



**VICTORIA JUNIOR COLLEGE
PRELIMINARY EXAMINATIONS 2019**

**H1 ECONOMICS
8823/01**

**19 September 2019
3 hours**

Additional Materials: Answer Booklet(s)

READ THESE INSTRUCTIONS FIRST

Write your name and class on every answer booklet that you hand in.
Write in dark blue or black pen.
You may use an HB pencil for any diagrams, graphs or rough working.
Do not use staples, paper clips or correction fluid.
Do not write in the margins.

There are 2 questions in this paper. You are to answer **all** questions. Divide your time accordingly between the 2 questions.

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

This document consists of 7 printed pages including the cover page

[Turn over

Question 1: Challenges in Italy and Japan

Table 1: Selected macroeconomic indicators of Italy

	2014	2015	2016	2017
Real GDP Growth (annual %)	0.1	0.9	1.1	0.9
Consumer Prices (annual %)	0.24	0.06	-0.09	1.23
Unemployment (% of total labour force)	12.5	13.1	11.5	11
Nominal Interest Rate (%)	0.05	0.05	0.0	0.0
Public Debt (% of GDP)	131.5	131.3	131.1	131.3

Source: World Bank

Table 2: Selected macroeconomic indicators of Japan

	2014	2015	2016	2017
Real GDP Growth (annual %)	0.4	1.2	0.6	1.9
Consumer Prices (annual %)	2.76	0.79	-0.12	0.47
Unemployment (% of total labour force)	3.6	3.5	3.2	2.8
Nominal Interest Rate (%)	0.0	0.0	-0.1	-0.1
Public Debt (% of GDP)	249.1	248	250.8	253

Source: World Bank

Extract 1: Why Italy's economy is stagnating

Why is Italy's economy so sickly and has the country's new government found the cure for its economic ills? The experts' answers, ranging from corporate culture to public debt, provide little backing for the Italian government's case. It has plans to increase the fiscal deficit up to 2.4 per cent of gross domestic product that will kick-start growth after years of poor performance. While the initial slowdown was largely due to less dynamic world trade caused by the lingering trade tensions globally and an economic slowdown in China, the recent slackening of economic activity is more attributable to sluggish domestic demand, particularly investment.

The challenge facing the Italian government is to get Italy out of the slow or no-growth trap it has been caught in throughout this century. Growth has stalled, leaving the country's economic output still 5 per cent below its pre-crisis peak of 2008 and most recent growth figures showed that Italy's real GDP contracted 0.1 percent in Q3 of 2018. Those who opposed to increasing power of the European Union some of whom are close to Italy's populist coalition government, often blame the single currency for the economy's ills, arguing being a member of the Eurozone has made it lose control of domestic monetary policy tools. But the broad consensus among economists is that the country's problems are due to structural weaknesses, rather than the euro.

Italy's coalition government argues that its spending plans will help fuel growth. But many of the experts consulted argue the contrary that high government debt levels have caused

consumer and business confidence level to drop drastically. The country is also still obliged to severely reduce its budget deficit and public debt to respect the European Union (EU) guidelines.

Poor long-term growth usually stems from poor economic fundamentals. And Italy's fundamentals are notoriously bad. It's difficult to pin down a single salient shortcoming, but its low productivity is a good place to start. Italy's productivity gains have been abysmal. Reaching back to the 1990s, Italian employees have been clocking longer hours while producing less. Italy also suffers from excessive regulation and a dearth of R&D spending.

Adapted from Financial Times, Nov 2018

Extract 2: Negative interest rates in the EU

Negative interest rates rarely occur and usually only when a country's central bankers are forced to utilise the monetary policy tool where the interest rates are set below zero during harsh economic times. The European Central Bank has just confirmed that the prevailing negative interest rates will remain in place at least for the rest of this year, and potentially much longer. While encouraging lending in theory, negative interest squeeze bank profits margins, making them less willing to extend loans. It's true that keeping rates too low for too long could be counterproductive. Banks also believe that their customers would terminate those deposits and hold cash instead if they introduced negative rates. Lesser deposits would just mean less money for banks to lend out for investment purposes.

Source: Bloomberg, March 2019

Extract 3: The Japanese economy - is Abenomics working?

Japan had a relatively good year in 2016 and the momentum continues into 2017. However, underlying domestic private consumption and investment remain moderate, and inflation remains stubbornly low. The Bank of Japan admitted that raising inflation to the 2 percent policy target was taking much longer than expected. Having an inflation rate that is too low for a prolonged period causes the economy to lose its momentum and one overarching concern is that households and businesses will expect even lower inflation in the future, causing them to hold back their spending.

Let us step back and revisit the much-hyped "three arrows" of Abenomics. Abenomics refers to the economic policies advocated by Prime Minister Abe to boost growth. We have seen some degree of success with the first and second arrows, namely, bold monetary easing and fiscal stimulus. In contrast, the third arrow, structural reforms, has so far missed the target by a big margin. Structural reform is undoubtedly the most critical component of Abenomics. One of the key structural reforms included the labour market reforms, which if implemented fully, can trigger a landscape change in the labour market. The benefits are obvious and it does have an effect on boosting long-term growth and living standards if labour productivity can be raised. By relaxing labour regulations, it can also create a higher level of mobility in the job market. In essence, structural change of the labour market which includes loosening labour rules, making laying off of workers easier and relaxing immigration rules is a powerful medicine to heal a stagnant economy plagued by low labour productivity. This medicine, however, can taste extremely bitter for some people. Concern persists that adding more foreign blue collared workers especially in sectors such as construction, farming and nursing will lower wage level for the lower skilled Japanese workers in the country. It is conceivable that the unemployment rate as well as the bankruptcy rate may spike, at least temporarily.

Source: IMF.org, July 2017

Extract 4: Exchange Rate Stance

The central problem is that Japan's economic growth relies largely on a weak yen and its capacity to boost exports. A weak yen enhances the price competitiveness of Japan's export sector by making yen-denominated products cheaper for overseas buyers. It also exercises an inflationary influence on the prices of foreign goods imported into Japan, thus helping the Bank of Japan's (BOJ) pursuit of higher inflation.

In Singapore, the Monetary Authority of Singapore (MAS) has instead tightened its monetary policy despite advance official showing that Singapore's economic growth slowed to 2.6 per cent year-on-year in the third quarter. The central bank slightly increased the slope of the policy band from zero per cent to allow for "modest and gradual" appreciation, – marking its first tightening move in six years. In the quarters ahead, MAS said, imported inflation is likely to increase on account of higher global oil and food prices.

Source: Adapted by scmp.com, Jan 2018 and channelnewsasia.com, Oct 2018

Questions

- (a) (i) Explain the link between economic growth and public debt. [3]
- (ii) In the case of Italy, does the data in Table 1 support the above relationship? [2]
- (b) (i) Using Table 1, explain why real interest rate has been mostly negative in Italy. [2]
- (ii) Explain **two** possible macroeconomic consequences of maintaining negative real interest rates in the economies of the Eurozone countries. [4]
- (c) (i) Explain the causes of Italy's stagnating actual and potential economic growth. [6]
- (ii) With reference to Extract 1, discuss the appropriateness of policies that Italy can adopt to achieve economic growth. [12]
- (d) In Extract 3, structural reforms are said to be a "powerful medicine to heal a stagnant economy... yet this medicine, however, can taste extremely bitter for some people".
- Explain the positive and negative impact of structural reforms on the standard of living in Japan and comment on its overall impact on Japan's standard of living. [7]
- (e) With reference to the data and/or your own knowledge, explain and comment on the different stances that Bank of Japan (BOJ) and Monetary Authority of Singapore (MAS) have taken towards the exchange rate of their countries' currencies. [9]

[45 marks]

Question 2: The Market for Sugar

Table 3: World production and consumption of sugar, 2014 – 2017

	Production (in million metric tons)	Consumption (in million metric tons)	Average price for sugar worldwide (nominal USD per kg)
2014	181.3	176	0.37
2015	180.7	178.7	0.3
2016	174.7	180	0.4
2017	178	181	n/a

Source: Statista, 2019

Extract 5: The War on Sugar's Biggest Casualty: Global Prices

Sugar prices are hovering near a three-year low as food companies around the world reduce sugar in their products and move toward alternative sweeteners amid health concerns including diabetes, obesity and heart disease.

The problem with demand is due to shifting consumer tastes. Consumers are leaving sugary beverages behind in favour of unsweetened iced teas and flavoured seltzer waters. That has major beverage companies shifting priorities. In Spain, PepsiCo said it has brought down the amount of sugar in its products by 29 percent compared with 2006 and is working toward the goal of two-thirds of its soft drinks containing fewer than 100 calories.

While this heralds a shift in demand for sugar, supply of the commodity is increasing. In its monthly update for July, the International Sugar Organisation says a record sugar surplus expected this year, followed by a surplus next year, means excessive stocks of sugar will take time to liquidate. And producers aren't cutting back. Sugarcane farmers in India are expanding their plantations following subsidies to boost sugar exports that are encouraging production. That is despite the fact that the country, the world's second-largest producer behind Brazil, has produced 6.5 million tons more sugar than it uses over the year that ends Sept. 30.

Source: The Wall Street Journal, Aug 2018

Extract 6: Rise in minimum price for sugar in India

India, which vies with Brazil as the top sugar producer, increased the minimum selling price of sugar by 6.9 percent to help sugar mills. The selling price for millers was raised to 31 rupees (44 cents) per kilogram from 29 rupees at present, according to a government notification on 14 February 2019. The benchmark price is effective immediately.

A rise in the state-controlled price may prompt millers to sell more locally. The government spending has been rising with the increase in sugar stockpiles in India, where production is set to exceed local demand for a second year.

Source: Bloomberg, Feb 2019

Extract 7: Uncertain effects of sugar rush on consumers

Analysts say the increased supply of sugar - not just from the UK, but from other major EU producers - should ultimately lead to lower prices in future. However, the effect on sugary products, like cola and sponge cake, will be more muted, because the cost of sugar only makes up a small part of the overall price of those goods

Sugary products, for example soft drinks, cakes and pastries, are dubbed as the main causes of why children in England are consuming twice as much sugar as recommended. The excess sugars consumed by children increase their risk of childhood obesity. Ignorant of the harmful effects of obesity on themselves, children continue to consume unnecessary amount of sugars.

Consumption of such sugary products may also have led to harmful effects on society. These include the strain on healthcare services from obesity-related diseases, such as diabetes, as well as reductions in labour productivity and rising sickness absenteeism for firms. This worrying trend has prompted the UK government to impose a sugar tax on soft drinks earlier in April 2018. Officially called the Soft Drinks Industry Levy (SDIL), the tax puts a charge of 24 pence on drinks containing 8g of sugar per 100ml and 18 pence a litre on those with 5-8g of sugar per 100ml, directly payable by manufacturers to HM Revenue and Customs (HMRC). As part of the Government's childhood obesity strategy, it aims to reduce sugar consumption by persuading companies to reformulate their high sugar brands and avoid paying the levy.

In addition, a host of measures including restrictions on the advertising of junk food to children, action on price promotions on unhealthy products and clearer food labelling will help parents to make healthy choices and ensure their children have the healthiest possible start in life

Source: BBC News and London School of Hygiene and Tropical Medicine, June 2018

Extract 8: Sugar and Britain's obesity crisis

The effectiveness of the sugar tax to reduce sugar consumption remains questionable. Food manufacturers and supermarkets have only managed to cut 2% of sugar content. Meanwhile the obesity figures continue to rise relentlessly.

Some also worry that the increase in the price of high-sugar drinks due to a sugar tax could lead to an increase in the purchase of beer, diet drinks and juice. Researchers find that alcohol and alternative drink options could act as substitutes.

Funds raised from the sugar tax are earmarked for spending on school sports programmes and breakfast clubs, as part of wider efforts to combat childhood obesity. The initial forecast was that the tax would bring in £520 million in its first year of operation, but this was revised down to £275 million as a result of company efforts to remove sugar from their products. Data from the first full year of the tax is not yet available, but receipts from April to October 2018 totalled £154 million.

Dr Laura Cornelsen, assistant professor in public health economics and MRC Career Development Fellow at the London School of Hygiene & Tropical Medicine, says this highlights that changing behaviour is really difficult, particularly when people who have been used to the same product for years say they really like it. She adds, "Changing behaviour is really difficult and strong preferences and habits mean the price responsiveness is likely to be lower."

The levy on sugary drinks is not a silver bullet to fix unhealthy diets. While it is a step in the right direction, more is likely needed to be done.

Source: Guardian, Oct 2015 and London School of Hygiene and Tropical Medicine, June 2018 and Rathbone Greenbank Investments, Apr 2019

Questions

- (a) Using Table 3, account for the change in average prices for sugar worldwide from 2014 to 2016. [3]
- (b) Using Extract 5, explain the falling trend of global sugar prices. [6]
- (c) (i) With the help of a diagram, explain why 'government spending has been rising with the increase in sugar stockpiles in India' (Extract 6). [3]
- (ii) Using the concept of price elasticity of demand, explain how the rise in the minimum price will affect consumer expenditure on sugar in India and comment on whether you believe such an impact is certain. [6]
- (d) (i) With reference to Extract 7, assess **two** reasons why the British government would like to intervene in the market for soft drinks. [9]
- (ii) Explain **two** possible factors that the UK government should consider in deciding whether to impose a ban on sugary drinks. [6]
- (iii) With reference to Extracts 7 and 8, evaluate the effectiveness of policies used by the UK government to address the problem of sugar overconsumption. [12]

[45 marks]

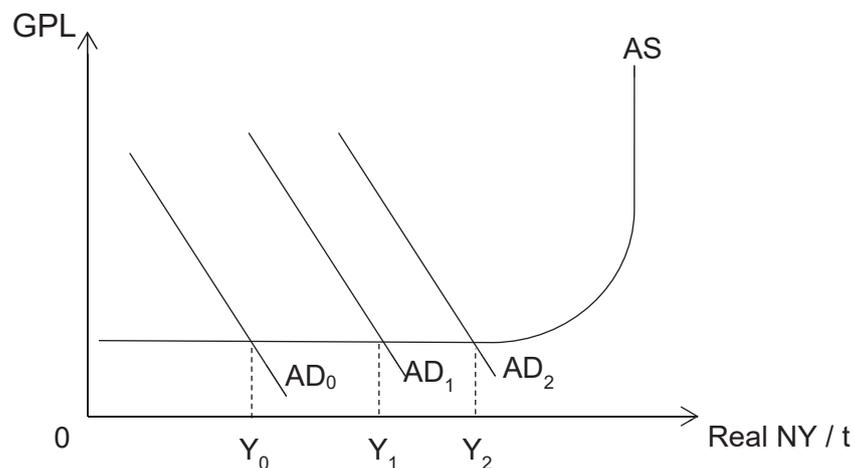
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Suggested Answers to Question 1

(a)	(i) Explain the link between economic growth and public debt.	[3]
	<p>There is an <u>inverse relationship</u> between economic growth and public debt. [1] As the country experienced an increase in economic growth, it can be expected that tax revenue will increase due to a wider tax base [2] while expenditure on unemployment benefits will fall, thus reducing the budget deficit and in turn the public debt levels. [2] Note: Can accept that greater government spending will worsen debt levels as more government spending is needed as a fiscal stimulus during negative growth.</p>	
	(ii) In the case of Italy, does the data in Table 1 support the above relationship?	[2]
	<p>From 2014 to 2016, as economic growth improved, the public debt as a percentage of GDP decreased. [1] From 2016 to 2017 there is still positive growth yet the public debt as a percentage of GDP increased. [1] Overall, the relationship is not demonstrated consistently.</p>	
(b)	(i) Using Table 1, explain why real interest rate has been mostly negative in Italy.	[2]
	<p>Real interest rate is nominal interest rate, adjusted for inflation. [1] From 2014 to 2017, except 2016, the inflation rate (as measured by annual % change in consumer prices) was higher than the nominal interest rate, seen in Table 1 [1] Therefore, Italy had seen negative real interest rate during this period in Table 1.</p>	
	(ii) Explain two possible macroeconomic consequences of maintaining negative real interest rates on the economies of the Eurozone countries.	[4]
	<p>With negative interest rate, it would mean savings are discouraged since there is less return on their savings and with less bank deposits, this would lead to less funds available in banks to lend out for investment purposes. As stated in the extract, with negative interest rate, this will also squeeze bank profits margins, making them less willing to extend loans. Overall, this could reduce investment levels thus affecting potential growth in the long run. [2]</p> <p>Not only that, savers incur a cost for savings so this reduces their future income levels thus affecting future material standard of living for the country. [2]</p> <p>If negative interest rate is maintained in the long run and once the country is out of recession, this can lead to high levels of consumption and investment, leading to demand pull inflation if the economy is close to full employment. [2]</p> <p>Any 2 of the above.</p>	
(c)	(i) Explain the causes of Italy's stagnating actual and potential growth.	[6]
	<p>Evidence: Global Trade tensions and economic slowdown in China</p> <p>Extract 1 suggested that Italy's stagnant growth was initially caused by the global trade tensions and an economic slowdown in China, who being one of the world's largest economies is likely to be a major trading partner of Italy. Economic</p>	

	<p>slowdown in China will mean a slower growth in national income and purchasing power. This will dampen the demand for goods and services, including imports from Italy, thus dampening Italy's export revenue. Global trade tensions will also result in a reduction in trade activity, hence (X-M) may rise slower.</p> <p>Global trade tensions may also result in greater uncertainty causing a slowdown in investment expenditure (I). Moreover, as inferred in Extract 1, in recent times, stagnant growth is caused by "sluggish domestic demand, particularly investment"</p> <p>Overall, the slower increase in I and (X-M) will result in slower increase in Italy's AD and national income via multiplier effect. This could have resulted in a slowdown in Italy's actual economic growth. [3m]</p> <p>[Note: students can also explain as a fall in AD since there is a contraction of real GDP in Q3 of 2018.]</p> <p>Evidence: Structural Weakness</p> <p>In addition, there is structural weakness in Italy's economy such as low productivity, poorly developed capital markets, excessive regulation and a dearth of R&D spending as indicated in Extract 1. These will affect long-term growth. The implication in the long run is a decrease in capital accumulation, dampening the productive capacity, leading to a slower increase in AS. Vertical portion of the AS shifts to the right by a smaller extent, slowing down potential growth. Moreover, the lack of R&D spending will also slow down any potential improvement in the quality of capital, and cause a slower rise in AS. The effects are also similar to the above explanation. [3m]</p> <p>*Low productivity (less output per man-hour) could also affect cost of production and cause a slower rise in the horizontal portion of AS, affecting actual growth. Excessive regulation (which may give rise to inefficient and bureaucratic administrative processes) may discourage investment in Italy. This may also contribute to the slower increase in AD. Note: This explanation can be credited for actual growth.</p> <p>Note: students can also explain as a fall in potential growth.</p>	
	<p>(ii) With reference to Extract 1, discuss the appropriateness of policies that Italy can adopt to achieve economic growth.</p>	<p>[12]</p>
	<p>Introduction: Given the stagnant growth rate in Italy, high unemployment rate is likely due to the weak consumer and business confidence in Italy, government borrowing may increase as a fiscal policy stance in order to stimulate growth via aggregate demand. However, there is high level of public debt (131% of GDP) in Italy and the main concern is the sustainability of debt level. Italy may otherwise consider cutting back on public debt to instill confidence level or resort to having EU agree on a devaluation of Euro currency. Appropriateness of policies would be to look at its effectiveness, causes, constraints of high debt and unintended consequences.</p> <p>Expansionary fiscal policy is one policy that Italy can adopt to address the sluggish domestic demand.</p>	

A government can increase expenditure (G rises) by building infrastructure such as roads or expansion of the railway lines, resulting in a rise in demand for goods and services. It can also cut direct taxes (T). Lower income tax means that households will have higher disposable income. With the increase in purchasing power, households are more likely to spend on consumer goods/services to satisfy their wants. Lower corporate tax (which increases expected after tax profit) will increase the post-tax expected rate of returns of investment for firms. With higher expected returns on investment, firms are likely to demand more capital goods (e.g. machinery), leading to an increase in investment expenditure. With the rise in G, C and I, AD rises. With AD exceeding AS at the current general price level, there will be an unplanned fall in inventories. This will lead to firms increasing production and hiring more factors of production, such as labour. As a result, households' income will increase and this increase in purchasing power will induce higher consumption of other domestic goods and services, causing a subsequent rise in AD. National income will be higher as output increases further. The multiplier process would eventually lead to a multiplied increase in real GDP to Y_2 . This results in actual economic growth.



[Ev] However, this policy will worsen Italy's public debt and budget deficit problems. Public debt is high at about 131% of GDP. . Having high debt levels may be unsustainable in the long run as the government may not be able to pay back their debts. It could cause a further strain on the budget due to the need to service their debts in the future. Therefore this may limit the government's spending in the future, and impede future economic growth. Furthermore, in this context of Italy, reducing taxes may be ineffective if consumers and firms are unwilling to spend and invest as increasing levels of debt may reduce business and consumer confidence and could in fact lead to a fall in I and C thus AD.

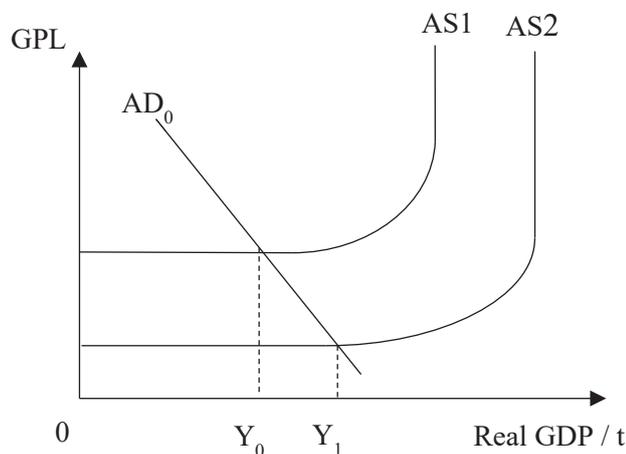
In light of the high government debt, cutting government spending and increasing taxes, may also be an appropriate policy to reduce its debt level and improve business and consumer confidence.

By reducing public debt levels in Italy, this may start to improve business and consumer sentiments which will increase C and I and increase AD and thus national income via multiplier, bringing about actual growth

[Ev] However, this measure will have a contractionary effect on Italy's economy and will result in negative growth in the short run.

Supply side policies may be more appropriate to achieve economic growth.

Extract 1 mentioned that the long term stagnant growth stems from low productivity gains. Given that Italy also suffered from excessive regulation and a dearth of R&D spending, the government can provide grants and subsidies to encourage R&D, which could lead to product and process innovation. The government can also provide grants for skills upgrading or build infrastructure to develop R&D capabilities. The increase in labour productivity and quantity /quality of capital will increase productive capacity. Moreover, improved labour productivity (assuming no change in wages) and process innovation which leads to lower cost methods of production will also reduce unit cost of production. As such, AS will increase and both the horizontal and vertical portions of AS shift to the right. There will be a corresponding rise in national income, bringing about actual growth. Potential growth also results from the rise in potential output.



In the longer run, this policy may also help to attract investors into the country by boosting the confidence in the economy as labour productivity improves as well as increase export revenue in Italy especially if quality of exports increases or there is a rise in export price competitiveness.

[Ev] However, the odds against Italy is to whether the country is able to get more funding and to incentivize retraining and upgrading of skills among the workers. Workers may be resistant towards training. Beyond this limitation, supply side policies may be largely appropriate as it solves the root problem as mentioned which is structural issues and low productivity. Therefore, despite the higher spending in the short run and worsening the debt levels, this can help to generate higher economic growth in the future which can be used to repay Italy's debt.

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In spite of Italy's high debt level, having to cut back on government spending and increase in taxes would likely hinder growth. It is seen more like an obligation to cut its public debt as being part of Eurozone. It would be more appropriate for Italy to implement expansionary fiscal policy together with supply side policies to

	<p>achieve economic growth as growth will help to reduce public debt in the long run. This is also in light of increasing employment level in Italy.</p> <p>Therefore in the case of Italy, the most appropriate measure is depends on whether it is able to target most of the root causes of the ailing economy. In this case, supply-side policies are needed to address the root causes of low productivity and poor economic fundamentals. At the same time, the Italian government has to deal with the conflicts of interest between its government and the Euro zone. With a common currency in use, Italy has lost control of its monetary policy tools. Threading a careful path between euro zone rules and domestic-economy support, perhaps Italy has to implement expansionary measures, while adding new incentives for innovative investments.</p> <table border="1" data-bbox="292 613 1355 987"> <thead> <tr> <th>Level</th> <th>Descriptor</th> <th>Marks</th> </tr> </thead> <tbody> <tr> <td>L3</td> <td>Rigorous analysis with elaboration of at least 2 policies that can achieve economic growth. Best answers provide points that are backed by case evidence.</td> <td>6-9</td> </tr> <tr> <td>L2</td> <td>Descriptive answer with little or no reference to case extract. Insufficient points and elaboration for relevant policies.</td> <td>3-5</td> </tr> <tr> <td>L1</td> <td>Descriptive answer with little or no reference to case extract. Mere listing of points. Answer is not directly relevant to question.</td> <td>1-2</td> </tr> <tr> <td>E</td> <td>Stand with relevant substantiation</td> <td>1-3</td> </tr> </tbody> </table>	Level	Descriptor	Marks	L3	Rigorous analysis with elaboration of at least 2 policies that can achieve economic growth. Best answers provide points that are backed by case evidence.	6-9	L2	Descriptive answer with little or no reference to case extract. Insufficient points and elaboration for relevant policies.	3-5	L1	Descriptive answer with little or no reference to case extract. Mere listing of points. Answer is not directly relevant to question.	1-2	E	Stand with relevant substantiation	1-3	
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(d)	<p>From Extract 3, structural reforms is said to be a “powerful medicine to heal a stagnant economy... yet this medicine, however, can taste extremely bitter for some people”</p> <p>Explain the positive and negative impact of structural reforms on the standard of living in Japan and comment on its overall impact on Japan’s standard of living.</p>	[7]															
	<p>Introduction: One of the Structural reforms include relaxing labour laws in the economy. By relaxing labour laws, it has a long term impact on improved productivity and an opportunity to lift up the stagnant economy, leading to higher material standard of living in Japan in the long run. However, there should be considerations of temporary fall in material standard of living in the short run as workers may experience layoffs and a fall in wages. Non material standard of living can also be affected due to rise in stress level of getting laid off.</p> <p><u>Positive impact on Standard of living:</u> According to Extract 3, the structural reforms would include relaxing labour laws such as migration rules. This could lead to more foreign labour flowing into Japan thus increasing the supply of labour. An increase in supply of labour will result in a surplus of labour at current wage thus causing wages to be depressed. Lower wages due to relaxed labour laws will help to lower cost of production and attract foreign direct investment. This will help to boost creation of jobs in Japan. With rise in employment, this would lead to higher income for Japan’s residents and as consumption of goods and services increase with higher purchasing power, it helps to achieve higher material standard of living.</p> <p><u>Negative impact on Standard of living:</u> The falling wages will be a concern for the lower skilled Japanese workers. With the influx of foreign lower skilled workers taking up jobs in sectors such as construction and farming, increased supply of lower skilled workers will depress wages for these Japanese lower skilled workers. This will widen the income gap between the skilled and unskilled workers in Japan.</p>																

	<p>With rising income inequality, material standard of living will be lower as more of these lower skilled workers will face falling income and lower purchasing power.</p> <p>Conclusion: Structural reforms most likely will result in a lower standard of living for</p> <table border="1" data-bbox="292 309 1323 645"> <thead> <tr> <th>Level</th> <th>Knowledge, Application/Understanding, and Analysis</th> <th>Marks</th> </tr> </thead> <tbody> <tr> <td>L2</td> <td>For a well-developed explanation of both positive and negative impact on standard of living. Capped at 3m if there is developed explanation on either positive OR negative impact on standard of living.</td> <td>3 – 5</td> </tr> <tr> <td>L1</td> <td>For an undeveloped or underdeveloped explanation of both positive and negative impact on standard of living.</td> <td>1 – 2</td> </tr> <tr> <td>E</td> <td>Up to 2 marks for valid comment(s) on the overall conclusion on standard of living.</td> <td>1 – 2</td> </tr> </tbody> </table> <p>Japan's residents as the effect of layoffs and a depression of wages will be more immediate. However, in the long term, if the stagnant Japanese economy can be lifted up, perhaps with the expected rise in wages, it will lead to the longer term higher standard of living.</p>	Level	Knowledge, Application/Understanding, and Analysis	Marks	L2	For a well-developed explanation of both positive and negative impact on standard of living. Capped at 3m if there is developed explanation on either positive OR negative impact on standard of living.	3 – 5	L1	For an undeveloped or underdeveloped explanation of both positive and negative impact on standard of living.	1 – 2	E	Up to 2 marks for valid comment(s) on the overall conclusion on standard of living.	1 – 2	
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E	Up to 2 marks for valid comment(s) on the overall conclusion on standard of living.	1 – 2												
(e)	<p>With reference to the data and/or your own knowledge, explain and comment on the different stance that Bank of Japan (BOJ) and Monetary Authority of Singapore (MAS) have taken towards the exchange rate of their countries' currencies.</p>	[9]												
	<p><u>Japan's stance on exchange rate:</u></p> <p>Bank of Japan has focused on weakening the yen (Ext 4) to boost economic growth and to pursue a higher inflation rate.</p> <p>A weakened Japanese yen makes Japanese exports cheaper in foreign currencies and its imports more expensive in Yen. This causes foreigners to switch from their home products towards Japanese exports, which are now more price competitive, while locals would tend to switch their expenditure from imports to locally produced goods and services. The increase in demand for exports by foreigners leads to an increase in export revenue while the decrease in quantity demanded for imports leads to a decrease in import expenditure, assuming that the demand for imports is price elastic. The value of net exports thus increases. This increases AD, shifting the AD curve to the right from AD1 to AD2 in Fig 1 below. Assuming that the Japanese economy is near full employment, real GDP increases, thus boosting actual growth. The increase in AD also results in an increase in general price level (GPL), resulting in demand-pull inflation.</p> <p>Moreover, the higher prices of imported inputs in Yen may also cause a rise in unit cost of production, causing AS to rise. The horizontal portion of AS will shift upwards from AS1 to AS2, causing general price level to rise, and imported inflation (cost-push inflation) results. Hence, a weak Japanese Yen will help to lift Japan's inflation rate towards their policy target of 2%.</p>													

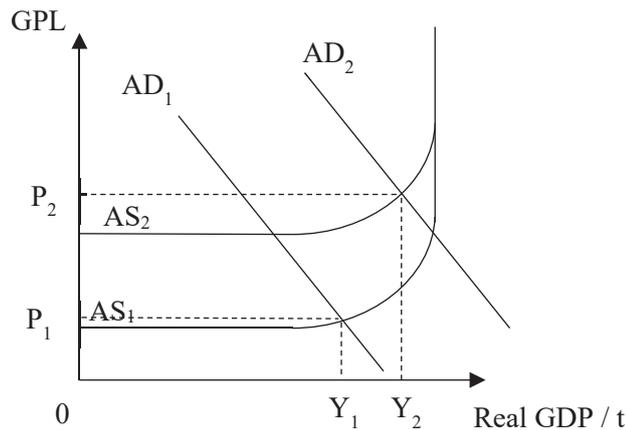


Fig. 1

Singapore's stance on exchange rate:

The Monetary Authority of Singapore (MAS) has tightened its monetary policy, allowing for a modest and gradual appreciation of the Singapore dollar (SGD) (Ext 4) to curb imported inflation and to boost growth in the longer term.

A modest and gradual appreciation of the SGD is useful in controlling both cost-push and demand-pull inflation in Singapore. As the SGD appreciates against foreign currencies, the price of imports becomes relatively cheaper in SGD. Given Singapore's heavy reliance on imported inputs (such as oil and food), having relatively cheaper imported inputs helps to reduce the unit cost of production for many firms, AS increases and the horizontal portion of AS shifts downwards, resulting in a fall in GPL, thus alleviating imported inflation (cost-push inflation).

In addition, appreciation in SGD will result in Singapore's exports becoming more expensive in foreign currency terms, leading to a fall in demand for Singapore's exports and consequently lower export revenue earned. With imports being cheaper in Singapore dollar terms, domestic consumers would increase their quantity demanded for imports and assuming the demand for imports is price elastic, this will lead to an increase in import expenditure. As export revenue falls and import expenditure rises, the (X-M) component of AD falls, leading to a decrease in AD and hence GPL falls, controlling demand-pull inflation.

In the longer term, the appreciation of SGD will help to improve the price competitiveness of Singapore's exports by curbing imported inflation and keeping the price of imported inputs low. This will in turn help increase Singapore's export revenue assuming that the demand for exports is price elastic, thus helping to boost actual growth eventually.

Comment on the different stance by Bank of Japan and MAS:

The different stance by Bank of Japan and MAS is largely due to nature of Japan's and Singapore's economies as well as the macroeconomic problems faced by the 2 countries.

Japan's failure to meet the inflation target of 2% and the concern that having an inflation rate that is too low for a prolonged period will cause the economy to lose its momentum (Ext 3). Japan's economic growth is also largely reliant on exports

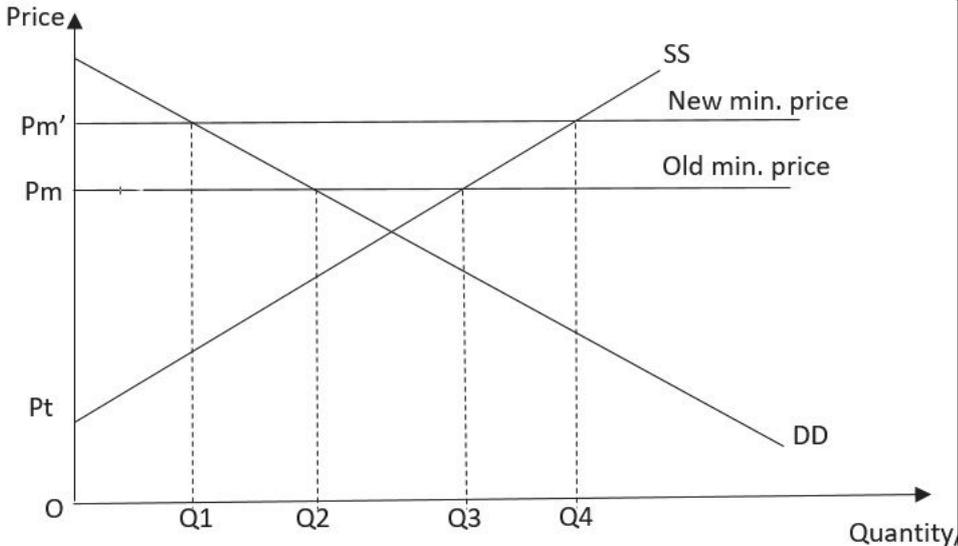
(Ext 4). Hence, Bank of Japan has adopted a policy of a weak yen too boost exports and inflation.

On the other hand, Singapore's lack of natural resources causes it to be highly reliant on imported inputs and imported final goods and services. This renders it susceptible to imported inflation, which is expected to increase (Ext 4). Moreover, Singapore's economic growth is slowing (Ext 4). Since exports is a major contributor to Singapore's AD, thus MAS decided to appreciate the SGD to keep the prices of imported inputs low, which in turn will boost our price competitiveness of our exports.

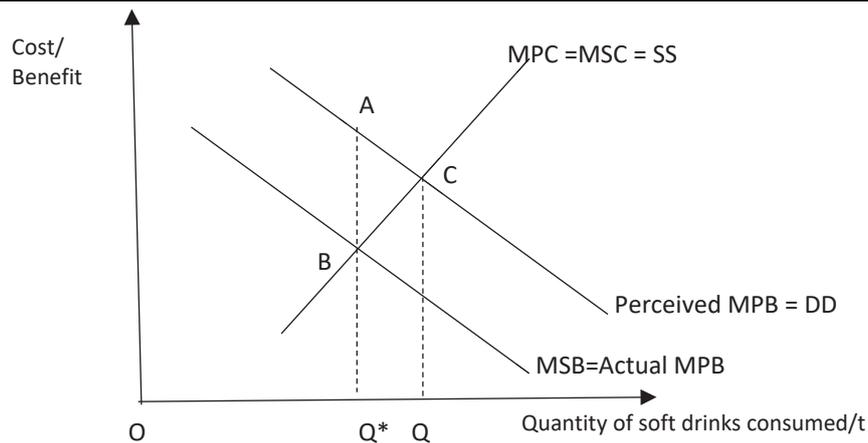
Level	Knowledge, Application/Understanding, and Analysis	Marks
L2	For a well-developed explanation of the stance for both Japan and Singapore.	4 – 6
L1	For an undeveloped or underdeveloped explanation of the stance for both Japan and Singapore. OR For a well-developed explanation of the stance for only one of the countries.	1 – 3
E	Up to 3 marks for valid comment(s) on the different stance adopted by Japan and Singapore.	1 – 3

Suggested Answers to Question 2

(a)	<p>Using Table 3, account for the change in average prices for sugar worldwide from 2014 to 2016.</p>	[3]																									
	<p>The average price for sugar has fallen from 2014 to 2015 as the surplus of sugar stemming from higher production than consumption has put a downward pressure on sugar prices. [max 2]</p> <p>The average price of sugar rose thereafter in 2016 as a result of the shortage that arose from the world consumption exceeding the production levels of sugar, causing an upward pressure in the average prices of sugar. [max 2]</p> <p><i>Workings:</i></p> <table border="1" data-bbox="384 674 1278 887"> <thead> <tr> <th></th> <th>Production (A)</th> <th>Consumption (B)</th> <th>Difference (A-B) (surplus/shortage)</th> <th>Avg. price</th> </tr> </thead> <tbody> <tr> <td>2014</td> <td>181.3</td> <td>176</td> <td>5.3</td> <td>0.37</td> </tr> <tr> <td>2015</td> <td>180.7</td> <td>178.7</td> <td>2</td> <td>0.3</td> </tr> <tr> <td>2016</td> <td>174.7</td> <td>180</td> <td>-5.3</td> <td>0.4</td> </tr> <tr> <td>2017</td> <td>178</td> <td>181</td> <td>-3</td> <td>n/a</td> </tr> </tbody> </table>		Production (A)	Consumption (B)	Difference (A-B) (surplus/shortage)	Avg. price	2014	181.3	176	5.3	0.37	2015	180.7	178.7	2	0.3	2016	174.7	180	-5.3	0.4	2017	178	181	-3	n/a	
	Production (A)	Consumption (B)	Difference (A-B) (surplus/shortage)	Avg. price																							
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2017	178	181	-3	n/a																							
(b)	<p>Using Extract 5, explain the falling trend of global sugar prices.</p> <p>The falling trend in global sugar prices can be explained by the change in equilibrium quantity in the global sugar market.</p> <p>There is a change in tastes and preferences towards unsweetened beverages (Extract 5, para 2). With beverage firms reducing sugar content in sugary drinks, the demand for sugar falls since less is needed by firms for production. [2]</p> <p>Global supply is increasing (Extract 5, para 3). Part of this is due to countries such as India encouraging production through subsidising sugar exports. Subsidies lower marginal cost of production for producers, incentivising them to increase supply in view of greater profitability. [2]</p> <p>With a fall in demand and also rise in supply of sugar, there will be a surplus at the initial price level resulting in downward price pressure. As prices fall, there is a rise in quantity demanded (Q_d) as buyers are more willing and able to pay and a fall in quantity supplied (Q_s) due to lower profits for producers. A lower equilibrium price results eventually when $Q_d=Q_s$ explaining the falling trend of global sugar prices. [2]</p>	[6]																									
(c)	<p>(i) With the help of a diagram, explain why 'government spending has been rising with the increase in sugar stockpiles in India' (Extract 6).</p>	[3]																									
	<p><i>Background: The increase in sugar stockpiles arise from the government's efforts to support the minimum pricing for sugar. The price floor is imposed to ensure that the farmers have sufficient incomes especially during periods when prices of farming commodities fall too low (i.e. during bumper season, supply increases significantly).</i></p> <p>A higher minimum price will raise the price of sugar from P_m to P_m', thereby increasing the surplus from Q_2Q_3 at P_m to Q_1Q_4 at P_m'. [1] The quantity of sugar bought by consumers will fall from Q_2 to Q_1. Thus, the government will buy over a larger surplus at the new minimum price</p>																										

	<p>imposed, increasing government expenditure from P_m.(Q2-Q3) to P_m'.(Q1-Q4). [1]</p> 	
(ii)	<p>Using the concept of price elasticity of demand, explain how the rise in the minimum price will affect consumer expenditure on sugar in India and comment on whether you believe such an impact is certain.</p>	[6]
	<p>Price elasticity of demand measures the responsiveness of consumers in changing the quantity demanded of a good to a change in the price of the good itself, ceteris paribus. The demand for sugar is likely to be price inelastic given the lack of close substitutes, as evidenced by the limited applications of artificial sweeteners. [2]</p> <p>Hence, the rise in the minimum pricing of sugar will lead to a rise in price and a less than proportionate fall in the quantity demanded for sugar. [1] Hence, the consumer expenditure ($TE=P \times Q$) will likely rise as the increase in consumer expenditure due to the rise in price will exceed the decrease in consumer expenditure due to the less than proportionate fall in quantity. [1]</p> <p>Possible evaluative comments (max 1-2):</p> <ol style="list-style-type: none"> The impact on consumer expenditure is likely to be certain. While the minimum pricing is imposed at 31 rupees per kg (Ex. 6, line 3), it still takes up a relative small proportion of consumers' income. Therefore, they are likely to be unresponsive to the price change regardless of the availability of substitutes. The consumer expenditure for sugar is bound to increase. Due to imperfect information, the government may not set an effective minimum price that lies above the market equilibrium price. This might have prompted the revision. However, if the revised minimum price remains ineffective, consumer expenditure remains unchanged based on the market equilibrium price and quantity. Apart from the minimum price, other demand factors may also have an impact on consumer expenditure. For example, if taste and preferences change in the longer term away from sugar due 	

		to promotional campaigns, the fall in demand may decrease the overall consumer expenditure.	
(d)	(i)	<p>With reference to Extract 7, assess two reasons why the British government would like to intervene in the market for soft drinks.</p> <p>Extract 2 suggests that soft drinks may be a form of demerit good as its consumption has led to costs for both society and self.</p> <p>Explain how negative externalities associated with the consumption of soft drinks leads to market failure</p> <ul style="list-style-type: none"> Negative externalities are external costs accrued to 3rd parties, who are not directly involved in the consumption or production of the good, without having to pay for it. One example of who suffers highlighted in Extract 2 are the firms and economy that suffer a fall in productivity due to the health problems affecting workers that consume soft drinks. The presence of the external cost causes a divergence between MPC and MSC by the amount of MEC. Assuming there are no external benefits, $MPB=MSB=DD$. Profit motivated firms disregard the MEC and thus the MPC is representative of the SS curve. Individuals will consume soft drinks at the market equilibrium quantity, Q, where $DD=SS$. However, socially optimum level of consumption of soft drinks by the economy is where $MSB = MSC$ and all true costs and benefits have been taken into consideration at Q^*. From Q^* to Q, there is over-consumption of soft drinks resulting in market failure. For Q^*-Q, the additional cost exceeds the additional benefit leading to a net loss to society as depicted by the deadweight loss area ABC. <p>Explain how ignorance of private benefits associated with the consumption of soft drinks leads to market failure</p> <ul style="list-style-type: none"> According to Extract 2, children are often ignorant about the adverse health effects of soft drink consumption such as obesity. Hence the MPB perceived is higher than the MPB actual. As analysed previously, the consumption at the market equilibrium, Q, exceeds the social optimal quantity of consumption at Q^* resulting in an over-consumption of Q^*Q. 	[9]



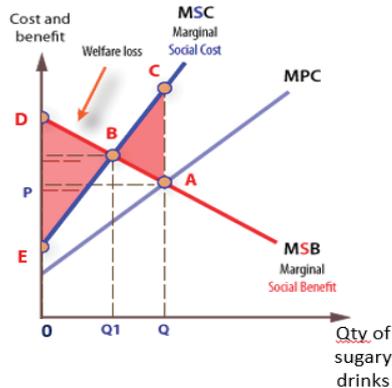
[Stand] The more significant source of market failure that drives the government to intervene and decrease the consumption of soft drinks is likely ignorance.

[Substantiation] While Extract 2 hints at the impact of negative externalities associated with consumption of soft drinks, it is difficult to draw a definite causal effect between soft drinks and health issues faced by workers. In contrast, the huge amounts of sugar consumed by children have been more definitively linked to soft drinks and their relative youth indicates that the degree of ignorance is likely to be far more significant.

Level	Descriptor	Marks
L2	Rigorous analysis of two sources of market failure that is backed by case evidence. Likely includes the use of relevant diagrammatic analysis.	5-7
L1	Descriptive answer with little or no reference to case extract. Only 1 source of market failure analysed.	1-4
E	Stand with relevant substantiation that compares the significance of the two sources of market failure.	1-3

(ii)	Explain two possible factors that the UK government should consider in deciding whether to impose a ban on sugary drinks.	[6]
	The UK government seeks to increase the society's welfare in a bid to ensure microeconomic goals as such allocative efficiency as well as equity are achieved. In deciding whether a ban will be imposed on sugary drinks, it will consider its <u>benefits</u> and <u>costs</u> .	

The government will consider **possible welfare improvement** from the use of ban. If the government were to impose a ban, the quantity of sugary drinks will fall to zero. Hence, there will be welfare loss from the under-consumption of sugary drinks. If the welfare loss arising from the ban (area DBE) is smaller than the welfare gains arising from the curbing of overconsumption of sugary drinks (area ABC), then the government will proceed with the ban as it improves the society's welfare.



The government will also consider the **possible cost of the ban (i.e. unemployment)**. With the ban in sugary drinks, the local production of sugary drink will fall from Q_1 to 0. Therefore, the derived demand for labour working in the sugary drink industries will fall and unemployment may result if the workers are unable to find jobs in other industries given their limited skillset.

Other possible factors:

- Loss of tax revenues from sugary drinks taxes (forgoing an estimated of £520 million in revenues based on Extract 3)
- Consumers will turn to other undesirable alternatives (i.e. alcohol); Extract 3: "Some also worry that the increase in the price of high-sugar drinks due to sugar tax could lead to an increase in the purchase of lager, diet drinks and juice."

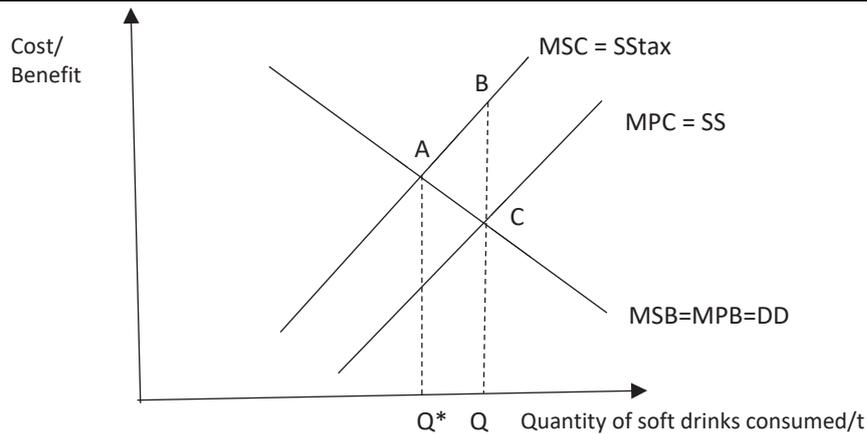
(iii) **With reference to Extracts 7 and 8, evaluate the effectiveness of policies used to address the problem of sugar overconsumption by the UK government.**

[12]

Sugar tax (Extract 2)

The sugar tax raises the MCOP for producers thus lowering the SS from SS to SStax. Assuming the per unit tax is equivalent to the MEC, the new market equilibrium will coincide with the social optimal quantity of consumption, thus eliminating the allocative inefficiency associated with the overconsumption of Q^*Q in the diagram below.

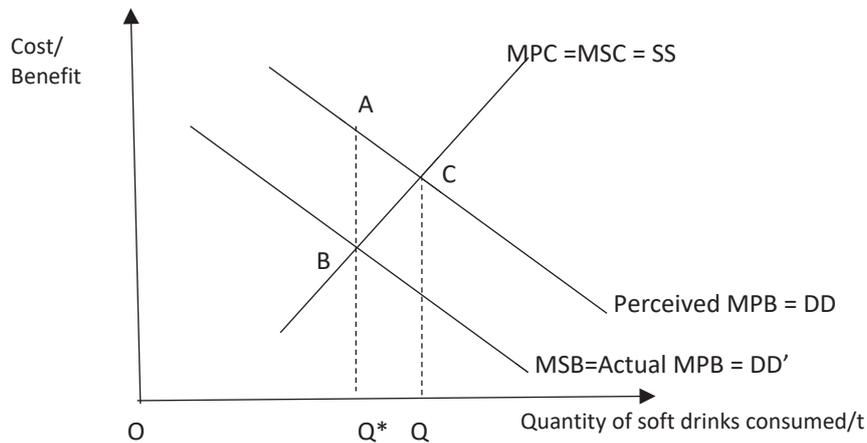




Evaluation: With imperfect information, it may be difficult for the government to set the right amount of tax to address the overconsumption. Thus there may be lingering welfare loss or loss associated with underconsumption if too high a tax is set. Furthermore given the price inelastic demand of sugar as supported by Extract 3, the government might find resistance setting a high enough tax to effectively deal with the market failure.

Restrictions on advertising and clearer food labelling (Extract 2)

These measures will help lower the level of ignorance faced by children and parents respectively. A more accurate perception of the true benefits of food and beverages with high sugar content will lower the DD for them from DD to DD' as tastes and preferences adjust. If successful, DD should fall sufficiently such that there is no disparity between the perceived and actual MPB, thereby fully eliminating the overconsumption Q^*Q due to ignorance as seen in the diagram below.

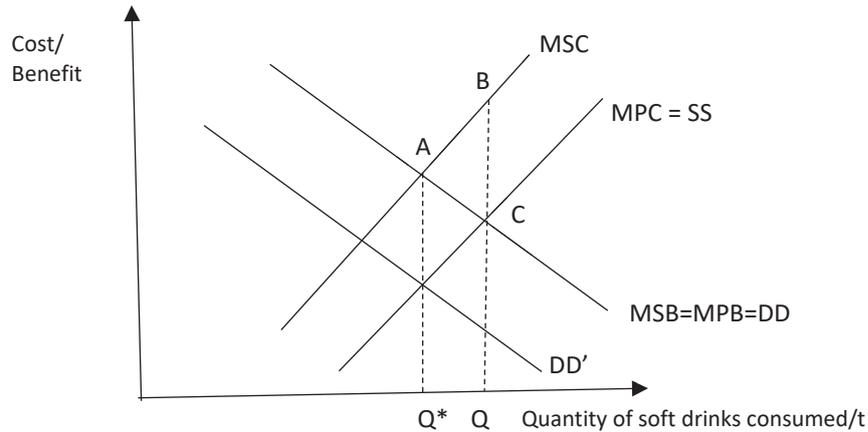


Evaluation: Tastes and preferences are often resistant to change particularly in the short term (Extract 3). This will limit the effectiveness of the measure in reducing DD and thus fully eliminating the overconsumption.

Reformulation of food products (Extract 3)

The greater availability of options with lower sugar content serving as a substitute will reduce the DD for food and beverages with high sugar content from DD to DD'. If successful, the new market equilibrium will be

at the social optimal level of consumption Q^* , where $DD'=SS$, thus eliminating the overconsumption of Q^*Q .



Evaluation: Substitutes with lower sugar content may not be deemed as a close substitute due to significant taste or price differences. Thus the fall in DD in for the traditional products may not be significant, limiting the effectiveness of the measure in reducing the overconsumption.

Conclusion: While each of the policies possess inherent limitations, the overconsumption can be effectively tackled through a combined implementation of the various policies as they address the diminishing returns of each individual policy as well as allow both reasons for the overconsumption to be addressed.

	Descriptors	Marks
L3	Strong analysis of at least 2-3 policies raised in the extracts. Analysis ought to be accompanied with the relevant diagrams demonstrating how the overconsumption is addressed. There should be reference to policies tackling both externalities and ignorance to score higher marks in the band.	6-9
L2	Descriptive explanation of policies that can tackle the overconsumption. Answers may not link clearly to the reduction of the overconsumption and/or to the relevant demand and supply concepts.	3-5
L1	Some knowledge of the relevant policies but answer contains significant theoretical errors or fails to address the question.	1-2
E	Stand and substantiation pertaining to the effectiveness of the policies. A final evaluative stand that is substantiated is necessary to score the all the evaluative marks available.	1-3

