



CANDIDATE NAME

CT GROUP

22

ECONOMICS

Paper 1 Case Study Questions

9570/01

25 August 2023

2 hours 30 minutes

Additional Materials: Answer Booklet

READ THESE INSTRUCTIONS FIRST

Read all instructions printed on the cover page of the 12-page answer booklet carefully.

Write all your particulars clearly on the cover page of the 12-page answer booklet.

Write in dark blue or black pen on both sides of the paper.

You may use a soft HB pencil for any diagrams, graphs or rough working.

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

Answer ALL questions.

Write all your answers in the 12-page booklet and subsequent 4-page booklets (if required).

Do all your rough work in pen using the answer booklet and cross it through without making it illegible.

Do not tear out any part of this booklet.

Begin case study question 1 and question 2 on a new page within the answer booklet.

All work must be handed in. If you have used any additional 4-page booklets, please insert them inside the 12-page answer booklet.

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

You may use a calculator.

You are advised to spend several minutes reading through the questions before you begin writing your answers.

You are reminded for the need for good English and clear presentation in your answers.

This document consists of 8 printed pages.

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Question 1: Coronavirus (COVID-19) – Immediate impact and beyond**Extract 1: Challenges faced by Boeing and Airbus**

The COVID-19 pandemic has created disruptions in the air travel and aircraft manufacturing industry amidst widespread travel restrictions and travellers' fear of infection. Even as sale of tickets plunge, aircraft manufacturers have had to readjust their production. For example, Airbus has reduced output from 60 to 40 a month. Similarly, Boeing has announced cuts to production. China, desperate to become a power in commercial aerospace, may see the disruption as a way to speed up entry into the global market, says Robert Spingarn of Credit Suisse, a bank. He speculates that Brazil's Embraer might merge with China's COMAC to build a plane capable of competing against Airbus and Boeing. The Brazilians could supply the industrial knowhow and the Chinese the industrial might.

The nature of the aircraft manufacturing industry is that it involves significant costs. For instance, an aircraft manufacturing firm would need to incur costs to build factories, assembly lines, hangars and testing facilities. It also has to incur costs to buy metals, composites, plastics and other specialised parts besides employing a huge number of workers. The coronavirus has already impacted the demand for aircrafts. Now Airbus and Boeing are concerned about the potential entry of Embraer and COMAC into the aircraft manufacturing industry.

Source: Adapted from *The Economist*, 1 Aug 2020

Extract 2: Cannabis is harmful to society although it may revive the tourism industry

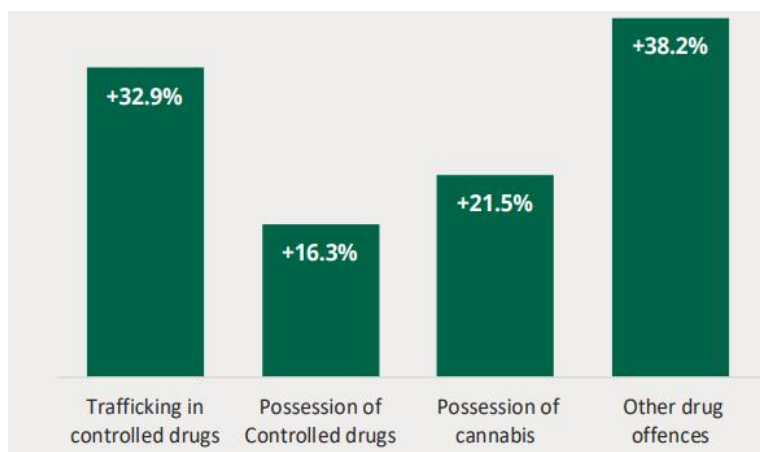
There has been a lot debate whether recreational cannabis should be permissible. Although it is legalised in some countries, it has caused a lot of controversies especially since the COVID-19 pandemic.

In the United States (US), the recreational use of cannabis has been legalised in 23 states, three US territories, and District of Columbia, typically for adults aged 21 and above. Travel has been an ordeal since the arrival of COVID-19 but some analysts said that recreational cannabis could revive the tourism industry. A 2020 report found that 29 percent of all active leisure travellers want to do cannabis-related activities on vacation. With worldwide sales expected to hit \$55.9 billion by 2026, a hospitality publication suggested that hotels can't afford to ignore the growing interest in cannabis use.

Cannabis is illegal to possess, grow, distribute or sell in the United Kingdom (UK). The maximum penalty for possession of cannabis, even if it is meant for recreational use, is five years in prison and an unlimited fine. Cannabis is thought to be the most widely used illegal drug in the UK. While it can lead to feelings of relaxation, happiness and sleepiness, many experts say the drug is not the harmless "natural" high some claim it to be. In some cases, it can increase anxiety and paranoia, lead to confusion and even hallucinations, according to the Royal College of Psychiatrists. Beyond this, regular cannabis use increases the risk of developing psychotic illnesses, such as schizophrenia, particularly in adolescents, says an expert from King's College London. "For some people, they end up having problems with relationships. It impacts on their ability to function at work and school," according to a professor of psychopharmacology at the University of Exeter. They are often tired and fall sick frequently, affecting their ability to work well in a team. At work, the low attendance rate has a negative impact on their work performance. At home, they may turn aggressive towards their family members due to mood swings, especially when they run out of money to buy cannabis.

Source: *Various*

Table 1: Percentage change in total number of drug offences in England and Wales from 2019 to 2020



Source: Office for National Statistics, Crime in England and Wales

Extract 3: Uneven effects of the pandemic on OECD¹ countries

The speed of the economic bounce-back from the enormous recession of 2020 has taken many forecasters by surprise. Output across the 38 mostly rich OECD countries combined probably surpassed its pre-pandemic level a few months ago. The average unemployment rate across the club, at 5.7%, is in line with the post-war average. And aggregate household income, adjusted for inflation, is above its pre-covid level. The overall picture has been remarkably benign, even as several variants of the coronavirus have emerged. But it hides stark differences beneath.

Some countries always looked vulnerable to travel bans and a collapse in services spending—in particular those in southern Europe, which rely heavily on tourism. Other places, including Belgium and Britain, suffered high levels of COVID-19 infections and deaths, which limited consumer spending.

In some countries, especially those where the impact of the virus was relatively slight, labour markets did not suffer too much, allowing people to continue to earn. Japan's unemployment rate has barely budged since the pandemic began. By contrast, Spain's rate rose by three percentage points between February and August 2020.

Some governments more than made up for people's lost labour income by sending them vast amounts of money. That was America's strategy: although unemployment soared as the economy locked down, households received more than \$2 trillion in government transfers in 2020 and 2021, in the form of topped-up unemployment benefits and stimulus cheques. Canada did something similar. Other countries, however, such as the Baltics, focused their fiscal firepower on protecting firms' cashflow or expanding health-care capacity. Austria and Spain seemed to neither preserve jobs nor compensate the losers: in both countries real household income is still around 6% below its pre-pandemic level.

What about companies? Stock market performance hints at their health, as well as a country's attractiveness to foreign investors. Share prices in Britain are slightly lower today than on the eve of the pandemic. Britain also hosts fewer companies in the higher-growth sectors that have benefited from pandemic-induced technology adoption and lower interest rates. America, which has more such

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¹ The Organisation for Economic Co-operation and Development, abbreviated as OECD and based in Paris, is an international organisation of 38 countries committed to democracy and the market economy.

firms, has seen its stock market jump. But it has nothing on the bourses of northern Europe, where prices have soared. Three of the ten biggest firms by market capitalisation on the Danish market are in health care, decent stocks to hold in a pandemic.

All else equal, a big rise in government debt is worse than a small one, since it could indicate potentially larger tax rises and spending cuts in the future. Not every country has amassed enormous debts during the pandemic, even if America, Britain, Canada and others certainly have. Swedish public debt has risen by just six percentage points as a share of GDP. This is a reflection, perhaps, of the fact that the country largely avoided strict lockdowns, necessitating less fiscal support.

The spread of the Omicron variant is likely to curtail growth in early 2022. But the economic recovery is still likely to continue over the year, and the overall picture will probably mask variation again. The OECD expects some of the worst performers to start catching up: Italy is forecast to grow by 4.6% in 2022, above the average pace for the club of 3.9%.

Source: Adapted from *The Economist*, 1 Jan 2022

Questions

- (a) (i) Explain why Boeing is concerned about the potential entry of Embraer and COMAC into the aircraft manufacturing industry. [3]
- (ii) Use a diagram to explain how Boeing could use limit pricing as a strategy to discourage the potential entry of Embraer and COMAC. [3]
- (b) Using a relevant example from Extract 1, explain how average fixed cost is affected as an aircraft manufacturing firm increases its output in the short run. [2]
- (c) Explain how average total cost will change as an aircraft manufacturing firm expands its scale of production in the long run. [2]
- (d) (i) Explain what is meant by efficient allocation of resources in a free market. [2]
- (ii) Discuss whether negative externality is the main reason for a government to restrict recreational use of cannabis. [8]
- (e) With reference to Extract 3, discuss whether the standard of living of OECD countries would necessarily worsen due to the pandemic. [10]

[Total: 30]

Question 2: Threats of Stagflation

Extract 4: Stagflation is a growing threat to the global economy

The new reality that many advanced economies and emerging markets must reckon with is stagflation, which is characterised by higher inflation accompanied by higher unemployment, slower growth, and possibly recession. This should come as no surprise. The Covid-19 pandemic forced many sectors to lock down, disrupted global supply chains, and produced an apparently persistent reduction in labour supply, especially in the United States (US). Then came Russia's invasion of Ukraine, which has driven up the price of energy, industrial metals, food, and fertilisers.

But even without these important short-term factors contributing to stagflation, the medium-term outlook looks bleak as there are two main threats of stagflation – deglobalisation and labour constraints.

For starters, since the global financial crisis, there has been a retreat from globalisation and a return to various forms of protectionism. This reflects geopolitical factors and domestic political motivations in countries where large cohorts of the population feel “left behind”. Rising geopolitical tensions and the supply-chain trauma left by the pandemic are likely to lead to more reshoring of manufacturing from China and emerging markets to advanced economies. Hence, production will be misallocated to higher-cost regions and countries.

Moreover, demographic ageing in advanced economies and some key emerging markets (such as China, Russia, and South Korea) will continue to reduce the supply of labour, causing wage inflation. And because elderly people tend to spend savings without working, the growth of this cohort will add to inflationary pressures while reducing the economy's growth potential. The sustained political and economic backlash against immigration in advanced economies will likewise reduce labour supply and apply upward pressure on wages. For decades, large-scale immigration kept a lid on wage growth in advanced economies. But those days appear to be over.

Optimists may argue that we can still rely on technological innovation to exert disinflationary pressures over time. Technological innovation in artificial intelligence, machine learning and robotics could continue to weaken labour constraints, and demographic effects could be offset by higher retirement ages. Moreover, today's deglobalisation may itself be reversed as regional integration deepens in many parts of the world through free trade agreements (FTA).

Nevertheless, over the next few years, loose monetary and fiscal policies will start to trigger persistent inflationary – and eventually stagflationary – pressure, owing to the emergence of persistent negative supply shocks.

Source: Adapted from *The Guardian*, 15 April 2021 and 22 April 2022

Table 2: Economic indicators of the global economy

	2017	2018	2019	2020	2021
Inflation (annual %)	2.19	2.44	2.19	1.92	3.48
Unemployment (% of total labor force)	5.87	5.70	5.54	6.90	6.20
GDP growth (annual %)	3.39	3.29	2.59	-3.11	5.87

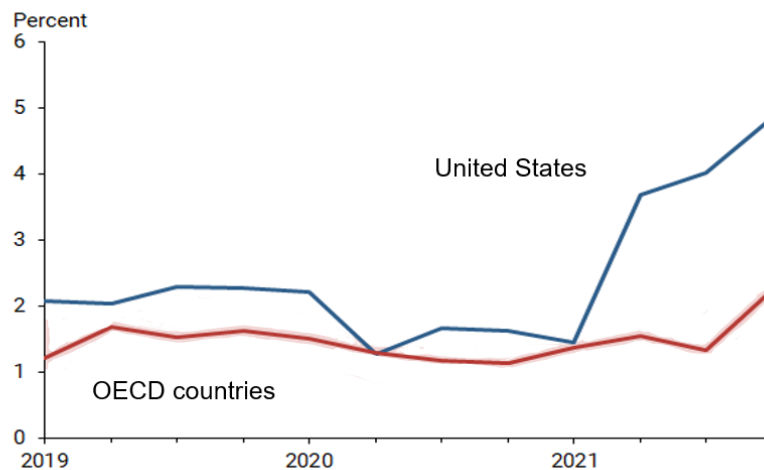
Source: *The World Bank Databank*

[Turn over

Extract 5: Differences in inflation rate

Inflation rates in the United States (US) and other developed economies have closely tracked each other historically. Problems with global supply chains and changes in spending patterns due to the COVID-19 pandemic have pushed up inflation worldwide. However, since the first half of 2021, US inflation rate has increasingly diverged from other developed countries. Data suggest that differences in fiscal support measures designed to counteract the severity of the pandemic's economic effect may have contributed to this divergence.

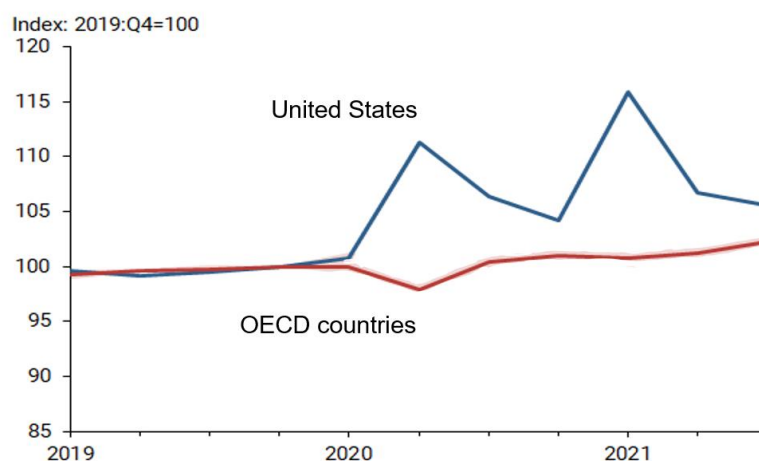
Figure 1: Annual core CPI inflation (2019 – 2021): US versus OECD countries²



Source: *OECD Household Dashboard: cross country comparisons*

While all countries have been affected by the COVID-19 pandemic, fiscal support measures have varied considerably. One way to get a read on the level of support measures is to directly measure disposable income in each country. This measures the amount individuals have left to spend or save after paying taxes and receiving government transfer payments. It is a relatively comparable measure across countries that incorporates the overall magnitude of net pandemic transfers.

Figure 2: Real disposable income (2019 – 2021): US versus OECD countries²



Source: *OECD Household Dashboard: cross country comparisons*

Source: Adapted from *Federal Reserve Bank of San Francisco Economic Letter*, 28 March 2022

² Selected Economic Co-operation and Development (OECD) countries: Canada, Denmark, Finland, France, Germany, Netherlands, Norway, Sweden, and the United Kingdom

Extract 6: Japan's fight to end deflation grinds on

"Even after two decades of aggressive monetary easing, Japanese people have not been able to shake off their deflationary mindset", said the Bank of Japan (BOJ) Governor, Haruhiko Kuroda. He has mobilized every tool in the BOJ's policy toolkit, including negative interest rates and massive purchases of government bonds and other assets (i.e. quantitative easing). Yet the 2% inflation target has remained elusive.

Globally, deflation is a thing of the past. In response to the first threat of high inflation in four decades, major central banks around the world, including the US Federal Reserve, are raising interest rates. By contrast, the BOJ remains committed to its deflation-fighting monetary policy. The growing gap in interest rates between Japan and the US is weakening the yen.

Yet the fact that net exports have actually weighed down real growth from 2017 to 2020 has raised questions about the assumption that a softer yen is a benefit. The usual mechanism of a weaker yen boosting export volumes and thereby growth "has weakened" as companies have moved production offshore, Kuroda said.

Meanwhile, the Ukraine-Russia war has pushed up oil and grain prices sharply. With Japan heavily dependent on imports of these commodities, a weaker yen hurts the economy more than it helps.

Still, Kuroda is adamant that a weaker yen is good for the Japanese economy and has stuck with monetary easing. He remains convinced that Japan is stuck in deflation.

Sources: Adapted from *Nikkei Asia*, 8 September 2021 and 11 April 2022

Extract 7: Rising global food prices

Food prices are skyrocketing around the world. The surge in food prices is largely associated with the recovery in food demand from the global COVID-19 recession and the Ukraine-Russia war.

There is no downplaying the blow that the war has dealt to food systems, already fragile from two years of COVID-19 disruptions. Because Ukraine and Russia account for over a quarter of the world's annual wheat sales, the war has led to a significant rise in the price of food, not only wheat but barley, maize, and edible oil among others exported by these two countries.

As worrying as these trends are, this is no time to panic. Global stocks of rice, wheat, and maize – the world's three major staples – remain historically high. For wheat, the commodity most affected by the war, stocks remain well above levels during the 2007-2008 food price crisis.

Sources: Adapted from *World Bank Org*, 25 March 2022 and *IFPRI Blog*, 11 February 2022

[Turn over

Questions

- (a) Explain how Table 2 can be used to show that the global economy is experiencing stagflation. [2]
- (b) (i) With reference to Figure 2, explain what the changes in real disposable income in the US and OECD countries suggest about the level of fiscal support measures in these countries respectively from 2020 onwards. [2]
- (ii) Explain how the differences in the level of fiscal support measures in the US and OECD countries contributed to the difference in inflation rate observed in Figure 1 from 2021 onwards. [2]
- (c) (i) Using a diagram, explain why the 'growing gap in interest rates between Japan and the US is weakening the yen' (Extract 6). [2]
- (ii) Explain how a weaker yen may have a positive impact and a negative impact on the economic growth of Japan. [4]
- (d) Discuss whether demand or supply factors have a greater impact on the increase in the price of wheat. [8]
- (e) Discuss the extent to which technological innovation helps to avert stagflation in an economy. [10]

[Total: 30]

Copyright Acknowledgements:

Question 1	Extract 1	© Air travel's sudden collapse will reshape a trillion-dollar industry, The Economist, 1 Aug 2020
Question 1	Extract 2	© Can Cannabis Tourism Help The Travel Industry?, Forbes, 9 Oct 2021
		Cannabis: What are the risks of recreational use?, BBC, 19 Jun 2018
Question 1	Table 1	© Office for National Statistics, Crime in England and Wales
Question 1	Extract 3	© Which economies have done best and worst during the pandemic?, The Economist, 1 Jan 2022
Question 2	Extract 4	© Why stagflation is a growing threat to the global economy?, The Guardian, 15 April 2021
		The world faces a growing stagflationary storm, The Guardian, 22 April 2022
Question 2	Table 2	© The World Bank Databank
Question 2	Figures 1 & 2	© OECD Household Dashboard: cross country comparisons
Question 2	Extract 5	© Why Is U.S. Inflation Higher than in Other Countries?, Federal Reserve Bank of San Francisco Economic Letter, 28 March 2022
Question 2	Extract 6	© After 20 years, Japan still stuck in deflationary mindset, Nikkei Asia, 8 September 2021
		BOJ Gov. Kuroda's 20-year fight to end deflation grinds on, Nikkei Asia, 11 April 2022
Question 2	Extract 7	© Four paths to respond to the food price crisis, World Bank Org, 25 March 2022
		International Food Policy Research Institute (IFPRI), 11 February 2022

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