TAMPINES MERIDIAN JUNIOR COLLEGE

JC2 PRELIMINARY EXAMINATION

H2 ECONOMICS **9570/01**

Paper 1 **9 September 2024**

2 hours 30 minutes

Additional materials

Two Answer Booklets

READ THESE INSTRUCTIONS FIRST

Write your name and Civics Group on all the work you hand in.
Write in dark blue or black pen on both sides of the paper.
You may use an HB pencil for any diagrams, graphs or rough working.
Do not use staples, paper clips, glue or correction fluid.

Answer **all** questions.

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

Begin each Case Study Question on a **new** answer booklet.

Submit Question 1 and Question 2 **separately.**

Answer **all** questions.

Question 1: The changing landscape of European Energy Market

Extract 1: European Liquefied Natural Gas (LNG) prices reach five-month high

Liquefied natural gas (LNG) is natural gas, predominantly methane, converted into liquid form for ease of storage or transport. LNG is increasingly used as an alternative fuel for ships and lorries. Ensuring that all EU countries have access to LNG markets is a key objective of improving EU energy security in the short-term, while more sustainable solutions towards full decarbonisation by 2050 are established.

European LNG prices rose to a five-month high due to ongoing geopolitical risk factors and tightness in European LNG supply. Heightened geopolitical tension, especially with the ongoing war in Ukraine and disruption of shipping on the Red Sea, has adversely affected LNG supply. The EU's 14th package of sanctions against Russia includes measures which target LNG specifically. The EU prohibits all future investments in Russia. Moreover, heat waves in Europe have sparked stronger seasonal demand due to increased power demand, as the use of air conditioning climbs.

Although EU plans to steadily increase its LNG import capacities by developing new LNG port terminals to combat supply interruptions from the remaining Russian pipeline imports, bottlenecks and infrastructural limitations still exist in some regions.

Source: various sources

Extract 2: Energy companies in Europe, Repsol and EDF Renewables, to join forces for Iberian offshore wind

Spanish oil company Repsol and French power giant EDF Renewables have reached an exclusivity agreement to join forces in anticipation of future bids for offshore wind projects in Spain and Portugal. This collaboration is driven by the significant growth opportunities offered by the Iberian Peninsula, located in southwestern Europe and primarily occupied by Spain and Portugal.

The cooperation brings together Repsol's knowledge of the Spanish and Portuguese markets and EDF Renewables' expertise in both fixed and floating offshore wind, and will support Spain and Portugal's objectives in renewables. EDF Renewables benefits from more than 10 years of experience in offshore wind power and is also one of the pioneers of floating offshore wind technology. The lower costs from the shared resources will see a reduction in energy bills for consumers and increase affordability. As a major player in the energy transition worldwide, EDF Renewables develops, builds, and operates competitive, responsible, and value-creating projects to fight against climate change.

Consumers might benefit from the collaboration between Repsol and EDF Renewables, two of the most significant energy companies in Europe, by gaining access to better quality renewable energy solutions or more reliable services, resulting in fewer disruptions to renewable energy. However, critics are also concerned that the exclusivity agreement may reduce competition among these firms, thereby limiting consumer choices.

Source: Energy Global, 22 July 2024

Extract 3: Climate Change and the EU Emissions Trading Systems (ETS)

In recent years, the global concern over climate change and its environmental impact has grown significantly. The negative impacts that non-renewable energy sources like fossil fuels such as coal, petroleum and natural gas have on climate change, and environmental health have become increasingly clear. Aside from relying on dwindling and expensive resources, fossil fuel combustion creates vast harm by releasing toxic air pollution and greenhouse gases that threaten air quality and climate health.

The EU Emissions Trading System (ETS) was initially established in 2005 as a market-based mechanism to tackle greenhouse gas emissions within the European Union. The EU ETS follows a ‘cap-and-trade’ approach: the EU sets a cap on how much carbon dioxide (CO_2) can be emitted – which decreases each year – and companies need to have a European Emission Allowance (EUA) for every tonne of CO_2 they emit within one calendar year. Companies are therefore incentivised to reduce emissions by investing in energy efficiency as they can then sell excess allowances. The revenues of the EU ETS mainly go to member states' budgets, or flow into the EU-wide Innovation Fund and the Modernisation Fund.

Paying for permits is intended to incentivise companies to invest in technologies that reduce emissions. However, much of the deployment of solar and wind technologies are largely driven by the higher energy costs following Russia’s invasion of Ukraine.

Sources: Clean Energy Wire, 23 May 2024 & Bloomberg, 23 Jan 2024

Extract 4: Accelerating Europe's green transition

Renewable energy is becoming an increasingly inexpensive, popular, and viable energy source. By increasingly relying on renewable energy sources like wind and solar power, we can reap a wide variety of benefits including reduced air pollution, lower greenhouse gas emission levels, decreased healthcare costs, a more resilient electrical grid, and job generation.

The European Green Deal is a package of policy initiatives, which aims to set the EU on the path to a green transition, with the ultimate goal of reaching climate neutrality by 2050. The main purpose of the Green Deal, a 30-year action plan, is to meet climate goals and stop global warming. Its implementation promises benefits such as cleaner air, water and soil due to reduced environmental pollution, more liveable cities due to the development of public transportation and non-polluting forms of mobility, as well as an end to dependence on fossil fuels.

Energy efficiency is a key area of action, without which the full decarbonisation of the EU economy cannot be achieved. Within this context, investments in energy-efficient infrastructure and production processes need to be increased in all sectors of the economy. This is the most cost-effective and sustainable way towards climate neutrality.

The European Green Deal provides subsidies for energy efficiency to support research, innovation, technology development, and capacity building of private and public entities. This helps to reduce barriers to entry in the renewable energy industry. However, there are high implementation costs associated with the Green Deal, as it requires significant investment in green technologies and infrastructure, which may make European companies less competitive globally.

Source: European Commission

Questions

(a) **(i)** Using Extract 1, explain one demand factor and one supply factor to account for the rise in price of liquefied natural gas (LNG) in Europe. [4]

(ii) Explain the likely value of price elasticity of supply for LNG. [2]

(b) Explain how the rise in price of LNG might affect the aggregate supply of a European country. [2]

(c) Considering the possible advantages and disadvantages to consumers, assess whether the exclusivity agreement between Repsol and EDF Renewables is likely to be of overall benefit to consumers. [8]

(d) With reference to Extract 3, explain the source of market failure for the non-renewable energy market. [4]

(e) Discuss whether the EU Emissions Trading System (ETS) is the best way to achieve efficiency and equity in the energy market. [10]

[Total: 30]

Question 2: Is ASEAN winning the globalisation game?

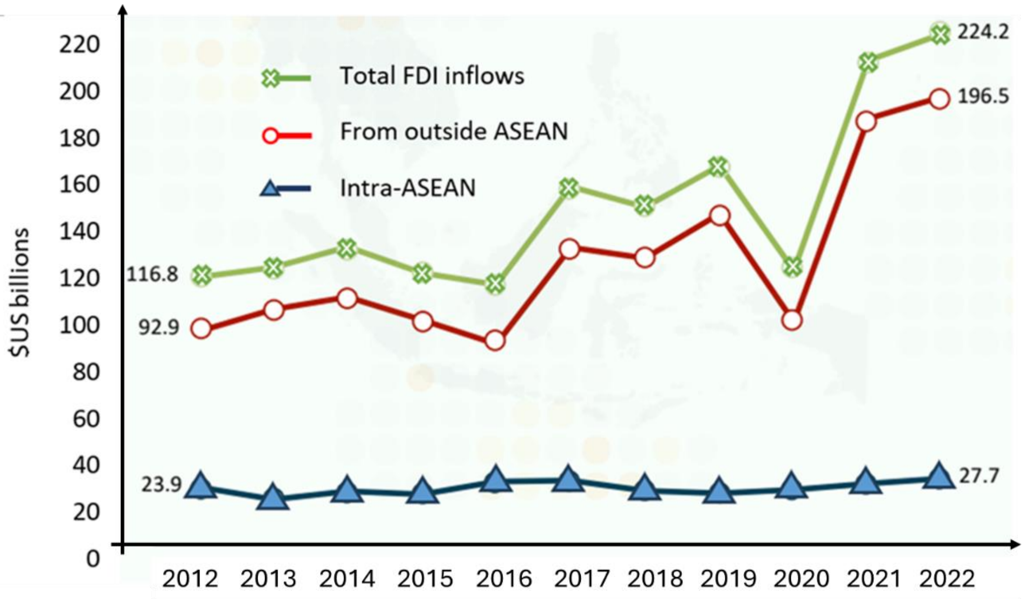
Extract 5: The rise of ASEAN amid economic resilience and opportunities

The latest United Nations Conference on Trade and Development (Unctad) report on ASEAN[1] investments showed that inflows of foreign direct investment (FDI) into the region rose 42 per cent in 2021 to US$174 billion. Second only to China, the rebound in FDI underscores confidence in ASEAN, which has emerged resiliently from the pandemic. Today, ASEAN is the fifth largest economy in the world, with a gross domestic product (GDP) of US$3.1 trillion. It is expected to rise to fourth place by 2030, with GDP more than doubling to US$6.6 trillion. Meanwhile, ASEAN's middle-income population is anticipated to grow from 172 million in 2010 to 472 million in 2030.

As the developed world grapples with slower economic and productivity growth, ASEAN provides enormous opportunities via three key areas. First, the relatively young ASEAN population will grow to 726 million in 2030. At a size of half the Chinese population, this will be a massive market that the world cannot ignore. Second, the United Nations forecast predicts that ASEAN's urbanisation rate will increase strongly from 49 per cent in 2018 to 56 per cent in 2030, which raises level of education. Higher levels of education will generate greater FDI inflows, technological transfer, and the creation of new industries. Third, ASEAN's participation in the Regional Comprehensive Economic Partnership – the world's largest trade agreement – will bring about a virtuous cycle of global investment and talent flows into this region.

Source: *The Business Times*, 8 March 2023

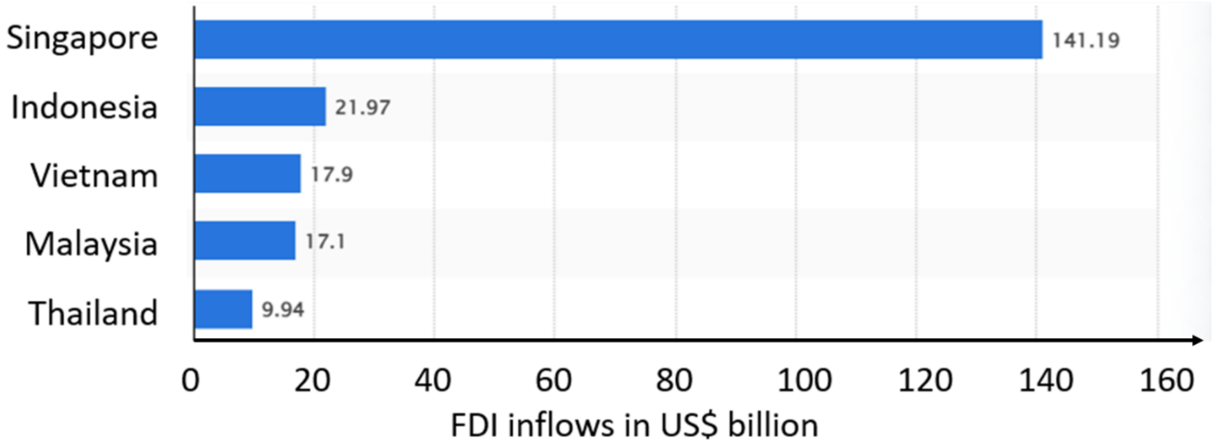
Figure 1: Inflows of FDI, from outside ASEAN and intra-ASEAN, 2012 – 2022



Source: *ASEAN Statistical Highlights 2023*

[1] The Association of Southeast Asian Nations (ASEAN) is a regional organisation that aims to promote economic and security cooperation among its ten members: Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Singapore, Thailand, and Vietnam.

Figure 2: ASEAN countries with the highest amount of foreign direct investment (FDI) inflows in 2022 (US$ billion)



Source: *Statista Research Department,* 17 April 2024

Table 1: Selected indicators for Singapore, Thailand and Vietnam in 2022

	Singapore	Thailand	Vietnam
GDP per capita (US$)	82 795	7494	4110
Urban population (%)	100.0	51.4	37.6
Population living below national poverty line	N.A.	6.8	4.4
Adult literacy rate (%)	97.6	93.8	96.1
Life expectancy (years)	83.0	76.2	73.6

Source: *ASEAN Statistical Highlights 2023*

Extract 6: RCEP's impact on trade and growth in the Asia Pacific

The Regional Comprehensive Economic Partnership (RCEP) brings together the ten ASEAN countries with Australia, New Zealand, and the three North Asian countries of China, Japan and South Korea. The world's largest trade agreement comprises about 30 per cent of global GDP and the world's population.

The RCEP will open new opportunities and offer preferential access into growing markets in the region. On average, there is tariff elimination for about 92 per cent of goods traded amongst participating countries. While direct impact on ASEAN countries is limited as the RCEP consolidates ASEAN's existing trade agreements with other RCEP signatories, it is the first formal trade agreement between Japan and each of the other two North Asian countries. Simplified customs procedures will also allow efficient and faster clearance of goods which will facilitate cross-border integration of supply chains and draw FDI flows into the region.

Source: *Various*

Extract 7: ASEAN poised to increase share of global trade as manufacturers seek more resilient supply chains

Singapore and other ASEAN economies may have a unique opportunity to increase their share of world trade as an increasing number of global manufacturers seek to move sourcing of supplies and production out of China. China's disruptive Covid-19 lockdowns and intensifying tensions with the United States have further urged multinational companies to seek resilient and conflict-free supply chains.

Competing with China is a tall order. In 2021, China accounted for over 15 per cent of global goods exports. In comparison, ASEAN's share was only 7.8 per cent. China's dominance of global goods exports follows decades of strong foreign direct investment that helped it scale up manufacturing and the skill set of its labour force.

That said, China has lost cost competitiveness in many industries as its cheap migrant workforce has been shrinking. As wages rose, the cost of many manufacturing inputs soared as well. Meanwhile, increasing emphasis on weaning away growth drivers from trade to domestic consumption means China's overall policy framework of incentives and subsidies is now more tilted in favour of producing higher-value goods and services.

In the past decade, several foreign and even Chinese producers of lower value-added industries such as footwear and garment manufacturing have moved to Vietnam, Cambodia and Myanmar – a strategy popularly known as "China-plus-one". But even these offshore operations remain heavily reliant on imports from China for inputs and capital goods that are essential to them. Japanese companies that were among the first movers under the China-plus-one strategy found that their manufacturing facilities in ASEAN were still sourcing 13.5 per cent of raw materials and parts from China. Meanwhile, their factories operating in China sourced more than 90 per cent of inputs locally, and the rest from Japan, making them less vulnerable to external shock.

Analysts have said that the rise in China's cost base and its intent to move up the value chain give an opening to some Southeast Asian economies to replace China in the global value chain. However, breaking the dependency on China will involve a far higher degree of intra-ASEAN connectivity and vertical integration – taking direct ownership of various stages of production rather than relying on external suppliers.

Boosting intra-ASEAN trade will become even more important as the world's largest economies – the US, China and the Euro zone – increase their efforts to localise their supply chains and production. This trend could intensify over time and have an adverse impact on overall output in the rest of Asia. Experts believe ASEAN could increase its footprint in global manufacturing output by putting to greater use the diversity of its ten economies, some of which offer a cheaper cost base while others higher productivity, innovation and the access to higher-value chains.

Source: *Singapore Economic Development Board*, 4 May 2023

Questions

(a) 'Higher levels of education will generate greater FDI inflows.' (Extract 5)

(i) Explain how information in Figure 2 and Table 1 supports the above statement. [2]

(ii) Explain why higher levels of education will generate greater foreign direct investment (FDI) inflows. [2]

(b) Using a production possibility curve diagram, explain how FDI inflows can affect a country's current employment and future output. [5]

(c) Explain one way in which the Regional Comprehensive Economic Partnership (RCEP) can affect the multiplier size of a participating country. [3]

(d) With reference to Table 1, discuss whether it can be said that Thailand has a higher standard of living than Vietnam in 2022. [8]

(e) Discuss whether increasing intra-ASEAN economic cooperation or increasing economic cooperation with countries beyond ASEAN has more benefits than costs for ASEAN economies. [10]

[Total: 30]

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