Candidate Name: ______________________________

Class	Adm No

H

millennia institute

2022 Preliminary Exams
Pre-university 3

ECONOMICS **9757/01**

Paper 1 **31 August 2022**
2 hours 15 minutes

Additional Materials: Answer Booklet

READ THESE INSTRUCTIONS FIRST

Write your name and 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 any diagrams, graphs or rough working.
Do not use staples, highlighters, glue or correction fluid.

Answer **all** questions.

You are reminded of the need for clear presentation in your answers.

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

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

Answer **all** questions.

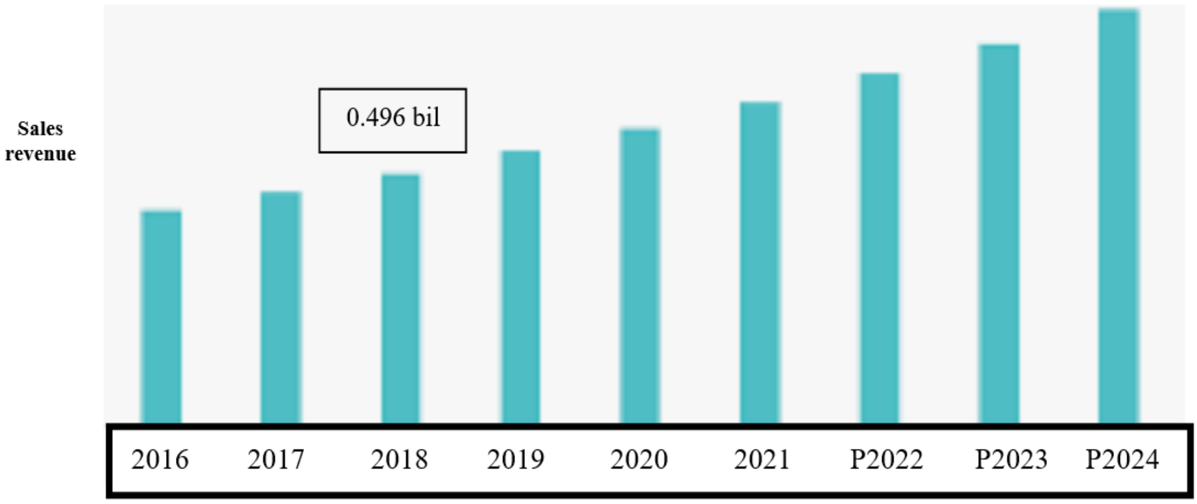
Question 1: Bittersweet chocolate

Extract 1: Soaring price could make it 'Like Champagne'

As chocolate prices surged to near-record highs on demand from emerging markets, chocoholics brace for a hike in price. This growth has been driven by demand from India and China, with consumption of the ‘luxury” sweet treat tripling over the last few years. However, worldwide chocolate market sales revenue was affected by the lockdown measures and economic slowdown due to COVID pandemic, but supply side did not impact the chocolate market during the pandemic.

Source : Adapted from https://www.cnbc.com 17 April 2014

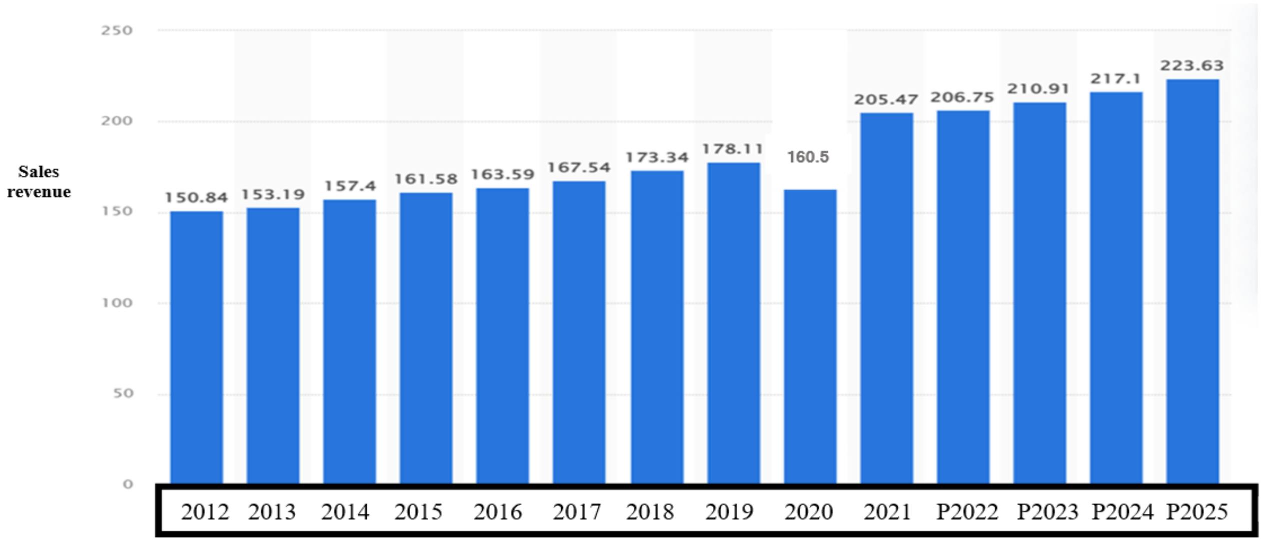
Figure 1: India chocolate market: Sales revenue 2016-2024 (in USD billion)



P=Projected sales revenue

Source : Adapted from mordorintelligence

Figure 2: Worldwide chocolate market: Sales revenue 2012-2025 (in USD billion)



P=Projected sales revenue

Source : Adapted statista.com

Extract 2: Chocolate or not?

Cocoa butter made from crushing and grinding cocoa beans is used in making chocolate to give the smooth, melt-in-the-mouth flavour and texture. Reduced rainfall and increased temperatures, which led to prolonged periods of drought, are causing a reduction in soil moisture during the dry seasons. These conditions often lead to the killing of cocoa seedlings. If prices of cocoa butter go up too much, chocolate makers may shift to substitutes such as palm oil or even cotton seed oil instead of using cocoa butter. The limitation, of course, is that if you put in too much of the poor substitutes, you are not allowed to call it chocolate. No alternatives of cocoa butter have been found so far that could meet the exact demand of cocoa butter.

Table 1: Price elasticity of demand and supply for cocoa butter

	Price elasticity of demand	Price elasticity of supply
Short term	-0.06	0.07
Long term	-0.34	0.57

Source: Adapted from African Journal of Agricultural and Resource Economics 2018

Extract 3: Volatility of cocoa prices

Ivory Coast and Ghana in Africa are the largest global producers of cocoa, supplying 70 percent of the world's cocoa beans. Currently, cocoa farmers' income is low compared to the profit made by the chocolate industry. While the profits of multinational chocolate companies have increased since the 1980s, the world market price for cocoa beans has declined by half. Many cocoa farmers and workers have to get by on less than 1.25 US dollars a day and a study in April 2018 showed that 58 percent of cocoa farming households had incomes below the extreme poverty line.

Cocoa production is carried out mostly by small and marginal farmers which are rarely organised, and they sell their cocoa at low prices dictated by the cocoa traders who act as the middlemen for farmers. Farmers' income insecurity is affected by volatile cocoa prices stems from changing supply volumes. Good seasons which produce good crops in the main cocoa producing countries lead to a high supply and can bring about a fall in prices, while poor crops caused by crop disease or bad weather conditions in some major regions lead to a low supply and can increase the price.

Cocoa traders are able to mitigate these volatile prices by storing beans and controlling the sales volume on the market. Farmers who neither set prices nor reap any profits from high prices are often forced to sell their beans at low prices immediately due to poor living conditions, the immediate need for money and a lack of storage facilities. Farmers also stop investing in their farms, they cut salaries, cannot provide workers with proper working conditions, and in the worst cases are prone to use child labour.

Source: Adapted from Euromonitor International and mightyearth.org 2019

Extract 4: Give cocoa farmers a living income

Despite forecasts that the demand for cocoa will rise by nearly 20 percent in the coming years and the increasing revenues for chocolate companies, many farmers cannot cover their living costs anymore. With limited income and lack of information on market developments, the cocoa farmers and their families are the losers in a lucrative cocoa and chocolate industry.

Kwame Boadu was forced to abandon his cocoa plantation to work in Ghana's capital Accra, but when the government announced plans for a price floor he began dreaming of a return to his fields. A price floor would give cocoa farmers a living income – and to ensure farmers get a fair share of the wealth as well as to protect farmers from dire poverty and fluctuations in the cocoa market, like when the price of cocoa abruptly fell by 30 percent three years ago, leaving many farmers struggling desperately.

Guaranteed minimum prices for cocoa would lead to a hefty bill for the government as it spends billions to mop up cocoa stockpile. Some of the stockpile may just rot in government warehouses. The minimum price also encourages farmers to produce much more of cocoa than they would have otherwise. It also means less funds for other programs such as education and healthcare.

Source: Adapted from Euromonitor International and https://makechocolatefair.org

Extract 5: Growing concern for farming cocoa

Cocoa cultivation has been synonymous with extreme poverty and has resulted in significant destruction of ancient rainforests, including illegal deforestation inside national parks. Traditionally, if a farmer wanted to earn more, he or she had to produce more, which would mean using more land. Research suggests that over the last 50 years, cocoa cultivation has contributed to the disappearance of 14–15 million hectares of tropical forests globally. Moreover, production continues to expand to meet the growing international demand, further increasing pressure on forest areas. Côte d'Ivoire and Ghana have already lost over 90 percent of their forests, and in 2018 had the two most severe increases in rates of deforestation worldwide. Environmental externalities are a growing concern and deforestation has resulted in excess carbon emissions that contribute to the greenhouse effect and accelerate climate change where communities have been deeply affected.

Source: Adapted from mightyearth.org 21 Jun 2019

Extract 6: What policies / government interventions might successfully reduce rates of deforestation?

What little forests remain must be vigilantly protected for future generations. Apart from using price floors to raise prices to increase farmers income which could help to slow the burning of more lands to get more income, regulations and policies are increasingly being deployed to address these externalities in Africa which include the use of taxes to clamp down on farmers burning protected forest for farming cocoa and tax revenue collected can support reforestation programs.

Governments are encouraging farmers to raise productivity by investing in research and development (R&D) to increase crop yield per acre with better farming methods. This will allow them to increase crop yield over time and reduce the pressure on using more of its natural forests and better productivity lowers cost of production which can help to improve their livelihoods with higher profits. However, R&D would require government subsidies to encourage productivity. The extra billions being spent on subsidies would inflate the country's budget deficit and draining the pool of funds available for other important programs for farmers, including road, power, and irrigation networks as well as education and health-care infrastructure for the country.

Source: Adapted from https://www.cambridge.org 2018

Questions:

(a) **(i)** Using Figure 1 and 2, compare the trend for the worldwide chocolate market sales revenue with that of India for the period 2016-2021. [2]

(ii) Using demand and supply analysis and Extract 1, account for the changes in sales revenue from 2019 to 2020 for the worldwide chocolate market. [4]

(b) Define Price Elasticity of Demand (PED) and explain the difference in values of the PED for cocoa butter presented in Table 1. [4]

(c) With reference to Extract 2, explain the relationship between cocoa butter and chocolate. [2]

(d) Establishing "a price floor would give cocoa farmers a living income – and to ensure farmers get a fair share of the wealth as well as to protect farmers from dire poverty and fluctuations in the cocoa market." [8]

With the aid of a diagram, discuss the factors to consider in deciding whether the minimum price should be implemented for cocoa farmers.

(e) With reference to Extract 6, to what extent do you agree that research and development is likely to be a better measure than imposing taxes in addressing the market failure arising from farming cocoa. [10]

[Total: 30]

Question 2: Policy Tightropes in Singapore and United Kingdom

Table 2: Selected Economic Indicators of United Kingdom, 2019-2022

	2019	**2020**	**2021**	**2022**
GDP, in current prices (in billion £)	2255.3	2150.4	2317.1	2520.3
Unemployment Rate (%)	3.8	4.5	4.6	4.2
Inflation Rate (CPI) (%)	1.8	0.9	2.6	7.4
Bank of England Base Interest Rate (%)	0.75	0.1	0.1	1.0
Government Fiscal Budget Balance (in billion £)	-49.8	-274.4	-185.0	-108.8
Gini Coefficient (%)	35.4	34.6	34.4	N.A.

Source: IMF, April 2022

Extract 7: The ‘Temporary’ Shocks of War

The Ukraine war is already into its eleventh week and no one can say for sure how long more it may drag on. Both Russia and Ukraine are major exporters of many commodities and are the world’s largest exporters of wheat and sunflower oil respectively. Russian oil has also been the target of economic sanctions and boycotts.

On the other side of the world, zero-Covid lockdowns in China have amplified the global prices of goods and services. In April, China’s manufacturing output fell to its lowest level in more than two years. This has created further stress for global supply chains.

Meanwhile, firms will find alternatives to get around supply bottlenecks. However, Singapore is unable to fully insulate itself from the continued global supply chain disruptions and the ongoing Russia-Ukraine war. Rising prices will affect all Singaporeans, particularly the lower to middle-income, who spend a large part of their budget on essential items like food and utilities.

Source: ChannelNewsAsia, 18 May 2022

Extract 8: Fighting inflation is more than having higher wages offset increased cost of living

Singapore’s core inflation continues ticking upwards. Official data released on July 25 showed a 4.4 percent year-on-year increase in June, the highest since November 2008 amid the global financial crisis.

Although the Monetary Authority of Singapore (MAS) has projected it to ease after peaking in the third quarter, core inflation is expected to remain high at around 3.5 percent to 4 percent towards the end of the year.

IS A WAGE-PRICE SPIRAL LIKELY?

Faced with a higher cost of living, will workers demand larger pay raises? Some are worried a wage-price spiral could be in the making. However, there are reasons to believe a wage-price spiral may not take root here.

MAS managing director Ravi Menon pointed out in July that automatic wage indexation is not common in Singapore, and that the pass-through from prices to wages has been historically weak. This is in contrast to countries like Belgium and Luxembourg where salaries are automatically adjusted according to inflation, a practice that may be difficult to sustain as prices soar.

NAVIGATING POLICY TIGHTROPES

All these point to several policy tightropes which the Singapore Government has to navigate in the ensuing months.

The first is how quickly and forcefully to tighten monetary policy. The MAS recently announced its fourth policy tightening move since October 2021.

The appreciation in the Singapore dollar against most major trading partners has helped to stem imported inflation and eased price pressures. The impact of increasing international prices will be absorbed by the appreciating Singapore dollar, instead of being transmitted into local prices. So for many households, this will help absorb some of the rising prices.

But a stronger Singapore dollar also means our exports will be relatively more expensive. This may make it harder for businesses to stay competitive in the global market. However, Singapore’s exports are generally high value-added products and services where demand is less sensitive to price, and therefore, exchange rate changes. Further, a stronger exchange rate helps reduce the import costs faced by our export industries.

Given the hard realities of containing inflation, the question becomes one of helping citizens and households tide over this storm. Fortunately, Singapore has the means to provide relief in the form of an S$1.5 billion support package announced in June.

Help will remain targeted to the lower-income and more vulnerable, as a broad fiscal stimulus risks further stoking inflation. Deputy Prime Minister and Finance Minister Lawrence Wong has indicated that relief packages cannot be sustained indefinitely if inflation remains elevated into next year and beyond.

IT’S ABOUT HOW AND WHAT WE SPEND ON

Governments must drive inclusive and sustainable growth in response to the uncertainty and deep structural challenges that are faced today. To respond to these challenges, Mr Wong noted that it is “not just about the amount of spending, but how and what we spend on".

This means repurposing fiscal policy and the role of the state towards building longer-term capacity and public goods, which can include infrastructure such as healthcare and education.

It also requires fostering a refreshed common agenda between the public and private sectors beyond specific projects, in areas such as research and development (R&D) and lifelong learning, he added.

STRUCTURAL SOLUTIONS TO INCREASE PRODUCTIVITY

The pace of labour market adjustments also has to be considered in the light of immediate cost pressures. A key initiative is the Progressive Wage Model, which aims to raise the pay of lower-wage workers across various sectors and occupations, in tandem with skills upgrading and increased productivity. This will help to shape a more inclusive society where all workers are valued and paid fairly for their contributions.

Another set of policy moves is intended to calibrate the inflow of foreign workers. These include raising the minimum salary requirements for Employment and S-Pass holders, raising S-Pass levies and tightening the dependency ratio ceilings in the construction and process sectors.

These initiatives, while critical for a sustainable and resilient workforce, contribute to higher wage and business costs. However, the impact of higher labour costs could be mitigated by redoubling efforts at raising automation and productivity, and through upskilling and reskilling workers, while facilitating the entry of foreign workers to plug critical gaps in the workforce.

Finding the right policy balance will be necessary to steer the economy through the inflationary storm while keeping our sights trained on the goal of a competitive, future-oriented, inclusive and sustainable Singapore.

Source: ChannelNewsAsia, 5 August 2022

Extract 9: Inflation pushes UK government interest payment costs to fresh record

Soaring inflation pushed interest payments on UK debt to a record high in June, putting the government's budget deficit on course to reach more than £100bn this year, almost double its pre-pandemic level. A quarter of the UK's £2.5 trillion government debt is index-linked, making the cost of servicing it vulnerable to rising inflation.

In a blow to Conservative leadership candidate Liz Truss's plans for expensive tax cuts, the Office for National Statistics said public sector net borrowing increased to £22.9bn, £4.1bn more than in June last year.

However, Philip Shaw, chief UK economist at Investec suggested for the tax cuts to proceed, explaining that the possibility of a resulting economic upturn which could reduce government welfare spending and increase tax receipts, helping to correct the fiscal deficit.

Nevertheless, former chancellor Rishi Sunak argued against these tax cuts, explaining that they risk fuelling inflation. Instead, he suggested for tax increases to fight the deficit.

In response to the data, the current chancellor, Nadhim Zahawi, said he recognised there were risks to the public finances, including from high inflation.

Over 219,000 jobs have been created since the UK government launched the 'Kickstart' Scheme in 2020, as a preventative measure against long-term youth unemployment among 16 to 24 year olds claiming Universal Credit. The scheme provides funding to employers for creating new jobs for this group. Funding pays the minimum wage for the new employee for 6 months, as well as National Insurance and pension contributions.

In addition, the UK Government has taken important action to further build the UK's digital infrastructure. The National Infrastructure Strategy, which was announced in December 2020, outlines how the UK Government aims to work with the private sector to provide fast and reliable internet connection across the UK by 2025. It is estimated that one in every seven adults in Wales and Scotland is currently not able to afford private, sufficient and reliable internet to meet their essential needs.

Source: The Guardian, 21 July 2022

Questions:

(a) With reference to Table 2:

(i) It is said that unemployment and inflation have an inverse relationship. Explain this relationship and describe if the data reflects this. [4]

(ii) What does the change in Gini Coefficient from 2019 and 2021 suggest about the UK economy? [2]

(b) Using AD/AS analysis, explain how current global events have resulted in a rise in consumer prices. [3]

(c) Extract 8 expresses that "Some are worried that a wage-price spiral could be in the making." Using AD/AS analysis, explain how inflation might cause a wage-price spiral. [3]

(d) With reference to Extract 9, discuss whether the UK government should choose tax cuts to create economic growth which will indirectly reduce its budget deficit, instead of directly resolving the deficit via tax raises. [8]

(e) With reference to the case material, discuss whether supply side policies alone are sufficient in achieving inclusive growth. [10]

[Total: 30]

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