

Package for Prelim 2014 CSQ 1

ai)	Describe the trend in expenditure on healthcare services for Singapore from 2000 to 2011. [2]
	<p><u>Suggested Answer:</u></p> <p>Overall increasing trend [1m] From 2000 to 2006 health expenditure per capita increases at a slower rate as compared from 2007 to 2011 which increases at a faster rate. [1m]</p>
	<p><u>Examiners Comments:</u></p> <ul style="list-style-type: none"> • All students are able to describe the trend as increasing trend and therefore able to score 1 mark. • Most students are also able to explain that from 2007 to 2011 health expenditure per capita increases at a faster rate as compare with before 2007 • Some students state that there was a fall in 2001 which is not really a significant trough. • For 1 mark students still waste time giving the historical description of the data.
aii)	Account for the overall change in Singapore's expenditure on healthcare services. [2]
	<p><u>Suggested Answer:</u></p> <p>An overall increase in healthcare expenditure is due to the increase in demand as a result of the ageing population. [1m]</p> <p>Evidence: Extract 1 paragraph 1 suggests that the aged require intensive medical care and long periods of hospitalisation. [1m]</p>
	<p><u>Examiners Comments:</u></p> <ul style="list-style-type: none"> • Some students cannot understand account means to give reasons and fail to address demand or supply factors. • Many are able to give demand reasons but with no case evidence.
b)	Describe the type of market structure the pharmaceutical industry is operating in. [2]
	<p><u>Suggested Answer:</u></p> <p>Oligopoly [1m]</p> <p>Two leading firms dominate the industry: SmithKline, Glaxo and Merck. Also, high set up costs “ multi-million dollar manufacturing facilities”</p>

	OR Barriers to entry with “myriad of legislation.” [1m]
	<p><u>Examiners Comments:</u></p> <ul style="list-style-type: none"> • Almost all students are able to identify the market structure as oligopoly with the exception of a few who identify it as monopolistic competition. • Many are able to give case evidence for the market structure identified but there are a few who just explain the characteristics of oligopoly with no link to the case evidence.
c)	Assess whether the above identified market structure in the pharmaceutical industry is detrimental to society. [6]
	<p><u>Suggested Answer:</u></p> <p>Introduction: Overview – identifying criteria of evaluating market structure The pharmaceutical industry operates in a competitive oligopolistic market structure, where there are high barriers to entry. The impact of this oligopolistic market structure on society will be evaluated based on the microeconomic objectives of economic efficiency.</p> <p>Thesis: The oligopolistic pharmaceutical industry is detrimental to society: Productive inefficiency The oligopolistic pharmaceutical industry would lead to productive inefficiency as it is unlikely to be producing at the minimum point of its LRAC since due to high market power, it tends to restricts output to maintain high prices. Hence, it is not exploiting all economies of scale, leading to wastage of resources. Also, a pharmaceutical firm having low degree of competition may not have the incentive to keep its costs at the lowest. Hence, the oligopolistic pharmaceutical industry is productively inefficiently from both firm and society’s point of view, resulting in wastage of resources and higher prices.</p> <p>Thesis 2: Allocative inefficiency The oligopolistic pharmaceutical industry would lead to allocative inefficiency. It is not producing where $P = MC$. Instead, it is producing at $P > MC$ (Consumers’ valuation of the marginal benefit of consuming the good, is higher than the marginal cost of producing it), hence there is underproduction of the pharmaceutical drug and welfare loss to the consumers. This is due to the use of the intellectual property system, notably patents, as mentioned in extract 4, pharmaceutical firms have the market power to restrict output and set the corresponding price which is higher than the marginal cost of producing the next additional unit of drug.</p> <p>Anti-thesis: The oligopolistic pharmaceutical industry may not be detrimental to society: Dynamic efficiency The oligopolistic pharmaceutical industry can be dynamically efficient. According to extract 4, patents “provide key incentives for taking on the risks of researching and developing new medicines.” Through the use of patents, pharmaceutical firms can be more certain of returns from the risks taken during R & D. Hence despite the high costs of R & D, firms continue to innovate through R & D, which will have a positive impact on product quality, variety and costs.</p>

Oligopolistic firms are able to reap economies of scale. According to extract 4, “In 2011 alone, the industry invested €27.5 billion in R&D in Europe” Due to the high costs of R & D, which is necessary for the developing of new drugs, the output of a pharmaceutical firm has to be sufficiently large in order for its average costs to be low.

Anti-thesis 2: Greater exploitation of Economies of Scale, thus may actually have Productive Efficiency

Due to high barriers of entry, firms are able to secure a large market share and therefore reap economies of scale by spreading R&D costs over a greater output. If there are more firms in the market (and hence a smaller market share for each firm), it may lead to higher average costs for each unit and hence higher prices for consumers.

Synthesis:

Oligopoly is much more difficult to evaluate compared to other market structures because it covers a greater variety of market situations than the other market forms. For example some pharmaceutical firms which are not generally very concentrated (e.g. seven firms dominating the market), engage in no collusion and face considerable effective competition in the markets.

However, some oligopolies which are highly concentrated (e.g. 3 firms dominating the market) or collusive have more market power, and higher supernormal profits. Extract 3 “an established cluster of leading foreign companies such as SmithKline, Glaxo and Merck now dominating the industry here.”

Level	Descriptors	Marks
L1	Listing of theoretical benefits/costs of having large firms, with no analysis of how efficiency/equity outcomes have resulted.	1-2
L2	Answers that are inadequately explained.	3-4
L3	Well-explained answers with own evaluated judgement. <ul style="list-style-type: none"> • Analysis of how efficiency and equity outcomes have resulted • Usage of extract evidence • Substantiated evaluation 	5-6

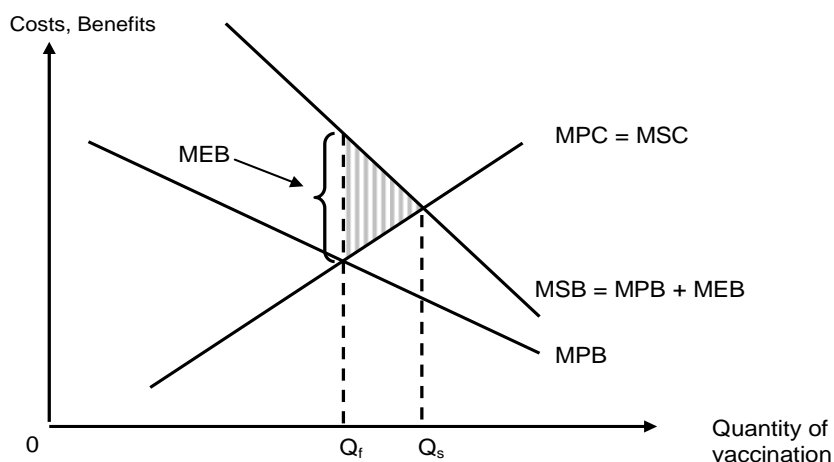
Examiners Comments:

- Some students cannot understand the question and write on how the pharmaceutical industry leads to positive externalities.
- General explanation on the advantages and disadvantages of large firms with no reference to the pharmaceutical industry.
- No case evidence
- One sided answer with allocative inefficiency and productive inefficiency well explained but with no anti-thesis on how oligopolistic pharmaceutical industry is not detrimental to society.
- Some students were confused between allocative and productive efficiencies i.e. Conceptual error!
- No synthesis

TAS: [2+2+2]

di) Explain the market failure in the market for healthcare. [4]

Suggested Answer:



Explanation of Positive Externality in Consumption:

In a free market economy driven by self-interest, individuals will consume healthcare at the point whereby $MPB = MPC$ at Q_f to maximize their net private benefit.

For simplicity we assume there are no external costs in production, hence $MPC = MSC$.

Thus, markets fail to achieve socially optimal output with the existence of positive externalities in consumption. A positive externality is the benefit that is enjoyed by a third party who is neither the consumer nor the producer of the good for which no payment is made.

Extract evidence: (Extract 2) Screenings and good control of chronic conditions are intended to detect disease early and prevent complications respectively. These measures save money in the long term.

As a result of the positive externalities, there is a divergence between the marginal social benefit and the marginal private benefit. The marginal social benefit is higher than the marginal private benefit at any level of consumption.

The allocative efficient or social optimum quantity, however, is Q_s where marginal social benefit is equal to the marginal social cost ($MSB = MSC$). There is thus an underconsumption of the product by the amount $Q_f Q_s$.

At free market equilibrium output level Q_f , $MSB > MSC$ which leads to a deadweight loss (welfare loss) and hence this indicates society's welfare is not maximized.

	<p>From the graph as a result of the under-consumption of the product by Q_f Q_s, the deadweight loss (represented by the shaded area) is incurred because MSB exceeds MSC over this output. Thus this results in market failure.</p> <p><u>Positive Externality</u> Extract evidence of externality (1m) Explaining what the points Q_f and Q_s mean (1m) Stating there is a divergence between $MPB < MSB$ (1m) Stating that there is deadweight loss due to under-consumption (1m)</p> <p><u>OR</u></p> <p><u>Imperfect information</u> Extract evidence of imperfect information (1m) Explain that $MPB_{perceived} < MPB_{actual}$ (1m) Stating at consumption is not at Q_s (1m) Stating that there is deadweight loss due to under-consumption (1m)</p>
	<p><u>Examiners Comments:</u></p> <ul style="list-style-type: none"> • The majority of the students are able to give case evidence and explain either imperfect information or positive externalities as market failure. • For those who score between 1 and 2 marks are those who explain imperfect information and positive externalities simultaneously and cannot distinguish between the two. • Or students who do not give case evidence and draw a diagram showing wrong triangle as dead weight loss.
dii)	Comment on whether subsidies in the healthcare industry is effective. [4]
	<p><u>Suggested Answer:</u></p> <p>Subsidies are effective: The provision of subsidies shifts the MPC curve to the right and hence lowers the cost healthcare provision.</p> <p>This helps to internalise the marginal external benefits of consuming healthcare services and increases consumption of healthcare services to the socially optimal level. Deadweight loss is eliminated and allocative efficiency is achieved.</p> <p>This will reduce the likelihood of patients being denied of adequate healthcare due to the high costs. Subsidies will enable the community to keep healthy and to “manage their chronic conditions”. [Extract 1]</p> <p>Evaluation of subsidies: Subsidies seek to make healthcare more affordable to the poor.</p> <p>However it is difficult to decide how much subsidies to grant. If subsidies are too low the poor will still not be able to enjoy healthcare. If subsidies are too high this will be a strain on the government’s budget.</p> <p>In the long run, as Singapore’s population ages and the number of elderly is</p>

	<p>expected to increase, the government's expenditure on healthcare is also expected to increase dramatically. This may increase the burden on future taxpayers and may decrease the incentive to work or even result in brain drain.</p> <p>In addition, it may lead to an over-reliance on the subsidies, causing patients to be less responsible for their health.</p> <p>Explanation of how subsidies work: "internalise the marginal external benefits" (1m) Extract evidence on benefits(1m)</p> <p>Any 2 points on evaluation of subsidies (1m for each point= 2m)</p>
	<p><u>Examiners Comments:</u></p> <ul style="list-style-type: none"> • Most students explain how subsidies could shift the supply curve to the right and therefore reduce the cost of production leading to increase in supply. As a result the answer is not using the correct economic framework. • Students are able to explain how subsidies internalise the marginal external benefit and eliminate deadweight loss but spend so much time explaining the whole process of positive externalities similar to the answer in di. • No case evidence • Those who get 2 marks are able to explain the effectiveness of subsidies in internalising external marginal benefits but fail to evaluate the effectiveness of subsidies.
e)	<p>Discuss the extent to which patents are more effective than subsidies in encouraging innovations in the pharmaceutical industry. [10]</p>
	<p><u>Suggested Answer:</u></p> <p>Introduction: Although patents and subsidies are both incentive-based policies, there remain differences in terms of how they work and the outcomes that ensue. This answer will compare the pros and cons between patents and subsidies and conclude whether patents or subsidies are more effective.</p> <p>Explanation of how patents and subsidies work:</p> <p>According to extract 4, patents are "intended to give the investors who decide to take on risks to develop new or improve existing drugs the possibility to recoup related costs... for a limited and legally defined period of time." Patents provide an artificial barrier to entry during this period of time, when a pharmaceutical firm becomes the sole producer of that particular drug, allowing the firm to make supernormal profits during the period.</p> <p>Without this protection, firms will earn only normal profits and will not be able to recoup to costs of R & D. Furthermore, if other firms are allowed to borrow and reproduce the outcomes of a firm's R & D, no firms would have any incentive to undertake R & D, knowing others can free-ride on it.</p> <p>Subsidies, on the other hand, reduce the cost of R & D. Due to the positive externality of successful R & D i.e. the transference of knowledge to other firms not</p>

Fig 1: Subsidizing R and D activities

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The costs of R & D and the subsequent cost of producing the drug are separate and should be distinguished. Patents affect both post R & D revenues and costs of producing the drug, whereas subsidies merely offset the costs of R & D.

Besides allowing a pharmaceutical firm monopoly power and hence 100% of market share for a limited period of time, doing so also ensures the pharmaceutical firm is able to keep costs low.

The cost of producing the drug may be very high and thus, without market power and hence market share, the pharmaceutical firm may not be able to produce for a large enough output to reap economies of scale to keep costs low enough to earn (at least) normal profits

With foresight, the pharmaceutical firm may not undertake R & D in the first place if they are not protected against entry of new firms.

Subsidies on the other hand, do not affect post R & D revenues and costs since the subsidy is given per unit of R & D output (not for each unit of drug produced). Hence, this may not provide a sufficient incentive for firms to undertake R & D and innovate.

Thesis 2

Patents are better because it ensures asymmetric information between producers. It precludes the possibility of competitors' free-riding on research knowledge and outcomes whereas subsidies merely allow producers to internalise the externality of knowledge transference without preventing it from happening.

Asymmetric information remains the main incentive for producers to undertake R & D since incremental improvements depend on existing research knowledge. Hence, the long run impact on producers' revenue could be potentially large if existing research knowledge (which can lead to discovery of new blockbuster drugs) is freely shared.

Since the use of subsidies greatly reduces the incentive for firms to undertake R & D without the security of protecting its intellectual property, patents may be more effective in encouraging innovation.

Anti-thesis: Subsidies are more effective in encouraging innovations in the pharmaceutical industry.

Both subsidies and patents face some uncertainty in terms of the effectiveness of its implementation, but the uncertainty that can be attributed to patents will lead to larger long run impacts.

In order for subsidies to work, the government will have to be able to correctly estimate the amount of MEB associated with R & D. Overestimating MEB will lead to over subsidizing of R & D, leading to an over production of R & D and wastage of resources. However, the welfare loss associated with over or under production of R & D is only temporary.

On the other hand, for patents to work, the government will have to be able to correctly estimate the correct amount of time needed for the firm to recoup its R & D costs. This is a harder estimate to make, and if the estimate is inaccurate, the welfare loss due to the firm restricting output to charge a higher price will last for the period of the patent, which is usually 10 – 15 years.

Hence the impact of an inaccuracy in estimation is smaller in the case of subsidies.

Synthesis: Equity

Besides the effectiveness of patents and subsidies, whether each produces equitable outcomes is also a major concern.

With patents, the costs of R & D are recouped via the profits earned from subsequent production and sale of the drug.

Hence, the cost burden of R & D is borne only by consumers of the drugs (whose PED for the drug would be very inelastic given the unavailability of substitutes). Whereas the source of government funds for subsidies come from taxpayers and hence the cost burden of R & D is shared by all taxpayers.

Hence patents are better since it might be considered fairer to have only consumers of the drug bear the cost burden, even if the costs shared by each person are higher.

Thus, in most cases therefore, patents provide a better option to incentivise R & D. However, in cases where important drugs are crucial for mass consumption, e.g., the development of vaccines to prevent an epidemic, then patents may not be a viable option since some consumers would be priced out of the market.

Level	Descriptors	Marks
L3	<p>Good discussion and <u>comparison</u> made between patents and subsidies.</p> <ul style="list-style-type: none"> Established basis of comparison Theoretical analysis to substantiate comparison Use of extract evidence to illustrate context and 	7-8

		substantiate theoretical points (to get high L3)	
	L2	<p>Clear explanation of the two measures (two-sided) but there is no comparison made between the two.</p> <ul style="list-style-type: none"> • Lists of merits and demerits of both patents and subsidies • Explanation of demerits and merits without established basis of comparison <p><u>OR</u></p> <p>Comparison made between the two but inadequate explanation of the two measures</p> <ul style="list-style-type: none"> • Establish basis of comparison • But lack theoretical analysis to substantiate comparison 	4-6
	L1	<p>One sided argument for both policies</p> <ul style="list-style-type: none"> • Only merits or demerits for patents and subsidies • Descriptive answers with little economic analysis 	1-3
	E1	Attempts to make judgment but unsupported	1
	E2	Judgments are well explained and supported by analysis	2
	<p><u>Examiners Comments:</u></p> <ul style="list-style-type: none"> • For the few better answers, students are able to make comparisons in the effectiveness between patents and subsidies in carrying out innovations as well as the use of extract evidence. • For answers that are mediocre, students only explain merits and demerits of patents and subsidies with no basis of comparison. • For very weak answers, students merely list some merits and demerits of patents and subsidies with no explanation. Also answer may be one-sided showing no demerits of the two or only patents are explained but subsidies are left out. 		

Prelim Solution Package 2014 CSQ 2

(ai)	Describe the trend in the exports of goods and services as a percentage of GDP for China. [2]
	<p><u>Suggested Answer:</u></p> <p>General Trend: Overall % shows a <u>falling/decreasing</u> trend. [1]</p> <p>Refinement: <u>Sharp fall</u> between <u>2006 and 2009</u>. (or any period between 06 to 09) [1]</p> <p><i>Note: We do not accept the answer: “lowest % in 2009” as it is not a trend. Neither are we accepting any other refinements as they are not nearly as significant as the sharp fall between 06-09.</i></p>
	<p><u>Examiners Comments:</u></p> <ul style="list-style-type: none"> • Some candidates merely describe periodic changes (i.e. from Year X to Year Y without pointing out what was significant) • A handful gave description of trends i.e. describing it year by year/period by period. They failed to realise that they need to give an overall trend, followed by a refinement. • Some just went on to compare between years. • Some did not qualify the extent of the fall from 06 to 09 • Many did not specify the period of sharp fall, and stated that the sharp fall occurred in 2009, which is factually inaccurate. • A significant handful of scripts pointed out insignificant refinements such as the small increases in some periods.
aii)	Consider whether the above trend allows us to make a judgement on China’s Balance of Trade. [3]
	<p><u>Suggested Answer:</u></p> <p>Definition of BOT: <u>Difference</u> between a country’s <u>export revenue and import expenditure</u> [1]</p> <p>Explaining the effect of the fall in X on BOT, ceteris paribus: <u>Fall in X should lead to a fall in BOT</u> / worsening of BOT. [1] (<i>BOT deficit will not be accepted.</i>)</p> <p>Explaining that whether this will lead to an adverse BOT requires us to look at the <u>relative decrease between export and import values</u>, i.e. if import values are falling as well, there may not be a fall / decrease in BOT. [1]</p> <p>(Or</p> <p>Explaining that data given is merely a <u>percentage of the overall GDP</u>: Since the data given only shows BOT as a percentage of the overall GDP, it does not give us enough information to make a judgment on the relative change of the BOT as</p>

	<p>the percentage change could have arisen due to a change in GDP and not BOT. [1])</p> <p>Conclusion: We are <u>unable to make a judgment</u> on China's BOT based on the above data. [1]</p> <p><i>(conclusion mark only given if: both fall in X and the ambiguous change in M were explained)</i></p>
	<p><u>Examiners Comments:</u></p> <ul style="list-style-type: none"> • Most did not define BOT. • Many did not explain effect of fall in X on BOT, ceteris paribus. • Many equated BOT to BOP, failing to realise the difference between the 2. Many also thought that BOT = CA. • Many used the terms 'exports' and 'imports' to refer to both volumes and revenue/expenditure. This is confusing and students should take notice to use clearer terms (export revenue, import expenditure, volume of exports etc.). • Some students erroneously thought that exports referred to (X-M).
(b)	<p><u>With reference to Extract 1, assess if Asian markets should embrace globalization. [6]</u></p>
	<p><u>Suggested Answer:</u></p> <p><u>Thesis: Globalization is necessary/beneficial for Asian markets.</u></p> <p>Benefit: With trade, countries can now import goods from different countries and regions. This <u>enhances consumer choice</u> since there is now a tremendous range and variety of goods that they can choose from.</p> <p><i>Evidence: Asian firms face global competition at home. Thanks to social media and the internet, they are now influenced by trends around the world. So in many industries companies in emerging Asia face competition from global firms <u>selling to customers whose tastes are more globally influenced than before.</u></i></p> <p><i>(Or any other relevant point from extract)</i></p> <p><u>Anti-Thesis: Globalization might be harmful/detrimental to Asian markets.</u></p> <p>Cost: In order to allow existing domestic firms to go global involves significant restructuring of existing business models. This might lead to an <u>increase in unemployment in certain sectors</u> for locals due to processes such as outsourcing to other emerging economies.</p> <p><i>Trying to become a multinational is the hardest path to going global. It involves wrenching change, great risk, lots of scrutiny and the <u>disposal of peripheral businesses in order to concentrate resources.</u></i></p>

	<p>(Or any other relevant point from extract)</p> <p><u>Conclusion:</u> Asian markets need to embrace globalization, as evidenced: “In most industries it is hard to stay competitive without being active worldwide. Insularity does not work.”</p> <table><tr><th>Levels</th><th>Knowledge, Application, Understanding and Analysis</th><th>Marks</th></tr><tr><td>L3</td><td>Well-balanced answer that clearly analyses the benefits and costs of globalisation in the context of the extracts. It includes both evidence from the extract and economic theory <i>Overall conclusion is required for 6marks.</i></td><td>5-6</td></tr><tr><td>L2</td><td>Two sided answers with incidental use of economic theory that is not based on the context of the extracts. Also for answers that consists of incorrect economic theories or if explanation is too brief or lacking in evidence.</td><td>3-4</td></tr><tr><td>L1</td><td>One-sided answer that doesn’t consider the benefits and costs; “To embrace or not to embrace.</td><td>1-2</td></tr></table>	Levels	Knowledge, Application, Understanding and Analysis	Marks	L3	Well-balanced answer that clearly analyses the benefits and costs of globalisation in the context of the extracts. It includes both evidence from the extract and economic theory <i>Overall conclusion is required for 6marks.</i>	5-6	L2	Two sided answers with incidental use of economic theory that is not based on the context of the extracts. Also for answers that consists of incorrect economic theories or if explanation is too brief or lacking in evidence.	3-4	L1	One-sided answer that doesn’t consider the benefits and costs; “To embrace or not to embrace.	1-2
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	<p><u>Examiners Comments:</u></p> <ul style="list-style-type: none">• Most students were able to give 2 sided arguments but failed to explain with the relevant theory or evidence.• Some just quoted evidence without any links to economic concepts.• Some also did not synthesise after providing both sides of arguments.• Many students argued that globalisation was not necessary for China due to their large domestic sector being sustainable instead of focusing on the harmful/detrimental effects of globalization. This answer was accepted but students will need to refer closely to extract evidence that clearly shows this rise in domestic demand being sufficient for sustainable economic growth in China.												
c)	<p>Explain two ways in which Free Trade Agreements have benefitted the Singapore Economy. [4]</p>												
	<p><u>Suggested Answer:</u></p> <p>Theory: Increased trade increases GDP, which raises material SOL. [1] Evidence: (Extract 2) Total bilateral trade has risen 70 per cent in the same time to US\$67.9 billion. [1]</p> <p>Theory: Increased capital flow into Singapore which could lead to an increase in both actual and potential economic growth. [1] Evidence: (Extract 2) The US-Singapore Free Trade Agreement (FTA) has raised bilateral trade and made Singapore the largest recipient of US investment in the</p>												

	<p>Asia Pacific as of 2012. [1]</p> <p>Theory: Increased employment opportunities for Singaporeans both locally and abroad and the inflow of foreign labour who could share their expertise to help improve the Singapore economy. [1]</p> <p>Evidence: (Extract 2) The FTA has raised Singapore's profile in the US and allows easier movement of people between the countries [1]</p> <p>Any 2 reasons for 4 marks.</p>
	<p><u>Examiners Comments:</u></p> <ul style="list-style-type: none"> • Most could find the evidence from the extract but were either inaccurate or did not link it clearly to a theoretical explanation of the benefits of FTA. • Most used the extract evidence of increased bilateral trade by 70%. It should be noted that the rise in bilateral trade may not guarantee that net exports for Singapore had indeed increased. It may have meant that there was more overall trade between the 2 countries. To be more accurate, students need to state the assumption that the rise in bilateral trade has led to a growth of exports revenue by more than the import expenditure for Singapore. • Some only explained benefits of one flow (trade/investment/labour) and gain only half credit. Students should realise that since FTAs affects trade, labour and investment flows. Thus, the discussion of one flow is not enough. Some students provided two different pieces of evidence that points towards only one flow, e.g. trade. Such answers were also only given half credit because of the lack of scope. • Those who explained labour flows tended not to link to benefits using economic analysis. i.e. increase in LRAS.
(d)	<p>Using AD/AS analysis, explain how a “combination of easy money and a tight labour market” can lead to inflation. [5]</p>
	<p><u>Suggested Answer:</u></p> <p>Inflation is defined as a <u>sustained increase</u> in the general price level. General Price Level is defined as the average price of goods and services in an entire economy. It is reflected in the intersection of aggregate demand and aggregate supply.</p> <p>Easy money as mentioned in the extract leads to a <u>greater availability of credit</u> where a rise in global liquidity which leads to a <u>fall in the interest rate</u>. This induces greater consumer spending. This <u>rise in consumption</u> leads to an <u>increase in the economy's Aggregate Demand</u>. [2]</p> <p>A tight labour market makes it <u>more difficult to find and hire labour</u>. This <u>increase the firm's cost of production</u> and thus, <u>decrease the economy's Aggregate Supply</u>. [2]</p> <p>The <u>combined effect of a rise in AD and a fall in AS</u> will lead to an unambiguous <u>rise in the General Price Level</u>, and thus leads to inflation. [1]</p>

	<p><u>Examiners Comments:</u></p> <ul style="list-style-type: none"> Many students could not identify what it meant by 'easy money' or 'tight labour market'. Many related 'easy money' to either 'money that is easily earned' or that somehow consumers now have a higher disposable income due to easy money. Both were not accepted. Others related 'easy money' to 'hot money' or capital inflow, but were not able to explain how this might have resulted in increased money supply could lower interest rates. Some related 'tight labour market' to SG being at full employment level. However, given the context of the case material, it is more likely to be a situation of falling LRAS due to increase in cost of production due to falling productivity as a result of the ageing population. Some did not label AD/AS diagram properly or did not draw it at all. Most students could identify AD increase and AS falling but could not explain the reasons behind the increase or decrease properly. 								
(e)	<p>Discuss the view that “exchange rate policy is still relevant for Singapore” [10]</p>								
	<p><u>Suggested Answer:</u></p> <table border="1"> <tr> <td>Introduction</td><td>The Singapore economy is a small and open economy, with a small and limited pool of resources and is import-dependent. It has a large reliance on the external sector and a focus on outward oriented policies. Therefore, exchange rate policy has always been relevant for Singapore. This essay seeks to discuss if this is still the case.</td></tr> <tr> <td colspan="2"><u>Thesis: Singapore effectively employs the exchange rate policy.</u></td></tr> <tr> <td>Point</td><td>Singapore's small size and lack of natural resources means that most of our basic necessities and raw materials have to be imported. Singapore's total trade (X+M) is about three times that of GDP. Given Singapore's small size, it does not influence world prices and is a price taker. Producers and consumers in Singapore have to accept prices dictated by global supply and demand conditions. As a result, the exchange rate directly affects the prices we pay.</td></tr> <tr> <td>Elaborate and Examples</td><td> <p>MAS operates a managed float regime for the Singapore dollar. The trade-weighted exchange rate is allowed to fluctuate within a policy <u>band</u>, the level and direction of which is announced semi-annually to the market. The band provides a mechanism to accommodate short-term fluctuations in the foreign exchange markets and flexibility in managing the exchange rate.</p> <p>In the context of Singapore, an appreciating Singapore dollar results in lower prices of foreign goods and services imported into Singapore. This has the direct effect of lowering the prices that the economy pays for final goods and services imported into Singapore. If the imports are factor inputs, it has the added effect of lowering the cost of production of firms, as</p> </td></tr> </table>	Introduction	The Singapore economy is a small and open economy, with a small and limited pool of resources and is import-dependent. It has a large reliance on the external sector and a focus on outward oriented policies. Therefore, exchange rate policy has always been relevant for Singapore. This essay seeks to discuss if this is still the case.	<u>Thesis: Singapore effectively employs the exchange rate policy.</u>		Point	Singapore's small size and lack of natural resources means that most of our basic necessities and raw materials have to be imported. Singapore's total trade (X+M) is about three times that of GDP. Given Singapore's small size, it does not influence world prices and is a price taker. Producers and consumers in Singapore have to accept prices dictated by global supply and demand conditions. As a result, the exchange rate directly affects the prices we pay.	Elaborate and Examples	<p>MAS operates a managed float regime for the Singapore dollar. The trade-weighted exchange rate is allowed to fluctuate within a policy <u>band</u>, the level and direction of which is announced semi-annually to the market. The band provides a mechanism to accommodate short-term fluctuations in the foreign exchange markets and flexibility in managing the exchange rate.</p> <p>In the context of Singapore, an appreciating Singapore dollar results in lower prices of foreign goods and services imported into Singapore. This has the direct effect of lowering the prices that the economy pays for final goods and services imported into Singapore. If the imports are factor inputs, it has the added effect of lowering the cost of production of firms, as</p>
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		<p>evidenced from the extract "... global oil prices have risen by an average of 16 per cent per year between 2010 and last year. But with a strong local currency, local petrol pump prices have increased by only 8 per cent over the period."</p> <p>An appreciating Singapore dollar would also help to lower both demand-pull and cost-push inflation. As mentioned in the extracts, "if the MAS did not allow the Singdollar to appreciate, headline inflation would have been about 2.5 percentage points higher than the 4.6 per cent rate last year."</p>
	Evaluation	However, the effectiveness of exchange rate policy can be undermined by the presence of time lags and lack of perfect knowledge and reliable information. Due to these lags in monetary policy, MAS formulates and conducts monetary policy in a forward looking manner based on reasonable assumptions of economic outlook and possible negative shocks.
	Link	It is important to note that exchange rate policy does not work alone in Singapore, but also include a mix of fiscal and supply-side policies.
	<u>Anti-Thesis: Singapore needs to focus more on other policies</u>	
	Point	Singapore should also make full use of its limited resources and maximise their per unit output. The most abundant resource in Singapore would be their labour force and hence, it is crucial to develop and stretch this labour force by using Supply Side policies to raise productivity.
	Elaborate and examples	<p>The increase in productivity will increase the maximum potential of Singapore economy and will lead to an increase in aggregate supply of Singapore. Thus, there will be potential economic growth for Singapore. Increasing the productivity will also increase the average wage rate of the workers and that will increase their ability to consume more.</p> <p>In Singapore, "A key prong in our restructuring strategy has been to <i>provide firms with strong support</i> for every investment that can improve productivity." This is done through a variety of measures such as the <i>Productivity and Innovation Credit (PIC) scheme</i> and the Continuing Education and Training (CET) system.</p>
	Evaluation	However, supply side policies may not be effective in curbing inflations for Singapore as training the labour force usually faces large, significant time lags. The training process is also voluntary and it may take a while to complete. Many domestic investors may downsize their production level whereas the foreign investors may look for other neighbouring countries where labour cost is lower and there are more growth

		opportunities.
	Alternative Points	<p>Students could also consider the below policy but it should not be the focus of the anti-thesis:</p> <ol style="list-style-type: none"> 1) Fiscal Policy - In Singapore, policies often also have fiscal effects as they involve large amounts of government spending which can help to increase aggregate demand and hence national income, as can be seen from the extract, <i>"This extension will cost the Government a total of \$3.6 billion."</i> This would result in actual economic growth as well as a fall in cyclical unemployment. However, fiscal policy is rather limited in use in Singapore due to our small multiplier. Although, this may still help in this 'era of slow growth.' 2) Trade Policy - In addition to domestic-based fiscal and supply side policies, Singapore also needs to continue its stance in taking an outward oriented approach to trade. Beyond simply utilising exchange rates to manage the costs on foreign imports, Singapore needs to also aggressively pursue globalisation measures. One such way is to have multiple long-term partnerships with other trade partners through the signing of Free Trade Agreements. Examples include the US-Singapore FTA, the Sino-Singapore FTA etc. <p>However, the MAS needs to take care of maintaining a stable exchange rate to ensure the success of trade policies. A rise in the external value of our currency can undermine export competitiveness whilst a fall in the external value may make imports more costly. Fluctuations in exchange rate might lead to investors finding it hard to estimate costs and profits. This will have an impact on businesses dealing with export and import of goods.</p>
	Conclusion	<p>Thus, exchange rate policy still relevant. However, given the multi-faceted nature of the economy, the government should consider combining its policies. These policies that will have impact on both the AD and the AS for the Singapore economy, Furthermore, the government can also push for greater trade integrations with other countries such as joining economic cooperations and signing FTAs. These trade policies will invariably help to support the existing demand management and supply side policies and help the government achieve its macroeconomic aims. While currency appreciation in Singapore is able to lower inflation, it does nothing in terms of creating more jobs or to increase the rate of economic growth. The 2 policies will have to be combined for a greater effect.</p>

	<table><tr><th>Levels</th><th>Knowledge, Application, Understanding and Analysis</th><th>Marks</th></tr><tr><td>L3</td><td>Well-balanced answer that shows deep analysis in terms of the relevance of both the exchange rate and other policies, in particular supply side policy in the context of Singapore.</td><td>7-8</td></tr><tr><td>L2</td><td>Undeveloped attempt to analyse the relevance of the 2 policies. The answer mainly looks at the pros and cons of exchange rate policy, without bringing in other policies. Or it just brings in policies in a cursory manner, without addressing the idea of whether exchange rate is still relevant..</td><td>4-6</td></tr><tr><td>L1</td><td>Answer that presents limited understanding of the policies mentioned and that the scope of analysis of the policy in the context</td><td>1-3</td></tr><tr><td>E2</td><td>Judgement is made on the effectiveness of the policy with good substantiation (possible alternative suggestion)</td><td>2</td></tr><tr><td>E1</td><td>Unexplained judgement on the effectiveness of the policy</td><td>1</td></tr></table>	Levels	Knowledge, Application, Understanding and Analysis	Marks	L3	Well-balanced answer that shows deep analysis in terms of the relevance of both the exchange rate and other policies, in particular supply side policy in the context of Singapore.	7-8	L2	Undeveloped attempt to analyse the relevance of the 2 policies. The answer mainly looks at the pros and cons of exchange rate policy, without bringing in other policies. Or it just brings in policies in a cursory manner, without addressing the idea of whether exchange rate is still relevant..	4-6	L1	Answer that presents limited understanding of the policies mentioned and that the scope of analysis of the policy in the context	1-3	E2	Judgement is made on the effectiveness of the policy with good substantiation (possible alternative suggestion)	2	E1	Unexplained judgement on the effectiveness of the policy	1
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	<p><u>Examiners Comments:</u></p> <ul style="list-style-type: none">• Many students explained that exchange rate policy reduces AD and thus reduces demand pull inflation. Although this may be true, since (X-M) will fall following an appreciation, this does not touch on the key of why Singapore adopts Exchange rate policy. The key rationale behind the MAS exchange rate policy is primarily meant to prevent imported inflation. An appreciation of our currency allows us to buy imported goods and services / factor inputs at a cheaper price, given our stronger currency. This is important to us, given our dependency on imports.• This meant some students were confused as to whether imported inflation is demand-pull or cost-push inflation. Imported inflation is seen as cost push inflation due to more costly raw materials for Singapore. Therefore, students need to clearly analyse the relevance of exchange rate policy in terms of its ability to control this particular type of cost push inflation.• Many students did not give an alternative policy or gave it briefly with little relevance to the context. The context touched on Supply-side policy to a great extent. Unfortunately, this evidence provided was used to a limited extent by many students.• Many students also analysed by saying that exchange rate policy is relevant as interest rate policy is irrelevant in SG. While this is not conceptually erroneous, students should avoid this as it invariably weakens																		

	<p>the essay analysis, making it difficult to reach a L3 standard. Arguments should be made both for and against the policies themselves. The actual 'relevance' or 'effectiveness' of a particular policy cannot be the result of the 'irrelevance' or 'ineffectiveness' of other policies.</p> <ul style="list-style-type: none"> • Some students did not realise that Singapore is unable to employ the interest rate policy or the money supply tool, due to the Open economy Trilemma. • An important point for students to note is that it is important to answer case study questions with the context in mind. Many students talked about exchange rate and supply side policy and how these policies can be used, as well as their disadvantages. However, they did so without considering the problem we are trying to settle i.e. inflation. For example, many students suggested depreciation of the exchange rate as being relevant to Singapore's economic growth objective. This is problematic as it: Firstly, does not address the question requirement, which is whether exchange rate policy is still relevant to maintaining price stability by lowering inflation. Secondly, it is implied by the case evidence that Singapore's exchange rate policy stance is a gradual appreciating one.
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