



RAFFLES INSTITUTION
2024 YEAR 6 TERM 3 PRELIMINARY EXAMINATION
Higher 2

ECONOMICS

9570/01

Paper 1 Case Study Questions

27 August 2024

2 hours 30 minutes

Additional Materials: Answer Paper

READ THESE INSTRUCTIONS FIRST

Write your name, index number and civics class on all the work you hand in.
Write in dark blue or black pen on both sides of the paper.
You may use a soft pencil for diagrams, graphs or rough working.
Do not use paper clips, highlighters, glue or correction fluid.

Answer all questions.

The number of marks is given in brackets [] at the end of each question or part question.
Start each Case Study on a fresh sheet of paper.
At the end of the examination, fasten your answers to Case Study 1 and Case Study 2 **separately**.
Detach this **cover page** and secure it in front of answers to **Case Study 1**.

Name: _____

Civics Class: _____

Economics Tutor: _____

Question	Marks
1	/30
2	/30

This document consists of **7** printed pages and **2** blank pages.



Raffles Institution

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Question 1: Oral Health Situation in Indonesia and Brazil

Extract 1: Developments in private dental care market

The growing awareness regarding oral care and the soaring problem of tooth cavities and gum disease worldwide have led to the increasing inclination towards preventive dental care, this has stimulated people to seek more routine check-ups with dentists.

However, the price of private dental care has risen sharply over the years. Dr Jayaseel SR Pillai said that general inflation has affected the cost of dental materials, equipment, and overheads such as rent or mortgage payments, in turn leading to the rise in dental care cost. This is not helped by the highly fragmented dental care industry which makes it difficult to benefit from large-scale operations, where dental service providers typically differentiate themselves based on factors such as quality of care, specialised services, location, patient experience, and pricing.

Dental technology such as dental imaging has advanced significantly in recent years, leading to more sophisticated equipment and materials. While these advancements can improve the quality of care, they often come at a higher cost, which may be passed on to patients. Moreover, specialised dental procedures that require additional training for dental staff often take a longer time.

Sources: Adapted from various sources

Table 1: GDP per capita

Year	2013	2014	2015	2016	2017
Brazil GDP per capita (Constant 2015 USD)	9216.5	9183.5	8783.2	8426.8	8470.9
Indonesia GDP per capita (Constant 2015 USD)	3086.3	3203.5	3322.6	3453	3591.8

Source: Worldbank.org

Table 2: Consumption of Sugar in Indonesia

Year	2013	2014	2015	2016	2017
Sugar consumption per capita (Kg)	22.9	23.4	23.9	25.2	25.5

Source: Indiansugar

Extract 2: Challenges for Oral Health in Indonesia

Unlike Brazil, Indonesia is a sprawling archipelago made up of over 17,000 islands, with about 6,000 of them inhabited. This dispersed geography makes it difficult to ensure consistent delivery of oral healthcare services and educational campaigns across the entire country. Ratu Mirah Afifah, head of professional marketing personal care at Unilever Indonesia, says: "Only

2.8% of the population have brushed their teeth correctly, doing so at least twice a day before bedtime and after breakfast.” The low awareness of the importance of good dental care habits has led to a high incidence of dental and oral problems, such as dental cavities. This low awareness coupled with the lack of access to dental care translates into unrealised revenue for dental service providers, as many individuals either delay seeking dental care or fail to visit altogether.

The total number of dentists in Indonesia is 43,000, including general dentists and specialists. However, the number of specialists is less than 5,000, which is still very limited, and most of them are concentrated in urban areas. This is challenging given that the process of becoming a dentist involves extensive education and training. In rural and remote areas where there are fewer dental professionals, the scarcity of such providers can lead to higher operating costs. Rural dental service providers may have to invest more in attracting and retaining staff, including offering higher salaries or incentives to compensate for the lower availability of skilled dental professionals. In contrast, while dental service providers located in urban areas may face higher overhead costs like higher rent, the higher patient volumes help to lower per unit costs.

Sources: Adapted from various sources

Extract 3: Smiling Brazil – Approach to Oral Healthcare

Good oral health has been associated with improved social interactions and relationships, leading to a more cohesive and supportive community, in addition to reduced absenteeism rates for a more productive workforce. Culturally, Brazilians place a high value on social acceptance. This value has been effectively leveraged in Brazil's efforts to improve oral health. The success of the Smiling Brazil Programme has partly been attributed to this emphasis on social acceptance, with Brazilians now believing that a beautiful smile boosts social acceptance.

Recognising significant differences in oral health standards between urban and rural areas, the Smiling Brazil Programme was launched in 2004, utilising a joint provision approach that integrates the efforts of the government and private corporations. For example, private corporations like Colgate-Palmolive and Unilever sponsor dental care kits especially for communities in underserved remote areas, making oral healthcare accessible to those who might otherwise go without. Continuous professional development programs, funded by both the public and private sectors, ensure that dental professionals are equipped with the latest knowledge and skills.

Apart from joint provision, community healthcare workers engage in grassroots-level outreach, education to raise the awareness of good oral health practices, and oral healthcare service delivery, ensuring that even the most isolated communities receive care.

Brazil's healthcare expenditure has traditionally been higher than that of many countries, such as Indonesia. In recent years, Brazil has spent approximately 9-10% of its GDP on healthcare. According to the World Bank, Brazil's per capita healthcare expenditure is around US\$900, compared to US\$100 for Indonesia.

Sources: Adapted from various sources

Questions

- (a) With reference to Tables 1 and 2 and using a relevant elasticity of demand concept, explain the change in sugar consumption in Indonesia between 2013 and 2017. [2]
- (b) Using a demand and supply diagram, explain how growing awareness towards oral care has led to the sharp increase in the price of private dental care. [4]
- (c) Explain one opportunity cost that a dental service provider may incur when upgrading to a new dental imaging technology. [2]
- (d) Explain two possible conditions that may enable a dental service provider to practice price discrimination. [4]
- (e) With reference to the case material, discuss the factors that a new dental service provider needs to consider when deciding to enter the oral healthcare market in Indonesia. [8]
- (f) Discuss whether joint provision used in Brazil would be the most appropriate way to achieve allocative efficiency in the oral health market in Indonesia. [10]

Total: 30 marks

Question 2: Uncertainty and Challenges

Extract 4: Implications of war in Ukraine and trade restrictions on the world economy

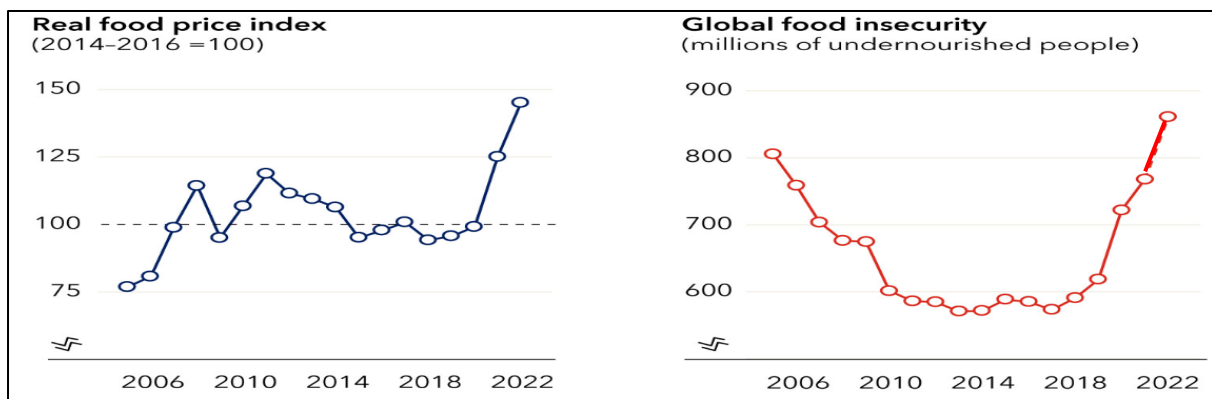
The worst global food crisis in a decade was one of the few top issues that plagued the world in 2022. It is a crisis made worse by the growing number of countries that are banning or restricting exports of wheat and other commodities in a misguided attempt to put a lid on soaring domestic prices. These actions are counterproductive—they must be halted and reversed.

The price of wheat, a key staple in many developing countries, has shot up by 34% since the Russian invasion of Ukraine in late February 2022, which has severely disrupted shipments from one of the world's largest food suppliers. Other food costs have also risen in tandem, mainly because many countries have imposed restrictions on exports of food and fertilizers, fueling an escalating cycle of trade restrictions that have a multiplier effect on prices. This situation of escalating food prices is magnified by the fact that export restrictions aren't the only trade measures governments are undertaking in response to higher prices.

Everyone is squeezed by food price inflation, but the poor are the hardest hit when food becomes scarce or unaffordable, especially in developing economies in Africa, Asia, Latin America and the Middle East, where food accounts for half of a typical family's budget. Moreover, developing countries are especially vulnerable because they tend to be net importers of food, with Bangladesh importing 41% of wheat. Climate change and changing weather patterns have negatively affected crop production throughout the developing world with Bangladesh being one of the most vulnerable countries to climate change. The severity of these climatic events heavily damaged its crop production. Of all Bangladesh's cereal crops, wheat is the second most important. However, wheat imports increased significantly as domestic production has not kept pace with rising demand over the years, making Bangladesh highly dependent on wheat imports. While Bangladesh had imported 24% of its total wheat consumption in the early 2000s, by 2016–2017 the imported wheat constituted 82% of the country's wheat consumption. The demand for wheat is growing every year due to the rising population, its use in the bakery industry and increasing awareness of the health benefits of wheat consumption.

Source: Adapted from various sources

Figure 1: Going hungry



Note: Undernourishment means that a person is not able to acquire enough food to meet the daily minimum dietary energy requirements, over a period of one year.

Extract 5: Extending reduced tariff rates to ensure affordable food supply for Filipinos.

President Ferdinand R. Marcos, Jr. made the move to extend the reduction of tariffs for key agricultural commodities such as pork, corn, and rice, on December 22, 2023. This move is seen to ensure sufficient and affordable food supply for Filipinos in the coming year, according to the National Economic and Development Authority (NEDA).

NEDA Secretary Arsenio M. Balisacan underscored the importance of keeping the reduced tariffs for basic commodities while world prices for these commodities remain elevated and local production falls short of demand at affordable prices, particularly among low-income households. According to the NEDA Secretary, this will help reduce the supply risks and alleviate the inflationary pressures caused by the onset of El Niño, the worsening effects of African Swine Fever, and external pressures such as geopolitical tensions and export bans imposed by some countries.

While the swine flu, production shortfall in corn, and estimated supply deficit in rice drove price increases in these commodities for this year, the additional importation of these key agricultural commodities as a result of the reduction in tariffs played a crucial role in mitigating the impact of elevated inflation in September of this year. The increased importation of key agricultural commodities has also affected the country's trade balance.

Balisacan also emphasized the importance of complementing this trade policy with crucial strategies and programs to enhance local food production and boost the productivity of farmers. These crucial strategies include sustained investments in irrigation, flood control, supply chain logistics, and climate change adaptation.

“Short-term and long-term interventions need to work together to protect the purchasing power of Filipino households and boost the productivity and income of local producers as job losses in the agriculture sector may be a result of the reduction in the tariffs on agriculture products. In rice farmers' case, the reduction of tariffs has led to their inability to compete with cheaper rice imports, driving them into poverty. Thus, short-term and long-term intervention is required as doing so will ensure equitable and sustainable development for the country,” stated the government's chief economic planner.

Source: National Economic Development Authority, December 2023, Philippines

Extract 6: The shadow cast by the Russian-Ukraine war over Singapore's outlook

Russia's invasion of Ukraine has resulted in disruptions to regional supply chains and financial networks, as well as heightened investor risk perceptions which could further dampen global confidence and weaken global growth. The war is also one of the main reasons why inflation is surging in many countries globally owing to higher energy costs.

Energy costs will be one key area where the conflict in Ukraine will affect Singapore, with pump prices for petrol and diesel here expected to rise, along with electricity rates for both businesses and households. Besides energy prices, the conflict has also contributed to further strains on global supply chains, since Russia and Ukraine are major exporters of commodities such as wheat, and metals such as nickel and palladium. According to Mr Gan Kim Yong, Minister for Trade and Industry, this would raise prices of goods that use these commodities as intermediate input. The manufacturing and construction sectors, the semiconductor industry and the wider technology goods market are areas that may be affected by these disruptions. “A protracted conflict will affect business confidence and weigh on global

economies, and impact their recovery from the pandemic. The Ukraine crisis has clouded our economic outlook," he added, noting that the actual impact on Singapore's gross domestic product growth and inflation is "difficult to estimate" given the uncertainties at this stage.

In view of these challenges, the government has adopted a multi-pronged strategy to manage supply-chain risks. These strategies included diversification of imports, producing goods domestically where viable and procuring from alternative sources where necessary. Additionally, to help alleviate the pressures from a rise in cost of living, this year's Budget included the Household Support Package which contained many direct measures to help households. An example of such measures is the CDC (Community Development Council) vouchers, which help to reduce the out-of-pocket expenses for nearly all households. In the short term, such government support schemes will help to share the burden and ease the hardship on households, but in the long term, this does not really solve the problem. The fundamental issue here is that higher energy and food prices have made households collectively worse off. As a small and open economy, Singapore is vulnerable to unexpected international changes like this and the fundamental solution to this is to make ourselves more productive, to transform our businesses, to grow our economy, to uplift everyone. Our strategy can only be one - and that is to stay open, to make our economy stronger, more resilient, and to keep on seizing opportunities for growth, developing new capabilities and becoming a more competitive economy.

Adapted from The Straits Times, May 2022 and TodayOnline, April 2022.

Questions

- (a) (i) With reference to Figure 1, describe the relationship between real food price index and global food insecurity from 2014 to 2022. [1]
- (ii) Explain a possible reason for the relationship observed in a(i). [2]
- (b) Explain whether the theory of comparative advantage accounts for Bangladesh being a net importer of wheat. [5]
- (c) With reference to Extract 4, explain how a country might seek to ban or restrict exports of commodities to bring down domestic prices and why this would be "a misguided attempt to put a lid on soaring domestic prices". [4]
- (d) In view of the problem of food insecurity, discuss whether tariff reduction is an effective measure in helping the Philippines achieve inclusive growth. [8]
- (e) With reference to the data provided, discuss the appropriateness of the policy measures undertaken by the Singapore government to address the challenges faced in view of the Russian-Ukraine war. [10]

Total: 30 marks

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Copyright Acknowledgements:

Extract 1	© Adapted from various sources
Table 1	© Worldbank
Table 2	© Indiansugar
Extract 2	© Adapted from various sources
Extract 3	© Adapted from various sources
Extract 4	© worldbank.org; The implications of the War in Ukraine for the Global Economy April 2023 and National Economic Development Authority; Climate Sensitivity of wheat yield in Bangladesh: Implications for the United Nations sustainable development goals
Figure 1	© United Nations Food and Agriculture Organisation
Extract 5	© National Economic Development Authority, December 2023; Reduced tariff rates extension to better manage inflation food security
Extract 6	© The Straits Times, May 2022; The shadow cast by the Ukraine war over Singapore's outlook and Today Online, April 2022; Ukraine-Russia conflict will significantly affect energy costs in Singapore.

