



# ST ANDREW'S JUNIOR COLLEGE

## 2024 JC1 H1 ECONOMICS

### SCARCITY AS THE CENTRAL ECONOMIC PROBLEM

#### **Before you begin**

Approach the questions by following this sequence:

1. Perform a quick scan of the extract, start by reading the titles.
2. Analyse the question by highlighting words that hint towards what you are supposed to do (command words) and identify the economic tools of analysis and concepts required in the question.
3. Read the extract in detail and highlight any evidence that can be used to support your answer.
4. Write your answer out on a piece of foolscap.

#### **Section A: Data Response Questions**

##### **1. [2023 H1 DHS Prelim]**

##### **US government's responsibility for public health**

Public health promotes and protects the health of all people and their communities. While the healthcare industry treats people who are sick, public health aims to prevent people from getting sick or injured in the first place. While healthcare industry focuses on individual patients, public health focuses on entire populations.

Every day, the public health field is working – often behind the scenes – to prevent hazards and keep people healthy. Examples of public health programmes includes tracking disease outbreaks to reduce the spread of infectious disease, setting safety standards to protect workers and developing school nutrition programme to ensure kids have access to healthy food. In 2021, the US government spent US\$187.6 billion funding public health programmes.

If health expenditures continue to increase as a share of government spending, the increase will eventually necessitate either tax increases or reduced spending on other important government functions like public safety, infrastructure, research and development, and education.

Source: *Community Health Services Administration Handbook*, 3 May 2023

- (a) Explain what the opportunity cost of the US\$187.6 billion invested by the US government to fund public health programmes might be. [2]
- (b) Using a PPC diagram, explain the likely impact of the above investment in public health programmes on the US economy. [2]

*\*Question highlighted on pages 9 (Qn a) & 21 (Qn b) of Scarcity as the Central Economic Problem Lecture Notes.*

**2. [2015 H1 & H2 HCI Prelim]**

**Reduction in interest rates to boost China's economy**

China's economy has not performed as well in 2014 as compared to previous years. To boost economic growth in China, the People's Bank of China (PBOC) announced a cut in its interest rates. More specifically, the deposit rate for households will be reduced by 0.25 percentage point to 2.75 percent. Such a move makes it less attractive for households to save their hard-earned income simply at the banks. PBOC hopes that the reduction in interest rates will have a significant impact on the decision made by households, causing them to purchase more big-ticket items such as household electrical appliances and motorcars instead.

Adapted from *Wall Street Journal*

Use the concept of opportunity cost to explain the theoretical relationship [3]  
between interest rates and level of savings.

*\*Question highlighted on page 9 of Scarcity as the Central Economic Problem Lecture Notes.*

**3. [2023 H1 JPJC Prelim]**

**Can new technologies make mining cleaner?**

With demand for critical materials such as lithium expected to surge as the world moves away from fossil fuels and embraces solar, wind, and electric vehicles, countries which rely heavily on the extraction and exports of mineral deposits are looking at ways to make mining cleaner. In the United States, there is increase government investment in new technologies to develop more sustainable extraction, processing, and recycling methods for essential minerals, including lithium. The Department of Energy emphasised the importance of federal support for such "environmentally sustainable and next generation" technologies.

While new technologies offer hope that the mines of the future can be more environmentally sustainable, many are still years away from seeing results and being applied at a large commercial scale—if that proves possible at all. Ultimately, stricter laws and regulations as well as effective enforcement are required to ensure that whatever impact mining has on the environment, it should be kept as low as possible.

Source: *National Geographic*, 13 May 2022

Using the Production Possibility Curve diagram, explain why even when used [5]  
efficiently, such a high level of investment might be regarded as undesirable.

*\*Question highlighted on page 21 of Scarcity as the Central Economic Problem Lecture Notes.*

**4. [2017 H1 ACJC Promo]**

**Recent policies on alcohol implemented by the Singapore government**

In February 2014, the liquor tax was raised by 25 percent to \$88 per litre of alcohol content for wine and spirits, and \$60 per litre of alcohol content for beer. With the hefty tax hike, drinkers may need to fork out more for a can of beer at the coffee shop or a shot of whisky at the pub.

In addition, it was effected in April 2015 that the public would not be allowed to buy alcohol for take-away or consume alcohol at public places from 10.30 pm to 7.00 am daily. This is part of the Liquor Control (Supply and Consumption) Bill passed in Parliament.

Under the new laws, alcohol retailers in areas designated as Liquor Control Zones will also be subjected to stricter controls. Geylang and Little India have been designated as Liquor Control Zones. This means that retailers there cannot sell alcohol from 7.00 pm on Saturday to 7.00 am on Monday.

This also applies on public holidays - where no alcohol sales can take place from 7.00 pm on the eve of a public holiday, to 7.00 am the next day. However, the public can consume liquor within licensed premises, such as coffee shops, hotels, bars and restaurants.

Explain why a person might consider it a rational decision to consume alcohol at public places in Singapore from 10.30 pm to 7.00 am even though it is illegal. **[4]**

**5. [2023 H1 SAJC WA1]**

**Singapore Electricity Market**

With almost a quarter of Singapore's power generation capacity expected to reach the end of its lifespan over the next five years, the Energy Market Authority (EMA) is studying how future gas power plants entering the power system before 2030 could impact its target for net zero emissions by or around 2050.

These power plants that currently run on natural gas, a less polluting fossil fuel that produces 95 per cent of the country's energy, will remain the "backbone of Singapore's electricity generation" even as the power sector decarbonises, the industry regulator said in a tender on Sept 8.

This comes after a report, which was commissioned by EMA, said in March that it is realistic for the power sector to bring down its planet-warming emissions to net zero by 2050 in ways that will neither compromise Singapore's energy security nor affordability.

Strategies that the report recommended include intensifying research in cleaner energy sources such as hydrogen and geothermal. Still, natural gas is needed to ensure "a reliable supply of electricity" amid the transition to cleaner and renewable energy sources, the EMA spokesman said.

Dr Victor Nian, chief executive of independent think-tank Centre for Strategic Energy and Resources, said imposing a carbon emission intensity limit demonstrates EMA's commitment to decarbonise the power sector, noting that achieving this requires a phased approach.

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"However, before our industry can adopt hydrogen and ammonia, we still need to address the present gaps and uncertainties, such as the lack of infrastructure supporting a hydrogen or ammonia economy, technology readiness and commercial viability, future cost of hydrogen and ammonia relative to the cost of fossil fuel, and security of supply," he added.

Source: The Straits Times, 19 Sep 2022

With reference to Extract 2,

- (a) Explain the factors Singapore government should consider when making a decision on whether to continue to invest in cleaner energy sources such as geothermal energy. [6]
- (b) Comment on whether they should do so. [2]

### 6. [2018 H1 MI Block Test 1]

#### Extract 3: KL-Singapore high-speed rail service

The Kuala Lumpur-Singapore high-speed rail (HSR) service from Bandar Malaysia to Jurong East in the republic is expected to run every 30 minutes. There will also be a domestic service that will see the train stop at all stations along the route in Malaysia, and this will also run every half-hour. The proposed frequency was based on projections made by taking into account that currently there are some 60 flights a day between Kuala Lumpur and Singapore. The non-stop express service will reach Singapore in 90 minutes and passengers boarding at Bandar Malaysia station will be able to clear Singapore Immigration before boarding. Annual ridership is expected to reach about 15.2 million in 2030 and increase to 37.8 million in 2060.

This HSR project will have several short-term environmental concerns, but the long-term benefits on commuter safety and carbon emissions provide a "strong justification" for the project. It was noted that air, water and noise impacts, soil erosion and sedimentation are among the short-term environmental concerns. Among these concerns are also carbon dioxide emissions that will be generated from the burning of fossil fuels to provide enough electricity to power the HSR system. However, the report added that mitigating measures have been put in place to ensure that these environmental effects do not adversely affect people. For example, pathways that are used to transport soil and biomass will not be located near residential areas.

Besides, the ridership figures will translate into fuel and carbon dioxide emissions savings, the report said. It is projected that by the 10th year of operation, about 19 million litres of fuel will be saved from fewer vehicles on the roads. Additionally, the electric-powered HSR will reduce greenhouse gas emissions from vehicles and this can amount to up to 55 million kilograms of carbon dioxide emissions saved.

Source: The Star/Asia News Network, 8 December 2017 and  
Channel NewsAsia, 27 December 2017

With reference to Extract 3, explain the factors affecting the governments' decision to embark on the high-speed rail project and comment on whether this is a rational decision made by the governments. [7]

*\*Question highlighted on page 28 of Scarcity as the Central Economic Problem Lecture Notes.*

**Reflection**

Jot down your key takeaways after you have completed your tutorial package for Scarcity as the Central Economic Problem.