JURONG PIONEER JUNIOR COLLEGE

JC2 Preliminary Examination 2024

ECONOMICS
Higher 2

9570/01

26 August 2024

Paper 1

2 hours 30 mins

Additional Materials:
Answer Booklets

READ THESE INSTRUCTIONS FIRST

Two answer booklets will be provided with this question paper. You should follow the instructions on the front cover of the answer booklet. If you need additional answer paper ask the invigilator for a continuation booklet.

Answer **all** questions.

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

If there are part questions you did not attempt, please write the question number and part in
The margins before you submit your answers. *(i.e. if did not complete 2b, indicate 2b in the margin of the answer script that you submit for question 2.)*

This document consists of **7** printed pages and **1** blank page.

Answer **all** questions.

Question 1: Winners and losers in the coffee market

Table 1: Summary of world coffee bean market ('000 60kg bags)

	2017	2018	2019	2020	2021	2022
Production	167 569	169 887	168 390	170 876	168 485	171 268
Consumption	165 637	170 876	167 593	168 569	175 605	178 534
Balance	1 932	-989	797	2 307	-7 210	-7 266

Source: Statisa.com

Extract 1: The winners of the coffee bean price spike

Since 2016, coffee bean prices have dropped 30% below the average for the past decade, according to the International Coffee Organisation, a body representing 49 member countries which export and import coffee bean. Arabica coffee bean prices in March were above $1.12 per pound, a far cry from the peak of over $3.00 per pound around 2011. Many of the 25 million coffee bean farmers worldwide struggle to cover their operating costs as input prices continue to rise. These coffee bean price drops are mostly felt by small-scale farmers in countries that depend highly on coffee bean exports as a source of income, such as Burundi, Uganda, and Honduras, where low prices coupled with higher production costs have resulted in losses and forced them to exit the market.

But prices of Arabica, the world's most commonly produced coffee bean, rose last month due to concerns over its availability from the pandemic, said the ICO. Arabica coffee bean from Brazil, the world's largest producer, jumped 10% in March as compared to February. The current coronavirus pandemic has led to supply disruptions — from manufacturing to transportation to retail — as lockdowns were imposed around the world. There is also evidence that countries are bringing forward coffee bean purchases on anticipation about future supply disruption. According to a Reuters report, coffee bean importers in some of the largest consuming countries are stockpiling and bringing forward orders by up to a month as they fear prices will rise further. On the global situation overall, currently consumption of coffee bean is estimated to exceed production further increasing the price of coffee bean. That is good news for farmers in key coffee bean producing regions, who have been struggling as coffee bean prices kept slumping for the past few years. This also means that coffee bean farmers can start to grow more coffee crops. Coffee bean farmers could be winners as coffee bean prices spike.

Source: adapted from CNBC, 20 April 2020

Extract 2: The sustainability problems percolating in the coffee supply chain

From intimate, family-owned coffee shops to popular franchises with clogged drive-thru lanes, people certainly love their coffee, consuming about 450 million cups every day. According to the National Coffee Association, that equates to more than 400 billion cups per year, generating more than $225 billion in revenue. Unfortunately, this rapid consumption creates a huge environmental impact involving much more than the waste generated from ubiquitous ‘to-go’ cups.

About 1/3 of the world’s land is forests, but every year we are losing an average of 134 million hectares. Most of the deforestation is happening in Africa and South America, the main geographies where coffee bean is grown. There are two methods of growing coffee bean plants: shade-grown method which is more environmentally sustainable but costly and sun-grown method that depletes the nutrients in the soil resulting in more clearing of land. As companies look for ways to reduce costs in the face of increased demand for inexpensive coffee, it becomes more economically advantageous to use the sun-grown method. This means to abandon the plantation and clear new areas of forests - which is an environmentally catastrophic model.

Source: adapted from Forbes, 29 February 2022

Extract 3: Coffee bean farmers would not be ready to comply with EU deforestation law

Most global coffee roasters will not be ready to comply with the European Union's new law preventing imports of commodities linked to deforestation. Deforestation is responsible for about 10 per cent of global greenhouse gas emissions that drive climate change, and the law aims to tackle the EU's contribution to this. The EU landmark law, which comes into effect at end-2024, requires importers of commodities like coffee bean, cocoa, beef, soy, rubber and palm oil to produce a due diligence statement proving their goods are not contributing to the destruction of forests - a major source of climate change - or risk hefty fines.

Coffee bean is produced by an estimated 12.5 million coffee bean farmers in roughly 70 countries, 5 of them - Brazil, Vietnam, Colombia, Indonesia and Honduras - produce 85 per cent of the world's coffee bean. The remaining 15 percent is produced by 9.6 million small-scale coffee bean farmers in countries like Ethiopia, Uganda, Tanzania, Kenya, Peru, Guatemala, Nicaragua, El Salvador, Costa Rica and Mexico. These countries have inadequate infrastructure and low levels of traceability and the farmers tend to use sun-grown cultivation methods. These group of small farmers may suffer consequently. EU deforestation law might prompt coffee roasters to shift buying coffee from farmers that comes from the more developed regions like Brazil which have better traceability, leaving the millions of small-scale coffee bean farmers in the lurch. In such a scenario, these farmers may expand into forested areas to increase output to make ends meet worsening the situation of deforestation. These farmers would then sell to regions with less stringent environmental rules, negating the intended impact of the law.

Source: The Business Times, 14 September 2023

Extract 4: Are small coffee roaster firms doomed to fail?

Coffee roaster is the process that transforms raw, green coffee beans into the aromatic, flavorful coffee beans we use to brew coffee. The coffee roaster market is highly competitive, with a few large companies and their value chains dominating which allows these firms to determine a favourable price for the coffee they buy from coffee farmers. Currently, Lavazza is the world's sixth-largest coffee roaster firm by sales and volume. The Italian roaster formed part of the top ten list, which includes the likes of Nestlé, Starbucks, and Melitta Group. Between them, they are responsible for roasting 35% of the world's coffee. And the trend is showing few signs of slowing. Lavazza acquired French coffee company MaxiCoffee in November. Nestlé added Seattle's Best Coffee to its bulging portfolio in October. And Melitta Group dropped an eight-figure sum to acquire a controlling stake in Caffè Corsini late last year.

Horizontal integration – the purchase of related companies – has been the most common form of acquisition and merger seen in the coffee roastering industry. As such, the industry is now characterised by what's known as an oligopoly: a market structure dominated by a handful of large buyers where barriers to entry are high. However, it can also give rise to several problems. The rising market dominance of a few large roastering companies can drive down prices in the short term. As this happens, new entrants – or any others without the bulk buying power of large-scale roasters – find it increasingly difficult to compete.

Attempting to compete on price is a largely futile exercise for new entrants. Big players are able to pay what is known as a 'price markdown' in economics. In this context, the price falls below the value of coffee beans. Market newcomers who have tried to take to do so have either fallen at the wayside or burnt through.

However, there are ways beyond price that enable smaller coffee roasting companies to stay competitive in the face of buyer market power. One of the most powerful is differentiation, whether on quality, branding, or the stories companies sell. The reason this works is that each coffee company has its own demand curve. And it can manipulate the curve by creating a value proposition, by showcasing and emphasising the quality of the bean, direct-to-farmer relationships, and bean origin. Ultimately, this can build branding and loyalty from customers. It is this differentiation that is key for continuing to drive competition between companies.

Source: Coffee Intelligence, 22 December 2022

Questions

(a) **(i)** From Table 1, account for the change in the consumption of coffee bean between 2020 to 2022. [2]

(ii) Using a supply and demand diagram, explain why the price of coffee bean is expected to increase when 'consumption of coffee bean is estimated to exceed production' (Extract 1). [2]

(b) Explain why many small-scale farmers in countries such as Burundi, Uganda, and Honduras exit the market when faced with low prices and higher production costs in the short-run. [2]

(c) Explain one measure used by economists to determine the level of competition in the coffee roaster industry. [2]

(d) **(i)** With reference to Extract 2, explain how coffee bean production using the sun-grown method would lead to an inefficient allocation of resources in the coffee bean market. [4]

(ii) Discuss whether the EU landmark law would improve the efficiency of resource allocation in the coffee bean market. [8]

(e) Discuss whether new entrants to the coffee roaster industry without the bulk buying power of large-scale roasters will find it increasingly difficult to compete (Extract 4). [10]

[Total: 30]

Question 2: Navigating Economic Turbulence

Extract 5: World economic outlook 2022

Global economic activity is experiencing a broad-based and sharper-than-expected slowdown, with inflation higher than seen in several decades. The cost-of-living crisis, Russia's invasion of Ukraine, and the lingering COVID-19 pandemic all weigh heavily on the outlook. Global growth is forecast to slow from 6.0 percent in 2021 to 3.2 percent in 2022 and 2.7 percent in 2023. This is the weakest growth profile since 2001 except for the global financial crisis and the acute phase of the COVID-19 pandemic. Global inflation is forecast to rise from 4.7 percent in 2021 to 8.8 percent in 2022. Both monetary and fiscal policy should stay the course to restore price stability. Structural reforms can further support the fight against inflation by improving productivity and easing supply constraints, while multilateral cooperation is necessary for fast-tracking the green energy transition and preventing fragmentation.

Source: International Monetary Fund (IMF) accessed 11 July 2024

Figure 1: Annual real growth rates (%) in selected countries 2018 – 2022

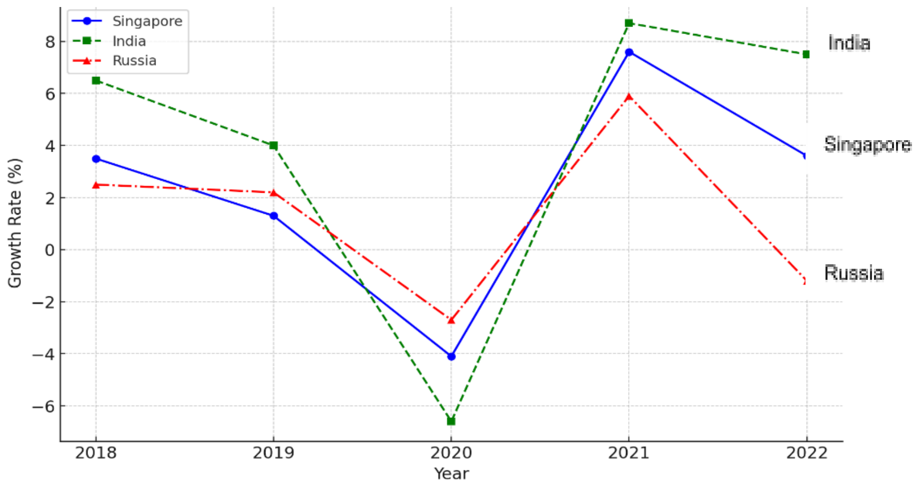

Table 2: India, selected economic indicators 2018 – 2022

India	2018	2019	2020	2021	2022
Inflation (annual %)	3.4	3.7	6.3	5.1	6.7
Unemployment, total (% of total labour force)	6.1	5.8	7.1	5.9	6.4
Youth Unemployment rate (%) 15 – 24 years	22.8	23.1	27.3	25.5	24.9
Population growth (annual %)	1.04	1.00	0.96	0.92	0.91
Gini Coefficient	0.34	0.35	0.35	0.36	0.36

Source: World Bank, 2024

Extract 6: Russia's Economy at the End of 2022: Deeper Troubles

In 2022, Russia's economy faced severe challenges due to the combination of its invasion of Ukraine and the resulting international sanctions. These sanctions targeted crucial sectors such as finance, energy, and technology, leading to disrupted trade, reduced foreign investment, and financial isolation. The sanctions caused shortages of essential goods and technology, significantly hampering industrial production. The European Union's reduction in reliance on Russian energy further impacted the economy, despite Russia's attempts to redirect exports to other markets. This resulted in a significant GDP decline, with estimates suggesting a contraction of 2.5% to 4.5%. Inflation surged due to supply chain disruptions and increased import costs, causing volatility in the ruble. The central bank implemented monetary policies to control inflation. Additionally, increased military spending diverted resources from other economic activities, straining government finances. The mobilisation for the war and the emigration of many Russians affected the labour market, leading to decreased consumer confidence and spending.

While the pandemic highlighted the vulnerabilities of “just-in-time” supply chains, the economic fallout from the war between Russia and Ukraine has underlined the additional risks in such a system. Globalisation is not dead, and world manufacturing and commerce will continue. But the new geo-political environment will affect future investors decision-making. Cost savings will be more closely scrutinised against risk. De-globalisation means increased prices, at least in the short run, adding to inflationary pressures.

"Just-in-time" supply chains refer to a strategy in manufacturing and logistics where goods are produced or delivered exactly when they are needed in the production process, rather than being held in inventory.

Source: RAND.org, November 7, 2023

Extract 7: India stares at high youth unemployment despite positive growth

Despite sluggish global growth, India achieved a noteworthy 7.5% growth rate in 2022. However, the world’s most populous country despite having the world's largest youth population, struggled to provide adequate employment opportunities for its millions of young entrants into the job market each year. In response, the government has ramped up spending on infrastructure like roads and bridges to stimulate the economy and create jobs. Nevertheless, youth unemployment persists as automation and artificial intelligence adoption picks up pace, many roles in IT are becoming increasingly redundant, a trend not unique to India.

The mismatch between skills and job opportunities exacerbates youth unemployment, with many graduates trained in IT skills while job growth occurs in sectors like manufacturing. For example, positions requiring AI skills in manufacturing increased significantly, yet there remains a perception among youth that IT careers are superior. This perception may prevent them from pursuing emerging opportunities in other sectors.

Analysts worry that extended youth unemployment could reduce future earnings and exacerbate societal problems like increased crime and poorer health outcomes. Despite investing in higher education, many young Indians are stuck in low-skilled, poorly paid jobs out of economic necessity, worsening income divide. High youth unemployment also represents lost economic potential as well as strains government finances due to increased spending on support programmes.

Source: adapted from CNBC Report 2022, 3 April 2024

Extract 8: Singapore must transform ‘troubled environment’

Singapore cannot escape global headwinds from developments such as the Russia-Ukraine crisis and must instead transform itself to make a living even in such circumstances, said Prime Minister Lee Hsien Loong.

In the year ahead, Singapore must brace itself for the ‘troubled environment’ of persistently high inflation, the tightening of monetary policy by global central banks, and weaker global growth - with the possibility of a recession in the next two years, he said. The

Russia-Ukraine war will further exacerbate the trend of countries pulling back from free trade, making things harder for Singapore, with its heavy dependence on international trade and investment, said Lee. "More immediately, Singaporeans are already feeling the impact of the war on the cost of living," he said, noting that inflation was already a problem before the war, but has worsened due to the global energy crunch and disruption to food supplies.

The government is doing all it can to cushion the impact, with support for households, tighter monetary policy to reduce imported inflation, and efforts to secure food and energy supplies, he said. As part of the support for households, the government has provided a cost-of-living (COL) Special Payment to provide more support for lower- to middle-income groups. There are also Public Transport Vouchers and Community Development Council (CDC) vouchers which can be spent on a wide variety of items.

However, such government support helps in the short term but does not solve the problem in the long-term. The fundamental issue is higher energy and food prices; and the fundamental solution is for the workers and economy to be more productive, transform, and grow the economy, so that incomes can go up, he said.

Larger countries can turn inwards, relying more on domestic markets and producing more onshore, even at an economic cost - but that is not a choice for Singapore, said Lee: "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."

"Because if we do that, then despite the uncertain climate, despite the pressures against globalisation, investors will still find it worthwhile to put their projects in Singapore, our exports will still find foreign markets, and we can still earn a living for ourselves in the world."

Source: adapted from The Business Times, 1 May 2022

Questions

(a) With reference to Figure 1 and Table 2, what can you conclude about the economic performance of India in 2022? [4]

(b) With reference to Extract 6 and using an AD/AS diagram, explain how international sanctions and supply chain disruptions can affect Russia's growth rate in 2022. [4]

(c) Extract 7 states that as automation and artificial intelligence adoption picks up pace, many roles in IT are becoming redundant - a phenomenon that's not restricted to India.

Explain why automation and artificial intelligence in India may benefit some groups of workers more than others. [4]

(d) Assess the extent to which monetary policy centred on exchange rate would dampen price pressures from domestic and external sources in Singapore. [8]

(e) Discuss how fiscal measures can be used to achieve inclusive growth in light of the 'troubled environment' faced by Singapore (Extract 8). [10]

[Total: 30]

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