



H1 Economics

8823/01

Paper 1

10 September 2018

3 hours

Additional Materials: Writing Paper

READ THESE INSTRUCTIONS FIRST

Do not open this booklet until you are told to do so.

Write your name, class and register number in the spaces at the top of the answer sheets.
Write in dark blue or black pen.

You may use an HB pencil for any diagrams or graphs.

Do not use staples, paper clips, highlighters, glue or correction fluid.

Answer **all** questions.

Begin Case Study Question 2 on a fresh sheet of paper.

At the end of the examination, fasten all your work securely to the cover sheet with the string provided.

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

[Turn Over]

This document consists of **9** printed pages and **2** cover sheets.

Answer **all** the questions.

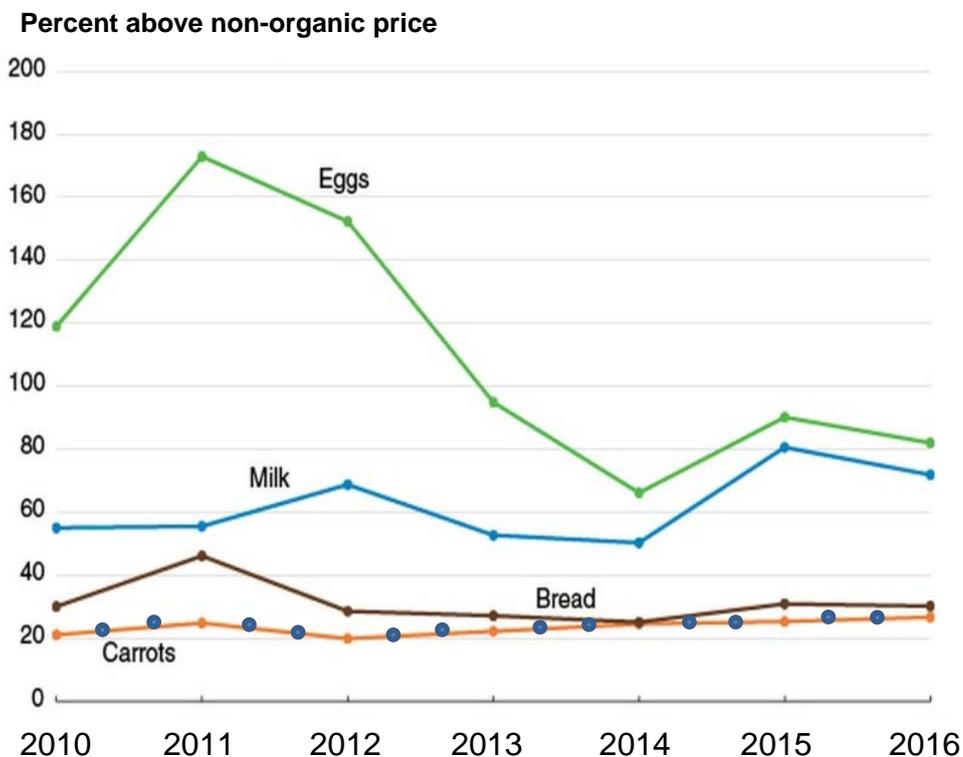
Question 1: Healthy Eating

Extract 1: The shifting economics of organic food

Anyone who's set foot in a supermarket or farmers' market in the past decade has noticed that organic food is considerably pricier than conventional food. But this "organic premium" — the difference between the two — can vary widely from product to product. And in some cases, the gap is actually shrinking quite dramatically.

So what's going on here? Start with the fact that any food certified as "organic" has to meet certain standards laid out by the United States Department of Agriculture (USDA). Organic farms are prohibited from using synthetic pesticides, petroleum-based fertilizers, bio solids fertilizer (made from sewage sludge), irradiation, preservatives and genetic engineering. Organic processed food has to go through certified organic plants though organic canned processed food are not required to omit preservatives. In addition, any animal products labelled organic have to come from animals that were fed organic feed and never given antibiotics or growth hormones. In practice, these rules can encompass a wide variety of farmers and methods. But by and large, the restrictions tend to increase costs and delay production. The difference in price tends to be lowest for things like spinach or apples.

Figure 1: Percent above non-organic price of selected organic food



Source: USDA, Economic Research Service 2016 Nielsen Homescan data

The difference in price is higher for processed food like organic canned spinach, and highest for animal products. What's really interesting, though, is how this premium is changing over time. Some organic products are getting cheaper. Others, not so much. For crops like spinach or coffee, the organic option typically costs more because farmers have to spend more on weed and pest control. But as a 2012 paper from the National Sustainable Agriculture Information Service explains, this situation has changed over time. Early on, organic produce farmers simply paid more for non-synthetic herbicides and insecticides. More recently, many organic farmers have been switching practices — harnessing techniques like integrated pest management and making better use of insect predators.

For milk or eggs to be certified as organic, farmers have to use feed for their animals (like corn and soy) that's grown organically. Organic feed has often been in short supply, particularly in recent years, as it's been far more lucrative for farmers to grow conventional feed.

Source: Vox, June 2016

Extract 2: Is organic food healthier?

Singapore Nutrition and Dietetics Association (SNDA) accredited dietitian Jaclyn Reutens said: "Organic food has become so popular because they claim that no pesticides, hormones and fertilisers are used. It sounds great because nobody would want to consume these chemicals."

Mrs Celeste Viviers, a registered dietitian and owner of nutrition and wellness consultancy Nutrilicious, said that there is little research to show that the nutritional value of organic food is significantly higher than regular food. "It is not proven that organic food is more nutritious than conventional food even though there are less pesticides and chemicals," she said. Mrs Viviers believes that the Internet and increase in spending power of Singaporeans are one of the reasons behind the increase in demand for organic food.

If organic food is really healthier as retailers and producers claim it to be, does it mean that only the rich in Singapore can afford the healthier lifestyle?

Adapted from The Straits Times, February 2016

Extract 3: Subsidies for diabetes screening

Ministry of Health, Singapore (MOH) and Health Promotion Board, Singapore (HPB) earlier announced the launch of the Diabetes Risk Assessment (DRA) tool and the enhanced Screen for Life (SFL) subsidies on 1 September 2017.

There is a need for early detection and appropriate intervention to prevent or delay the onset of diabetes and related complications. This would also help Singaporeans to realise the consequences of their diet which is becoming unhealthier over the years mainly due to high sugar content and unhealthy fats. Under the enhanced SFL screening, all eligible Singaporeans can go for recommended screening such as for diabetes, and follow up at Community Health Assist Scheme (CHAS) GP clinics. They will pay a small fixed fee of \$5 or less for their screening test and first post-screening follow up consultation. CHAS cardholders will pay \$2, and Pioneers (Singaporeans born before 1950) will not need to pay. HPB will be sending out invitation letters progressively, to notify Singaporeans of their eligibility.

Source: Ministry of Health, Singapore, 2017

Extract 4: Gearing up for the fight against diabetes

Imagine a Singapore where there is drinking water wherever you go - whether it is at a park connector or shopping centre - and you pay a sugar tax on your packaged drinks. That is what might happen as Health Minister Gan Kim Yong ramps up the war against diabetes. He wants to saturate the country with readily available drinking water to wean people off sweetened drinks. About 100 million cans of sweetened soda are sold here every month. Sugar, whether in drinks or food, raises the risks of obesity, heart disease and type 2 diabetes.

From this month, water must be provided at all government and People's Association functions. "In the past, it was always syrup or coffee or tea," he said. "If I ask for water, I get a bottled drink." He wants water to be made freely available in public areas and is working with the National Environment Agency, which oversees hawker centres, and the National Parks Board about providing more drinking points. "Making water widely available is very important in our efforts. Over time it'll become the norm. And then it becomes a mindset that healthier living is the normal way we live," he said.

Also on the cards is a possible sugar tax on packaged drinks, restricting advertising of such drinks, and prominent labelling of sugar or nutritional content, Mr Gan said in an exclusive interview. But these measures hinge on whether there is support for them on the ground. Mr Gan plans to hold public consultations on what more can be done to make Singaporeans adopt healthier lifestyles.

For a developed country, Singapore has a very high prevalence of diabetes. The disease costs the country more than \$1 billion a year today. This price tag could soar to \$2.5 billion a year by 2050 if nothing is done, as a million people here would be struggling with the disease. The "war on diabetes" that Mr Gan declared two years ago has yielded some promising results so far, he said. "Singaporeans are becoming more health-conscious."

Source: The Straits Times, June 2018

Questions

- (a) Using Figure 1, compare the difference in price of organic and non-organic eggs with that of milk. [2]
- (b) (i) Based on the data available, analyse and comment that changes in the cost of production were the main factor influencing changes in price of organic food. [5]
- (ii) With reference to the concept of price elasticity of demand, explain how changes in cost of production will impact the total revenue of organic produce farmers. [3]
- (c) With reference to Extract 1, account for the difference in price elasticity of supply between:
- (i) organic canned spinach and organic spinach, [2]
- (ii) non-organic food and organic food. [2]
- (d) What is the difference between a normative and a positive economic statement? Identify **one** example of each statement from Extract 2. [4]
- (e) Extract 2 suggests that only the rich in Singapore can afford the healthier lifestyle. Consider whether price controls on organic food is the best intervention against inequity in the market for organic food. [8]
- (f) Explain why the market for sweetened drinks warrants an intervention from the Singapore government. [7]
- (g) Assess the factors which the Singapore government should consider in reviewing the appropriateness of its actual and intended policies to correct the misallocation of resources in the market for sweetened drinks. [12]
- [Total: 45]

Question 2: Economic Performance

Extract 5: Weaker growth expected for the UK economy

The UK economy grew at its weakest rate in five years in 2017, according to the latest forecast by PwC, an accountancy and professional services firm. UK's GDP is expected to be 1.8%, down from 1.9% in 2016 and the weakest expansion since the 1.5% growth seen in 2012, at the height of the Eurozone crisis. The Bank of England has kept its interest rates at 0.5% since the crisis, except in 2016.

The UK economy has slowed over the past 12 months due to the increase in inflation stemming from the drop in the pound in the wake of the 2016 Brexit vote, which has squeezed household disposable incomes. In June 2016, UK has voted to leave the European Union (EU), a single common market, which allows the free movement of goods, services, money and people within the EU, as if it was a single country.

Business investment has also come in much weaker than expected, which surveys suggest is due to uncertainty among firms related to post-Brexit trade arrangements. The UK slowdown comes as GDP growth in the Eurozone and the US picks up strongly.

Source: The Independent, 12 January 2018

Table 1: Selected economic indicators of UK

	2013	2014	2015	2016	2017
GDP per capita (USD)	42 783	46 855	44 340	40 535	39 761
Inflation rate (%)	2.6	1.5	0.0	0.7	2.7
Policy Interest Rate (%)	0.50	0.50	0.50	0.25	0.50

Table 2: Selected economic indicators of India

	2013	2014	2015	2016	2017
GDP per capita (USD)	1 488	1 614	1 632	1 750	1 979
Inflation rate (%)	10	6.0	4.9	4.5	3.6
Policy Interest Rate (%)	8.00	7.50	6.75	6.25	6.00

Source: focus-economics.com

Extract 6: Why are China and India growing so fast?

China and India demonstrate a common pattern of development different from that of the slowly growing West. Rapidly growing state (government) investment plays a significant role in China and India's economic expansion, while private investment is either growing very slowly or declining. In contrast, the slowly growing Western economies rely on private investment with no rapid growth of state investment. The facts of this global economic trend are also crucial for economic theory and analysis as advocates for free market believe "private investment is supposed to be "good" while state investment is supposed to be "bad" as state enterprises are inefficient. However, the facts show the exact opposite trend is occurring.

Based on the National Statistics Bureau data, the state-owned fixed-asset investment of China had grown by 23.5% from January to June 2016 over the same period in 2015, but private

fixed-asset investment growth had decelerated to 2.8%. As for India, its state investment increase was 21% while private investment fell by 1.4%. In contrast, Western economies are experiencing very slow growth. The U.S. is the best performing major Western economy, yet its year-on-year growth of private investment is as low as that of China and India and has been steadily falling. But unlike China and India, the U.S. has not increased state investment to compensate for falling private investment.

The correlation between rapid growth of state investment and fast economic growth, as well as between reliance on private investment and low economic growth, is evident. However, to some people, it is rapid economic growth in India and China that is leading to more state investment, not the other way around, or low rates of investment in the U.S. because of its slower growth. This is not plausible since state investment is directly under government control and not subject to market forces. Both the Chinese and Indian government have made clear that they have deliberately taken the decision to increase state investment, in order to stimulate economic growth, while in the U.S. many are ideologically opposed to state investment.

Source: Prof John Ross, on Huffington Post website, 6 December 2017

Extract 7: Promoting strong and inclusive growth in India

India's economy continues to grow at an impressive rate, with projected annual GDP growth of 7.5% in 2017-18. India will thus remain the fastest-growing G20 economy. Unprecedented growth in exports in services since the 1990s has made India a global leader in this sector. Inflows of foreign direct investment (FDI) grew at three times the annual world average rate in the last decade, reflecting the success of efforts to attract international investment and gradually loosen restrictions to foreign investment. India's economic successes are being translated into increased well-being for its population. As GDP per capita has more than doubled in ten years, extreme poverty has declined substantially. Access to education has steadily improved, and life expectancy has risen.

Multiple opportunities present themselves for India, and the right mix of policies is needed to take advantage of them. India has made advances in integrating in global value chains and developing a competitive advantage in fields such as information and communication technology. Now is the time to secure continued progress by boosting competition and further lowering barriers to trade and investment. Looking to the future, it will be vital to fully tap into the potential offered by India's young population. This means investing in the large numbers of young people entering the labour market. Likewise, the rapid pace of development must be matched with the upgrades to infrastructure necessary to support it.

Source: www.oecd.org/india, accessed 18 June 2018

Extract 8: The growing importance of the technology economy

Technology has deeply affected the global economy and its usage has been linked to marketplace transformation, improved living standards and more robust international trade. Technological advances have significantly improved operations and lowered the cost of doing business. Currently, as an example, just a few technicians controlling robotic systems can operate an entire manufacturing plant, and innovative inventory systems are capable of supplying needed parts within a short time for assembly. In addition to that, e-commerce and online banking capabilities have also helped reduce the cost of doing business.

The recent World Development Report (WDR) 2016 Digital Dividends highlights many instances of how e-commerce is boosting the employment opportunities of those who may have been excluded from the global market place. According to the report, the Internet enables many small firms to participate in global trade, thus leading to more inclusion. The WDR notes that 'China's State Information Center estimates that the recent boom in the country's e-commerce sector has created 10 million jobs in online stores and related services, about 1.3 percent of the country's employment. New opportunities for entrepreneurship and self-employment are also growing rapidly in the digital economy.' By using e-commerce platforms, businesses no longer need to be big to access global markets.

Many researches from many respected companies, such as BCG, IMF and World Economic Forum show that whenever private companies cut back on technology investments aiming to shore up profits, the result is the opposite, as profits sink significantly, and, as a side effect, GDP also falls dramatically, then a chain reaction starts with the fall of labour productivity after a few years.

Source: Macro Antonio Cavallo, CIO.com, 21 December 2016 & The World Bank, 18 March 2016

Questions

- (a) (i) Describe the trend in the UK's general price level from 2013 to 2016. [2]
- (ii) With reference to Extract 5, explain the change in the UK's general price level in 2017. [3]
- (b) (i) State the monetary policy stance adopted by both UK and India. [1]
- (ii) Explain the possible factors that influenced the level of interest rates set by these two countries from 2013 to 2017. [6]
- (c) Comment on how changes in GDP per capita could have affected the well-being of the population in India and UK. [6]
- (d) Using AD/AS analysis, explain the possible trade-off and its consequences when rapid pace of development in India is not matched with the necessary upgrades to its infrastructure (Extract 7). [6]
- (e) Discuss whether technological advancement is key in reducing unemployment in large countries such as India and China. [9]
- (f) 'Countries should rely more on state investment instead of private investment to promote sustained economic growth'. Discuss this view. [12]

[Total: 45]

- End of Paper -



MERIDIAN JUNIOR COLLEGE
JC2 PRELIMINARY EXAMINATION 2018

8823/1

COVER SHEET

H1 ECONOMICS

Case Study Question 1

Name: _____

Civics Group: _____

Register Number: _____

Tutor: _____

10 September 2018

READ THESE INSTRUCTIONS FIRST

Write your name, civics group, register number and tutor's name in the spaces at the top of this cover page and on all the work you hand in.

At the end of the examination, fasten this cover sheet to your answer scripts for Case Study Question 1 with the string provided before submission.

QUESTIONS ATTEMPTED		MARKS
a)		
b)	i)	
	ii)	
c)	i)	
	ii)	
d)		
e)		
f)		
g)		
TOTAL		/45



MERIDIAN JUNIOR COLLEGE
JC2 PRELIMINARY EXAMINATION 2018

8823/1

COVER SHEET

H1 ECONOMICS

Case Study Question 2

Name: _____

Civics Group: _____

Register Number: _____

Tutor: _____

10 September 2018

READ THESE INSTRUCTIONS FIRST

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	ii)	
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	ii)	
c)		
d)		
e)		
f)		
TOTAL		/45

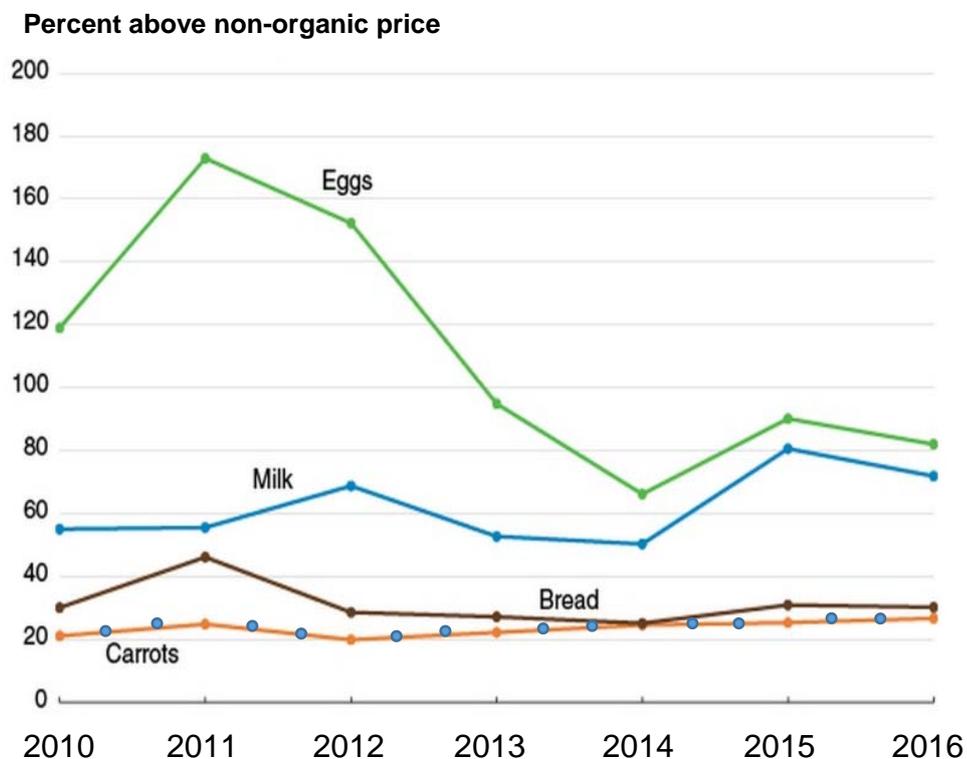
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Figure 1: Percent above non-organic price of selected organic food



Source: USDA, Economic Research Service 2016 Nielsen Homescan data

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Source: The Straits Times, June 2018

Questions

- (a) *Using Figure 1, compare the difference in price of organic and non-organic eggs with that of milk.* [2]

Similarity: Both prices of organic eggs and organic milk is higher than the price of its non-organic variant.

Difference: The difference in price of organic and non-organic egg is becoming narrower whereas the difference in price of organic and non-organic milk is becoming wider.

- (b) (i) *Based on the data available, analyse and comment that changes in the cost of production were the main factor influencing changes in price of organic food.* [5]

Establishing the hypothesis:

Changes in cost of production as cited in the extract were related to use of alternative practices and techniques. This will lead to a fall in unit cost of production, and holding the price of the organic produce constant, a lower unit cost of production would result in a higher potential profit. Hence, at each possible price more units will be supplied.

This increase in supply will lead to a fall in the price of the organic produce.

Data affirming the hypothesis:

Assuming that the price of non-organic produce is constant, figure 1 shows that the gap between the prices of organic eggs and organic bread with its non-organic variant becoming smaller over the period, suggesting that there is a fall in price

Also in Figure 1, it can be seen that there has been an overall increase in the gap between the organic eggs and organic milk with its non-organic variant between 2014 to 2016. **This increment could be due to increase cost of production as for milk or eggs to be certified as organic, farmers have to use feed for their animals (like corn and soy) that's grown organically. Organic feed has often been in short supply (particularly in recent years, as it's been far more lucrative for farmers to grow conventional feed).** This pushes up the cost of production.

Data suggesting otherwise:

Price difference for organic carrots and organic milk as compared to its non-organic variants has been increasing over

the period while the price difference between organic bread and non-organic bread did not change much overall, this is in spite of the changes in cost of production.

Variables that could have interfered with the hypothesis:

Extract 2 also suggest that the higher prices from organic produce could be due to higher demand due to taste and preference towards food sources with no chemical and pesticides, which is further enhanced by the increase spending power of consumers possibly due to increase in real income.

The data presented in Figure 1 is not conclusive of the actual price of the organic produce, the difference could be due to a change in the price of the non-organic variant itself. Such changes to the prices of its non-organic variant could be due factors that have different impact on the organic produce market, e.g. price of pesticides which are not permitted in organic farming.

Synthesis:

While cost of production is a factor behind prices through affecting supply, other factors through demand also play a part in determining market prices. Whether it is the main factor would be dependent on the extend of the change in cost of production measured against other triggers. It would be important to access these other data to make a more conclusive comment.

- (ii) With reference to the concept of price elasticity of demand, explain how changes in cost of production will impact the total revenue of organic produce farmers. [3]

Changes in cost of production as mentioned in the extract 1 for organic produce has been generally falling, leading to an increase in supply of organic produce. This would lead to a fall in price of organic produce, *ceteris paribus*.

Option1:

As organic produce is generally easily substituted by its non-organic variant, the demand for organic produce would be price elastic.

Thus given a fall in price, this would lead to a more than proportionate increase in quantity demanded.

The revenue gained from the increase in quantity will thus offset the fall in revenue loss from the fall in price, leading to an overall increase in total revenue for organic produce farmers.

Option 2:

As the market for organic produce caters to those who are health conscious, it might mean that for this group of consumers, they see little or no alternative to organic produce in order to live a certain lifestyle. Therefore, the demand for organic produce would be relatively price inelastic.

Thus given a fall in price, this would lead to a less than proportionate increase in quantity demanded.

The revenue loss from the fall in price will thus offset the gain in revenue from the increase in quantity, leading to an overall decrease in total revenue for organic produce farmers.

(c) With reference to Extract 1, account for the difference in price elasticity of supply between:

(i) organic canned spinach and organic spinach, [2]

The supply of organic canned spinach is relatively more price elastic compared to that of organic spinach.

Organic canned spinach which has preservatives added will have a longer shelf life and be allowed to be kept as stocks in warehouse as compared to organic spinach which is perishable. Thus there is more availability of stock for organic canned spinach which would translate to the a more responsive change in quantity supplied given a change in its price.

(ii) non-organic food and organic food. [2]

The supply of non-organic food is relatively more price elastic compared to that of organic food.

As mentioned in extract 1, the restrictions placed on organic produce delay production. A lack of access to the types of fertilisers allowed and prohibition to use genetically engineer inputs will mean longer gestation periods and longer time for harvests. Thus any changes in prices of the organic produce is less likely to meet significant changes in quantity supplied as compared to that of the non-organic farms which can have faster turnaround due to its production methods.

- (d) What is the difference between a normative and a positive economic statement? Identify **one** example of each statement from Extract 2. [4]

A positive statement can be verified and tested based on facts and evidence if the claims it makes are true or false, whereas a normative statement involves value judgement and its claims are based on subjective beliefs.

Singapore Nutrition and Dietetics Association (SNDA) accredited dietitian Jaclyn Reutens said: "Organic food has become so popular because they claim that no pesticides, hormones and fertilisers are used. It sounds great because nobody would want to consume these chemicals."

Mrs Celeste Viviers, a registered dietitian and owner of nutrition and wellness consultancy Nutrilicious, said that there is little research to show that the nutritional value of organic food is significantly higher than regular food. "It is not proven that organic food is more nutritious than conventional food even though there are less pesticides and chemicals," she said. Mrs Viviers believes that the Internet and increase in spending power of Singaporeans are one of the reasons behind the increase in demand for organic food.

If organic food is really healthier as retailers and producers claim it to be, does it mean that only the rich in Singapore can afford the healthier lifestyle?

Yellow highlighted = normative economic statement

Blue highlighted = positive economic statement

- (e) Extract 2 suggests that only the rich in Singapore can afford the healthier lifestyle. Consider whether price controls on organic food is the best intervention against inequity in the market for organic food. [8]

Introduction - Establish the initial equilibrium:

Prices are determined by interactions between demand and supply, a low supply due to high cost of production and high demand due to strong taste and preference and increasing income of consumers lead to a high equilibrium price.

Such a high price render organic produce affordable only to the rich and present a situation of inequity where resources are rationed only to the select group of consumers.

Thesis –

What is price control (price ceiling)

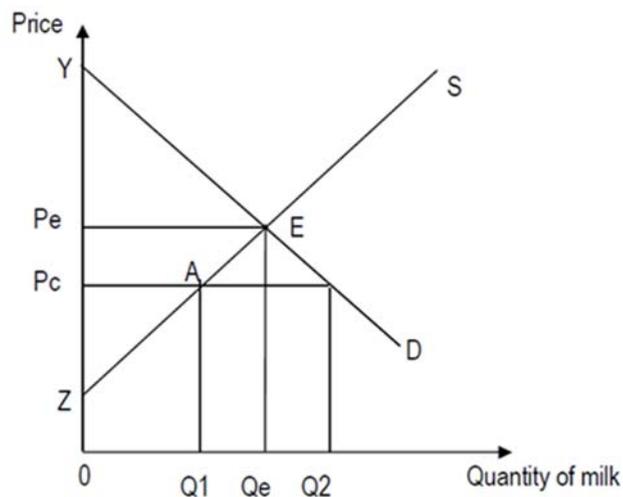
Price control in the form of price ceiling would be suitable to tackle this.

A price ceiling refers to the maximum price that a producer can charge for a good legally. It is the maximum legally permissible price.

How does price control works?

For it to be effective, it must be set below the equilibrium price. If it is set above equilibrium, the price will fall to the equilibrium price, rendering a price ceiling ineffective. If it is set below equilibrium, the price will not be permitted to rise to equilibrium price, thereby making the price ceiling effective.

With reference to the following diagram, the free market equilibrium price and quantity of milk are OP_e and OQ_e respectively. Before the implementation of the price ceiling, the total revenue of the producers is OP_eEQ_e . If a price ceiling of OP_c is imposed on milk, the quantity demanded will rise to OQ_2 and quantity supplied will fall to OQ_1 . The total revenue of the producers will fall from OP_eEQ_e to OP_cAQ_1 . An excess demand of Q_1Q_2 results. The excess demand will remain because the market is prevented from readjusting itself.



How well does price control works?

A price ceiling is used when the government considers the market-determined price to be too high. It thus aims to protect the buyers of the product. It is usually used to achieve a fairer distribution of essential goods and services such as staple foodstuff, transport, utilities and

housing by ensuring affordability of these goods to lower income households

Anti-thesis

Unintended consequences of price ceiling

- The excess consumer demand is likely to lead to the development of black market, where some producers are tempted to sell above the price ceiling. Moreover, some consumers will be prepared to pay higher price in order to ensure their own consumption of the good. This outcome runs counter to the intention of making it easier for low-income groups to consume the good.
- Excess demand for the good implies that some method will have to be used to ration the limited supply of the product to the consumers. One way of distributing the limited supply is on a “first come first serve” basis. This will lead to queues developing and is inefficient because they waste buyers’ time. The suppliers could also ration the goods according to their own personal biases, selling only to their friends and relatives. This method is inefficient because the good does not go to the buyers who value it most. In contrast, the rationing mechanism in a free market is both efficient and impersonal. When the market reaches the equilibrium, anyone who wants to pay the market price can get the good.
- Another way of allocating the product is by government rationing. Here, the government issues ration booklets to households according to their personal circumstances. The booklets contain coupons which can be exchanged for basic foodstuffs. However, rationing is likely to be extremely unpopular during peacetime and would involve high administration costs.

A better alternative to price control?

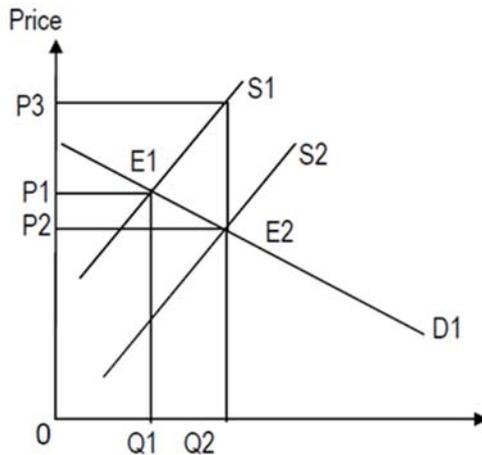
An alternative to a price ceiling would be to offer a subsidy. E.g. the government can make the price of the good more affordable by paying a fraction of the price of the good for poor families. Such subsidies can raise the living standards of the producers without causing a shortage.

Subsidies are transfers from the government to the firm for the provision of goods and services. In the case of a specific subsidy, the government grants to the producers a subsidy per unit of the good produced.

Such a subsidy lowers the unit cost of production of supplying a good to the market by the extent of the subsidy per unit. Holding the price of the good constant, a lower unit cost of production would result in a higher potential profit per unit. Hence, at each possible price more units will be supplied causing a rightward shift in the supply curve from S_1 to S_2 as shown in following diagram.

Effects of a Specific Subsidy

With reference to diagram, the initial equilibrium price and output are OP_1 and OQ_1 respectively. When a subsidy is granted on wheat, the supply curve will shift downwards by the full amount of the subsidy granted. At OP_1 , there will be an excess supply of wheat. This will cause the price to fall and quantity exchanged to rise. These changes will occur until a new market equilibrium is attained at E_2 with a lower equilibrium price, OP_2 and a higher equilibrium quantity, OQ_2 .



Conclusion

As seen in Extract 2, Mrs Celeste Viviers, a registered dietitian and owner of nutrition and wellness consultancy Nutrilicious, said that there is little research to show that the nutritional value of organic food is significantly higher than regular food. "It is not proven that organic food is more nutritious than conventional food even though there are less pesticides and chemicals". This suggest that perhaps there really is no need for any form of government intervention as organic food could just be a luxury item and not a keen essential which is required for improvement in quality of life.

Levels	Descriptors	Marks
L2	A well explained answer on how price ceiling works AND a well explained alternative	4-6
L1	A descriptive explanation on how price ceiling and an alternative works. A well-explained answer on how price ceiling works	1-3
Evaluation	Explained evaluation of the policies given the context of Singapore.	1-2

	Commenting on the validity of government intervention.	
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- (f) Explain why the market for sweetened drinks warrants an intervention from the Singapore government. [7]

Introduction:

Sweetened drinks are a form of demerit goods.

Demerit goods are goods that the government believes consumers will consume too much if provided by the market because of **information failure** (under-estimation of private costs in consumption or an over-estimation of the private benefits) and **negative externalities in consumption** (costs on third parties not considered).

1. Explaining the Divergence of the benefits curves:

Information Failure:

Private benefits in consumption of demerit good overestimated

The private costs of drinking sweetened drinks include the consumer's expenditure on the drink as well as extra health care costs due to diabetes, loss of income due to absences from work caused by diabetic related illnesses and early deaths. In the case of sweetened drinks, consumers may underestimate the private costs of sweetened drinks consumption as they may not be fully informed of the health risks of diabetes or may underestimate the chances of being affected by other diabetic-related illnesses. Because they do not fully appreciate the harmful effects (information failure) of such goods, they tend to over-estimate the private benefits of sweetened drinks and hence over-demand sweetened drinks. The demand is at MPB1 (or D1) instead of MPB2 (D2).

External costs of demerit good not considered:

In addition, the consumption of demerit goods such as sweetened drinks also imposes external costs on third parties. The government incurs extra cost of financing health care costs of citizens who suffer from diabetic related illnesses. Employers will suffer loss in revenue due to lower productivity of workers with diabetes at work. The employers may also incur extra cost of financing health care costs of workers who suffer from diabetic related illnesses. The external cost in consumption (MEC) causes the social benefit (MSB) to be less than the private benefit (MPB2) of consumption.

The overall **divergence** between MSB and MPB1 is due to both information failure and negative externalities in consumption.

2. Explaining the 2 equilibriums

Socially Optimal Equilibrium:

To maximize society's welfare, the socially optimal level of output is at $0Q_3$ where $MSB=MSC$. At the market output $0Q_1$, MSC exceeds MSB and there can be an improvement in society's welfare by decreasing production and consumption of the demerit good.

Overproduction and overconsumption of demerit good:

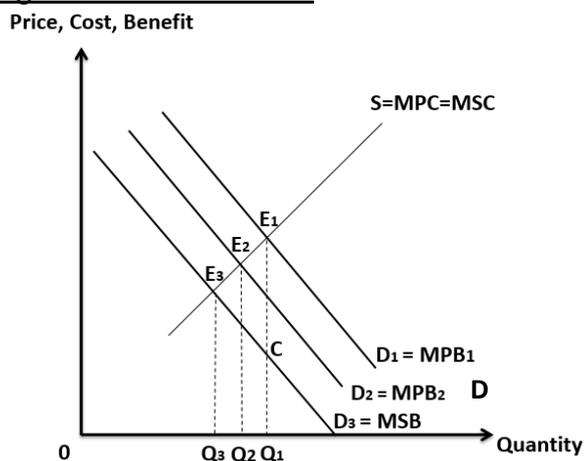
3. Allocative inefficiency:

There is, thus an overproduction and overconsumption of Q_1Q_3 units of the good which means that there is an overallocation of resources into the market for sweetened drinks.

4. Explain Deadweight Loss:

Total social cost from consuming Q_1Q_3 units of the good ($Q_1E_1E_3Q_3$) exceeds the total social benefit from consuming Q_1Q_3 units ($Q_1CE_3Q_3$), leading a welfare loss of area E_1E_3C . This is also known as a deadweight loss. Hence, there is allocative inefficiency in the market where the right amount of the good is not produced and thus the market fails.

Figure: Demerit Goods



Conclusion:

The presence of market failure therefore warrants government intervention. This is all the more so when the extent of the market failure is likely to very large as the externalities incur by the government as seen in the extract amounts to 1 billion SGD a year with the possibility of rising to 2.5 billion SGD by 2050.

- (g) Assess the factors which the Singapore government should consider in reviewing the appropriateness of its actual and intended policies to correct the misallocation of resources in the market for sweetened drinks. [12]

Factors to consider when reviewing the various policies

1. Perspectives

The Singapore government may consider multiple perspectives when making the decision to implement or review policies, for example, from the standpoint of equity in other markets or labour productivity for the economy (macro perspective). This could affect the government perception of the costs and benefits of correcting inefficiency in the market. The decision will bring about a set of **outcomes** in terms of:

Intended consequences, which include the effects that were expected, such as reduced misallocation of resources associated over consumption of sweetened drinks.

Unintended consequences, which include the consequences faced by the government, such as the increase in concerns on the ground in regards to rise in cost of living, and the consequences that impact the macro economy due to the fall in productivity of labour from diabetic related illness, or even more equity in the healthcare markets.

a. Effectiveness in achieving its objective i.e. lower consumption (Intended Consequences)

The objective of all the policy is to influence the eventual consumption level either through demand side or supply side. The nearer the new market equilibrium after intervention is to the socially optimum level of consumption, the more appropriate is the policy.

Effectiveness of the demand side policies:

As most of the above mentioned policies works through influencing the demand of sweetened drinks through education and correction of information failure, its extent of how it will lead to a fall in demand is dependent on the receptivity of the consumers.

This is in term affected by the ability of the consumer to make rational decision:

There are some assumptions underpinning the rational decision making of a consumer:

- there is complete information

- consumers have the ability to conduct analysis and think through competing alternatives which are healthier
- consumers have sufficient time to arrive at a rational decision as some of these consumption patterns are habitual and require time to change

Generally speaking, given the level of literacy and education, Singaporeans are mostly rational and are receptive to correcting the information failure associated with overconsumption of sweetened drinks, this was further affirmed by the Health Minister in Extract 4.

Effectiveness of the supply side policies:

The suggested sugar tax on sweetened drinks on the contrary may not be as effective in terms of lowering consumption.

The demand for sweetened drinks is likely to be price inelastic as consumers of such drinks are likely to be habitual drinkers to such beverages and see little substitutes to it. Also the fact that these sweetened drinks form a rather insignificant portion of the consumer's income, this would mean that any increase in price due to tax is likely to see a less than proportionate fall in quantity demanded.

b. Unintended Consequences

An unintended outcome of encouraging Singaporeans to go for a diabetes check-up and through that be more aware of their information failure associated with the consumption of sweetened drinks would be in the form of more affordable healthcare services.

Subsidies provided for diabetes check-up lower the price of these check-ups and provide access to the poor who may otherwise not be able to afford this merit good. This ensures greater equity. While this may not be directly link to the sweetened drinks market, equity in other markets could be of an importance perspective for the government.

Thus part of reviewing policies would include unintended consequences, both positive and negative in the market of implementation, and even in other markets.

2. Constraints: Resources such as Finances and Labour

In reviewing appropriateness of policies, an area of concern is whether there are enough resources available for the implementation of the policies.

Installation and provision of sweetened drinks alternatives in the form of drinking points can be a serious financial commitment which is not once off as resources are required for its upkeep and maintainence.

Provision of subsidies for diabetic-related illness check-up can also amount up to huge finances as Singapore's intention is to provide such healthcare services for free or maximum of a 5SGD fee.

Sugar taxes on sweetened drinks on the other hand does not add on to the burden of Singapore finances and yet at the same time generate tax revenue that could be rechannelled back to run the above mentioned policies.

Generally speaking, while Singapore may not have an issue with spending especially when we are not laden with government debt or deficit, prudence is still of important value.

While constraints discussed above are in the form of finances, resources may be in the form of requirement of labour to monitor whether enforcement such as printing of information on sweetened drinks are adhered to. In Singapore, the shortage of labour can prove to be a defining constraint. Though such a constraint is not as severe as monitoring need not be as frequent in a country where the rule of law is practiced with little or no corruption. The geographical size of Singapore also minimize the requirement of a large monitoring contingent.

3. Opportunity Costs

In similar fashion, the policies which require the most resources would incur the largest opportunity cost. As such whichever policies that require the least would be seen as appropriate. Refer to point 2.

4. Ease of implementation/ fine tuning

Another factor for consideration is the ease of implementation and fine tuning of the said policies.

For example, should there be a narrowing of gaps between actual demand and the correct demand, a policy like sugar tax can be adjusted accordingly.

Tax is considered to be a good measure for a number of reasons. This is a market-based solution and can be easily implemented to reduce consumption. It is flexible as the amount of taxes can be varied to reflect the external cost.

5. Data Collection

Another factor to consider is the dependence of the policies on accurate data collected.

For example, success in the use of taxes depends on the accuracy in measuring the exact value of external costs of an activity and hence deciding on the correct amount of taxes which in practice is a difficult task as they may be difficult to monetize and estimate. This makes imposing the correct amount of taxes difficult. Over-taxing and under-taxing will still lead to inefficient allocation of resources.

Usually in the context of Singapore, such data are quite accurate as data collection is relatively easier given the size of the country and also the administration involved in data collection are equipped with the knowledge and appropriate technology and process.

6. Source of the problem

An important consideration is the source of the problem, the Singapore government might be interested to tackle the root of the issue and thereby understanding whether the inefficiency is due to demand or supply might be key in selecting or streamlining its policies.

Conclusion:

The most important factor to assess the appropriateness of the various policies would be the extent to which its objectives is met, this is especially significant given the size of the externalities as predicted by the government.

Factors like constraints and data collection are relatively less significant as they are not meaningful given the circumstances in which Singapore operates in i.e. a healthy budget with surplus year on year and data accuracy given its well-trained administration.

Levels	Descriptors	Marks
L3	An answer that explain at least 2 factors in details, explaining why the government should consider these factors prior or after implementation. Cap at 7 marks for 2 well explained factors	6-9
L2	An answer that explains the various factors descriptively OR An answer that explain a factor thoroughly.	3-5

L1	<p>Explanation of the various policies Singapore use to tackle the market of sweetened drinks</p> <p>OR</p> <p>A vague list of the various factors that the government considers in policy review</p>	1-2
Evaluation	<p>Ranking the factors with justification behind the rankings</p> <p>OR</p> <p>Commenting on the significance of the factors given the context of Singapore</p>	1-3

[Total: 45]

Question 2: Economic Performance

Extract 5: Weaker growth expected for the UK economy

The UK economy grew at its weakest rate in five years in 2017, according to the latest forecast by PwC, an accountancy and professional services firm. UK's GDP is expected to be 1.8%, down from 1.9% in 2016 and the weakest expansion since the 1.5% growth seen in 2012, at the height of the Eurozone crisis. The Bank of England has kept its interest rates at 0.5% since the crisis, except in 2016.

The UK economy has slowed over the past 12 months due to the increase in inflation stemming from the drop in the pound in the wake of the 2016 Brexit vote, which has squeezed household disposable incomes. In June 2016, UK has voted to leave the European Union (EU), a single common market, which allows the free movement of goods, services, money and people within the EU, as if it was a single country.

Business investment has also come in much weaker than expected, which surveys suggest is due to uncertainty among firms related to post-Brexit trade arrangements. The UK slowdown comes as GDP growth in the Eurozone and the US picks up strongly.

Source: The Independent, 12 January 2018

Table 1: Selected economic indicators of UK

	2013	2014	2015	2016	2017
GDP per capita (USD)	42 783	46 855	44 340	40 535	39 761
Inflation rate (%)	2.6	1.5	0.0	0.7	2.7
Policy Interest Rate (%)	0.50	0.50	0.50	0.25	0.50

Table 2: Selected economic indicators of India

	2013	2014	2015	2016	2017
GDP per capita (USD)	1 488	1 614	1 632	1 750	1 979
Inflation rate (%)	10	6.0	4.9	4.5	3.6
Policy Interest Rate (%)	8.00	7.50	6.75	6.25	6.00

Source: focus-economics.com

Extract 6: Why are China and India growing so fast?

China and India demonstrate a common pattern of development different from that of the slowly growing West. Rapidly growing state (government) investment plays a significant role in China and India's economic expansion, while private investment is either growing very slowly or declining. In contrast, the slowly growing Western economies rely on private investment with no rapid growth of state investment. The facts of this global economic trend are also crucial for economic theory and analysis as advocates for free

market believe “private investment is supposed to be “good” while state investment is supposed to be “bad” as state enterprises are inefficient. However, the facts show the exact opposite trend is occurring.

Based on the National Statistics Bureau data, the state-owned fixed-asset investment of China had grown by 23.5% from January to June 2016 over the same period in 2015, but private fixed-asset investment growth had decelerated to 2.8%. As for India, its state investment increase was 21% while private investment fell by 1.4%. In contrast, Western economies are experiencing very slow growth. The U.S. is the best performing major Western economy, yet its year-on-year growth of private investment is as low as that of China and India and has been steadily falling. But unlike China and India, the U.S. has not increased state investment to compensate for falling private investment.

The correlation between rapid growth of state investment and fast economic growth, as well as between reliance on private investment and low economic growth, is evident. However, to some people, it is rapid economic growth in India and China that is leading to more state investment, not the other way around, or low rates of investment in the U.S. because of its slower growth. This is not plausible since state investment is directly under government control and not subject to market forces. Both the Chinese and Indian government have made clear that they have deliberately taken the decision to increase state investment, in order to stimulate economic growth, while in the U.S. many are ideologically opposed to state investment.

Source: Prof John Ross, on Huffington Post website, 6 December 2017

Extract 7: Promoting strong and inclusive growth in India

India’s economy continues to grow at an impressive rate, with projected annual GDP growth of 7.5% in 2017-18. India will thus remain the fastest-growing G20 economy. Unprecedented growth in exports in services since the 1990s has made India a global leader in this sector. Inflows of foreign direct investment (FDI) grew at three times the annual world average rate in the last decade, reflecting the success of efforts to attract international investment and gradually loosen restrictions to foreign investment. India’s economic successes are being translated into increased well-being for its population. As GDP per capita has more than doubled in ten years, extreme poverty has declined substantially. Access to education has steadily improved, and life expectancy has risen.

Multiple opportunities present themselves for India, and the right mix of policies is needed to take advantage of them. India has made advances in integrating in global value chains and developing a competitive advantage in fields such as information and communication technology. Now is the time to secure continued progress by boosting competition and further lowering barriers to trade and investment. Looking to the future, it will be vital to fully tap into the potential offered by India’s young population. This means investing in the large numbers of young people entering the labour market. Likewise, the rapid pace of development must be matched with the upgrades to infrastructure necessary to support it.

Source: www.oecd.org/india, accessed 18 June 2018

Extract 8: The growing importance of the technology economy

Technology has deeply affected the global economy and its usage has been linked to marketplace transformation, improved living standards and more robust international trade. Technological advances have significantly improved operations and lowered the cost of doing business. Currently, as an example, just a few technicians controlling robotic systems can operate an entire manufacturing plant, and innovative inventory systems are capable of supplying needed parts within a short time for assembly. In addition to that, e-commerce and online banking capabilities have also helped reduce the cost of doing business.

The recent World Development Report (WDR) 2016 Digital Dividends highlights many instances of how e-commerce is boosting the employment opportunities of those who may have been excluded from the global market place. According to the report, the Internet enables many small firms to participate in global trade, thus leading to more inclusion. The WDR notes that 'China's State Information Center estimates that the recent boom in the country's e-commerce sector has created 10 million jobs in online stores and related services, about 1.3 percent of the country's employment. New opportunities for entrepreneurship and self-employment are also growing rapidly in the digital economy.' By using e-commerce platforms, businesses no longer need to be big to access global markets.

Many researches from many respected companies, such as BCG, IMF and World Economic Forum show that whenever private companies cut back on technology investments aiming to shore up profits, the result is the opposite, as profits sink significantly, and, as a side effect, GDP also falls dramatically, then a chain reaction starts with the fall of labour productivity after a few years.

Source: Macro Antonio Cavallo, CIO.com, 21 December 2016 & The World Bank, 18 March 2016

Questions

- (a) (i) Describe the trend in the UK's general price level from 2013 to 2016. [2]
- (ii) With reference to Extract 5, explain the change in the UK's general price level in 2017. [3]
- (b) (i) State the monetary policy stance adopted by both UK and India. [1]
- (ii) Explain the possible factors that influenced the level of interest rates set by these two countries from 2013 to 2017. [6]
- (c) Comment on how changes in GDP per capita could have affected the well-being of the population in India and UK. [6]
- (d) Using AD/AS analysis, explain the possible trade-off and its consequences when rapid pace of development in India is not matched with the necessary upgrades to its infrastructure (Extract 7). [6]
- (e) Discuss whether technological advancement is key in reducing unemployment in large countries such as India and China. [9]
- (f) 'Countries should rely more on state investment instead of private investment to promote sustained economic growth'. Discuss this view. [12]

[Total: 45]

- End of Paper -

2018 Prelim H1 CSQ2: Economic Performance

Questions

(a)	(i)	Describe the trend in the UK's general price level from 2013 to 2016.	[2]
		From 2013 to 2016, GPL in UK has increased [1] at a decreasing rate [1]. Or From 2013 to 2016, GPL in UK has increased [1], except in 2015, where there is no change in GPL [1]	
	(ii)	With reference to Extract 5, explain the change in the UK's general price level in 2017.	[3]
		With reference to Extract 5, the UK's pound has depreciated. Based on Extract 5, it was stated that the depreciation has resulted in an increase inflation. A depreciation of the pound will cause the price of imports of finished products and raw material into UK to increase in pound. [1] As a result, this increases the cost of production for domestic UK firms in general causing a leftward shift in the economy's SRAS curve. [1] Holding all other factors constant, this will cause UK's GPL to increase [1], contributing to a faster rate of increase in GPL in 2017.	
(b)	(i)	State the monetary policy stance adopted by both UK and India.	[1]
		An expansionary monetary policy. [1]	
	(ii)	Explain the possible factors that influenced the level of interest rates set by these two countries from 2013 to 2017.	[6]
		The Central Bank of a country can use interest rate to influence the AD of the economy. It can lower interest rates to increase AD so as create employment and increase GDP. On the other hand, it can raise interest to contract AD to prevent demand-pull inflation. The possible factors that can influence the level of interest rates set are by the central bank/ government of the country: 1. Economic situation 2. Effectiveness of i/r policy 3. Ability to change i/r	

with the **aim** to boost growth/control inflation/etc

(1) Current economic situation with the aim to boost growth/etc

Both UK and India aim to increase AD to boost growth.

UK has kept its interest rate at a low level of 0.5% since the global financial crisis in 2008. By keeping its i/r low or by lowering i/r, the central bank of a country seeks to keep cost of borrowing low in order to raise C & I to boost AD. In Extract 5, the uncertainty ahead due to Brexit, has also caused UK to further lower its i/r to 0.25% in 2016.

In 2017, UK raised its i/r back to 0.5% which is still considered a low rate to boost domestic demand and to prevent further depreciation of its currency.

India has also lowered its interest rates over time from 8% to 6%, to boost growth. Lowering of i/r in **India** seems to have worked in raising its GDP per capita over time. Hence, India has continued to lower its i/r.

(2) Effectiveness of the interest rate policy

Interest-elasticity of C & I

Should economic outlook be bleak where households and firms are pessimistic about their jobs and profits respectively, central bank may need to cut interest rates further and keep it low to boost C & I.

(3) Ability to change i/r

There is also room for India to further cut its i/r as it started at a high of 8%. On the other hand, there is less room to further cut i/r for UK as it is at a low level of 0.5%.

Facing weak growth, an expansionary MP would be beneficial to UK. However, in 2016, it could not keep its i/r at a low level of 0.25% as when UK lowered its i/r, it caused its pound to further depreciate due to outflow of hot money which worsened its existing imported inflation.

Both **UK and India** can afford low level of i/r or falling i/r as their rates of inflation have in general fallen over time. That is, a

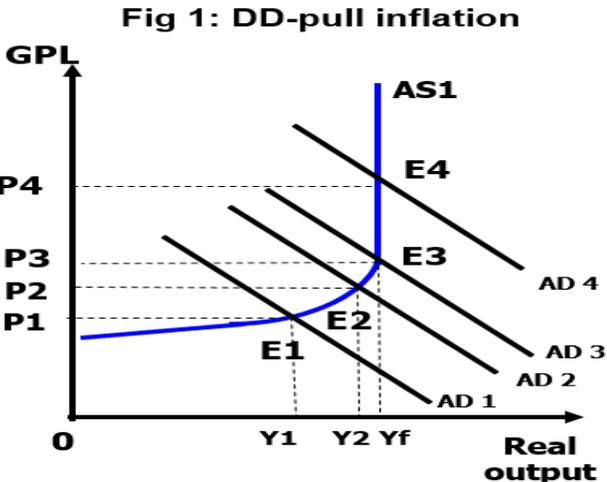
	<p>demand-pull inflation due to excessive increase in AD is not likely to happen.</p> <p>[At least 2 factors affecting the decision of the government. Each factor can be awarded up to a max of 3m]</p>	
(c)	<p>Comment on how changes in GDP per capita could have affected the well-being of the population in India and UK.</p>	[6]
	<p>Well-being refers to both material and non-material well-being.</p> <p><u>Explain how changes in GDP per capita could have affected India's and UK's material well-being. [4]</u></p> <p><u>India</u> Rising GDP per capita in India as shown in Table 2, means that likely there will be more income enjoyed by an individual in India. With higher income, they can afford to enjoy more goods and services, hence leading to higher material well-being. In Extract 7, it was also stated that with rising GDP per capita, "extreme poverty has declined substantially" indicating an improvement in material well-being.</p> <p><u>UK</u> Table 1 shows falling GDP per capita over time for UK. This means on average an individual in UK has lower purchasing power and enjoys less goods and services, hence possibility of lower material well-being over time.</p> <p><u>Non-material well-being</u> In India, "access to education has steadily improved and life expectancy has risen" [Extract 7]. The increasing GDP per capita in India could have increased the population's ability to pursue education and also avail themselves of better sanitation and medical care improving their non-material well-being. Also with rising GDP, the government can also collect more tax revenue to spend on providing education, better sanitation and medical care.</p> <p>However, changes in GDP per capita is not a good indicator of the non-material well-being of the population. There are other factors that could affect the non-material well-being of the population but not captured by GDP per capita. For example, with rising GDP per capita, there could be increasing stress borne by the working population and/or increasing pollution due to increasing production activities when firms ignore the harm</p>	

imposed on the 3rd parties. In this case, non-material well-being would have worsened despite rising GDP per capita.

Other indicators needed to assess well-being a population [2]
Hence, to assess the well-being of the population of both UK and India, there is a need for other indicators such as Gini coefficient and pollution index. (Elaborate on one other indicator)

(d) Using AD/AS analysis, explain the possible trade-off and its consequences when rapid pace of development in India is not matched with the necessary upgrades to its infrastructure (Extract 7). [6]

1. Identify that the rapid pace of development is brought about by increase in AD [1] via increase in X, FDI.
2. Use AD/AS analysis to explain and illustrate how excessive increase in AD can lead to demand-pull inflation assuming no change in AS. Trade-off: stable prices [3]



Assume India economy is operating near full employment, where initial equilibrium at E1. Increase in X & FDI → ↑AD1 to AD2

- At P1, AD2 > AS → shortage of real output occurs
- Firms face ↓ in inventories → ↑ production to meet increased AD → hire more FOP i.e. workers => unN decreases while real output increases.
- As less resources are available due to ↑ **competition for FOP** → firms need to offer higher factor prices to hire more FOP → ↑GPL as profit-maximising firms produce more output
- New equilibrium @ E2 where total spending = total output → P1 rises to P2, Y1 increases to Y2

	<p>However, as consumer confidence continues to improve → further $\uparrow C_d$ → <u>AD continues to increase</u> → AD2 rises to AD3 then to AD4</p> <ul style="list-style-type: none"> • Persistent increase in AD → creates a situation of sustained excess demand in the economy • → Sustained increase in GPL • → Demand pull inflation <p>Hence, when rapid pace of development in India is not matched with the necessary upgrades to its infrastructure => the persistent increase in AD cannot be met with increasing AS leading to dd-pull inflation.</p> <p>3. Explain how inflation can lead to fall exports, I and C which can result in lower EG & SOL. [2]</p> <p>→ Inflation causes value of \$ to fall. Households' real disposable income decreases, ceteris paribus => less able to enjoy g & s => lower SOL</p> <p><u>Or</u></p> <p>→ Inflation causes the country's exports to be less price-competitive. Assuming $PED_x > 1$ due to availability of substitutes => export revenue will fall.</p> <p>→ Severe inflation also affects investors' confidence as value of money falls and firms would cut down production & reduce investment when the rise in unit cop is greater than the increase in prices of final goods and services, resulting in a fall in potential profit per unit.</p> <p>→ Fall in X & I => fall in AD => fall in real output => decrease EG and lower SOL</p>	
(e)	Discuss whether technological advancement is key in reducing unemployment in large countries such as India and China.	[9]
	<p>1. <u>Define unemployment and state the different types/causes of unemployment.</u></p> <ul style="list-style-type: none"> • 2 main types/causes of unemployment are (i) cyclical and (ii) structural <p>2. <u>Explain how technological advancement can help to reduce unemployment in India and China.</u></p> <ul style="list-style-type: none"> • Extract 7: India for example is a country that has develop a competitive advantage in ICT. Extract 8: Technological advancement has also helped to lower unit cop and this can 	

increase firms' potential profits per unit and encourage them to step up investment on high-tech equipment. The increase in I => increase AD. To meet increasing demand, firms step up production to increase output => increase demand for fops including labour => demand-deficit unemployment can be reduced.

- Alternative approach: Extract 8: Technological advancement helped to lower unit cop leading to higher potential profit per unit of output. Producers are willing and able to produce more output at each possible price. This can lead to a rightward shift of the economy's SRAC curve. Productive capacity of the economy and real output increases. As real output increases, the demand for fops including labour can increase. Should demand for labour increase, unemployment of labour decreases.
- Extract 8: E-commerce has created millions of jobs in China. Through e-commerce, there are "new opportunities for entrepreneurship and self-employment. Hence workers in China who could be structurally unemployed due to factor immobility can now "access global markets". The rise of E-commerce can also reduce demand-deficit unemployment as e-commerce also encourages spending by households due to easy access to more goods and services leading to a rise in AD.

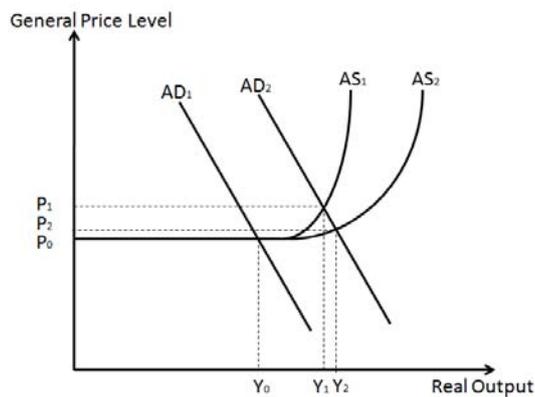
3. Explain that technological advancement may not be adequate in reducing unemployment in India and China.

- Other causes of unemployment. Structural unemployment can occur as workers are displaced by technology and they lack the relevant skills to move into sunrise industries. In Extract 8, technological advances needing fewer workers, for example "just a few technicians controlling robotic systems can operate an entire manufacturing plant. Workers can be displaced.
- Need to be complemented with relevant polices. It is also important that people are equipped with the necessary skills to move into new job opportunities that are created via technological advances. In Extract 7, it indicated the importance of "investing in the large number of young people entering the labour market". Equipping them with the relevant skills to prevent structural unemployment is also critical.
- AD needs to increase sufficiently. Besides encouraging investment in technology, the government has to undertake measures to increase other components of AD such as to further encourage investment in fixed assets such as building of factories and plants and also measures to boost exports.

	<p>4. Conclusion</p> <ul style="list-style-type: none"> • Technology economy has grown in importance over the years and countries will need to ride on this technological wave to increase EG and reduce unemployment. However, to fully capitalize on it, the government has to undertake measures to equip their workers with the relevant skills to enjoy the new opportunities that it offers. In addition, the government has to adopt policies to increase the other components of AD too given the large population that the country needs to create employment for. • OR stand based on the root cause(s) of unemployment in the country. <table border="1" data-bbox="293 712 1305 936"> <thead> <tr> <th>Level</th> <th>Descriptor</th> <th>Marks</th> </tr> </thead> <tbody> <tr> <td>L2</td> <td>A well-balanced analytical answer. Explanation is well developed.</td> <td>4-6</td> </tr> <tr> <td>L1</td> <td>A one-sided answer <u>OR</u> takes a descriptive approach covering both sides.</td> <td>1-3</td> </tr> </tbody> </table> <p>A further 3 marks available for evaluation and a reasoned conclusion with clear criterion such as consideration of the need to be complemented by other measures to overcome its inadequacy &/or limitations.</p>	Level	Descriptor	Marks	L2	A well-balanced analytical answer. Explanation is well developed.	4-6	L1	A one-sided answer <u>OR</u> takes a descriptive approach covering both sides.	1-3	
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L2	A well-balanced analytical answer. Explanation is well developed.	4-6									
L1	A one-sided answer <u>OR</u> takes a descriptive approach covering both sides.	1-3									
(f)	<p>‘Countries should rely more on state investment instead of private investment to promote sustained economic growth’. Discuss this view.</p>	[12]									
	<p>1. Introduction</p> <p>A country can depend on state or private fixed-asset investment to generate economic growth. Some countries may rely more on state I to promote sustained growth while other countries may rely more on private I as both types of investment have their merits and demerits.</p> <p>2. Explain how investment can lead to increase in actual EG in the SR and potential EG in the LR. Hence, the possibility of sustained growth at stable prices.</p> <p>The increase in state & private fixed-asset investment causes a rise in AD from AD1 to AD2 as shown in Figure 1 below. At the original GPL P_0, there is an excess demand in the economy resulting in firms’ inventories depleting. This signals to firms to step up their</p>										

production. To produce more output, firms increase their demand for fops including that of labour. Firms bid up factor prices when fops become limited in supply. The rising factor prices translate into higher prices of goods and services in general as shown by an increase in GPL from P_0 to P_1 while real output increase from Y_0 to Y_1 .

Figure 1:



In the long run, rising state and pte investment involving expenditure on new and better factories, plant and machineries can lead to an increase in the net capital stock of the country. This leads to an increase in the productive capacity of the economy. That is, it increases the country's ability to produce more g & s. This can be illustrated by a rightward shift of the AS curve. The shift in AS from AS_1 to AS_2 leads to a fall in the GPL and a further increase in the real output of the country. The increase in AS helps to moderate the increase in GPL, bringing about **non-inflationary growth**. Sustained EG can be achieved.

3. Merits of state I /Demerits of private I

- When left to the free market, private I may not be forthcoming to achieve sustained growth. For example, Extract 5: Poor business outlook leads to low business investment => need government to step in to boost AD to achieve actual and potential growth.
- Aim of government: to achieve macro goals. Extract 6: deliberate action by the government of China and India to undertake investment to boost AD to generate growth. Table 2, higher GDP per capita for India.
- Increase in government spending on infrastructural development can also increase AS in the LR
=> increase in AD and AS can result in sustained EG

- Aim of government: is also to achieve micro goals. => can minimise deadweight losses that could arise from negative externalities arising from private firms' decision-making.

4. Demerits of state I / Merits of private I

- Extract 6: inefficient state enterprises. Inefficiency is likely to arise due to lack of profit-motive and imperfect information where the government-owned firms may not adopt the least cost method of production. Any losses made by the state-owned firms could be readily absorbed by the government.

On the other hand, private investors seek to maximise their profits and will seek out least cost method of production. In order to compete with other firms.

Furthermore, Extract 8 indicates how private enterprises have rode on the advancement in technology to cut costs and increase profits. It also indicated that for GDP to grow, it is important that private companies should not cut back on technology investment. That is, their investment plays a critical role in not only generating profits for themselves but also increase in GDP of the country.

- Government budget:
 - ➔ An increase in government spending can lead to a budget deficit. Should the budget deficit become large and persistent, leading to a large national debt as a % of the country's GDP, it can have adverse effect on investors' confidence causing a fall in private I
 - ➔ Should the government increase taxes to service its national debt, the high taxes on income can discourage work, savings and investment.
 - ➔ If state I is financed by borrowing from the public it can lead to crowding out effect i.e. i/r increases which can cause a fall in private I, offsetting the increase in AD due to increase in G

5. Conclusion

- Leaving to private firms to undertake investment has it merits as they are more flexible and being profit-driven will undertake investment such as technological investment which increases profits, employment and growth for the country.
- Large and bureaucratic state investment can lead to inefficiency and stifle private enterprise. Furthermore, unsuccessful state investment can be a strain on a government's budget.
- However, in times of economic downturn, and/or when business outlook is poor, the government may have to step in to increase its investment spending to achieve actual and potential growth.

Hence, in such situation, state I may play a greater role than private I to achieve sustained growth. This is assuming that the country is not suffering from a persistent and large budget deficit which the country faces problem in financing it.

Level	Descriptor	Marks
L3	An analytical answer that explains the merits/demerits of state investment vs that of private investment to achieve sustained EG.	6-9
L2	A one-sided answer explaining either the merits/demerits of state investment or that of private investment to achieve sustained EG. OR takes a descriptive approach covering both sides.	3-5
L1	A vague, descriptive or list-like answer on the merits/demerits of state investment &/or private investment in achieving EG.	1-2

In addition, **up to a further 3 marks** for valid evaluative comment, making a reasoned judgement on whether state investment should play greater role than private investment in promoting sustained EG.