual MPC. Additionally, due to the negative externality in the consumption of gambling, there is an additional divergence between MPC actual and MSC (BC), where MSC is greater than MPC.



#### **Diagram 1: Market for gambling**

The market equilibrium level of consumption occurs at  $Qp_{perceived}$ , where consumers, motivated by self-interest, equate their MPB to  $MPC_{perceived}$ . However, the socially optimum equilibrium occurs at Qs, where MSB = MSC. As the market equilibrium level of consumption ( $Qp_{perceived}$ ) is greater than the socially optimum equilibrium level of consumption (Qs), there is an over-consumption of gambling. Furthermore, at  $Qp_{perceived}$ , MSC > MSB, as mentioned earlier, society feels that consumption of gambling should be reduced as the additional unit of gambling consumed provides less additional social benefit than cost.

	onal consumption of QsQp <sub>perceived</sub> units of o <sub>perceived</sub> additional cost to society	gambling generates:
• •	p <sub>perceived</sub> additional benefit to society	
∴ there is a	a net welfare loss to society (deadweight	loss) of area AFE.
information may interv society's w	<b>n:</b> the free market, there will be over-consist and the presence of negative external vene in the market for gambling to re- velfare and improve allocative efficien the microeconomic aims.	lities. Hence, the Singapore governme educe the deadweight loss to increa
Marking S	cheme for part (a)	
Level	Knowledge, Application, U	nderstanding and Analysis
(Marks)		
L3 (7-10)	A well-explained response that demo analysis and both sources of mark application and knowledge of the co address the basis for government inter	et failure. Answer also shows good ntext set, and goes a step further to vention.
L2 (5-6)	For an answer that is under-developed marginal analysis at least one source of knowledge to the context of the question market failure than the premise for gov	f market failure, with attempts to apply on. Answers may tend to focus more or vernment intervention.
L1 (1-4)	A descriptive answer that demonstrate market failure. This may include mer application to the context of the question	e listing without explanation, limited
	<u>Answer for part (b)</u>	
Introducti		
<ul> <li>Market allocati</li> </ul>	failure $\rightarrow$ government intervention	to reduce DWL -> Improve resource
	g policies:	
	Policies to deal with the negative	Policies to deal with imperfe
	externality in consumption	information
	, 0	Public education (NCPG's campaigns awareness of problem gambling encourage both gamblers and members affected by problem gam seek help)
under visit 1 third Casino • Change	o/non-casino exclusions and visit limits NCPG (self-exclusion and voluntary imit, family exclusion and visit limit, party exclusion and visit limit) o entry levies in perceptions towards gambling amo policies continue to be relevant while o s	
The chang	<b>isting policies to deal with gambling n</b> e in perceptions towards gambling in of larger information failure and ther	n recent years may indicate that t

education still continue to be relevant in correcting the market failure.

Public education through NCPG's campaigns to raise awareness of problem gambling with gambling-related advertisement on how gambling negatively impacts the family are designed to reduce imperfect information. If successful, these campaigns may effectively reduce the divergence between MPC<sub>perceived</sub> and MPC<sub>actual</sub>, shifting MPC<sub>perceived</sub> to the left and causing the market equilibrium level of consumption of gambling (Qp) to move closer to the socially optimum level of consumption (Qs). With a smaller level of over-consumption, this would result in a reduction of the area of deadweight loss and therefore, reduce the market failure attached to gambling.

Furthermore, the decrease in respondents who felt that gambling would lead to an unhappy family life and an increase in respondents who felt that it was possible to win lots of money by having the right gambling skills may indicate less restraint on gambling and a greater likelihood of the consumption of gambling generating negative externalities. Hence, existing policies such as the casino entry levy, casino exclusions and visit limits and helplines for problem gamblers are still relevant in dealing with the problem of gambling.

The casino entry levy of \$100, for example, can be used to reduce the consumption of gambling as the monetary cost of entering the casino increases the MPC of gambling, forcing to consumer to internalise the external cost that he generates. This would result in a leftward shift of the MPC curve, reducing the divergence between MPC and MSC. Hence, this may reduce the over-consumption of gambling, bringing the market equilibrium level of consumption of gambling (Qp) to move closer to the socially optimum level (Qs) and reducing deadweight loss.

#### Anti-thesis #1: Existing policies to deal with gambling may not be as relevant

However, the change in perceptions towards gambling in recent years might signpost the degree of effectiveness of the existing polices put in place to correct imperfect information. In spite of NCPG's anti-gambling campaigns in trying to educate consumers such that they are better able to make informed decisions and are fully aware of the consequences of gambling, there has been a deterioration of the public perception towards gambling and may therefore show the limited effectiveness of current policies.

A decrease in respondents who felt that gambling would lead to an unhappy family life and an increase in respondents who felt that it was possible to win lots of money by having the right gambling skills may demonstrate that there could be larger information failure. As shown in the diagram below, with the worsening problem of imperfect information, there is larger divergence between  $MPC_{perceived}$  and  $MPC_{actual}$ , resulting in causing the market equilibrium level of consumption of gambling ( $Qp_{perceived}$ ) to exceed the socially optimum level of consumption (Qs) by a greater degree, increasing the level of over-consumption and deadweight loss.

Furthermore, given that gambling is addictive in nature, demand for gambling would tend to be price inelastic. As such, while the casino entry fee may increase the cost of gambling, it is likely to result only in a less than proportionate fall in quantity demanded for gambling. Hence, the reduction in market failure may be small, if any at all.

#### Anti-thesis #2: Improved/other policies to deal with gambling may be more relevant

The government may also consider methods to improve current policies or looking at alternative policies to increase its effectiveness in addressing the market failure. It is also worthy to note that in view of the time required to educate and change the mind-set of consumers, public education is likely to be met with limited success in the short run in dealing with the problem of gambling. As such, the government may want to consider a

wider range of short term policies in order to better deal with the problem of gambling.

Examples of improvements to current policies include increasing the intensity of short term polices such as the casino entry levy to better address the market failure. In raising the casino entry levy, this would further increase the MPC of a consumer for gambling, further reducing the divergence between MPC and MSC and therefore reduces overconsumption of gambling and the deadweight loss that is attached to the overconsumption.

While there social safeguards in place today, there is a need to continue to strengthen them in order to minimise problem gambling in Singapore. For example, non-casino exclusion is currently only available for self-exclusion and not to family members. With the change in perceptions towards gambling, the problem gambler may not be dependable in coming forward to exclude himself from these non-casino gambling activities. As such, a wider range of short term policies when implemented together may be able to address the problem of gambling with greater effectiveness.

Moreover, raising awareness of problem gambling alone may be insufficient in problem gambling. Preventive and protective efforts are only part of the solution as they are top-down approaches. At the end of the day, individuals are responsible for their own actions. As such, the government may also want to extend its anti-gambling campaign to schools so that at a young age, students would have the appropriate knowledge to know where to draw the line, and simultaneously comprehend the concept of risk-taking. Creating a common understanding rather than merely raising awareness, when built up over a substantial period of time, would tend to be more effective in addressing problem gambling in the long term.

#### **Evaluation/conclusion**:

- Current policies in dealing with gambling still continue to be relevant to a large extent
- The change in perceptions towards gambling may indicate that the need Singapore government to increase the intensity and scope of current policies in order to better deal with the problem of gambling
- Therefore, this demonstrates the importance of timely review of existing policies to ensure that they continue to be relevant in improving the market failure
- In order to better deal with the problem of gambling in the long term, the Singapore government needs to remain open to new approaches of dealing with the market failure, especially in view of the ever-changing economic landscape in Singapore

	Marking Scheme for part (b)	
		Knowledge, Application, Understanding and Analysis
	L3	A well-developed answer that considers both sides of the argument and
	(9-11)	demonstrates application of knowledge to the real-world context with
		choice of policies and its limitations discussed. Responses effectively tackle
		the degree of relevance of existing policies in dealing with the market failure.
	L2	For an answer that lacks either depth or scope in analysis. A two-sided
	(6-8)	answer with some attempt to explain the degree of relevance of current
		policies in dealing with the problem of gambling but lacking in rigour.
		Responses demonstrate the use of some real-life examples but used in a
		descriptive rather than economic manner.
	L1	Largely one-sided and/or theoretical answer with little reference to the
	(1-5)	context set, or a largely descriptive answer with little economic analysis.

	Choice of policies is generic market failure policies with limited real-world application. Responses do not address the degree of relevance of existing policies in dealing with the problem of gambling.
	Allow up to 4 marks for evaluation
E2	Judgement with sound economic analysis to support stand.
(3-4)	
E1	Largely unexplained judgement with little supporting analysis.
(1-2)	

- Since 1982, monetary policy in Singapore has been centred on the management of 4 the exchange rate. The primary objective has been to promote price stability through modest gradual appreciation as a sound basis for sustained economic growth. On the other hand, countries such as Japan, Switzerland, Columbia and Israel have lowered the value of their currencies. Explain the Monetary Authority of Singapore's (MAS) choice of using exchange (a) rate rather than interest rates as an instrument for its monetary policy. [10] Assess the extent to which depreciation of the currencies of other countries **(b)** would affect Singapore's ability to achieve sustained economic growth. [15] Suggested Answer for part (a) **Define monetary policy** A deliberate attempt by the government to regulate the economy by controlling money • supply or the interest rates, thereby influencing aggregate demand and thus stabilizing the level of output or income, prices, and employment at the full employment level. Reasons for Monetary Authority of Singapore's (MAS) choice 1. The use of the exchange rate policy has certain benefits that help Singapore to cater to our unique characteristics of being small and openness to trade, capital movement and foreign direct investments. 2. Singapore has no capital control and is unable to set our interest rate to deviate too far away from world interest rates since any attempt to change interest rate will be negated by hot money inflows or outflows due to Singapore's position as an international financial centre. This can result in an inflow of ST capital that would negate any increase in interest rates and push interest rates down. Hence, interest rates would not be a useful instrument for its monetary policy in Singapore due to its openness to capital flows. Singapore focuses on the Exchange Rate Policy because of its unique economic characteristics of being small and open as well as our position as an international financial centre **Explain how Exchange Rate Policy works in Singapore** Monetary policy in Singapore has been centred on the exchange rate. MAS chooses to anchor their monetary policy to the exchange rate, by managing it more flexibly against a basket of currencies of our major trading partners. MAS operates a managed float regime for the Singapore dollar with the trade-weighted exchange rate allowed to fluctuate within a policy band. Changes in the exchange rate aim to change the price of exports and imports to • influence external demand to achieve the macroeconomic objectives. Explain how exchange rate can benefit Singapore Our small size and the lack of natural resources, such as crude oil, iron and steel, means that Singapore have to import even the most basic of our daily requirements and at the same time export to pay these requirements. This has resulted in a very open trade policy, with very few import restrictions. Both imports and exports amount to over 150% of Singapore's GDP over the years. Changes in the exchange rate to offset the changes in foreign price levels would thus •
  - Changes in the exchange rate to offset the changes in foreign price levels would thus have a significant effect on **imported inflation**. This means that by appreciating her exchange rate, Singapore is able to keep the price of her imports low so that she can

reduce her rate of inflation due to high price of imports, lowering cost of production. By keeping the prices of these imported raw materials low, this will l**ower cost push inflation** in Singapore.

• Being small also implies that she has a small domestic market and hence has to rely heavily on foreign market to export her goods. Hence, the value of her exports makes up over 150% of her GDP, indicating her high degree of openness to foreign trade. Her manufacturing exports have very high import content and thus by appreciating the exchange rate of the Singapore dollar, this will help to keep the cost of producing these manufacturing exports low and thus **maintaining her export competitiveness**, by keeping price increases in Singapore goods less than those of competitors to achieve a healthy current account balance and positive actual economic growth.

#### Explain how Monetary Policy centred on interest rate works

- On the other hand, changes in interest rates aim to change domestic demand of consumption and investment expenditure to achieve the macroeconomic aim.
- A rise in interest rate will **increase the cost of borrowing** so as to reduce the profitability of investment, thus lowering the level of investment. At the same time, households will increase their savings and cut back on their consumption on credit. Hence, as the level of aggregate demand falls due to a fall in consumption and investment demand, general price level falls leading to a fall in demand-pull inflation.

#### Explain how interest rate is not useful for Singapore

- Singapore's role as an international financial centre which adopts a **free banking policy**. With the large presence of foreign banks and foreign direct investments, MAS **cannot effectively change the money supply** because if MAS were to raise the amount of cash reserves that banks have to keep aside so that they have less reserves to lend, foreign banks can resort to external funds.
- As a small and open financial hub, she needs to follow the international trends in the interest rate to avoid large capital flows. Too great a variation would cause instability of the exchange rate due to large capital flows. Thus, Singapore is a price taker in terms of interest rate. The market is determined by the three local banks according to market forces.
- Likewise, Singapore's interest rates are largely **determined by foreign interest rates** and market expectations of movements in the Singapore dollar. Thus, any attempt by MAS to raise or lower the domestic interest rate over a long period of time would be thwarted by a shift of **funds into or out** of Singapore. Interest rates influences domestic demand which makes up a smaller percentage of GDP than external demand. Thus, change in interest rates has a smaller impact on the GDP than exchange rate which influences external demand. Therefore, Singapore, which is dependent more on external demand for growth choose to focus on exchange rate instead of interest rates.
- Managing the exchange rate is thus the most effective way of maintaining price stability in a small, open economy like Singapore. It is relatively controllable by the MAS and bears a stable and predictable relationship with the objective of monetary policy which is price stability.

Marking So Level (Marks)	<u>cheme for part (a)</u> Knowledge, Application, Understanding and Analysis
L3 (7-10)	• <b>Developed</b> explanation of the <u>two</u> reasons why MAS's monetary policy is centred on the exchange rate rather than interest rates, with <b>good</b> application to the Singapore context

L2 (5-6)	• <b>Undeveloped</b> explanation of <u>two</u> reasons why MAS's monetary policy is centred on the exchange rate rather than interest rates, with <b>some</b> application to the Singapore context OR
	<ul> <li>Developed explanation of <u>one</u> reason why MAS's monetary policy is centred on the exchange rate rather than interest rates, with some application to the Singapore context.</li> <li>'Undeveloped' - Elaboration is superficial and descriptive, without good examples in the Singapore's context to substantiate.</li> </ul>
L1 (1-4)	<ul> <li>Weak analysis on how exchange rate is a tool for Singapore's monetary policy</li> </ul>
Currency d more fore	Answer for part (b) lepreciation is the loss of value of a country's currency with respect to one ign currencies. The depreciation of the country's currency would mean value of that country's currency.
the currend brings abo sustained e	taken by the countries, Japan, Switzerland, Columbia and Israel to deprecia cies would impact Singapore's ability to achieve sustained economic growth as ut both positive and negative impacts on Singapore and her ability to achie economic growth.
	preciation of currencies of other countries would affect Singapore's abili sustained economic growth
Negative	Impact of depreciation on Singapore's ability to achieve sustain
economic The depred	
	ciation taken by the countries, Japan, Switzerland, Columbia and Israel wou e value of the SGD relative to the value of the countries' currencies.
price comp expensive i in terms of would caus Assuming of fall in AD v	these countries that depreciated the currencies, the move would impact to petitiveness of Singapore's exports, as Singapore's exports would be mo- in the currencies of these foreign countries and imports into Singapore cheap domestic currecy. Assuming Marshall-Lerner condition (PEDx + PEDm> 1), the se a fall in the export revenue and increase in import expenditure of Singapore ceteris paribus, this would cause a fall in the net exports of Singapore and also which would lead to a fall in national income by the multiplier effect. The fall ould cause negative actual growth for Singapore.
40% of nor GDP expen	l but the other components, namely, consumption, (C), which makes up abo ninal GDP expenditure, investment, (I), which makes up about 25% of nomin
40% of non GDP expen GDP expen	sports, (X-M), makes up about 20% of nominal GDP expenditure. Net exports ( l but the other components, namely, consumption, (C), which makes up abound minal GDP expenditure, investment, (I), which makes up about 25% of nominal diture, government expenditure, (G), which makes up about 15% of nominal diture could have risen relative to net exports and reversing the fall in AD. <b>Sumpact of depreciation on Sinapore's ability to achieve sustained econom</b>

would represent a lower cost of production for goods which utilizes imported inputs for production.

This would mean that SRAS would increase. The increase in SRAS would bring about an increase in real national income- positive actual growth, and thus the depreciation would help Singapore to achieve sustained economic growth.

If the fall in general price level and positive actual growth increase investor confidence resulting in inflow of foreign direct investments, this would result in an increase in AD and an increase in productive capacity that would increase LRAS, resulting in sustained economic growth.

### Side 2: Depreciation of currencies of other countries may affect Singapore's ability to achieve sustained economic growth to a limited extent

- Limited trading relations with countries that have depreciated their currency The depreciation of currencies of other countries may only impact Singapore's ability to a limited extent. This is because Singapore has limited trading relations with the countries that depreciated their currencies, namely, Israel and Columbia. Thus, a fall in net exports or a fall in cost of production, it may only have a minimal impact on Singapore's ability to achieve sustained economic growth.
- Existing Policies which mitigate the effects of depreciation of currencies by other countries

Given the depreciation of currencies of other countries, Singapore could have used alternative policies on top of Exchange Rate policy.

#### **Fiscal policy**

Fiscal policy in Singapore is directed mainly at promoting long term economic growth by investing in infrastructure, education, research and development.

The Singapore government adopts the following principle in promoting economic growth:

- 1. To provide a stable and conducive business environment in order to attract foreign direct investment into the country. At the same time, the stability and the business-friendly economic climate can be an inducement for local investments too.
- 2. Changes in policies pertaining to tax and government expenditure must be justified on microeconomic grounds such as equity and a focus on supply-side issues.

#### Explain how Expansionary Fiscal Policy achieves Sustained EG:

- The government can increase its expenditure of public projects such as building new expressways. An alternate approach would be to stimulate consumption and investment by reducing taxes. Reduction in income tax would stimulate consumer spending through an increase in personal disposable income and higher purchasing power, whereas reductions in indirect taxation would enable a given disposable income to buy more goods and services, hence increasing consumption. Cuts in corporate tax will increase after-tax profits and thus encourage private investment.
  - When the government increases spending or reduces taxes, it results in an increase in

AD represented by a rightward shift of the AD curve. Through the multiplier process, national income will increase through the multiplier effect.

- Given the fall in net exports, (X-M), the increase in consumption, investment and government spending brought about by the expansionary fiscal policy may help to reverse the fall in AD.
- The increase in AD and production will allow actual economic growth to take place and ease the recession. It will also reduce cyclical unemployment, moving the economy its full employment level.

#### Impact of depreciation on Fiscal Policy

The depreciation undertaken by the countries would have minimal impact the effectiveness of Fiscal Policy in its use to achieve sustained economic growth as Fiscal Policy involves government expenditure and/or taxes.

#### Supply-Side Policy

#### Short-run

Singapore Government introduced short run supply side policies to help firms cope with costs of production. These initiatives would help reduce cost of production, increasing SRAS, resulting in positive actual growth for Singapore.

**Examples:** Jobs credit scheme/ Property tax rebates

#### Long run

Provide higher course fee support for companies and individuals and absentee payrolls for companies that send their workers for training so as to help Singaporeans to upgrade their skills so that they can stay employed or seek re-employment.

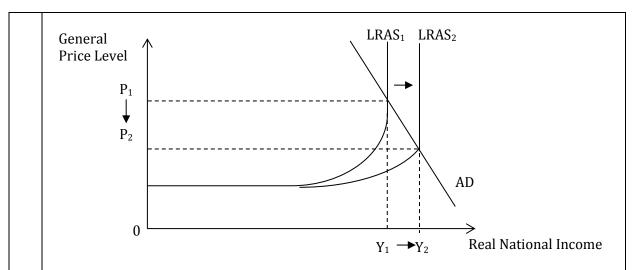
Training grants were also provided for general education and skills for workers to acquire post-graduate diploma and even university degrees so as to have a stronger impact on re-employment and retaining productive workers in the labour market.

**Example**: Skills Programme for Upgrading and Resilience (SPUR), CET (Continuing Education and Training), PIC (Productivity and Innovation Credits

Training schemes should be put in place to not only retrain the already structurally unemployed but also those who may be unemployed in future as the Singapore economy is rapidly transforming itself into a **knowledge-based economy**.

At the same time, the productive capacity of the economy can be increased by the **increase in LRAS via the increase in quantity of resources**, the improvement in the quality of resources or the advancement of technology.

Supply side policies would shift the LRAS rightwards from LRAS1 to LRAS. This will reduce the GPL from 0P1 to 0P2, as well as raise the level of real output from Y1 to Y2, increasing potential growth and reducing inflation at the same time. **Cyclical unemployment and inflation will also be reduced when production is increased.** 



#### Impact of depreciation on Supply-Side Policy

The depreciation undertaken by the countries would have minimal impact the effectiveness of Supply-Side Policy in its use to achieve sustained economic growth. **Conclusion & Evaluation** 

### The extent of the impact of the depreciation on Singapore's ability to achieve sustained economic growth depends on the following factors,

#### Extent of the Depreciation of the foreign currencies in relation to SGD

The impact of the depreciation would depend on the trading relations of these countries relative to Singapore. Amongst the four countries, Singapore has relatively closer trading relations with Japan and Switzerland, thus the impact on trade would be stronger for these two countries in comparison to Columbia and Israel.

#### Singapore's Monetary Policy

Singapore's Monetary policy of a gradual and modest appreciation of the currency may also amplify the effect of the depreciation of other currencies, amplify the positive/negative impacts on the effectiveness of the Exchange Rate Policy as a tool for Singapore to achieve its goal of sustained economic growth.

#### Time frame of depreciation

The impact of the depreciation would depend on the time frame of the depreciation. If the depreciation stance was a temporary measure undertaken by the various countries to improve their export competitiveness in order to improve their BOP position, the impact would be for the short-run. Moreover, as the Marshall-Lerner condition does not hold in the short run, a short run depreciation of their currency by other countries may in fact benefit Singapore's net exports. However, if it was a long-term measure, then MAS would have to consider taking actions as it would have impacts on Singapore's export competitiveness.

In view of this, Singapore should carry on with its multi-prong approach to achieving sustained economic growth through its combination of DD and SS –side policies as each policies would have its strengths and limitations.

	<u> Marking Scheme for part (b)</u>	
Level (Marks)	Knowledge, Application, Understanding and Analysis	
L3 (9-11)	<ul> <li>Detailed analysis of how the depreciation stance undertaken by foreign countries would affect Singapore's ability to achieve sustained economic growth.</li> <li>Discussion of how Singapore may have also undertaken other policies which would mitigate the impacts brought about by the depreciation. Answer should include real life examples from the Singapore context.</li> </ul>	
L2 (6-8)	<b>Undeveloped</b> explanation of how the depreciation stance undertaken by foreign countries would affect Singapore's ability to achieve sustained economic growth Answer may have little (or no) <b>real life examples from the Singapore context.</b>	
L1 (1-5)	For an answer that shows some superficial knowledge of how it could affect Singapore's ability to achieve sustained economic growth. Conceptual error/s evident.	
	Allow up to 4 marks for evaluation	
E2 (3-4)	For a judgment based on economic analysis / adequately substantiated	
E1 (1-2)	For an unexplained judgment, or one that is not supported by economic analysis.	

(-)	Emplois sub-simulation laboration de statistica de la seconda de la seconda de la seconda de la seconda de la s
(a) (b)	Explain why improving labour productivity is important to a country.[]Discuss whether the move above to address declining productivity is desirated.
(0)	for Singapore.
Sugg	ested Answer for part (a)
	RODUCTION
L	Explain what labour productivity means: abour productivity is the ability to create goods and services from a given amount
0	utput and is typically measured as output per unit of labour input. The main drive f labour productivity are skills, innovation and investment. Provide an overview of essay, state macro goals.
	'he main macroeconomic objectives that a government have are sustained econom
g p e C	rowth, price stability, low unemployment & healthy BOP. By improving labour productivity, there would be positive impacts on the macroeconomic outcomes for conomy. It may also have positive impact on micro goals of a government. <i>Context: Any country, may apply to Singapore [may be used as examples in "body" of</i> <i>ssay]</i>
S a	ingapore government aims to raise labour productivity through promo utomation/innovation, investing in people and increasing foreign workers levy.
BOD	
-	mproving labour productivity helps to achieve sustained economic growth and lov nemployment
•	
•	Raising labour productivity, the level of aggregate supply (AS) and aggre demand (AD) will rise in the long run.
•	
•	amount of labour resources hence increasing the country's productive capa
	This causes Singapore's aggregate supply curve to shift rightwards. At the s
	time, higher labour productivity in the long run helps to attract more for
	investment to Singapore as firms are able to enjoy a higher expected rate of retu
	for their investment. This enables the aggregate demand (AD) curve to
	rightwards as well. With a simultaneous shift of both AD and AS curve, his
	potential output and employment is achieved. This is shown by the diagram belo
GPL	AS AS1

As Real national income/output is increased, firms step up on production and more jobs are created. This **reduces cyclical unemployment** in an economy. If appropriate measures are taken to retrain workers, as in those done by the Singapore government such as the Productivity and Innovation Credit (PIC) grants and the Workfare Training Scheme (WTS), structural unemployment will also be reduced. Hence improving labour productivity is important in helping an economy to achieve sustained growth and low unemployment

2) Improving labour productivity helps to dampen demand-pull inflation

In the long run, improving labour productivity will help to dampen demand-pull inflation caused by the potential surge in investment levels due to positive economic outlook that firms may have, given more productive workforce. Hence, the rightward shift of LRAS will help to dampen the DD-pull inflation in the long run.

Other points to consider:

- 3) Improving labour productivity helps to improve equity (micro goal)
- 4) Improving labour productivity helps to improve occupational mobility and hence improve allocative efficiency (similar to structural unemployment point above)
- 5) Improving labour productivity helps to improve non-material SOL  $\rightarrow$  better work satisfaction, boosts workers morale.

#### CONCLUSION

In conclusion, for economies like Singapore which only has a small pool of labour as the main resource, labour productivity is an area that needs to be monitored closely at all times. This is because a fall in labour productivity can have significant adverse impact on the macroeconomic objectives of Singapore.

Level (Marks)	Knowledge, Application, Understanding and Analysis
L3	Answer shows excellent knowledge of at least 3 reasons why improving
(7-10)	labour productivity is important for a country.
	Answer focuses on the benefits of improving labour productivity, which i
	the attainment of micro/macro aims of a country.
	Good use of economic framework and application to a context.
	Appropriate use of diagram(s) to illustrate the impact on macroeconomi
	goals.
L2	Answer shows good knowledge of at least 2 reasons why improving labou
(5-6)	productivity is important for a country.
	Answer focuses on the benefits of improving labour productivity and/o
	the disadvantages of not improving labour productivity.
L1	Answer briefly explains how a rise in labour productivity leads to
(1-4)	desirable outcome for a country.
	Little or no reference to the Singapore economy.
uggested Answer for part (b)	
	ents: question is on "desirability" for Singapore, hence a wide range of concern

Note to students: question is on "desirability" for Singapore, hence a wide range of concerns that a "country" may have could be applicable to the question. However, the challenge is to scope the essay well, so that an in-depth analysis on specific aims of a country can be examined. A recommended scope would be at least 3 desirable/undesirable effects on Singapore, appropriate economic theories/framework should be applied as much as possible.

#### INTRODUCTION

#### Explain the "move above", give an overview of essay

The move above by the Singapore government to reduce reliance on foreign labour would mean that more emphasis would be on improving existing capital resources instead of allowing freer inflow of both higher-skilled and lower-skilled labour from abroad. Also, by focusing on automation, the government hopes to improve domestic labour productivity, so that output per unit of labour can be increased with the help of machineries and technology and reduce reliance on foreign high-skilled labour. This move is likely to bring about both positive and negative impacts on Singapore, in terms of her micro and macro objectives.

#### BODY

## Thesis 1: The move above to raise levy on foreign workers is desirable for Singapore as it tackles the current problem of over-reliance on foreign labour to promote equity.

Instead of increasing quantity of FOPs to increase productive capacity, the Singapore government has invested in human capital to equip them with relevant skills. Foreign worker levy has been raised so as to force the firms to reduce its reliance on cheap foreign workers and to innovate and employ domestic labour. These measures help to raise labour productivity as they promote greater awareness of the importance of labour productivity for existing domestic resources (human and fixed capital)  $\rightarrow$  promotes domestic employment stability

Examples of current initiatives would include the Productivity Innovation Credit (PIC) grant and the Workfare Training Scheme (WTS)  $\rightarrow$  long term impact as factor owners see the importance of productivity  $\rightarrow$  promotes **sustained economic growth**. Income inequality is lowered as such re-training for domestic workers help to improve the quality of labour and they, especially lower-skilled workers, can then demand for higher wages  $\rightarrow$  **improves equity**.

Furthermore, the levy collected from firms that employ foreign workers can be used to fund such initiatives to raise labour productivity and there would be less disruption to government spendings in other aspects such as education and healthcare.  $\rightarrow$  Better fiscal position, more resources allocated to merit goods.

Overall, it can be considered a sustainable approach, and hence it is desirable for Singapore

## Anti-thesis 1: However, the extent of rise in COP for certain industries, especially those that currently rely heavily on foreign labour (services), will be more pronounced than other sector $\rightarrow$ may not improve equity

Also, fiscal position may worsen in the short term as such labour productivity policies and grants are usually expensive in our high-skilled labour force. Effects can only be seen in the long term and may be difficult to measure the success of the policies.

## Thesis 2: The move above to promote automation is also desirable as it promotes greater use of technology to tap on existing domestic resources and potential growth

- Use of automation will boost productivity levels → increase in quality of FOP→ labour force will then be better able to demand for high wages and firms will be more willing to pay for labour that are able to produce more output/labour hour. → SOL improve
- This is especially desirable for lower income groups → go through training → earn higher wages due to improved employability → more equitable distribution of income
- Improved labour productivity will also help lower COP for firms in the long run  $\rightarrow$  produce closer to LRAC  $\rightarrow$  productive efficiency improve

• If cost savings are passed on to consumers in the form of lower prices, P becomes closer to MC  $\rightarrow$  improves allocative efficiency

### Anti-thesis 2: However, over emphasis on the use of automation may lead to negative externalities in production.

- Explain how negative externalities leads to market failure
- Also, occupational immobility of labour may worsen in the short term, causing more people to be dismissed from work if they don't have the necessary skills. → worsens allocative efficiency
- Therefore, it is undesirable for Singapore

#### Anti-thesis 3: The move above to raise levy and promote automation is undesirable as it may lead to cost-push inflation and may cause structural unemployment in the short term

- Tighter labour market → limited supply of labour → upward pressure on wages as out of economy continues to increase given Singapore's healthy GDP growth rate in recent years.
- Increase in wages  $\rightarrow$  wage-push inflation  $\rightarrow$  AD-AS diagram to illustrate
- Firms faced with rising COP due to rising wages will then raise prices of goods and services sold in order to sustain businesses
- If households (labour force) starts to demand for high wages due to rising GPL, situation may worsen to become a wage-price-spiral.
- Promoting the use of automation may cause some lower-skill labour to be dismissed from work if they don't have the necessary skills, and are unable to upgrade themselves promptly. → worsens short term structural unemployment.

#### **SYNTHESIS**

Whether the move by the Singapore government is desirable depends on:

- Extent of rise in COP for certain industries (especially services) will be more pronounced than other sector  $\rightarrow$  may not improve equity
- The priorities in government's respective micro and macro goals
- The sustainability of such a move
- The receptivity of firms and the general public (labour force)

Marking Se	Marking Scheme for part (b)		
Level (Marks)	Knowledge, Application, Understanding and Analysis		
	Answer shows excellent knowledge of how <u>both the moves of increasing</u> <u>levy on foreign labour and focusing on automation</u> is desirable for		
L3	Singapore with at least one positive impact and one negative impact on each of the initiatives. Candidates are able to relate desirability of raising <u>domestic</u> labour		
(9-11)	productivity to the context of Singapore and relates to micro/macro objectives of the government, with good reference to a measurable outcome		
	of what is a desirable situation. Good use of economic framework and real-life examples.		
L2	Answer shows some knowledge of how either of the moves of increasing		
(6-8)	levy on foreign labour and focusing on automation is desirable for		

		Singapore with at least one positive impact and one negative impact on at
		least one of the initiatives.
		Candidates are able to make some relations to desirability of raising labour
		productivity to the context of Singapore and relates to micro/macro
		objectives of the government
		Good use of real-life examples.
		Answer briefly explains how the move in the preamble impacts the
		economy without a clear link to a specific outcome (e.g. macroeconomic or
	L1	microeconomic goal) for a country.
(1	1-5)	Answer is repetitive from part (a), focusing on the impact on improving
		productivity rather than the policies to do so.
		Little or no reference to the Singapore economy.
	Allow up to 4 marks for evaluation	
	E2	A sound judgment of extent of effectiveness based on economic analysis
(3	3-4)	Attempt at synthesis using clear criteria
	E1	Mainly unexplained judgment / No judgement of extent
(	1-2)	No attempt at synthesis

6	This current wave of globalisation has been driven by policies that have opened economies domestically and internationally. At the same time, taking advantage of new opportunities in foreign markets and technology, corporations have built foreign factories and established production and marketing arrangements with foreign partners. Source: globalization101.org
	Some economists believe that policy forces are the main driver of globalisation, rather than market forces. Discuss how far you agree with this belief. [25]
	<ul> <li>Suggested Answer Introduction</li> <li>Globalisation can be defined as the growing interdependence of countries worldwide through increasing volume and variety of cross-border transactions, largely in goods, services and free flows of international capital, spread of technology as well as labour movement between countries.</li> <li>The rise of globalisation can be explained by two major forces: policy forces and market forces: <ul> <li>Market forces refer to the interactions between households and firms in the market determining the equilibrium. These economic agents act out of their own interests to maximise their welfare.</li> <li>Policy forces refer to the actions of the government to influence the decisions of economic agents.</li> </ul> </li> </ul>
	<ul> <li>Body</li> <li>Side 1: Policy forces are the main driver of globalisation</li> <li>1. In terms of trade flows</li> <li>Governments have negotiated reductions in / elimination of trade barriers and have established international agreements to promote trade in goods, services, and investment, based on comparative advantage. With the removal of tariffs, prices of imports would be lowered. This would increase the quantity demanded for imports, ceteris paribus, leading to greater trade flows.</li> </ul>
	At the same time, the elimination of trade barriers allows firms to take advantage of new opportunities in foreign markets and this increases the exports of the economy. A defining feature of globalisation, therefore, is an international industrial and financial business structure. Examples include the signing of free trade agreements (NAFTA, ASEAN) or the formation of the EU.
	2. <u>In terms of capital flows</u> Governments are aware of the benefits of being connected to the region and the world. This is especially so for small and open economies who can reap potential benefits of economic growth through a rise in the inflow of Foreign Direct Investment (FDI) and trade in goods and services.
	It is for this reason that many governments have adopted free-market economic systems, vastly increasing their own productive potential and creating new opportunities for international trade and investment. For instance, with a low corporate tax rate of 17% and industry-specific tax incentives, Singapore has sought to maintain its attractiveness as a destination for FDI. In fact, many economies are doing the same in a bid to attract FDI, contributing to greater flows of FDI.
	3. <u>In terms of labour flows</u>

There has been an increasing trend of cross-border labour movement due to the breaking down of international borders. Productive factors flow in response to differences in returns (such as wages and yields on capital) as long as these are large enough to outweigh the cost of relocating from one country to another. A nation in which labour is scarce can either import labour-intensive products or import labour itself. The same applies to capital. Thus, international trade in goods and services and flows of productive factors are substitutes for each other.

Governments around the world accelerate such movements by providing attractive remuneration packages in the hope that these highly-skilled "talents" can help in carving out new areas of comparative advantage for their economy and boost their economic growth. This is especially true for small countries like Singapore where the population base and thus the pool of "talent" is too small for it to grow the chosen niche sectors in the economy.

#### Side 2: Market forces are the main driver of globalisation

1. In terms of trade flow

The rise of inter-industry trade can be explained through the theory of comparative advantage, which is based on the differing opportunity cost of producing goods in different countries. Trade can be mutually beneficial even if one country is more efficient in the production of all goods. At the same time, changing tastes and preferences towards the consumption of a wider variety of goods and services have increased the demand for goods and services in many industries (e.g. automobiles) and can explain the rise of intra-industry trade.

Improvements in transportation leading to the lower cost of refrigerated and container transport have allowed the mass movement of goods throughout the world. As producers take advantage of lower costs of production to increase profits, they have sought to source for raw materials externally. This has led to a greater flow of goods across borders, leading to globalisation.

#### 2. <u>In terms of capital flow</u>

Advancements in Information and Communication Technology helps to break physical and geographical barriers and allows firms to engage their consumers with their online presence. Harnessing such technology represents a lucrative way of expanding a country's market given a global population of 7 billion people – a potential consumer base for any firm in the global market. As such, firms would seek to open up to the global market in order to increase their revenue and thus profits.

#### 3. <u>In terms of labour flow</u>

With improvements in transportation technology, labour is able to travel further in search for higher wages. At the same time, firms are able to bring in labour from all over the world in a bid to lower their production costs and raise profits.

With factor price equalisation, however, the degree to which labour moves in search of higher wages will be reduced. At the same time, with some governments recognising the social and economic impact of foreign labour in their countries and tightening the quotas of foreign workers, the extent to which market forces can drive the flow of labour will be restricted.

#### <u>Conclusion</u>

It is difficult to separate the cause of globalisation into market-driven or policy-driven due to the interdependence of the actions of consumers, producers and governments. It is

noted that it is largely due to policy forces that some economies are less globalised. On the other hand, economies that are more globalised have done so due to the workings of the market forces, with policy forces providing the supporting structure for globalisation to take place. As such, the interplay of the two forces have resulted in the wave of globalisation in recent years.

Marking Scheme		
Level (Marks)	Knowledge, Application, Understanding and Analysis	
L3 (15-21)	For a well-developed explanation and analysis on both drivers of globalisation. The answer should have a discussion with respect to all 3 aspects of economic globalisation. Explanations for market forces should consider both demand and supply factors for at least one aspect of globalisation. Answer should include a thorough explanation, well- supported with the use of examples. For a well-developed explanation covering both drivers of globalisation across all 3 aspects of globalisation, with the use of examples – max. 15 marks. For a purely theoretical answer that discusses the impact of the two drivers on all 3 aspects of globalisation – max. 15 marks a thorough explanation of a well-supported with the use of examples.	
L2 (10-14)	A well-developed but <u>one-sided explanation</u> on the drivers of globalisation, covering all 3 aspects of economic globalisation with supporting examples. Answer considers a maximum of two aspects of globalisation with supporting examples without examples – max. 12 marks	
L1 (1-9)	For an answer that merely explains what globalisation is with a smattering of points showing lack of understanding of the terms "market forces" and "policy forces".	
	Allow up to 4 marks for evaluation	
E2	Well-presented and evaluative conclusion which weighs the relative	
(3-4)	importance of the factors leading to globalisation.	
E1	For an unexplained judgment that is not supported by economic analysis	
(1-2)	or justification.	