

## Section A

Answer **all** questions.

### Question 1            China's Economic Performance, Prospects and Influence

#### Extract 1: The end of China's economic miracle

Over the last three decades China experienced a remarkable transformation, going from being a poor and largely agricultural economy to becoming the world's industrial powerhouse. Drawing on its rich natural resources and cheap labour, China's relentless economic growth was largely driven by investment and exports of low-cost manufacturing goods.

This proved highly successful but came at a cost. China's horrific pollution problem has its origins in its factory-fuelled expansion. There has been widespread public anger after choking smog grounded flights, forced factory closures and worsened health outcomes. The weaknesses of this growth strategy also became more evident when the global financial crisis erupted and international trade suffered a sudden collapse. As the global leader in international trade, China is critically dependent on the state of the world economy and foreign demand for its products.

In view of such challenges, the Chinese government is now pursuing consumption-led growth by boosting consumer demand as the main engine of growth. Concurrently, the government is reducing its spending on infrastructure that is low-grade and shifting production away from low-cost manufacturing exports which is polluting. Under the new economic model, China's economy will be more sustainable and the country can finally begin restoring its environment after decades of pollution.

Sources: *Euromonitor International*, 16 March 2014 and *The Guardian*, 25 January 2015

**Table 1: Economic statistics for China, 2005 – 2015**

	2005	2011	2012	2013	2014	2015
GDP growth, % per year	11.4	9.5	7.9	7.8	7.3	6.9
Consumer price inflation, % per year	1.8	5.4	2.6	2.6	2.0	1.4
Unemployment, % of labour force	4.1	4.3	4.4	4.5	4.6	4.6
Balance of trade, US\$ billion	124.6	182.0	231.8	235.4	221.3	357.9
Export revenue, % of GDP	34.5	26.5	25.4	24.5	24.1	22.0

Source: The World Bank Group, accessed 21 July 2017

#### Extract 2: China depreciation sparks currency war fears

The People's Bank of China (PBOC) allowed the renminbi to depreciate by nearly 2% against the US dollar on Tuesday, a surprise policy change that shocked international currency markets. The sudden depreciation is the largest in two decades, sparking fears of a global currency war.

The move is not seen as a one-off measure and the renminbi is likely to slide further, analysts said. A slow global recovery and ongoing structural reforms have contributed to poor growth. China took Tuesday's step after disappointing economic data indicated that further stimulus was needed to revive the world's second-largest economy.

China's depreciation heightened expectations that other Asian countries may also let their currencies weaken to support their economies, as they compete with Chinese exports on the international stage. The Malaysian ringgit hit a 17-year low. Indonesia's rupiah also fell to a level not seen since July 1998. The Singapore dollar, the Taiwan dollar and the Philippine peso all touched five-year lows.

Source: *Reuters*, 12 August 2015

### Extract 3: The economic ramifications of renminbi depreciation

The decision by the PBOC to depreciate the renminbi by 2% will have economic ramifications throughout the world. China risks worsening global financial instability in pursuing its macroeconomic objectives.

The economic effect on the UK could be significant. China is the UK's second largest import partner and its fifth largest export market, representing 8.7% and 4.8% of the UK's total in each category respectively. If Chinese renminbi depreciation entrenches itself and continues, as also seems likely, then the UK's already-large current account deficit could become a significant problem.

Source: *Huffington Post*, 11 August 2015

**Table 2: Current Account Balances, Current US\$ billions, 2011 – 2015**

	2011	2012	2013	2014	2015
UK	-46.3	-97.1	-119.9	-139.7	-122.6
China	136.0	215.4	148.2	236.0	304.2

Source: The World Bank Group, accessed 21 July 2017

### Extract 4: Globalisation and UK manufacturing – Opportunities and threats

Globalisation, while opening up business opportunities, has a cost. Professor Scase of University of Kent says that the global manufacturing shift to China may have reduced the prices of goods in the shops, but “we have paid a huge price.” Allowing China and other Asian countries to capture so much manufacturing badly damaged the UK manufacturing sector. This hurt many communities as factories closed and workers lost their jobs. However, in recent years, some manufacturing is returning to the UK because UK pay rates have fallen, while wages have increased significantly in China.

The positive aspects of globalisation remain abundant. Globalisation is “uniting the world and creating business opportunities.” It has promoted working relationships between companies. General Electric is an example of a substantial enterprise that now works extensively with small entrepreneurs in India to refine and develop its products for the Indian market. The combination of globalisation and digitalisation has also promoted competition and changed working practices, helping UK businesses.

“The UK is very well placed to capitalise on globalisation,” Prof Scase says. As a global hub, the UK is in a perfect situation to offer specialist services such as finance, architecture and planning. These are in high demand by developing economies in China, India, Africa, Asia and other emerging markets.

Source: *Kreston Reeves LLP*, 21 September 2015

**[Turn over**

## Questions

- (a) Using the data in Table 1, identify and explain **two** indicators that might be of concern to the Chinese government. [4]
- (b) With reference to Extract 1:
- (i) Explain why China is likely to have a comparative advantage in the production of “low-cost manufacturing goods”. [2]
  - (ii) Explain how China’s “relentless economic growth” over the past three decades has resulted in an inefficient allocation of resources. [4]
  - (iii) Using the concept of the circular flow of income, explain how a fall in government spending on infrastructure will affect China’s equilibrium level of national income. [4]
- (c) With reference to Extract 2, and using AD/AS analysis, comment whether currency depreciation will cause a rise in inflation rate in the China economy. [6]
- (d) (i) Using Table 2, compare the current account balances of the UK and China over the period shown. [2]
- (ii) Discuss whether the advantages of globalisation to an economy such as the UK outweigh the disadvantages. [8]

**[Total: 30]**

## Question 2

## Future of Public Libraries

### Extract 5: The economic value of public libraries

The economic contributions of public libraries are twofold – direct and indirect. The direct economic contribution that public libraries can make includes educational benefits and improved wellbeing for individuals from reading. On the other hand, there are wider educational and social impact of libraries. Public libraries can contribute to long term processes of human capital formation and social cohesion of communities.

Source: *Information Today, Europe*, 5 June 2014

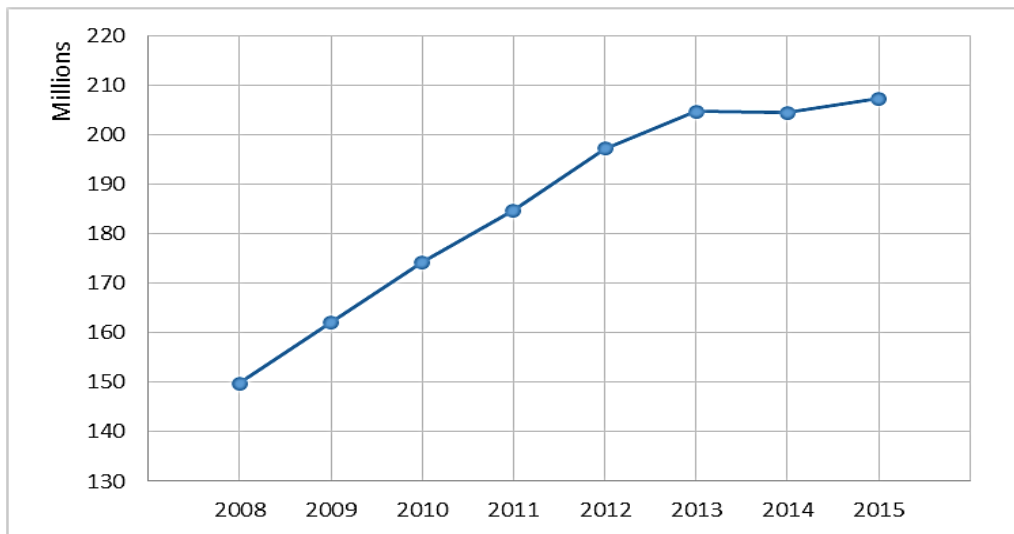
### Extract 6: Libraries are changing

As technology advances into every aspect of modern life, traditional public libraries are experiencing a major shift, from being housed strictly in buildings and having physical books, to moving onto the internet. There are four main ways by which libraries are changing:

- **Libraries are being shaped by fiscal budget cuts** - Public libraries have continued to struggle in many countries, like in US, particularly since the 2008 Global Financial Crisis. In many cases, governments have scaled back on the opening of new branches and library services so that the money could be used for alternative purposes. And yet, during the recession, more people rely on libraries for entertainment, employment opportunities, and as a resource for internet access. In fact, the public library saw a rise in the loans for the books about technical knowledge to upgrade and how to better write resumes to find jobs. Computer terminals were constantly used to search for jobs available.
- **Libraries are becoming technological hub** - As the internet becomes the main means to obtain information, public libraries are transforming themselves from mere physical buildings into technological spaces. When looking at technology use in public libraries, researchers have found that patrons are increasingly thinking of libraries as community spaces that allow access to technology and as a source of digital literacy for various demographics.
- **Expanded access through information sharing** - Digital Libraries provide useful interactions between information and users - easing the global dissemination of information. Information sharing has the power to bolster educational equality across the world. For instance, the United Nations Educational, Scientific and Cultural Organization's (UNESCO) "Information for All Programme" (IFAP) is providing access to over 25,000 titles and is equipped with on-line connections to a worldwide network of libraries.
- **Printed books still dominate reading despite the growth of e-books** - The popularity of electronic books (e-books) is rising, but printed books remains the foundation of many people's reading habits. The number of e-book users is growing, but, surprisingly, not to the extent that e-books have replaced printed versions. This trend is expected to change as e-reader ownership expands, but the love affair with an actual book is not expected to vanish completely. Nothing quite compares to the smell of a book.

Source: *The Global Citizen Organization*, 15 January 2015

[Turn over

**Figure 1: Government Subsidy for Public Libraries in Singapore (SGD)**

Source: National Library Board, Singapore

### Extract 7: Singapore redesigning library spaces

National Library Board (NLB) of Singapore had been redesigning library spaces where books, programmes and cafés co-existed to create a seamless learning environment for library users. NLB also introduced a digital library to make learning borderless. At Pixel Labs at Jurong Regional Library, a “tinkering lab”, visitors use the facilities for free and are allowed to take home the 3D models they make. Launched last year by NLB and Infocomm Media Development Authority (IMDA), the lab is the first such dedicated venue in a library for exploring new technologies.

At Woodlands Regional Library and Bedok Library, seniors aged 50 and above can sign up for digital media courses run by librarians from the library board. The courses teach basic computing skills, as well as how to access the board's e-resources and e-books. Seniors also learn the functions of mobile devices such as iPads and popular apps such as Facebook. The affordable course fee ranges from \$4 to \$10. For early childhood educator Tavana Zulliani-Ramachandra, 60, who signed up for several digital media courses at the Woodlands Regional Library and Bedok Library, from an e-entertainment course, she was really happy to learn to book air tickets and overseas accommodation online and learn how to connect with her grandchildren with WhatsApp.

In 2014, smart work centres or flexible mobile workstations were launched at Jurong Regional Library, Toa Payoh Library and Geylang East Library. Next year, another centre will come up at the revamped Tampines Regional Library. These come with a whole suite of business functions and resources such as Wi-Fi, meeting rooms and high-definition video-conferencing services. Ms Catherine Lau, assistant chief executive of public library services, says the library board has been moving away from a cookie-cutter approach to make sure each library caters to its community.

Source: The Straits Times, 20 November 2016

**Questions**

- (a) (i) Explain the two characteristics of a public good. [2]
- (ii) Explain why public library is not a public good. [2]
- (b) Extract 6 mentions that “the number of e-book users is growing, but, surprisingly, not to the extent that e-books have replaced printed versions”.
- With the help of a demand and supply diagram, explain the extent of change in the equilibrium quantity of the printed books in these circumstances. [4]
- (c) (i) With reference to Extract 5, use a PPC diagram to explain how public libraries can affect long-term economic growth of a country. [2]
- (ii) With reference to the extracts, explain how more public libraries can improve a country’s current standard of living. [4]
- (d) With reference to Extract 6, explain and comment whether public libraries can help to deal with the main causes of unemployment in the US. [6]
- (e) (i) With reference to Figure 1, summarise the trend of subsidies for public libraries in Singapore over the period 2008-2015. [2]
- (ii) Discuss the view that a government should allocate more resources to public libraries to bring about a more efficient allocation of resources. [8]

**[Total: 30]****[Turn over**

## Section B

Answer **one** question from this section.

- 3** The most essential feature of a free market is the reliance on the price mechanism for resource allocation.
- (a) Using examples, explain how the price mechanism allocates scarce resources among competing needs in a free market. [10]
- (b) Discuss the view that government efforts to intervene in the working of the free market through indirect taxation inevitably create more problems than they solve. [15]
- 4** There are conflicts between the macroeconomic objectives of governments. Thus, governments need to set priorities in order to decide which policies to adopt.
- (a) Explain the possible conflicts that exist between the macroeconomic objectives of governments. [10]
- (b) Discuss the extent to which supply-side policy can achieve the macroeconomic objectives of the Singapore government. [15]

## END OF PAPER

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Copyright acknowledgments:

- Question 1 Extract 1: @ *The end of China's economic miracle*; Euromonitor International, 16 March 2014; <http://eandt.theiet.org/magazine/2014/04/the-strike.cfm>
- Question 1 Extract 2: @ *Hard times return as China bids to bring its economic miracle to an end*; The Guardian, 25 January 2015; <https://www.theguardian.com/world/2015/jan/25/china-bids-bring-economic-miracle-end-hard-times>
- Question 1 Extract 3: @ *China depreciation sparks currency war fears*; Reuters, 12 August 2015; <http://uk.reuters.com/article/markets-asia-forex-idINKCNOQH0C920150812>
- Question 1 Extract 4: @ *The global impact of Chinese depreciation*; Huffington Post, 11 August 2015; [http://www.huffingtonpost.co.uk/michael-martins/how-the-chinese-devaluati\\_b\\_7971276.html](http://www.huffingtonpost.co.uk/michael-martins/how-the-chinese-devaluati_b_7971276.html)
- Question 1 Table 1: @ *Globalisation and UK manufacturing – Opportunities and threats*; July 2014; Kreston Reeves LLP, 21 September 2015; <http://www.krestonreeves.com/news-and-events/21/09/2015/globalisation-and-uk-manufacturing-the-opportunity-and-threats>
- Question 1 Table 2: @ The World Bank Group, accessed 21 July 2017; <http://data.worldbank.org/country/china>
- Question 2 Extract 5: @ *The economic value of public libraries*; Information Today, Europe, 5 June 2014; <http://www.infotoday.eu/Articles/News/InfoToday-Europe-Blog/The-economic-value-of-public-libraries-97507.aspx>
- Question 2 Extract 6: @ *Five Ways Libraries Are Changing In the Digital Age*; The Global Citizen Organization, 15 January 2015; <https://www.globalcitizen.org/en/content/five-ways-libraries-are-changing-in-the-digital-ag/>
- Question 2 Extract 7: @ *Library users can now watch movies, play music and do 3D printing*; The Straits Times, 20 November 2016; <http://www.straitstimes.com/lifestyle/entertainment/now-screening-at-the-library>
- Question 2 Figure 1: © <https://www.nlb.gov.sg/Portals/0/Reports/fy15/>; accessed 21 July 2017
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**2017 C2 Preliminary Exam**  
**H1 Economics (8819/01) – Case Study Question 1**

**Suggested Answers**

(a)	<p><b>Using the data in Table 1, identify and explain why <u>two</u> indicators that might have been of concern to the Chinese government.</b></p>	[4]
<p>The Chinese government seeks to achieve the key macroeconomic goals of (i) sustained growth, (ii) price stability, (iii) low unemployment and (iv) a healthy BOP. Any indication that such goals are <i>not</i> being achieved would thus be a concern to the government.</p> <p><b>Growth</b> rates, while positive throughout this period, have decreased significantly over the years, i.e. the rise in production of goods and services in China has been falling. Growth has nearly halved in 2015 as compared to 2005. If this trend continues, it may have negative implications for Chinese households' material well-being.</p> <p><b>Unemployment</b> rate has increased over the years, and is slightly higher in 2015 compared to 2005. This suggests that resources are not being used efficiently in production. It may also imply loss of income tax revenue that may be collected, as well as a greater burden for the government, which may have to provide welfare support to the unemployed.</p> <p><b>[2m for each indicator: 1m for identification, 1m for explanation]</b></p>		
(b) With reference to Extract 1:		
(i)	<p><b>Explain why China is likely to have a comparative advantage in the production of “low-cost manufacturing goods”.</b></p> <p>China has a comparative advantage in the production of low-cost manufacturing goods if it is able to produce such goods at a <b>lower opportunity cost</b> than other countries. [1m]</p> <p>Given that China is endowed with <b>“rich natural resources” and a large population, it possesses an abundance of raw materials and “cheap labour”</b>. Hence the opportunity cost of producing low-cost manufacturing goods is likely to be relatively low. [1m]</p>	[2]
(ii)	<p><b>Explain how China’s “relentless economic growth” over the past three decades has resulted in an inefficient allocation of resources.</b></p> <p>Strong demand for Chinese low-cost manufactured goods generated a <b>negative externality in production</b>. [1m]</p> <p>The increase in set-up of factories with low-cost manufacturing production activities created <b>external marginal costs (EMC) in the form of “choking smog”, which affected third parties, such as local communities</b> whose health outcomes were worsened, and did not receive compensation for receiving such spillover effects.  <b>[1m for explanation of EMC with evidence]</b></p> <p>The presence of EMC creates a <b>divergence between private and social marginal costs, where <math>SMC = PMC + EMC</math></b>. The socially efficient quantity of manufactured goods should be where SMC meets SMB, however, producers consider only PMC and PMB in determining the level of production. [1m]</p>	[4]



	There is thus an <b>overallocation of resources</b> of the production of manufactured goods, resulting in a <b>welfare loss</b> to society. [1m]					
(iii)	<p><b>Using the concept of the circular flow of income, explain how a fall in government spending on infrastructure will affect China's equilibrium level of national income.</b></p> <p>The circular flow of income is used to explain how production of the national output and level of income in an economy is driven by expenditure. When <b>Income = Expenditure = Output, the economy is in equilibrium.</b></p> <p>With a <b>fall in government spending on infrastructure, injections in the form of government spending (G) would decrease.</b> [1m] Hence, <b>withdrawals exceed injection</b> and this will set in motion a process to bring the economy back to equilibrium.</p> <p>In a 2-sector economy, the <b>households</b> are both the <b>consumers</b> of goods and services, as well as <b>providers of the factors of production</b> (i.e. land, labour, capital and entrepreneurship) to the firms. The <b>decrease in G</b> would lead to a <b>decrease in production</b> of goods and services. <b>Firms would then hire less factors of production and reduce payment of factor incomes.</b> This further reduces income for households employed in the consumer goods industry, who will spend less additional income on consumption depending on their marginal propensity to consume (<b>MPC</b>). [1m]</p> <p>This <b>cycle of fall in spending and re-spending</b> on consumption will continue until the decrease in income becomes negligible and the <b>total withdrawals equal to the reduced initial injections.</b> [1m] At that point, national income will stop falling and equilibrium has been reached.</p> <p>The <b>eventual decrease in national income would be a multiple of the initial decrease in G</b>, depending on the size of the multiplier. [1m]</p>	[4]				
(c)	<p><b>With reference to Extract 2, and using AD/AS analysis, comment whether currency depreciation will cause a rise in inflation rate in the Chinese economy.</b></p> <p>In August 2015, the Chinese renminbi depreciated by nearly 2% against the US dollar (Extract 2). Currency depreciation would make Chinese exports cheaper in terms of foreign currency, while imports from other countries would be more expensive in terms of renminbi.</p> <table border="1"> <thead> <tr> <th>Thesis: Rise in inflation rate</th> <th>Anti-thesis: No rise in inflation rate</th> </tr> </thead> <tbody> <tr> <td> <p><b><u>Impact on demand-pull inflation</u></b></p> <ul style="list-style-type: none"> <li>- Assuming <math>PED_x &gt; 1</math>, a fall in prices of Chinese exports in foreign currency would result in a more-than-proportionate increase in quantity demanded of exports. This would imply a rise in external demand for Chinese exports and cause <b>a rise in China's export revenue</b> in yuan.</li> <li>- Assuming <math>PED_M &gt; 1</math>, a rise in prices of imports in yuan would result in a</li> </ul> </td> <td> <ul style="list-style-type: none"> <li>- China's currency depreciation has significant unintended consequences, contributing to <b>"global financial instability"</b> (Extract 3), which may slow global recovery. It may also create a <b>"currency war"</b> (Extract 2). Other Asian economies, which compete against China in producing cheap manufactured goods, may engage in competitive depreciation. Thus, China's exports may not enjoy a rise</li> </ul> </td> </tr> </tbody> </table>	Thesis: Rise in inflation rate	Anti-thesis: No rise in inflation rate	<p><b><u>Impact on demand-pull inflation</u></b></p> <ul style="list-style-type: none"> <li>- Assuming <math>PED_x &gt; 1</math>, a fall in prices of Chinese exports in foreign currency would result in a more-than-proportionate increase in quantity demanded of exports. This would imply a rise in external demand for Chinese exports and cause <b>a rise in China's export revenue</b> in yuan.</li> <li>- Assuming <math>PED_M &gt; 1</math>, a rise in prices of imports in yuan would result in a</li> </ul>	<ul style="list-style-type: none"> <li>- China's currency depreciation has significant unintended consequences, contributing to <b>"global financial instability"</b> (Extract 3), which may slow global recovery. It may also create a <b>"currency war"</b> (Extract 2). Other Asian economies, which compete against China in producing cheap manufactured goods, may engage in competitive depreciation. Thus, China's exports may not enjoy a rise</li> </ul>	[6]
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<p>more-than-proportionate fall in quantity demanded of imports. This would result in <b>a fall in China's import expenditure</b> in yuan.</p> <ul style="list-style-type: none"> <li>- Overall <b>(X-M) increases</b>, causing AD curve to shift right. GPL will increase, leading to <b>demand-pull inflation</b>.</li> </ul> <p><b><u>Impact on cost-push inflation</u></b></p> <ul style="list-style-type: none"> <li>- A rise in the price of imported raw materials in yuan will <b>increase the cost of production</b>, shifting SRAS curve upwards. This results in a rise in GPL and hence <b>cost-push inflation</b>.</li> </ul>	<p>in price competitiveness, i.e. AD and inflation may not rise.</p> <ul style="list-style-type: none"> <li>- Moreover, China is also moving away from an export-led growth strategy to a <b>consumption-led growth strategy</b> (Extract 1). According to Table 1, X forms an increasingly lower proportion of China's AD, i.e. from 34.5% in 2005 to 22% in 2015. The extent of increase in AD due to currency depreciation might be small, and the likelihood of demand-pull inflation is limited.</li> <li>- Moreover, China's unemployment rate has been rising over the years and was above 4% in 2015. This would suggest that China is <b>not facing supply bottlenecks</b> yet, and the likelihood of demand-pull inflation occurring is low.</li> <li>- China is also relatively rich in natural resources (Extract 1) and is likely to have a <b>low dependence on imports of raw materials</b>. Thus, any increase in cost-push inflation due to currency depreciation is also likely to be limited.</li> </ul>
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**Synthesis / Evaluation**

According to Table 1, China has been experiencing slowing growth in recent years. Consequently, inflation has been falling from 5.4% in 2011 to 1.4% in 2015. Currency depreciation may halt or perhaps even reverse this trend, but it is unlikely that it will result in an unacceptably high rate of inflation in China.

**Mark Scheme**

<b>L3</b> 5 – 6	<b>Excellent analysis</b> and balanced discussion of the impact of currency depreciation on China's inflation rate using the AD/AS framework, supported by appropriate use of case evidence. A justified conclusion is required for the top mark.
<b>L2</b> 3 – 4	<b>Shows understanding</b> of the impact of currency depreciation on China's inflation rate using AD/AS framework, but answer may contain errors or lack development. Analysis may be lopsided. Incorrect or limited use of case evidence.
<b>L1</b> 1 – 2	<b>Some knowledge</b> of the impact of currency depreciation on China's inflation rate. Answer is mostly irrelevant or contains conceptual errors.

(d)	(i)	<b>Using Table 2, compare the current account balances of the UK and China over the period shown.</b>	<b>[2]</b>			
		UK's current account experienced an <b>increasing deficit</b> while China's current account experienced an <b>increasing surplus</b> over the period of 2011 to 2015. <b>[2m]</b>				
(d)	(ii)	<b>Discuss whether the advantages of globalisation to an economy such as the UK outweigh the disadvantages.</b>	<b>[8]</b>			
		Globalisation refers to the integration of national economies through trade of goods and services, foreign direct investment, capital flows, spread of technology and labour migration.				
		<table border="1"> <thead> <tr> <th><b>Advantages of globalisation</b></th> <th><b>Disadvantages of globalisation</b></th> </tr> </thead> <tbody> <tr> <td> <p>Globalisation brings about a number of invaluable benefits.</p> <ul style="list-style-type: none"> <li>- Firstly, trade in goods and services brings about increased standards of living. By <b>specialising in services</b> in which the UK has a comparative advantage, i.e. lower opportunity cost, (Extract 4) and trading these with developing countries for low-cost manufactured goods – in which it does not have a comparative advantage – the UK can enjoy an increased quantity of goods and services available for consumption. Consumers would also enjoy reduced prices of manufactured goods in shops.</li> </ul> <p>Trade would thus let the UK to <b>consume beyond its production possibility curve</b>, allowing consumer access to a greater variety of goods and services, raising material well-being.</p> <ul style="list-style-type: none"> <li>- Moreover, globalisation would have “promoted competition” and working relationships between firms (Extract 4). <b>UK firms would be more likely to innovate</b> and seek greater economic efficiency by reducing costs of production, resulting in lowered prices of goods. This would benefit consumers greatly.</li> </ul> </td> <td> <p>However, globalisation also brings about serious problems.</p> <ul style="list-style-type: none"> <li>- In a globalised and interconnected world, the UK is <b>vulnerable to external shocks</b>. For instance, the UK is heavily reliant on China as it is both a major import and export market (Extract 3). Thus, it is likely to experience a significant fallout following China's decision to devalue its currency.</li> <li>- Globalisation has also resulted in a <b>worsening of the UK's current account deficit</b> over the years (Table 2), as the UK grows increasingly reliant on imports from the rest of the world. All else held constant, this would result in a worsening of its balance of payments.</li> <li>- Finally, according to Extract 4, the UK has experienced significant <b>unemployment</b>, especially in the manufacturing sector, as a result of British firms closing down in the face of increased competition from China and other Asian countries,</li> </ul> </td> </tr> </tbody> </table>	<b>Advantages of globalisation</b>	<b>Disadvantages of globalisation</b>	<p>Globalisation brings about a number of invaluable benefits.</p> <ul style="list-style-type: none"> <li>- Firstly, trade in goods and services brings about increased standards of living. By <b>specialising in services</b> in which the UK has a comparative advantage, i.e. lower opportunity cost, (Extract 4) and trading these with developing countries for low-cost manufactured goods – in which it does not have a comparative advantage – the UK can enjoy an increased quantity of goods and services available for consumption. Consumers would also enjoy reduced prices of manufactured goods in shops.</li> </ul> <p>Trade would thus let the UK to <b>consume beyond its production possibility curve</b>, allowing consumer access to a greater variety of goods and services, raising material well-being.</p> <ul style="list-style-type: none"> <li>- Moreover, globalisation would have “promoted competition” and working relationships between firms (Extract 4). <b>UK firms would be more likely to innovate</b> and seek greater economic efficiency by reducing costs of production, resulting in lowered prices of goods. This would benefit consumers greatly.</li> </ul>	<p>However, globalisation also brings about serious problems.</p> <ul style="list-style-type: none"> <li>- In a globalised and interconnected world, the UK is <b>vulnerable to external shocks</b>. For instance, the UK is heavily reliant on China as it is both a major import and export market (Extract 3). Thus, it is likely to experience a significant fallout following China's decision to devalue its currency.</li> <li>- Globalisation has also resulted in a <b>worsening of the UK's current account deficit</b> over the years (Table 2), as the UK grows increasingly reliant on imports from the rest of the world. All else held constant, this would result in a worsening of its balance of payments.</li> <li>- Finally, according to Extract 4, the UK has experienced significant <b>unemployment</b>, especially in the manufacturing sector, as a result of British firms closing down in the face of increased competition from China and other Asian countries,</li> </ul>
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### **Synthesis / Evaluation**

It may be argued that globalisation continues to offer valuable benefits which would not be easily replicated via other means. The problems of globalisation in the UK, while significant, can in fact be mitigated using appropriate means, e.g. training and education to reduce unemployment, diversification of trading partners to reduce its susceptibility to external shocks etc. The UK government may thus need to take greater steps to address such problems, such that they do not outweigh the benefits of globalisation.

### **Mark Scheme**

<b>L3</b> 7 – 8	<b>Excellent analysis</b> and balanced discussion of both the advantages and disadvantages of globalisation, with appropriate contextualisation and use of case evidence. A justified and well-reasoned conclusion is provided.
<b>L2</b> 4 – 6	<b>Shows understanding</b> of the advantages and/or disadvantages of globalisation, but answer may contain errors or lack development. Analysis may be lopsided, i.e. considers only the benefits of globalisation. Incorrect or limited reference to UK context and case evidence.
<b>L1</b> 1 – 3	<b>Some knowledge</b> of the advantages and/or disadvantages of globalisation. Answer is mostly irrelevant or contains conceptual errors.

## HCI Prelims - CSQ2

### Suggested Answers

a(i) **Explain the two characteristics of a public good.** [2]

- Non-excludable in consumption is when it is impossible or prohibitively expensive to exclude non-payers from consuming it. (1m)
- Non-rivalry in consumption is when the consumption by one does not reduce the amount available to or affect the quality for others. (1m)

a(ii) **Explain why public library is not a public good.** [2]

The public library is a private good because :

- 1) It is possible to charge for the entrance to the library by means of having a membership system since it is prevent non-paying people from entering into a traditional public library with a physical building and an entrance gantry. Payers could be check via their membership card for access of the place and services.
- 2) The service is excludable as when one person borrowed the physical book or use a space for reading newspaper or a book or sitting to study in a seat in the library, the quantity and quality is diminished. Too many people in the library may also result in higher noise level which might affect the quality of the experience.

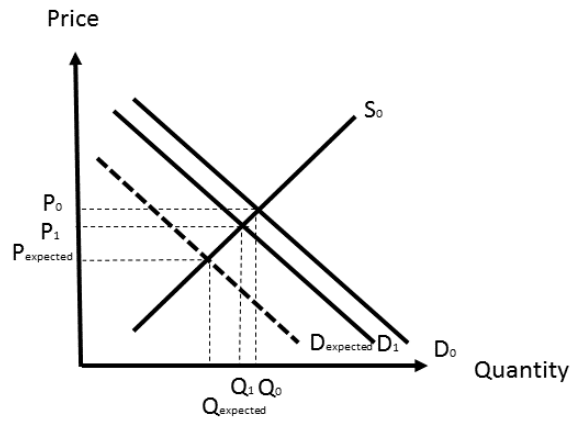
1m for illustration of each of the characteristics

b **Extract 2 mentions that “the number of e-book users is growing, but, surprisingly, not to the extent that e-books have replaced printed versions”.** [4]

**With the help of a demand and supply diagram explain the extent of change in the equilibrium quantity of the printed books in these circumstances.**

It is expected that printed books and e-books are substitutes / in competitive demand. (1m)  
Evidence : ‘ electronics books have replaced printed versions’

However the extent of fall in demand (if any) of printed books are surprisingly small as the two are actually not good substitutes (1m) as people still enjoy the tangible feel of a printed version. Evidence : ‘ nothing compares to the smell of a book’ / ‘ print remains the foundation of many people’s reading habits’



(1m for consistent diagram)

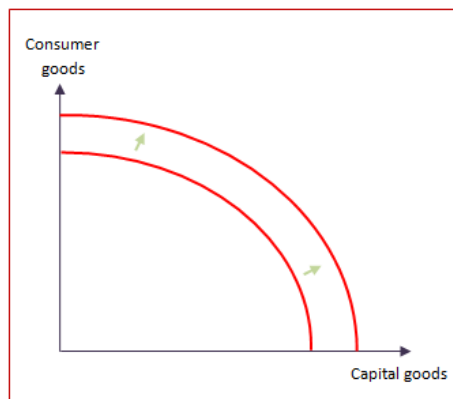
As such, instead of demand falling to  $D_{\text{expected}}$ , demand only fall to  $D_1$ . (1m) The fall in equilibrium quantity is also only at  $Q_1$  compared to  $Q_{\text{expected}}$ .

c(i) **With reference to Extract 1, use a PPC diagram to explain how public libraries can affect long-term economic growth of a country.** [2]

- i) Funding public library is like a form human capital investment. This will help to improve the quality of human resource in the long run (1m) i.e. better and more educated workforce, more creative workforce etc. As such it will contribute to potential growth and thus shift the PPC outwards

Evidence :

- Extract 1 → ‘contribute to long term processes of human capital formation, the maintenance of mental and physical wellbeing for adult and children’
- Extract 3 → ‘dedicated venue in a library for exploring new technologies’



(1m)

c(ii) **With reference to the extracts, explain how more public libraries can improve a country's current standard of living.** [4]

	Material aspects (2m)	Non material aspects (2m)
Current SOL	<ul style="list-style-type: none"> <li>- Library could help to generate economic activities in the community area that they are located in. Increase in economic activities will lead to increase in national income. Thus there will be increase in the income of average residents i.e increase in purchasing power.</li> </ul> <p>Extract 5: 'support local economic development through business advice and support for individuals, micro businesses and SMEs.'</p> <ul style="list-style-type: none"> <li>- Library could help to improve the human capital formation and acquiring of digital technological skills. This will increase LRAS to increase national income. Thus there will be increase in the income of average residents i.e increase in purchasing power.'</li> </ul> <p>Extract 5 : 'contribute to long term human capital formation'</p> <p>Extract 6: ' allow access to technology and a source of digital literacy'</p>	<ul style="list-style-type: none"> <li>- Library could provide a community space for the people to have leisure activities, and for people from diverse background to interact n thus greater social inclusivity'</li> </ul> <p>Extract 1: 'libraries can be main tenants in mixed-use residential developments and potentially boosting the buzz, image and profile of a neighborhood'</p> <p>Extract 5 : 'the maintenance of mental and physical wellbeing for adult and children, social inclusivity and cohesion of communities.'</p> <p>Extract 7 : 'it wants to build greater ownership within the community for libraries and bind them with more social interaction towards national resilience.'</p> <ul style="list-style-type: none"> <li>- Reduction of income inequality for the various income group by improving literacy rate and thus better able to find job</li> </ul> <p>Extract 6: ' for various demographics'</p> <p>Extract 6: 'information sharing has the power to bolster educational equality across the world'</p> <ul style="list-style-type: none"> <li>- Improve leisure and inter generation gaps through the courses held in the library.</li> </ul>

- d **With reference to Extract 6, explain and comment whether public libraries can help to deal with the main causes of unemployment in the US.** [6]

Thesis : Public library is able to help	Anti-thesis : Public library is unable to help
<p>Public library may help in the case of <b>structural unemployment</b>. People could use the library to read up and learn new knowledge which may help them to upgrade themselves. They might be do online course using the Internet access.</p> <p>Evidence: ‘ as a resource for internet access’ and ‘rise in the loans for the books about technical knowledge to upgrade’</p> <p>Public may help in the case of <b>frictional unemployment</b> to be able to present themselves better and provide more information to prospective employers via better resume. They could also help to facilitate the job search by providing computers.</p> <p>Evidence: a rise in the loan on books on ‘ how to write better resumes to find jobs’ and ‘Computer terminals were constantly at use to search for jobs available’</p>	<p>It is <b>cyclical unemployment</b> as it is the 2008 Global Financial Crisis and the recession thereafter.</p> <p>Thus the reason is due to a lack of demand and thus AD is falling. As such it will be impossible for public library itself to help AD to rise and thus to recover.</p>

Descriptor	Marks
<p><b>Level 3</b> Well-developed discussion of whether public library can and cannot help. Place explanation in context of evidences. Justified conclusion.</p>	5 - 6
<p><b>Level 2</b> Good / under-developed explanation of Unemployment in US and how public library can/ cannot help. Place explanation in context of evidences. Lop-sided answers.</p>	3 - 4
<p><b>Level 1</b> Inaccurate/superficial explanation of unemployment in US and how public library might help.</p>	1 – 2



e(i) **With reference to Figure 1, summarise the trend of subsidies for public library in Singapore.** [2]

Overall there is an increase (1m) in a decreasing rate (1m).

e(ii) **Discuss the view that a government should allocate more resources to public library to bring about a more efficient allocation of resources.** [8]

Government should help as there issues of positive externalities and income inequality but are constrained by the government budget.

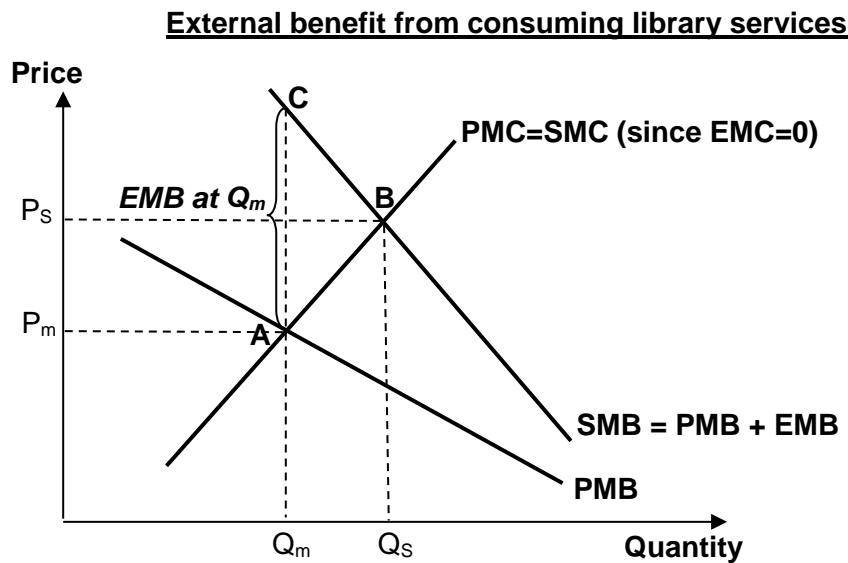
**Thesis 1** : Government should allocate more resources to public library because public library is a source of positive externalities (can identify that it is also a merit good) .

- The **Private Marginal Cost (PMC)** measures the cost to producers from an additional unit of library services produced such as the cost of rental for the library, cost of purchasing the books or subscription to the various news providers ( print or online), the cost of the tables and chairs and bookshelves etc.
- The **Private Marginal Benefit (PMB)** measures the benefit to consumers from an additional unit of library services consumed such as the knowledge and leisure gained from the reading of books and also when the individual make use of the library and its services.
- However **consumption of library service** generates **external benefits** to **third parties** who are not part of the consumption process.
- For each unit of library services consumed, individuals will be more productive in the workforce with the acquiring of new technologies, there will be growth of SMEs that will strengthen the domestic economy for example Singapore, cultivation of a culture of creativity and innovation. The library services also helps to close the inter-generational gaps and foster social cohesion from the promotion of interaction. This also positively translates into a more productive and creative workforce for the economy with a stable macroeconomic environment.

Evidence:

- Extract 5 : “Public libraries can contribute to long term processes of human capital formation and social cohesion of communities. “
- Extract 6: “libraries as community spaces that allow access to technology and as a source of digital literacy for various demographics”
- Extract 7 : “At Pixel Labs at Jurong Regional Library, a “tinkering lab”, visitors use the facilities for free and are allowed to take home the 3D models they make.”
- Extract 7 : “,can sign up for digital media courses run by librarians from the library board. The courses teach basic computing skills, as well as how to access the board's e-resources and e-books. ”
- Extract 7 : “learn how to connect with her grandchildren with WhatsApp.”
- Extract 7 : “smart work centres or flexible mobile workstations were launched .....These come with a whole suite of business functions and resources such as Wi-Fi, meeting rooms and high-definition video-conferencing services.”
- Hence in this case of a **positive consumption externality**, library services consumers are not concerned about the external benefits to others but only their own private benefits as the external benefits are unpriced by the price mechanism and not included in the **private benefits**.
- As such, the free market has “**over-priced**” the consumption of library services which will lead to an **inefficient allocation** of resources and hence **market failure**.
- For each **additional** unit of library services, the **social marginal benefit (SMB) includes the private marginal benefit (PMB) of the vaccine consumed plus the external marginal benefit (EMB) to third parties**. Hence the actual benefit borne by the society is represented by the SMB,

which takes into account the full benefits to society of an extra unit of library services.  $SMB = PMB + EMB$ .



- As seen above, the presence of an external benefit causes a **divergence** between private and social benefits, with **SMB above PMB** as  $SMB = PMB + EMB$ .
- Assume that library service consumption yields no negative externality,  $EMC=0$ . Thus,  $PMC=SMC$ .
- Assuming perfect competition, **market equilibrium** quantity of library is  $Q_m$ , where  $PMB = PMC$ , as consumers and producers of library services only consider their own benefits and costs.
- However the **socially efficient** quantity of library services should be at  $Q_s$  where  $SMB=SMC$ , where the full costs and benefits and costs to society are considered.  $Q_s$  is more than the market equilibrium quantity,  $Q_m$  where  $PMB = PMC$ . Thus there is **underconsumption** of library by the quantity  $Q_s - Q_m$
- Area  $Q_sQ_mCB$  is the total social benefit forgone due to the underconsumption  $Q_s - Q_m$ .
- Area  $Q_sQ_mAB$  is the total social cost not incurred for the underconsumption  $Q_s - Q_m$ .
- Since total social benefits forgone exceeds the total social costs not incurred for underconsumption  $Q_s - Q_m$ , area  $ABC$  represents the **deadweight welfare loss** due to underconsumption of  $Q_s - Q_m$ .

**Thesis 2:** Government should allocate more resources to public library because public library is can help to reduce income inequality issues.

In a market economy, the ability of individuals to consumer goods depends on their income and wealth. The market system will not respond to the needs and wants of those with insufficient economic (dollar) votes to have any impact on market demand because what matters in a market based system is **effective demand** (willingness and ability to pay) for goods and services. Consequently, goods and services do not necessarily flow to those who need them the most e.g. food for the starving poor or homes for the homeless. It favours those with the buying or purchasing power. The free market system thus fails to provide for those without the means to pay for goods and services. However, whether this is fair is a normative issue and depends on the individual's value judgement.

Thus the presence of public library is a way to help the people with less income to be able to access the same amount of knowledge as the others who are able to afford subscription for private libraries or able to purchase books for private collection.

Evidence: “Information sharing has the power to bolster educational equality across the world.”

For the case of Singapore, the library also allow for free access to new technologies or affordable IT course.

Evidence: “visitors use the facilities for free” and “The affordable course fee ranges from \$4 to \$10” in extract 7.

**Antithesis :** However there might be budgetary constraints. Given that the government budget is finite, government may have to shift the budget away for other purpose.

Evidence → Extract 6: “Public libraries have continued to struggle in many countries, like in US, particularly since the 2008 Global Financial Crisis. In many cases, governments have scaled back on the opening of new branches and library services so that the money could be used for alternative purposes.”

The government might need to conduct expansionary policies in order to revive the economy in times of recession or even spend on other aspects like more on healthcare on an aging population like SG. These other objectives might have more priority over the public library. As such, a trade off may be necessary.

**Conclusion:** Government should continue to fund the public libraries to provide their services especially for the reason of positive externalities. Yet given that there might be more important objectives in considerations, the respective governments may not increase in amount of funding to the public library due to their own current conditions. However, there should not be a decrease in the amount of funding at least.

Level	Descriptor	Marks
L3	A <b>well-developed discussion</b> on whether the government should fund public library. Need to include fully explained positive externalities and income inequality. Need to be based on the good use of evidences from the extracts and data.	5-6
L2	An <b>under-developed/lop-sided discussion</b> on whether the government should fund public library.  Should have at least some explanation of positive externalities and might not have improvement of income inequality.	3-4
L1	Some knowledge of how positive effects of public library and constraints that the government might have to fund public library	1-2
E2	For an <b>evaluative assessment based on economic analysis</b> on whether the government should fund public library	2
E1	For an <b>unjustified assessment</b> on whether the government should fund public library	1



3. The most essential feature of a free market is the reliance on price mechanism for resource allocation.
- a) Using examples, explain how the price mechanism allocates scarce resources among competing needs in a free market. (10)
- b) Discuss the view that government efforts to intervene in the working of the free market through indirect taxation inevitably create more problems than they solve. (15)

### Part (a)

#### INTRODUCTION

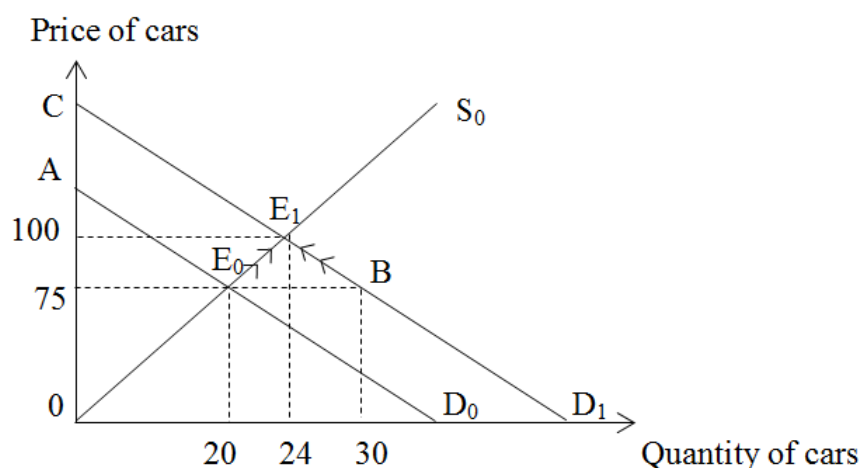
**Scarcity** is the fundamental economic problem of having seemingly unlimited human wants in a world of limited resources. Consumers have **unlimited wants**, which refer to the desire for ever higher levels of consumption of goods and services. However, this is impossible in reality, as consumers and producers are constrained by **limited resources** (land, labour, capital and entrepreneurship). Hence, producers have to make choices on how to allocate scarce resources in a free market via the price mechanism.

#### BODY

In the price mechanism, the three key roles of “price”, i.e. **signaling, incentive and rationing functions** will help producers answer the three fundamental questions of - ***‘what and how much to produce’, ‘how to produce’ and ‘for whom to produce’*** the goods and services.

- Price acts as a **signal** between consumers and producers to allocate scarce resources
- Consumers signal to the producers their **preference** for a particular good or service through the price they are willing and able to pay for it.
- The higher the consumer’s preference for the good, the higher the price they are willing and able to pay.
- This is the **signalling function** of the price mechanism.
- These preferences are transmitted to producers, who have to decide according to their willingness and ability to sell (i.e. supply).
- Hence, opportunity costs are incurred because the usage of resources to produce one type of good or service means that the production of another type of good or service has to be forgone.
  
- For example, the raw material steel can be used to produce either cars or bicycles. Producers therefore have to make choices among the alternative uses of the scarce resources. Since the producer’s objective is to maximise profit, they will produce the goods that fetch the highest price. This is the **incentive function** of the price mechanism.
- If consumers signal their higher preference for cars as compared to bicycles through the higher price they are willing to pay for cars compare to bicycles, producers will allocate more resources towards producing cars.
- Therefore, through the price mechanism, goods and services are produced according to consumers’ willingness and ability to buy (i.e. demand), thus it reflected consumers’ preferences.
- This helps to solve the problem of ***‘what to produce’***.

- The incentive function will also mean that producers will use the most efficient (least-cost) way to produce these goods and services, to avoid wastage of resources. Hence, price mechanism ensures productive efficiency is achieved. This helps to solve the problem of **'how to produce'**.
- On the other hand, the ***rationing function*** of the price mechanism will solve the problem of **'how much to produce'** and **'for whom to produce'**
- This can be illustrated by considering situations where there are shortages (quantity demanded is more than quantity supplied) and surpluses ( $Q_d$  is less than  $Q_s$ ).
- Using the market for cars as an illustration, the diagram below shows that initially consumers have to pay a price of \$75,000 for each car. At this unit price, the total quantity of cars demanded is 20,000. Car makers respond to this by channeling resources towards the production of 20,000 cars.



When consumers have a stronger preference and/or a greater willingness and ability to purchase cars, demand for cars increase from  $D_0$  to  $D_1$ . At the same price \$75,000, there is a shortage of 10,000 cars at point B. This shortage puts upward pressure on car prices. Producers respond to this by channeling more resources towards the production of 4,000 more cars (movement from point  $E_0$  to  $E_1$ ), since producers now stand to receive a price of higher than \$75,000 for each car. Yet as the price increases, some consumers may realise that they are unwilling or unable to pay the higher price, hence total quantity of cars demanded falls by 6,000 (movement from point B to  $E_1$ ). The market thus reaches a new equilibrium where quantity demanded equals quantity supplied at a higher price \$100,000.

The ***rationing function*** of the price mechanism hence ensures that the limited cars produced are rationed out only to those consumers who are most willing and able to pay for it.

### **CONCLUSION**

This is how the price mechanism allocates scarce resources among competing needs in a free market that needs no planning and functions as if an “invisible hand” is guiding the resource allocation. However, despite the fact that pursuit of self-interest enables the economy to produce more goods and services efficiently, it does not completely remove the problem of limited resources and unlimited wants. This is because as long as available resources are finite and human wants or desire to consume goods and services are infinite, scarcity would always remain a problem.

Level		Descriptors
L3	7-10	Excellent analysis based on thorough knowledge of price mechanism, with strong application.  The roles/functions of “price” in price mechanism are well explained, with the use of relevant illustrations.
L2	5-6	Understanding of price mechanism demonstrated with some evidence of application.  The roles/functions of “price” in price mechanism are undeveloped. (e.g. only two aspects are explained.)  Some reference to examples.
L1	1-4	Descriptive answer with inadequate economic analysis.  Answer contains basic errors.

**Part (b)**

Suggested Answer for Q3(b)	
<p><b>Introduction</b></p> <p><b>Define key term:</b> Indirect taxation is imposed on producers with the aim of raising equilibrium price and reducing quantity exchanged.</p> <p><b>State approach:</b> This essay aims to discuss the view that government efforts to intervene in the working of the free market through indirect taxation inevitably create more problems than they solve</p>	
<p><b>Body</b></p>	
<p><b>Thesis: Indirect taxation can help to achieve allocative efficiency in the presence of market failure such as negative externality.</b></p>	<p><b>Anti-thesis: Indirect taxation has limitations (create problems/unintended consequences)</b></p>
<p><u>Indirect taxes internalizes negative externalities to achieve allocative efficiency</u></p> <p>Figure 1: Tax to internalize externality</p> <p>In the cases of negative production externalities and negative consumption externalities, the good or</p>	<p><u>Problems of using indirect tax to internalize EMC</u></p> <ul style="list-style-type: none"> <li> <p><b>Lack of information:</b> Even if a government decides to impose a tax equal to EMC at <math>Q_s</math>, there will still be a problem of measuring those costs in monetary terms, and apportioning blame. <i>If the government over-estimates or under-estimates the external costs, then the problem of resource misallocation cannot be resolved through taxation. In fact it may lead to further DWL.</i></p> </li> <li> <p><b>Unfeasible to use different tax rates:</b> Each producer or consumer produces varying types and amounts of externality. However, it would be <b>extremely difficult and expensive</b> to</p> </li> </ul>



service is overproduced / overconsumed by ( $Q_m - Q_s$ ) as the third parties are not compensated for the external costs (external marginal cost, EMC) they incur. Using the example of cars usage that generates negative externalities **in consumption**. The existence of an external marginal cost (EMC) results in a divergence between private and social costs. Car drivers will only consider their **PMC** such as the cost of petrol, car, insurance etc. The **PMB** of car usage includes increased convenience and comfort, shorter travelling times. However, car usage creates EMC such as traffic congestion, lost time, air and noise pollution. This affects **third parties**, such as residents who live near roads who suffer health problems and businesses which bear an “increased cost of doing business” due to higher transportation costs, who do not receive any compensation for bearing such costs.

- $Q_m$  is the market equilibrium quantity where  $PMC=PMB$ , while  $Q_s$  is the socially efficient quantity where  $SMC=SMB$ .
- There is an overconsumption of ( $Q_m - Q_s$ ) units of cars.
- Thus, deadweight welfare loss of area ABD arises, resulting in market failure.
- If the **government were to impose an indirect tax** on producers corresponding to the EMC at  $Q_s$  (distance BD) on each unit of cars, the private marginal cost (PMC) will shift upwards so that the new PMC (i.e.  $PMC + tax$ ) coincides with the PMB at  $Q_s$ .
- Thus, socially efficient quantity  $Q_s$ , where full social costs and benefits are taken into account (i.e.  $SMC=SMB$ ), is achieved.
- **If** the tax accurately reflects the external marginal cost ( $TAX=EMC$ ),
  - producers now in effect paying for the use of the environment as the price they are receiving is now lower at  $P_s - t$ , compared to  $P_m$  before the tax.
  - consumers are now in effect paying for the external cost they impose on others as the price they are paying is now higher at  $P_s$ , compared to  $P_m$  before the tax.
- **The externality has then been internalised or priced in.**

Governments can also improve the equity of outcomes through indirect taxation – **Optional point as Equity is less emphasized in H1 syllabus**

measure and impose different tax rates on different firms or consumers. It would add on to the administrative costs of imposing the taxes.

**Evaluation:**

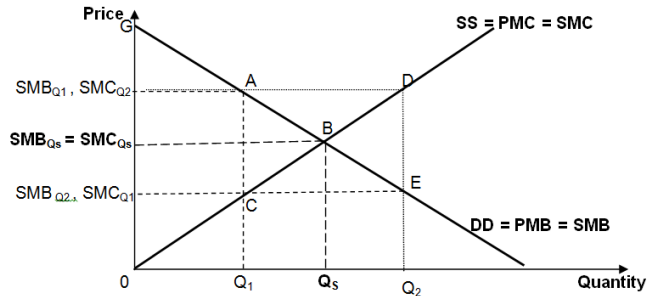
- Despite its problems, a Pigouvian tax like this is a market-based approach which allows the producers and consumers to decide what and how much to produce, as long as they take into account full social costs and benefits.
- Moreover, the monetary cost of paying taxes incentivises producers and consumers to seek ways to reduce the external costs.

**In the absence of market failure** however, government’s imposition of indirect taxation will only disrupt the working of the free market.

Government can also improve the equity of outcomes through indirect taxation via the redistribution of income. The classic Singapore example is the GST voucher introduced in Budget 2012. The government imposes a 7% GST and since the rich pays a higher amount of GST in absolute terms, the government is able to use the tax revenue to fund the GST voucher scheme for the poorer Singaporeans.

Also, such revenue raised through indirect taxes can also be used by the government to fund education and retraining programs for the unskilled workers, who are typically the lower income groups, to raise their labor productivity and hence their wages.

Figure 2: Socially Efficient level of Good X using marginalist principle



In the absence of market failure,  $DD = PMB = SMB$  and  $SS = PMC = SMC$ .

- At  $Q_s$ ,  $SMB = SMC$ . Hence the quantity of good X produced is socially efficient and social welfare is maximised. I.e. An allocative efficient amount of resources are used to produce the socially desirable quantity of Good X.
- At  $Q_1$ ,  $SMB_{Q_1} > SMC_{Q_1}$ . Thus society values an **additional** unit of Good X more than the **additional** cost that will be incurred in its production. And this is the situation faced for any quantity of Good X that is less than  $Q_s$ . Hence, social welfare is not maximized and there is room for improvement in social welfare if the quantity of Good X is increased until  $Q_s$ . So at  $Q_1$ , there is underproduction/consumption of the good.
- At  $Q_2$ ,  $SMB_{Q_2} < SMC_{Q_2}$ . Thus society values an **additional** unit of Good X less than the **additional** cost that will be incurred in its production. And this is the situation faced for any quantity of Good X that is greater than  $Q_s$ . Hence, social welfare is not maximized and there is room for improvement in social welfare if the quantity of Good X is decreased until  $Q_s$ . So at  $Q_2$ , there is overproduction/consumption of the good.
- Any imposition of tax when there is no market failure will shift the **PMC** curves upwards and results in a market equilibrium quantity less than  $Q_s$ , resulting in underconsumption or underproduction.

**Other discussion points (tackling broader contexts of Indirect Tax – Just briefly explain for Macro aspects will do as the main focus of question is still Micro – Intervention in “Free Market”):**

**Micro aspects**

> Indirect tax impose excessive tax burden on consumers - when dd is relatively inelastic

**Macro aspects**

> Indirect taxes, like GST can help to raise tax revenue for government expenditure which can promote both micro (e.g. merit good) and macroeconomic objectives (growth)

- > However, indirect tax like GST can have contractionary effect for economy (opp cost - worsening growth) and regressive in nature (worsening equity)
- > Effects need to be carefully weighed

**Justified Conclusion**

- While the market may fail to achieve allocative efficiency due to market failure, government intervention in terms of indirect taxation is necessary to bring about better outcome for societal welfare, like in the case of negative externalities.
- However, as analysed above, indirect taxation may bring about unintended consequences like further welfare loss when the externalities is small/negligible.
- In the broader sense, an economy wide indirect taxation like GST while bringing about benefits like improved government budget balance, may have regressive effect, which worsens income distribution.
- It would be difficult to conclude in a sweeping manner that indirect taxation does “more harm than good”, given that the circumstances and context of the implementation would vary from country to country.
- Hence, the benefits and costs of government efforts to intervene in the working of the free market must be weighed carefully in the unique circumstances of each economy

Level		Descriptors
L3	9-11	<p>There is excellent analysis of how government intervention through indirect taxation works to correct negative externalities in context of free market.</p> <p>There is excellent breadth and depth of discussion on the effectiveness and potential problems associated with indirect taxation in free market. (Scope of discussion can go beyond externalities.)</p> <p>Answer is well supported by good exemplifications and illustrations.</p>
L2	6-8	<p>There is some understanding of negative externalities and how government intervention through indirect taxation works to correct the externalities. However there is lack of scope and/or depth in the answer.</p> <p>Explanation may be under-developed and may lack logical presentation.</p>
L1	1-5	<p>Descriptive answer with inadequate economic analysis.</p> <p>Answer contains basic errors.</p>
E2	3-4	Substantiated judgment
E1	1-2	Unsubstantiated judgment OR Largely unsubstantiated judgment

**4. There are conflicts between the macroeconomic objectives of governments. Thus, the governments need to set priorities in order to decide which policies to adopt.**

**a) Explain the possible conflicts that exist between the major macroeconomic objectives of governments. (10)**

**b) Discuss the extent to which supply side policy can achieve the macroeconomic objectives of Singapore. (15)**

### **Part (a)**

#### **Introduction:**

The 4 major macroeconomics objectives of government include the pursuit of sustained economic growth, full employment, price stability and balance of payments equilibrium. In practice, the government's role in managing the economy is often complicated by conflicts that exist in terms of pursuing these goals. Thus, governments often have to balance trade-offs and set priorities.

#### **Body:**

Explain the macroeconomic objectives:

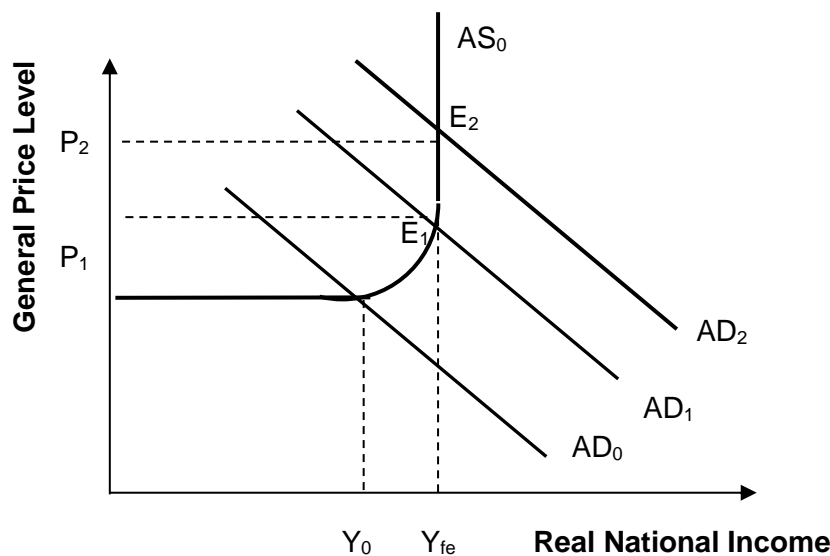
- Sustained economic growth refers to economic growth that is neither too fast nor too slow relative to the economy's potential output i.e. where actual growth is supported by potential growth, such that economic growth is non-inflationary.
- Full employment refers to an economy experiencing low cyclical unemployment or at the natural rate of unemployment (which is made up of frictional and structural unemployment) usually between 4 – 6% unemployment rate in most larger countries.
- Price stability refers to low inflation where a sustained rise in general price levels of a given basket of goods and services is under control e.g. 2% (which is mild inflation)
- Balance of payments equilibrium is usually taken to mean that the trade and capital flows into and out of the country are equal over a number of years. A country is in a stable and self-sustaining position if either its current account remains in balance over reasonable periods of time, or any imbalance is matched by long-term capital flows.

Explain the conflicts that exist between them:

**(1) Economic growth/ low unemployment and price stability – Most important one!**

- As governments pursue economic growth to create sufficient jobs for the labour force (preventing unemployment), growing too fast may inevitably conflict with price stability as it might cause overheating or create inflationary pressure.
- Using AD/AS analysis, when the economy approaches the full employment level (i.e. near the vertical portion of the LRAS curve), the pursuit of growth through expansionary fiscal and monetary policy will result in supply capacity constraints in the short-run and lead to higher demand-pull inflation.
- With reference to Figure 1, pursuing rapid growth implies that the government has to boost AD through expansionary policies such as increasing government spending or cutting direct taxes to stimulate private consumption and investment expenditure.
- Thus, in the short run, the AD could rise faster than the potential output causing demand-pull inflationary pressures illustrated by the rightward shift of the AD function from  $AD_0$  to  $AD_1$  to  $AD_2$ .
- In this instance, the economy “overheats” and prices rise from  $P_0$  to  $P_1$  to  $P_2$  as there is insufficient unused capacity to produce more output to meet the rising demand.

**Figure 1: Rapid growth at the expense of demand-pull inflation**



Cost-push inflation: Governments of open economies may use depreciation of their currency to make exports more price competitive during recessions in order to boost growth. While this policy helps to improve net exports and hence actual growth, it makes imports more expensive. If these imports are required in the production of goods and services, imported inflation arises. **(to elaborate using the SRAS analysis)**

**(2) Economic growth and BOP equilibrium**

Governments can pursue actual growth via expansionary monetary policy (i.e. lowering interest rates). However, this results in hot money outflow which worsens the Financial account and hence the BOP, possibly resulting in a deficit.

**(3) Economic growth and structural unemployment**

Open economies which seek to grow by developing a new comparative advantage (e.g. capital-intensive manufacturing) after having lost their former comparative advantage (e.g. in labour intensive production) to emerging economies, are likely to use supply side policies to restructure the economy. By doing so, low-skilled workers are likely to face a loss of jobs due to mismatch of skill set with the requirements of the new jobs offered.

**(4) Price stability and BOP equilibrium**

Governments which seek to control cost-push inflation by appreciation their currency are likely to face the problem of less price competitive exports and cheaper imports, resulting in the balance of trade and hence the BOP worsening, possibly leading to a deficit.

Level		Descriptors
L3	7-10	There is excellent explanation of the 4 macroeconomics objectives.  At least three possible conflicts of macroeconomics objectives are well analyzed, with the use of relevant examples (or link to the use of macroeconomics policies).
L2	5-6	The explanation of the macroeconomics objectives and the possible conflicts among them is underdeveloped.  Only one to two possible conflicts of macroeconomics objectives are well explained.  The macroeconomics objectives were not well defined.
L1	1-4	Descriptive answer lacking in economic analysis. Lack understanding of the conflicts between macroeconomic objectives.  OR  Mostly conceptual errors.

## Part (b)

### Introduction

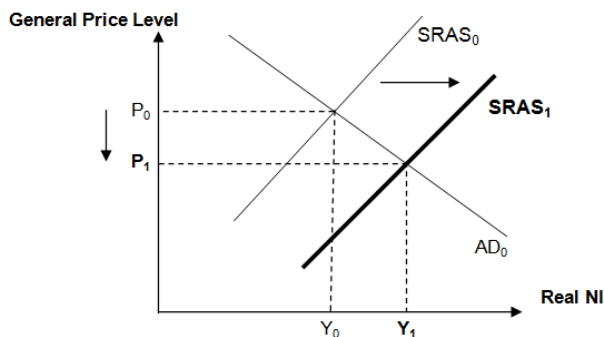
Singapore adopts both short run and long run supply side policies (briefly define SR SSP and LR SSP).

Singapore is a small and open economy, heavy reliant on trade and imported raw materials – supply side policy is an important instrument that is used to achieve non-inflationary growth (sustained growth), lower inflation, reduce various forms of unemployment as well as to improve our BOP through increasing the price competitiveness of our export.

**Thesis 1: Short run supply side policy can be effective to achieve economic growth, reduce cyclical unemployment and improve BOP.**

- Short-run supply-side policies primarily target at reducing business costs usually during situations such as recession or inflation.
- They are usually stop-gap measures that yield only temporary results.
- For instance, one option used by the government on multiple occasions is the CPF system. The CPF system being a compulsory savings plan requires both the employees as well as the employers to make monthly contributions to each employee's CPF account.
- The CPF effectively drives a wedge between (effective) wages and labour costs. Traditionally, higher wages imply higher labour costs while lower wages imply lower labour costs.
- In times of recession, the government can reduced the employer's CPF contribution, effectively lowering labour costs of all firms without hurting employees' take home pay. This helped to trim wage costs and allow many firms to retain a large portion of their work force with minimal retrenchments and hence cyclical unemployment.
- The outcome is illustrated by an increase in the short-run aggregate supply (SRAS) curve, increasing output and lowering general price level.

Figure 1: Short-run supply-side policies work to reduce GPL and raise Y



**Anti-thesis 1: Short run supply side policy is ineffective to achieve economic growth, reduce cost-push inflation, reduce cyclical unemployment and improve BOP.**

- In the situation of recession, supply side policies do not solve the root of the problem which is demand-deficiency, although it helps to reduce the output gap and keep some businesses from going bust, thus saving some jobs.
- Allowing employers to cut CPF contribution is likened to slaughtering the 'sacred cow'. The CPF is meant to be a safety net for the people in terms of financing housing/medical and savings for retirement. Such cuts may result in some lower income households unable to pay their monthly housing loans via CPF and have to use cash for top-ups.
- While wage cuts are not possible in many other countries, they have been proven to be workable for Singapore due to the close working tripartite relationship between Management, Trade Unions and the Singapore government.

<p><b>Impact on Output</b>          These short run supply side policies enable the national income to increase from <math>Y_0</math> to <math>Y_1</math> leading to <u><b>actual growth</b></u> of the economy while mitigating cyclical unemployment.</p> <p><b>Impact on business cost</b>          The lowering of cost of production (specifically wage costs) for firms can also boost the price competitiveness of Singapore's export, hence <u><b>improving our BOP</b></u>.</p>	
<p><b>Thesis 2:</b> Long-run Supply side policy can be effective to <u><b>reduce structural unemployment</b></u>.</p> <ul style="list-style-type: none"> <li>• The Singapore government funded upgrading courses to help structurally unemployed persons pick up new skills like language skills, IT skills, management skills as well as entrepreneurial skills. Some examples include courses provided by the <b>Continuing Education and Training Centres (CET)</b> which is accredited by Singapore Workforce Development Agency (WDA). With the newly-acquired skills, workers would be able to increase their labour productivity and hence enable firms to lower their unit cost of production. This is may be an added incentive for firms to retain workers during times of recession.</li> <li>• Initiatives such as the <b>Skills Development Fund (SDF), as well as the Lifelong Learning Endowment Fund and Workfare Training Support Scheme</b> provide subsidies to firms who sent their workers for re-training or upgrading courses to retain their employability.</li> <li>• In 2015, the government introduced new initiatives to support life-long learning and deepening of skills. The <b>SkillsFuture Credit (\$500 grant)</b> is available for all Singaporeans above 25 to enhance their skills in work related areas.</li> </ul>	<p><b>Anti-Thesis 2:</b> Long-run Supply side policy is <u><b>ineffective to reduce structural unemployment</b></u>.</p> <p><b>(1) Attitude, attitude and age of workers</b></p> <ul style="list-style-type: none"> <li>• The main concern with such a policy lies in the <b>attitude, aptitude and age</b> of the workers who were sent for the courses.</li> <li>• Without a good attitude towards learning, an aptitude and flair for learning new skills, and the ability to internalise the skills set learnt quickly, the level of productivity may not have increased as desired and hence render the policy less effective.</li> <li>• Usually there is great resistance in acquiring new skills, especially among older workers.</li> <li>• Furthermore, workers who are lacking in basic education and literacy may find the acquisition of new skills to be extremely difficult.</li> </ul> <p><b>(2) Willingness of employers</b></p> <ul style="list-style-type: none"> <li>• While the government dishes out subsidy for training, the success of these programmes depends on the employers' willingness to allow their employees to miss work and go for training.</li> <li>• Also, employers may not be willing to reemploy elderly workers and train them and would probably be prepared to pay only very low wages.</li> </ul> <p><b>(3) Strain on budget</b></p> <ul style="list-style-type: none"> <li>• The cost of providing or subsidising training can impose a burden on the government budget.</li> <li>• For example in Singapore, whether the government can afford to keep on</li> </ul>

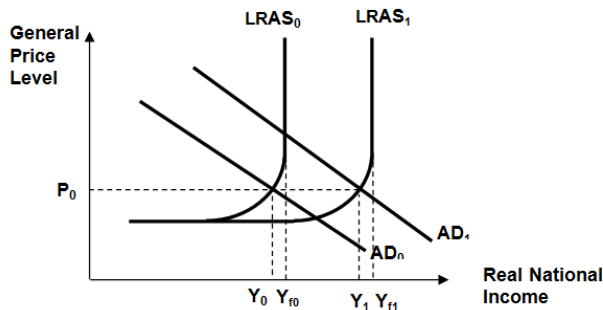


drawing down on past public sector surpluses to finance such spending may be questionable. The shrinking labour force reduces government's ability to collect taxes and the ageing population increases demand on government's welfare spending. Less government reserves would reduce government's ability to fight future economic downturns.

**Thesis 3:** Long-run Supply side policy is effective to reduce demand-pull inflation.

- Demand-pull inflation is a result of excessive demand while facing with a supply bottleneck. Thus, besides using contractionary fiscal or monetary policies to dampen AD, it is necessary to increase the economy's productive capacity through long run supply side policies.
- One unique way in Singapore is to allow more foreign workers to enter Singapore to complement the local workforce. This allows the LRAS (as well as the SRAS) to temporarily shift rightwards, creating more capacity to meet the rising demand. One advantage of this **buffer labour policy** is that when AD is low, these foreign workers would return to their home countries and hence do not contribute to Singapore's unemployment.

Figure 2: Long-run supply-side policies work to attain non-inflationary growth



- With reference to Figure 2, the use of long-run supply-side policies shifts the LRAS curve from LRAS<sub>0</sub> to LRAS<sub>1</sub>. There is growth in the potential capacity of the economy. As a result, the full employment level of national income rises from Y<sub>f0</sub> to Y<sub>f1</sub>.
- As a result, the economy experiences an increase in output from Y<sub>0</sub> to Y<sub>1</sub> with little or no impact on general price level (as shown in the diagram above) and non-inflationary economic growth is achieved.

**Anti-Thesis 4:** Long-run Supply side policy is ineffective to reduce demand-pull inflation.

- One limitation of supply side policies is that it takes times to bear fruit.

### Overall evaluation & Conclusion

Supply side policies in Singapore are primarily used to achieve non-inflationary growth, reduce various forms of unemployment as well as to improve our BOP through increasing the price competitiveness of our export. The role of SSPs is to complement the demand side of the economy. At the end of the day, it is not possible for an economy to keep on growing (i.e. generating more output) simply by spending or boosting demand. The economy must have enough productive resources of the right type so that producers can continuously draw upon these resources to churn out those goods and services that are in demand. Nonetheless, SSP has its limitations like its inability to deal with cost-push inflation in Singapore, and thus SSP should be augmented with policies like GRAMA to better achieve various macroeconomic aims.

Level		Descriptors
L3	9-11	<p>There is excellent analysis of how both short run and long run supply side policies help to achieve the various macroeconomics objectives.</p> <p>There is good knowledge of supply side policies used in the Singapore context as well as their limitations</p> <p>Analysis of how supply side policies achieve at least three macroeconomics objectives.</p>
L2	6-8	<p>There is attempt to explain how both short run and long run supply side policies help to achieve the various macroeconomics objectives of Singapore.</p> <p>However, there is lack of examples of policies used in the Singapore context. Analysis of how supply side policies achieve two or less macroeconomics objectives.</p>
L1	1-5	<p>Descriptive answer lacking in economic analysis.</p> <p>OR</p> <p>Mostly conceptual errors.</p>
E2	3-4	<p>Substantiated judgment of effectiveness of supply side policies in achieving the various macroeconomics objectives of Singapore.</p>
E1	1-2	<p>Unsubstantiated judgment OR Largely unsubstantiated judgment of effectiveness of supply side policies in achieving the various macroeconomics objectives of Singapore.</p>