



**ANDERSON SERANGOON JUNIOR COLLEGE**  
**JC2 PRELIMINARY EXAMINATIONS**  
**Higher 2**

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**ECONOMICS**

**9757/01**

Paper 1

**31 August 2020**

Additional Materials: Writing booklet

**2 hours 15 mins**

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**READ THESE INSTRUCTIONS FIRST**

A 12 page answer booklet is provided with this question paper. If you have finished using the answer booklet, you can ask for additional 4 page booklets. Please indicate the number of additional 4 page booklets on the cover page of the 12 page booklet and slot them into the first page of the 12 page answer booklet. No tying of booklets is required.

Write your name, class and index number on all answer booklets. Please indicate the question and the part on every page of the answer booklets. You should also indicate the questions you have attempted on the cover page of the 12 page answer booklet.

Answer **all** questions.

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

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This document consists of 8 printed pages.

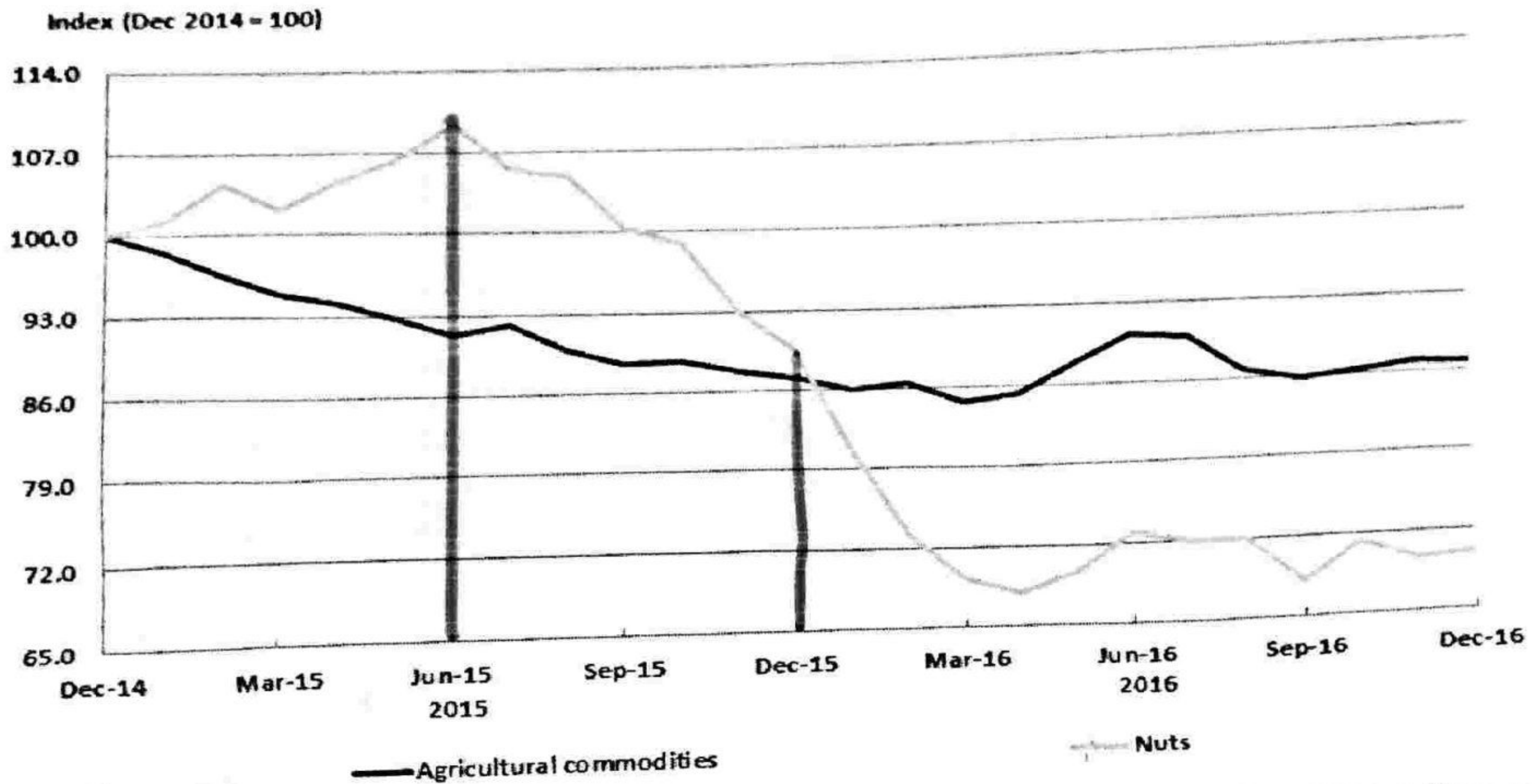
**[Turn over**



Answer all questions.

### Question 1: The Food Industry: From Farm to Bin

Figure 1: Agricultural and nut export price indices, December 2014-16



Source: U.S. Bureau of Labor Statistics, International Price Program

Table 1: Estimates of elasticities of demand for Californian almonds in different countries

|               | Price elasticity of demand | Income elasticity of demand |
|---------------|----------------------------|-----------------------------|
| Germany       | -0.48                      | 1.32                        |
| Italy         | -0.18                      | 2.05                        |
| Great Britain | -0.52                      | 0.15                        |
| U.S           | -1.07                      | 0.99                        |

Source: California Agriculture, November-December 1993

### Extract 1: Nutty prices of major tree nuts

Out of the dozen major tree nuts, four make up over 70% of total global production: almonds, cashews, walnuts, and pistachios. Countries in the developing world have started to consume more and more tree nuts as incomes grew. Starting in the last two decades, demand for tree nuts soared in the developed world as well, spurred by the many health studies that came in recent years that suggest tree nuts have vast health benefits.



In recent years, nuts have become a crucial export commodity, and nuts now play an influential role as a staple among U.S. agricultural exports. Throughout the 2000s, the harvests and sales of almonds, walnuts, pecans, and hazelnuts rose. During this period, almond output in particular flourished and quickly outpaced the growth of other nuts as demand rose among Asian economies and domestic consumers. That demand subsequently led to higher prices, with the price per pound of almonds rising from \$1.79 in 2010 to \$4.00 in 2014.

Virtually all of America's commercially grown almonds come from California, and Stanislaus is among the state's top three producing counties. Literally millions of almond trees have been planted in the county during the past decade. Stanislaus agriculture officials calculate 160,200 acres of almonds were harvested last year, which is about double the acreage harvested 15 years ago. Thousands of additional acres of almonds are being harvested for the first time. While many of those are new trees now growing on what had been non-irrigated pastures on the county's east side, others have replaced once-coveted fruit trees, tomato fields, vegetable farms and dairies. The U.S. Department of Agriculture census figures show nearly a 56% reduction in Stanislaus acreage that used to grow vegetables from 2002 to 2012. Tomato acreage declined 52%, peaches 64%, alfalfa 38%, lima beans 41% and the list goes on.

Declining, too, are farm jobs, in part because almonds simply don't need as many hands to tend and harvest as fruits or vegetables. Almonds these days are mechanically harvested. Machines shake trees, sweep up nuts, prune branches and spray chemicals in modern almond orchards. Growers have been pulling out fruit trees, dismantling dairies and replacing vegetables with almonds. But there is concern about the broader impact this will have on the state's food supply. "Those almonds get exported," Sandoval, a Californian resident said. "They're not like the peaches, lettuce and tomatoes that go toward feeding our people here in California."

*Source: adapted from gro-intelligence.com, 3 November 2016, and mercedsunstar.com, 27 October 2014*

## **Extract 2: Threats leave long-standing food brands struggling**

Once upon a time, products like Kellogg's cereal, Campbell soup, and others were commonplace in millions of pantries across the U.S. These brands and others like them provided families with safe and affordable food options that were easy to prepare. For companies like General Mills, Conagra Foods, and others, these staples provided a reliable revenue stream over the bulk of the 20th century. In the pre-Internet age, big food brands could also count on prominent shelf placement and TV advertising to control perceptions.

However, these brands are now struggling with e-commerce sites like Amazon.com which makes getting new products into the hands of individual consumers much easier. Today's "endless shelf," as it's called by Nestle CEO Mark Schneider, referring to the internet, dramatically lowers the barrier of entry too. Small start-up brands can easily market their products and at much lower costs. Also, social media makes it easier for consumers to share frustrations, preferences, etc. that allow firms to better determine changing consumer preferences.

When the movement toward fewer artificial ingredients and additives began in mid-1990s, large food companies took a wait and see approach. By not proactively identifying, assessing, and managing threats and opportunities to achieving their business objectives, companies that once seemed "too big to fail" are being challenged.



Now that they are noticing an impact to their bottom-line, they are taking steps to turn things around, with one example being Campbell's purchase of organic soup and healthy-meal company Pacific Foods for \$700 million. But is it too little, too late? Only time will tell...

*Source: adapted from ERM Insights, Carol Williams, 29 September 2017*

### **Extract 3: Why some plastic packaging is necessary and how to protect the environment**

Many people bemoan the large amount of plastic packaging that supermarkets use, particularly for fruit and vegetables, most of which have their own natural protection. Plastic packaging generates significant negative externalities. Plastics leak into our natural environment such as forests and oceans and clog urban infrastructure such as sewers, reducing productivity. Asia-Pacific Economic Cooperation (APEC) estimates the cost of ocean plastics to tourism, fishing and shipping industries at US\$1.3 billion in that region alone. In addition, there are potential adverse impacts on human health and food chains due to the chemical substances in plastics. Furthermore, the production of plastics draws on fossil fuels, with a significant carbon impact. The cost of externalities for plastic packaging, plus the cost associated with greenhouse gas emissions from its production, has been estimated at US\$40 billion, exceeding the plastic packaging industry's profit.

Nonetheless, a major reason that supermarkets use so much packaging is to protect food and prevent waste – particularly with fresh food. A review on food waste found that 88 million tonnes of food is wasted every year in the EU. More than 50% of food waste takes place in households and nearly 20% is wasted during processing. Plastic packaging may be a necessary evil to reduce this high level of waste in both areas. It supports the safe distribution of food over long distances and minimises food waste by keeping food fresh for longer. For example, the use of just 1.5 grams of plastic film for wrapping a cucumber can extend its shelf life from 3 days to 14 days and selling grapes in plastic bags has reduced in-store wastage of grapes by 20%. Plastics also reduce fuel consumption for transportation by bringing packing weight down.

Given plastic packaging's many benefits, the likelihood of a drastic reduction in the volume of plastic packaging is low but appropriate policy measures must be taken to create a sustainable environment. The United Kingdom will introduce a new Plastic Packaging Tax from 2022. It will also establish the Extended Producer Responsibility scheme which makes producers responsible for the collection, treatment and disposal of their products after they have been used. This encourages producers to prevent waste at the source, promote product redesign to reduce unnecessary packaging and increase recycling efforts. The Food and Drink Federation has complained that the tax will penalise food and beverage producers and called for efforts to instead improve the country's recycling infrastructure. More than 40 years after the launch of the first universal recycling symbol, only 14% of plastic packaging is collected for recycling. Besides such market-based instruments, regulations can be used for managing chemicals in plastic products, including bans. The private sector should also take an active role in investing in the development of waste management infrastructure, driving innovation and redesigning of products as the development of these solutions can be an economic opportunity.

*Source: adapted from theconversation.com, 7 June 2019, foodnavigator.com, 12 March 2020, and World Economic Forum, The New Plastics Economy, January 2016*



### Questions

- (a) With reference to Figure 1, compare the change in export price of nuts with that of agricultural commodities between 2014 and 2016. [2]
- (b) (i) Using diagrams and the evidence in Extract 1, explain how price mechanism can be used to explain the allocation of resources between almond and fruit and vegetable farming. [5]
- (ii) Identify an unintended consequence of this change in resource allocation. [1]
- (c) With reference to Table 1,
- (i) explain why a California almond producer will be more likely to sell the nuts within U.S. than export them to other countries with a fall in price. [2]
- (ii) explain in which country are California almonds considered more of a necessity by consumers. [2]
- (d) Discuss the measures that a large food company can take 'turn things around' (Extract 2) and consider whether it is likely to be successful. [8]
- (e) Assess whether a ban on the use of plastics for food packaging is the best policy to achieve an efficient allocation of resources. [10]

[Total: 30]



### Question 2: Asia in Deceleration

**Table 2: Gross Domestic Product (GDP) data of selected economies in 2017**

|                | GDP per capita<br>using market<br>exchange rate<br>(US\$) | GDP per capita<br>using PPP <sup>1</sup><br>(US\$) | Household<br>consumption<br>expenditure<br>(% of GDP) | Government<br>expenditure<br>(% of GDP) | Gross Fixed<br>Capital<br>Formation <sup>2</sup><br>(% of GDP) |
|----------------|---|--|---|---|--|
| China          | 8,759   | 14,150   | 37.7  | 15.9                                    | 42.9   |
| India          | 1,950   | 6,149  | 58.8  | 10.8                                    | 28.4   |
| Singapore      | 60,297  | 93,981   | 35.9  | 10.5                                    | 26.4   |
| Thailand       | 6,729   | 17,781   | 47.7  | 16.0                                    | 22.7   |
| United Kingdom | 40,424  | 45,988   | 65.0  | 18.7                                    | 17.2   |

<sup>1</sup>PPP refers to Purchasing Power Parity

<sup>2</sup>Gross Fixed Capital Formation refers to Gross Investment Expenditure

Source: World Bank, Purchasing Power Parities & the Size of World Economies, 2020

#### Extract 4: China consumers squeezed in 2018 as income gains slow, living costs rise

Growth in disposable income slowed in China last year while living costs rose, highlighting the increasing strains Chinese households are facing as the economy cools. Beijing is counting on the nation's vast consumer base to cushion the broader slowdown, but as the outlook grows more clouded, Chinese are tightening their belts, buying fewer cars, electronics and home appliances.

Disposable income per capita rose 6.5% last year, slowing significantly from the 7.3% for 2017, according to data published by the National Bureau of Statistics. At the same time, consumption expenditure rose 6.2% with the jump largely coming from higher healthcare and living expenditure while the spending on food and clothes decreased.

Source: [www.reuters.com](http://www.reuters.com), 28 February 2019

#### Extract 5: Why slower growth makes sense for China

The slowdown in China has been the main culprit for the recent market panic, but against the backdrop of economic challenges and ongoing trade conflicts, China's circumstances are manageable. Its transition away from exports toward a service-oriented, consumer economy to leverage on the growth of its rising middle class is creating concerns due to the resulting growth deceleration, but it is a necessary step for achieving sustainable levels of growth.

Without rebalancing, overcapacity in industry would only get more severe, worsening issues of pollution and the environment. At last, there are glimmers of hope. Export growth has halved in recent years but consumption growth has held steady. In future, as China's growth slows further,



consumption should contribute a bigger share of it. Still more important is a change in economic structure. Services took over from industry a couple of years ago as the biggest part of China's economy and just last year, services accounted for 48.2% of output. Services are more labour-intensive, which brings about two benefits. First, China is now able to generate many more jobs at lower levels of growth and though growth dipped to its slowest in more than two decades last year, China created 13.2 million new urban jobs, an all-time high. Second, the strong jobs market has allowed wages to keep on rising at a steady rate, a prerequisite for getting people to consume more.

But even at a slower 5% economic growth pace over the long term, China will still account for 30% to 40% of global GDP growth, making it the world's single largest growth engine behind the United States.

Source: adapted from *The Economist*, 18 April 2015 and *www.forbes.com*, 1 April 2019

#### **Extract 6: Public debt in emerging Asia creeps past 50% of GDP**

Government debt in emerging Asian economies hit 50% of gross domestic product in the third quarter of last year, according to estimates by the Institute of International Finance, in a trend that suggests a regional shift away from fiscal conservatism. Further increases in public debt, however, point to potential problems if the global economy takes a sudden turn for the worse. The next two years could be precarious, with some economists predicting slower growth.

"Entering a financial crisis with a weak fiscal position worsens the depth and duration of the ensuing recession, particularly in emerging-market economies," said Vitor Gaspar, director of the International Monetary Fund's (IMF) Fiscal Affairs Department.

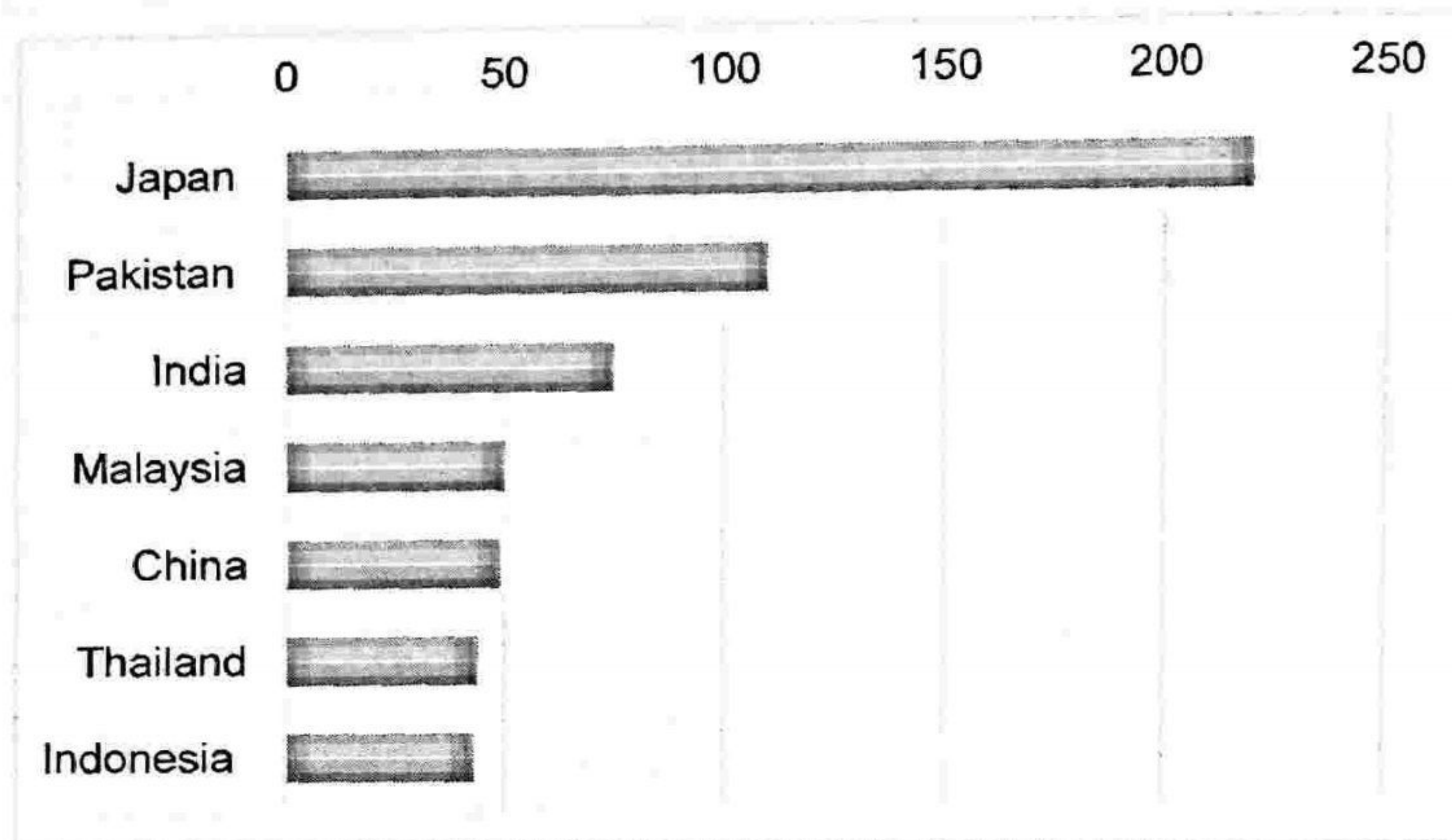
While government debt in emerging Asia is creeping up, it remains low compared with Japan's 223.1% of GDP and 100.8% in the U.S. "The relatively low public debt gives the region more buffer against a potential global downturn, enabling policymakers to use expansionary fiscal policy to support demand," said Frederic Neumann, co-head of Asian economic research at HSBC. "In China, for example, the central government is increasingly stepping up its fiscal easing, with selected tax cuts for households and companies, something it can afford given the relatively low level of public debt," Neumann said.

"The East Asian region has typically been prudent when it comes to the management of public finances," Hoe Ee Khor, chief economist at the Singapore-based ASEAN+3 Macroeconomic Research Office said. "As with any form of debt, high levels beyond sustainable thresholds could create vulnerabilities, and regional policymakers appear mindful of the risks." Concerns about China's rising debt levels are mirrored by worries elsewhere in Asia.

Rising public debt in Malaysia prompted Prime Minister Mahathir Mohamad to put the brakes on Chinese-backed port and rail projects while Sri Lanka handed control of the Chinese-funded Hambantota port to Beijing after it was unable to repay debts incurred in its construction and Pakistan was forced in October last year to approach the IMF for a bailout, in part due to debts taken on under the initiative.



Figure 2: Government debt as a percentage of GDP



Source: *asia.nikkei.com*, 21 January 2019

### Questions

(a) With reference to Table 2,

- (i) what can you infer about the difference in the cost of living between China and India? Explain your answer. [2]
- (ii) and using the concept of opportunity cost, explain how differences in the level of consumption expenditure will affect living standards in the United Kingdom and China in the future. [4]

(b) Explain how consumption expenditure has risen in China despite a fall in spending on food and clothes as described in Extract 4. [2]

(c) Explain **two** reasons in Extract 5 that might have fueled China's transition from an export-led to a consumption-led economy. [4]

(d) Discuss the impact of slower growth on a country's standard of living of its people. [8]

(e) Discuss the extent to which the level of debt in Asian economies will limit the effectiveness of their use of expansionary fiscal policy in tackling the ensuing recession. [10]

[Total: 30]