TEMASEK JUNIOR COLLEGE

2024 JC2 PRELIMINARY EXAMINATIONS

Higher 2

TEMASEK
JUNIOR COLLEGE

ECONOMICS

Paper 1

9570/01

22 August 2024

2 hours 30 min

Additional Materials: **two 12-page** answer booklets

READ THESE INSTRUCTIONS FIRST

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.

Indicate the question number clearly in your answers.

Start Question 1 and Question 2 on separate answer booklets.

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

This document consists of **9** printed pages and **3** blank page.

© TJC 2024

Question 1: The clothing and fast fashion industry

Figure 1: Percentage change in price index of selected consumption categories in Singapore
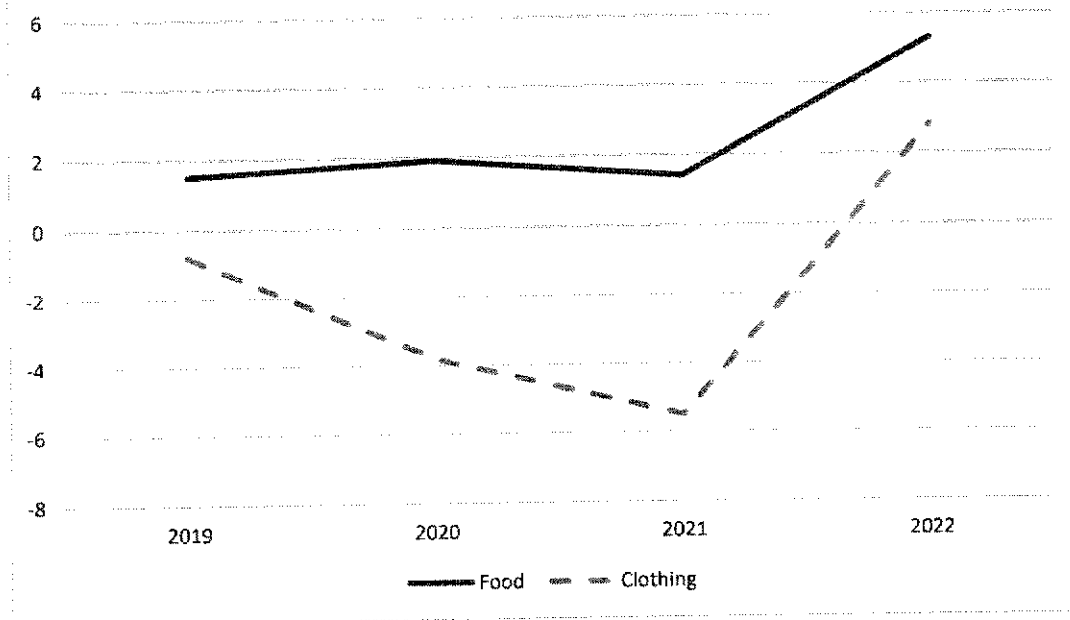
Extract 1: Rising prices of clothing

Dressing the kids to go back-to-school, not to mention yourself to get back-to-work, will cost more this year. Steve Lamar, president and CEO of the American Apparel and Footwear Association, sees a double-whammy in "the current shipping crisis on top of oppressive tariffs on apparel, footwear and fashion." His association is calling on the Biden administration to remove tariffs and provide more oversight to the maritime industry to "help now and avert the next shipping crisis," which is sure to come. The employment costs to move products around, get them on the shelves and rung up at the cash register are going up too.

Fashion retailers also have to factor in the effect their price increases will have on consumers already facing escalating costs across the board. In the past year, the CPI for all items tracked by the Bureau of Labour Statistics went up by 5.4%.

However, industry leaders have warned that retailers can't expect the price increases to translate into higher profits as in normal times. "If the wallet is fixed and the price of clothing is going up, consumers' income will be squeezed".

Adapted from: Forbes, 10 December 2021

Extract 2: Fast Fashion and its Impact on the environment

Fast fashion is a business model that focuses on the production of garments in bulk, and as quickly as possible, in response to current trends. The term was first popularised in a New York Times article in 1989 to describe retail store Zara's first opening in the United States — the retail brand's goal, the Times said, was to have a design developed from concept to consumer in only 15 days. While the biggest brands today include large-scale brick-and-mortar retailers with an online presence, like Zara and H&M, fast fashion has increasingly allowed for online retailers and sellers to take charge — like Shein, an online retailer from Singapore. Because of their extremely quick production schedules — as little as three days from design to ready-to-buy for Shein — online retailers can push out hundreds (if not thousands) of designs in small batches and adjust the production rates according to consumer response.

Fast fashion has many adverse effects on the environment, including the pollution of water, usage of toxic chemicals, and generation of excessive waste. Industrial waste is produced during the process of dyeing textiles, where chemicals, often harmful to humans, are released into the environment. Another danger to the environment is caused by the widespread use of polyester, a material often used in the production of cheap clothing. Polyester sheds microfibers that add to the already increasing levels of plastic. These microfibers can easily enter our water systems and seriously threaten aquatic life.

Adapted from CNN, 24 November 2023 and Business Review at Berkeley, 11 November 2023

Extract 3: Government intervention in the fast fashion industry

Australia's Environment Minister Tanya Plibersek has warned the fashion industry that it must turn its back on fast fashion. The minister is currently considering whether to intervene in the sector through mandating fashion brands to contribute to a green fund for every piece of clothing they make or import and put to market. Alternatively, there has also been discussions about regulating the production process to minimise the harm to the environment.

In response to fast fashion trends, a government-funded consortium led by the Australian Fashion Council in June last year launched Seamless. Under the scheme, members must pay a 4-cent contribution to the Seamless program for every piece of clothing they make or import. Seamless funding would then go towards measures such as research projects to help coordinate the industry's green efforts.

Adapted from ABC News, 20 February 2024

Extract 4: Shein's environment sustainability model

According to a report compiled by Money.co.uk, Shein has taken over giants like Nike and Adidas as the most-Googled clothing brand, and Zara and Macy's in online sales. But several reports over the last year reveal the company's shocking track record of human rights violations and an environmentally-unsustainable model — leaving many to wonder how its popularity continues to soar among consumers.

But recent data found that sustainability is a top priority for Shein shoppers. They say they're more environmentally conscious than the average consumer, according to a report by The New Consumer and Coefficient Capital, which surveyed more than 3000 US consumers. 52% of Shein shoppers said they considered caring for the environment to be a big part of their personal identity

and 67% of Shein shoppers said they were willing to pay more for environmentally sustainable goods.

Shein has since announced plans to reduce greenhouse gases emissions across its entire value chain by 25% by 2030. Since then, it has saved 69.6 tonnes of single-use plastic waste, preventing the release of 142 tonnes of greenhouse gas emissions. Despite these initiatives, Shein has been accused of "greenwashing", a form of advertising that use deceptive marketing to persuade the public that their products and processes are environmentally friendly, rather than making meaningful changes to their production process.

Source: Various

Questions

(a) With reference to Figure 1, compare the percentage change in price index of food to that of clothing from 2019 to 2022. [2]

(b) With reference to Extract 1,

    (i) Explain why the value of price elasticity of demand (PED) of clothing will change. [2]

    (ii) Using a demand and supply diagram, explain why "retailers can't expect the price increases to translate into higher profits" (Extract 1). [4]

(c) **(i)** Explain why the market fails from the production of fast fashion. [4]

    (ii) Discuss whether mandating that fashion brands contribute to a green fund would be the most appropriate policy to address the market failure. [8]

(d) Discuss whether there is incentive for an online retailer such as Shein to adopt a more environmentally sustainable model. [10]

[Total: 30]

6

Question 2: Labour, skills and productivity – The stories of Serbia and Singapore

Table 1: Serbia, selected economic indicators (2019 – 2022)

	2019	2020	2021	2022
Nominal GDP per capita (USD)	7,417.21	7,733.80	9,232.96	9,537.68
Nominal GDP growth rate (%)	0.73	18.26	3.58	1.73
Inflation rates (%)	0.57	-0.18	2.31	6.12
Unemployment rates (%)	10.39	9.01	10.06	8.68
Life expectancy (years)	75.94	74.48	72.78	75.48
Fertility rate (number of born children per woman)	1.52	1.48	1.52	1.63

Source: *Statista, accessed April 2024*

Table 2: Singapore, selected economic indicators (2019 – 2022)

	2019	2020	2021	2022
Nominal GDP per capita (USD)	66,070.49	61,273.99	77,710.09	82,807.63
Nominal GDP growth rate (%)	-0.01	-7.55	21.64	10.14
Inflation rates (%)	1.85	1.58	4.08	11.98
Unemployment rates (%)	3.10	4.10	4.64	3.59
Life expectancy (years)	83.6	83.54	83.09	82.9
Fertility rate (number of born children per woman)	1.14	1.1	1.12	1.04

Source: *Statista, accessed April 2024*

Extract 5: Reversing the brain drain in the Western Balkans

Youth brain drain is one of the most worrisome problems for the six countries of the Western Balkans (WB6) — Albania, Bosnia and Herzegovina, Montenegro, North Macedonia, Kosovo, and Serbia. In the last three decades, as a result of massive emigration, Serbia has lost 9 percent of its citizens, North Macedonia 10 percent, Bosnia and Herzegovina 24 percent, and Albania 37 percent. These are mostly young, educated, and skilled people who decided to "vote with their feet. The pace and intensity of the problem rank the WB6 among the top brain drain leaders in the world, with estimates that the region will lose a quarter to half of its youth talent in the forthcoming decades.

The repercussions of youth brain drain are major, especially the loss of human capital and GDP. The annual education costs lost as a result of educated, young people leaving the region vary from a minimum of €840 million to €2.46 billion. This implies a decrease in consumption and welfare for the WB6 economies, costing them around €3 billion of yearly GDP growth. The massive outflow of people in certain professions exacerbates the problems related to the availability and accessibility of basic services. The most critical sector is public healthcare with a huge portion of young doctors and nurses leaving the WB6, but lack of services is also evident in lower-skilled professions such as repair, maintenance, and construction, leading to higher service costs and lower quality.

To reverse the brain drain, it has been argued that the issue needs to be reframed as a viable opportunity for socioeconomic development. This narrative change can be achieved by following the Estonian model, rebranding the WB6 as a fertile ground for investment and innovation to attract foreign direct investment as a new driver of growth.

Source: *The German Marshall Fund of the United States, 19 Oct 2022*

Extract 6: Serbian job market: The growing ICT sector

In 2012, Serbia reported a 24% unemployment rate. Just 10 years later, this statistic dropped 14.8% – a 9.2% unemployment rate reported in Q2 of 2022, and the Serbian export of information and communications technology (ICT) definitely played a role. According to the International Trade Administration (ITA), Serbia generates as much as 10% of its GDP from its ICT sector. More than 3,300 ICT businesses employ almost 50,000 Serbs, and although that is just a small percent of the Serbian population of almost 6.9 million, it is evident that the Serbian economy is growing to rely more on ICT. Serbian tech companies produce software for everything from medicine to agriculture, games and testing. They run call centers and customer service centers. To meet the increasing demand for ICT exports, however, Serbia needs at least 15,000 more engineers in the tech sector. That is why the Serbian government spent 70 million euros in technical infrastructure, supporting start-ups and mandating software programming classes in elementary schools to boost productivity. This is particularly important because Serbia's youth unemployment is 40%, and often young people will leave a country if they cannot find jobs there.

Source: *The Borgen Project, 19 Dec 2022*

Extract 7: Serbia's robust post-pandemic recovery jeopardised by global crises

Serbia's economic growth is projected to slow down. "Despite a strong rebound from the pandemic, Serbia now face a new set of challenges, compounded by the war in Ukraine, including rising energy and food prices, high inflation, and slowing trade and investment," said Linda Van Gelder, World Bank Country Director for the Western Balkans. "Careful policy support will be needed to navigate the Western Balkans through these crises and protect the important gains made in 2021, including poverty reduction." Serbian Prime Minister, Ms. Ana Brnabić, said, due to the recession in some European economies to which Serbia is directly connected, major challenges for Serbian economy are expected. Given that a recession is expected in a large number of European countries this year, a further slowdown in economic activity in Serbia probably is inevitable in 2023.

The report argues that sustained growth cannot happen in Serbia without structural reforms to boost productivity, increase competition, invest in human capital, and strengthen governance. Measures to reduce business regulatory costs, increase market competition, support labour market participation, and strengthen the independence of public institutions would all be supportive of growth in an uncertain environment.

Adapted from: *World Bank Group, 4 May 2023*

8

Extract 8: Singapore unveils SkillsFuture overhaul and Workfare enhancements

To bolster the nation's workforce resilience and tackle economic inequalities, Singapore's Deputy Prime Minister Lawrence Wong, has unveiled a series of significant updates to Singapore's SkillsFuture programme. The cornerstone of the announcements made as part of Singapore's Budget 2024 is the introduction of a new SkillsFuture Level-Up Programme aimed at supporting mid-career employees.

Under this initiative, all Singaporeans aged 40 and above will receive a S$4,000 (US$2,971) SkillsFuture credit top-up in May, with younger citizens set to receive the same amount upon reaching 40. This top-up is earmarked for selected training programmes, emphasising part-time and full-time diploma, post-diploma, undergraduate courses, and training for sectors adhering to the Progressive Wage Model.

The revamped SkillsFuture initiative comes at a crucial juncture as Singapore grapples with ongoing technological disruptions and a changing employment landscape. Wong stressed the importance of adapting to rapid technological advances, highlighting the necessity for employees to refresh their skills and embrace new technologies effectively.

Adapted from: *HRM Asia, 19 Feb 2024*

Questions

(a) Calculate and compare the real GDP growth rate (%) for Serbia and Singapore in 2022. [2]

(b) With the use of a production possibilities curve, explain the 'major repercussions' on Serbia's potential growth in light of the youth brain drain (Extract 5). [4]

(c) Explain a possible opportunity cost faced by a youth leaving his country. [2]

(d) Assess the extent to which national income indicators like real GDP per capita can be used to compare living standards between Serbia and Singapore. [8]

(e) Explain **two** likely causes of unemployment in Serbia. [4]

(f) Discuss whether increasing productivity is the best way to address unemployment in a country. [10]

[Total: 30]

10

BLANK PAGE

11

Blank Page

12

Blank Page

2024 JC2 H2 Economics Prelim Paper 1 Suggested Answers

Question 1: The clothing and fast fashion industry
Suggested Answers

(a)	With reference to Figure 1, compare the percentage change in price index of food to that of clothing from 2019 to 2022. [2]

Similarity [1]:

• The percentage change in both price indices have increased over the period.

Difference [1] – any one of the below:

• While the percentage change in price index for food has been positive over this period, the percentage change in price index for clothing has been negative except after mid 2021. OR
• The percentage change in price index for food has always been higher than that for clothing.

| (b)	With reference to Extract 1,	
	(i)	Explain why the value of price elasticity of demand (PED) of clothing will change. [2]

• Given "the wallet is fixed and with price of clothing going up" (Extract 1), this suggests that the <u>proportion of income spent on clothing is increasing.</u> [1]
• Hence, the value of PED of clothing is increasing/getting larger/bigger [1]; demand of clothing is becoming more price elastic.

	(ii)	Using a demand and supply diagram, explain why "retailers can't expect the price increases to translate into higher profits" (Extract 1). [4]

• Given from (bi) that the demand for clothing is becoming more price elastic, the rise in price of clothing will lead to a more than proportionate decrease in quantity demanded, ceteris paribus. [1]

Figure 1: Impact on revenue [1m for well-drawn & correctly labelled diagram]
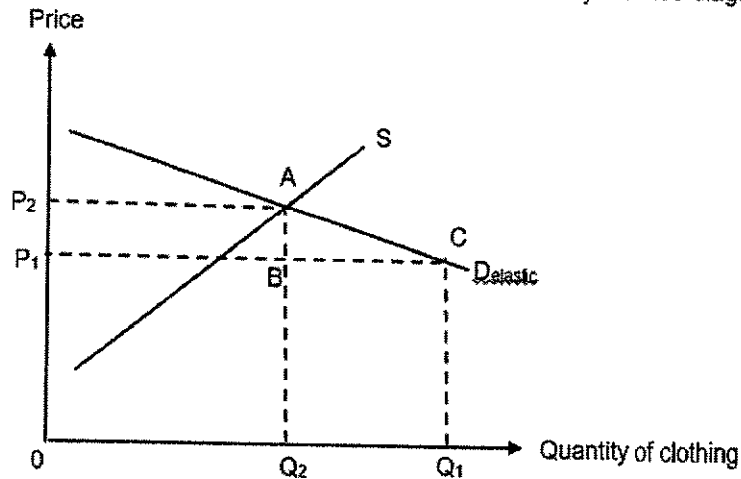
• The fall in revenue due to the decrease in quantity demanded (area Q_2BCQ_1) is likely to exceed the increase in revenue due to the increase in price (area P_2ABP_1). [1]

1

- Assuming that the cost of production remains constant / ceteris paribus, profits of producers will fall. [1]

| (c) | (i) | Explain why the market fails from the production of fast fashion. [4] |

- [P] When deciding on the amount of clothing items to produce, a producer only considers his own private costs and benefits and ignores the external costs on third parties. The marginal private benefit (MPB) of clothing production is its marginal revenue, while the marginal private cost (MPC) is the marginal cost of production. [1]
- [ET] However the production of these items give rise to external costs on third parties who are not directly involved in the production or consumption of the good. For example, production of clothing lead to pollution of water sources (Extract 2), which may lead to medical costs incurred by people who stay use these water sources. [1]
- [DQQ] The presence of marginal external cost (MEC) creates a divergence between MSC and MPC. Assuming that there are no positive externalities, MPB = MSB. Without government intervention, the free market produces Qp units of clothing, where MPB = MPC. However, the socially optimum level of production is Qs, where MSB = MSC. There is overproduction as Qp > Qs. [1]
- [D] From Qs to Qp units, the total social costs exceeds the total social benefits, leading to a deadweight loss to society and hence, the market fails. [1]

| (c) | (ii) | Discuss whether mandating that fashion brands contribute to a green fund would be the most appropriate policy to address the market failure. [8] |

Question Interpretation

| Command word/phrase	Discuss whether	To elaborate on and eventually weigh the effectiveness of two policies to address the market failure issue
Content	Mandating that fashion brands contribute to a green fund, market failure	Mandating that fashion brands contribute to a green fund can be seen as a form of taxation, which will increase MPC. To address the market failure issue, deadweight loss needs to be reduced/eliminated
Context	Fast Fashion	Context of fast fashion.

This question requires candidates to explain the workings and limitations of two different policies to address the issue of market failure in the fast fashion industry. Students are then required to compare the two policies and assess their appropriateness.

Introduction
- As mentioned in (i), market failure in the fast fashion industry due to the presence of negative externalities in production.
- To address this issue, the government can mandate that fashion brands contribute to a green fund or impose regulation on the production process.

KA1a: Explain how mandating that fashion brands contribute to a green fund may address the market failure

- **Mandating that fashion brands contribute to a green fund will raise the MPC and address the market failure issue.**
- As mentioned in Extract 3, the Australian government is considering mandating that fashion brands contribute to a green fund for every piece of clothing they produce.
- This will force producers to internalize the MEC and increase the MPC. Assuming that the required contribution is equal to MEC at QS, MPC will increase and shift upwards to MPC'.
- Since the new private optimal quantity Qp' (where MPC'=MPB) now coincides with the socially optimal quantity (MSB=MSC), deadweight loss is eliminated and the market failure issue is addressed.
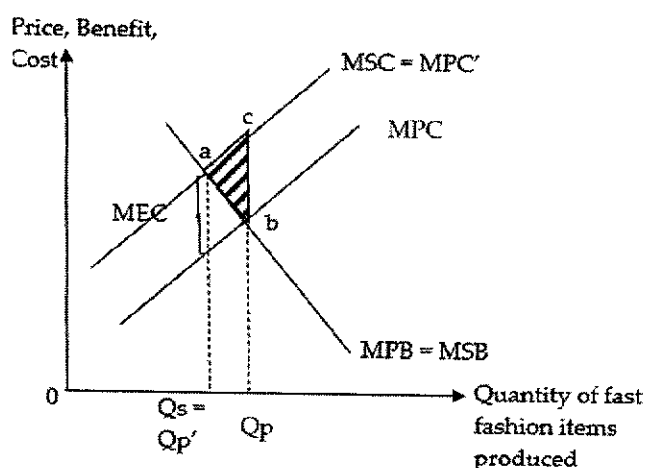

KA1b: Explain the limitations/unintended consequences of mandating that fashion brands contribute to the green fund

- **However, the policy comes with its own limitations.**
- Due to imperfect information, the government is likely to have difficulty in attaching a monetary value to the amount of external costs incurred. An over-estimation or under-estimation of MEC can occur. If the external costs are overestimated, the required contribution to the green fund may be excessively high and result in a case of government failure where the welfare loss is greater after the government intervened.

KA2a: Explain how regulating the production process will address the market failure issue.

- **The government can also regulate the production process to address the issue of market failure.**
- As mentioned in Extract 3, the government may consider regulating the production process. This will likely include rules and regulations which prevent firms from discharging pollutants into water sources. This will reduce the negative externalities from production and reduce MEC.

- As such MSC will fall and shift downwards to MSC'. The new social optimal quantity, Qs' (MSC'=MSB) is now closer to Qp. Deadweight loss reduces from area 'abc' to area 'edc' and the market failure issue is alleviated.

Price, Benefit, Cost

Quantity of fast fashion items produced
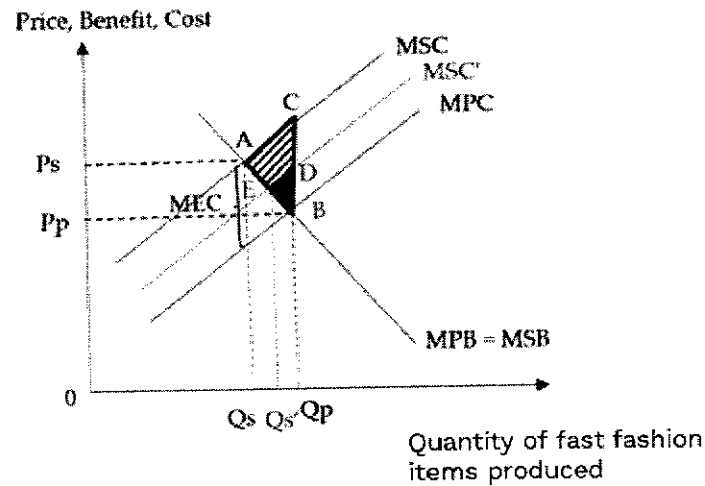
KA2b: Limitations of regulating the production process

- **However, regulating the production process has its limitations.**
- Regulating the production process can incur high administrative and monitoring costs. Such high administrative cost could cause the implementation to be unsustainable and hence ineffective in the long term. Opportunity costs, in the form of benefits of spending on areas such as education will also be incurred.

Evaluative conclusion (1 stand + 1 well-substantiated ATMS angle is sufficient):

- **[Stand]** It is likely that mandating that firms contribute to the green fund would be a more appropriate policy to tackle the issue of market failure as it can address the root cause of the issue while being financially sustainable.
- **[Situation]** Extract 3 mentions about a similar programme, Seamless, where contributions are redirected to efforts to the industry's green efforts. Similarly, the green fund can be directed to fund research and methods to make the production process cleaner, which will address the root cause of the issue.

Mark Scheme

Level	Knowledge, Application/Understanding and Analysis	Marks
L2	For a well-developed answer that has: • Good scope and balance – explains the workings and limitations of two policies • Good rigour – explains using relevant market failure analysis, supported with well-labelled and correctly drawn diagram(s).	4 - 6
L1	For an undeveloped answer that: • Lacks scope and balance – either explains only one policy and its limitations OR explain two policies but without limitations.	1 - 3

4

		• Lacks rigour – descriptive answer without relevant economic analysis.	
		Evaluation	
	E	For an answer that uses economic analysis to support an evaluative judgement on the most appropriate policy to address market failure in the fast fashion industry.	1 - 2

| **(d)**	Discuss whether there is incentive for an online retailer such as Shein to adopt a more environmentally sustainable model. [10]

Question Interpretation

| Command word/phrase	Discuss whether	To elaborate on and eventually weigh on whether Shein has any incentive to adopt a more environmentally sustainable model
Content	Incentive	Recall that firms are incentivised by profts.
	An online retailer such as Shein	Firm analysis required.
Context	Shein	Context of a firm in the fast fashion industry

This question requires students to provide a balanced analysis as to whether Shein has any profit incentive to adopt a more environmentally sustainable model. An evaluative conclusion which takes into account the context would be needed.

Introduction
- Online retailers such as Shein are primarily incentivised by profits.
- When considering whether there is incentive for the online retailer to adopt a more environmentally sustainable model, there is a need to consider the impact on profits for the firm.

- **KA1: There may be incentive for an online retailer to adopt a more environmentally sustainable model as it can lead to higher profits.**
- As seen in Extract 4, customers are concerned about sustainability.
- As such, should Shein adopt a more environmentally sustainable model, it is likely to lead to a favourable change in tastes and preferences for their products, leading to a rise in demand for their products.
- This will lead to a rightward shift of MR_1 and AR_1 curves to MR_2 and AR_2 respectively. Assuming cost remains constant, the profit maximising level of output where $MC = MR$ increases from Q_0 to Q_1 and the profit-maximising price increases from P_0 to P_1. This results in an increase in total revenue from $P_0aQ_0 0$ to $P_1eQ_1 0$, allowing them to earn higher profits from P_0abc_0 to $P1efc1$.

Price, Cost, Revenue
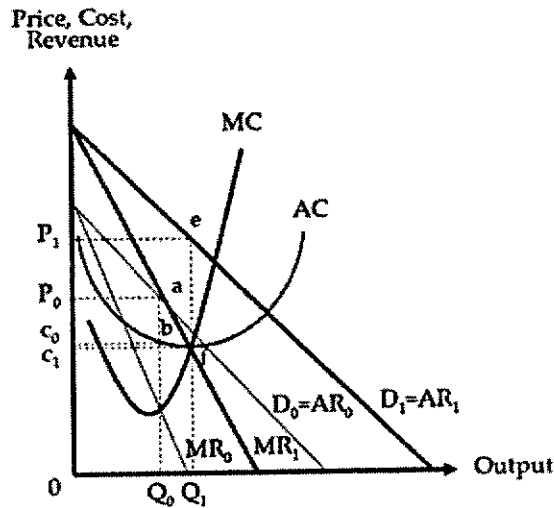
- **KA2: There may not be an incentive for an online retailer to adopt a more environmentally sustainable model as it may lead to lower profits.**
- Adopting a more environmentally sustainable model would likely require the firm to incur higher costs, as they have to implement cleaner methods of production. This will lead to a rise in MC and AC, causing MC_1 and AC_1 to shift upwards to MC_2 and AC_2 in the below figure.
- At the new profit-maximising output, Q_2, where the rising MC_2 cuts MR_1, price increases to P_2 while cost increases to C_2. The total cost (OC_2bQ_2) is larger than total revenue (OP_2aQ_2), resulting in a fall in profits from normal profits to subnormal profits of area P_2abC_2.

Price, Cost, Revenue
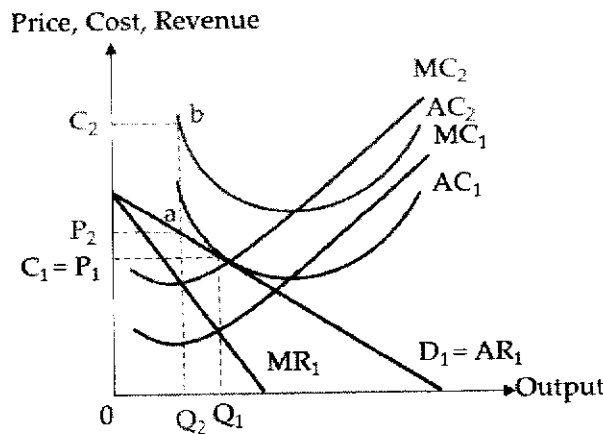
Evaluative Conclusion (1 stand + 1 well-substantiated ATMS angle is sufficient):
- **[Stand]:** Overall, it is likely that online retailers such as Shein will not have an incentive to change to a more environmentally sustainable model.
- **[Situation]:** As seen in Extract 4, Shein has been accused of greenwashing, where they only use persuasive advertising to give off the impression of improving their environmentally sustainability record without making any meaningful change. This would allow them to see an increase in demand and revenue while keeping any rise in costs minimal to maximise their

profits. As such, Shein would likely employ such tactics rather than make any real changes to their production process.

Mark Scheme

Level	Knowledge, Application/Understanding and Analysis	Marks
L2	For a well-developed answer that has: • Good scope and balance – explain why online retailers like Shein may and may not have the incentive to change to a more environmentally sustainable model and analyse changes to both revenue and costs. • Good rigour – explains using relevant firms analysis, supported with well-labelled and correctly drawn diagram(s).	4-7
L1	For an undeveloped answer that: • Lacks scope and balance – either explains only why online retailers like Shein may or may not have the incentive to change to a more environmentally sustainable model OR only analyse changes to either revenue or costs.. • Lacks rigour – descriptive answer without relevant economic analysis.	1-3
	Evaluation	
E	For an answer that uses economic analysis to support an evaluative judgement on whether online retailers would have the incentive to change to a more environmentally sustainable model.	1-3

Question 2: Labour, skills and productivity – The stories of Serbia and Singapore
Suggested Answers

(a)	Calculate and compare the real GDP growth rate (%) for Serbia and Singapore in 2022. [2]

[1] for the correct calculation of real GDP growth rates for both Serbia and Singapore.

	Real GDP growth rates
Singapore	$10.14\% - 11.98\% = -1.84\%$
Serbia	$1.73\% - 6.12\% = -4.39\%$

[1] for an accurate/valid comparison of the real GDP growth rates – any one of the following:
- Both Singapore and Serbia experienced negative real GDP growth rates. OR
- Both Singapore and Serbia experienced a fall in real GDP growth rates. OR
- Serbia real GDP growth rate fell more compared to Singapore in 2022. OR
- Singapore's real GDP growth rate is higher than that of Serbia's in 2022.

(b)	With the use of a production possibilities curve, explain the 'major repercussions' on Serbia's potential growth in light of the youth brain drain (Extract 5). [4]

- A youth brain drain refers to the 'massive emigration... lose half of its youth talent' (extract 5) which means that there is a decrease in the working-age population in Serbia over time, ceteris paribus. There will be a fall in the quantity of labour in Serbia. **[1]**
- A fall in the quantity of labour reduces Serbia's productive capacity. **[1]**
- Therefore, it will <u>reduce potential growth</u> in the economy, as shown by the inwards shift of the PPC curve from PPC_0 to PPC_1 as seen in the below figure. **[1]**

1m for fully labelled and accurately drawn PPC diagram

(c)	Explain a possible opportunity cost faced by a youth leaving his country. [2]

- Opportunity cost is defined as the <u>value</u> of the next best alternative forgone when a decision is made. **[1]**

•	When a young person leaves his country, he incurs an opportunity cost in terms of the wages that he could have earned if he had stayed in his home country and found a job. **[1]** *Any other plausible explanations are accepted.*

(d)	**Assess the extent to which national income indicators like real GDP per capita can be used to compare living standards between Serbia and Singapore.** **[8]**

<u>Question interpretation</u>

Command words/phrase	*Assess the extent*	This question requires students to present a <u>balanced</u> analysis on the usefulness and limitations of national income indicators in comparing national income statistics between two countries.
Content	*National income indicators like real GDP per capita*	To compare material SOL over space, data on PPP-adjusted GDP/GNI per capita would be needed. o PPP: to account for the purchasing power ability of the residents by adjusting for differences in price levels in terms of the cost of living between two countries; o per capita: account for difference in population size.
Context	*Compare living standards between Serbia and Singapore*	To compare non-material SOL, non-material SOL indicators e.g. life expectancy rates (Table 1) would be needed.

A relevant response requires a balanced analysis of the usefulness and limitations of national income indicators like real GDP per capita in comparing SOL between Serbia and Singapore. Limitations could be categorised into calculation and data issues, and the omission of non-SOL indicators. An evaluative conclusion on the overall usefulness of national income indicators like real GDP per capita is required.

Introduction (define key terms and outline approach):
- An economy's standard of living (SOL) can be defined as the well-being of residents in the economy and comprises both material and non-material aspects.
  - o Material SOL is associated with the amount of goods and services available for consumption by the residents of an economy.
  - o Non-material SOL is associated with the intangible aspects of well-being such as literacy rates and life expectancy of residents.
- While national income indicators like real GDP per capita may be useful to compare living standards between Serbia and Singapore, there are also limitations, which would be discussed.

- **Thesis: National income indicators like real GDP per capita can be useful to compare a country's material SOL.**
- Gross Domestic Product (GDP) can be defined as the total monetary value of all final goods and services produced by <u>factors of production</u> located within the geographical boundary of a country in a given time period.

9

- Real GDP accounts for inflation by measuring the changes in the value of GDP at constant prices so that changes in real GDP are due to changes in the physical output of produced goods and services only. 'Per capita' accounts for changes in population size. Dividing GDP by the total population size measures the GDP for an average citizen.
- From Table 2, Singapore's nominal GDP per capita is consistently and significantly higher than Serbia by approximately eight times across 2019 – 2022. Even with Singapore's higher inflation rate, it is still likely that Singapore would have a higher real GDP per capita than Serbia.
- A higher real GDP per capita would reflect an average citizen's higher purchasing power and hence higher ability to consume physical goods and services.

- **Anti-thesis: However, there are limitations to the usefulness of national income indicators like real GDP per capita in comparing SOL between Serbia and Singapore.**
- To compare the level of material SOL between two countries, national income indicators in the form of PPP-adjusted GNI per capita would be more useful.
- GDP measures the income generated by both citizens and foreigners within the geographical boundaries in a country. An increase in Singapore's real GDP per capita could be due to increases in income of foreigners residing in Singapore. For a country like Singapore which is highly dependent on foreign direct investment (FDI), the factor income paid abroad could be higher than the factor income received from abroad.
  - o Therefore, GNI might be a better indicator as compared to GDP to measure material living standards, because when we convert GDP to GNI, we would remove foreigner incomes earned in Singapore and include income earned by Singaporeans overseas. (GNI = GDP + net factor income from abroad)
  - o Purchasing Power Parity (PPP) refers to the number of currency units required to purchase the same amount of goods and services that can be bought with one unit of currency of the base country, for example the US dollar. The PPP exchange rate converts GNI of different countries into a common currency for comparison. It accounts for the purchasing power ability of the residents by adjusting for differences in price levels in terms of the cost of living between the two countries.
- If Singapore has a higher PPP-adjusted GNI per capita relative to Serbia, this means the average Singapore resident is likely to have a higher material SOL because of his higher purchasing power and ability to consume a larger quantity of goods and services compared to an average Serbian resident.

Note: Additional points that can be accepted could include the omission of Gini coefficient, non-marketed activities, etc.

- **In addition to PPP-adjusted GNI per capita data, non-material SOL indicators like life expectancy rates (Table 1) would be required to allow for a more holistic comparison of SOL between Serbia and Singapore.**
- A comparison of life expectancy can give us an indication of how individuals in different economies may have different access to quality healthcare and sanitation. Singapore's consistently higher life expectancy (years) from Table 1 could suggest higher healthcare quality and residents' greater accessibility to such healthcare services and availability of clean drinking water compared to Serbia. This would then allow us to conclude that Singapore has a higher non-material SOL compared to Serbia.

Evaluative Conclusion (1 stand + 1 well-substantiated ATMS angle is sufficient)

- **[Stand]** National income statistics like real GDP per capita alone is not useful to compare both material and non-material SOL between Serbia and Singapore mainly because of the omission of non-material SOL indicators and the lack of conversion to a common currency for comparison of SOL over space.
- **[Alternative]** An alternative indicator would be the Human Development Index (HDI) which measures life expectancy at birth and education in addition to PPP-adjusted GNI per capita. This composite indicator will be more useful as it allows for a more holistic and comprehensive measurement and hence comparison of both the material and non-material SOL between Serbia and Singapore.

Mark Scheme

Level	Knowledge, Application, Understanding and Analysis	Marks
L2	For a well-developed answer that has: • **Good scope and balance** – explains both the usefulness and limitations of national income indicators in comparing material and non-material SOL between Serbia and Singapore • **Good rigour and application** – thorough and good elaboration on the linkages of how indicators can measure and be used to compare both material and non-material SOL between Serbia and Singapore *An answer that discusses only material OR non-material SOL will be capped at L2 – 4m.*	4 – 6
L1	For an underdeveloped answer that • Lacks scope and balance – only explains either the usefulness or limitations of national income indicators in comparing SOL between two countries • Lacks rigour – descriptive explanation of the usefulness of national income indicators in measuring SOL and/or limited contextual application	1 – 3
Plus up to 2 marks for Evaluation		
E	For a well-substantiated evaluative judgement on the extent of the usefulness of national income indicators like real GDP per capita in comparing SOL between two countries.	1 - 2

(e)	Explain <u>two</u> likely causes of unemployment in Serbia. [4]

- The first cause of unemployment is likely to be structural unemployment because of **occupational immobility**, resulting in a **skills match** between the unemployed workers and the job vacancies. [1]
- Extract 6 mentioned that the "Serbian economy is growing to rely more on ICT" and "needs at least 15,000 more engineers in the tech sector" to "meet the increasing demand for ICT exports". This suggests that the ICT industry is an expanding / rising industry which requires skills that unemployed workers may not possess currently. [1]

Due to **occupational immobility**, the unemployed workers do not have the skills to take up jobs in the ICT industry.

- The second cause of unemployment is likely to be <u>demand-deficient unemployment</u> **due to a lack of AD.**
- From extract 7, with Serbia facing challenges that include "slowing trade and investment" OR an expected recession in a large number of European countries which could lead to a "further slowdown in economic activity in Serbia", this implies that there could be a potential fall in (X-M) and/or I, which would reduce AD **[1]** and lead to a multiplied fall in real GDP via the reverse multiplier effect. With a fall in real GDP, firms cut down on production and reduce their derived demand for factors of production, including labour, and demand-deficient unemployment arises. **[1]**

(f)	Discuss whether increasing productivity is the best way to address unemployment in a country. **[10]**

Question Interpretation

| Command words/phrase	Discuss whether.... 'best way'	This question requires a <u>balanced approach</u> (both workings and limitations) on whether the proposed policy in the question is the best way (to compare against 1 other policy).
Content	Increasing productivity.... address unemployment	Increasing productivity: can increase quality of labour, increasing productive capacity (increase LRAS) and reduce unit cost of production, hence increasing SRAS. To reduce demand-deficient unemployment, the focus should be on increasing real GDP. Skills training (alternative policy): to reduce skills mismatch à reduce structural unemployment
Context	A country	Context is not specified. Students can utilise case examples from Serbia, Singapore, or use their own background knowledge

Introduction
- Unemployment is defined as the situation where people of legal working age are not working but are available for work and actively seeking work.
- This response will examine whether increasing productivity or skills training is the best way to address both demand-deficient and structural unemployment in a country.

KA1: Increasing productivity works to reduce demand-deficient unemployment

- **When productivity is increased, the quality of factors of production improves, leading to an increase in the Aggregate Supply (AS), thus increasing real GDP and reducing demand-deficient unemployment.**

o A way to increase productivity is to infuse the use of technology in the production process, or R&D to improve the efficiency of the production process. When successful, this can lower the economy-wide unit cost of production, and cause AS to increase.

o As shown in the figure below, the increase in productivity will lead to AS shifting downwards from AS_1 to AS_2. This increases real GDP from Y_1 to Y_2.
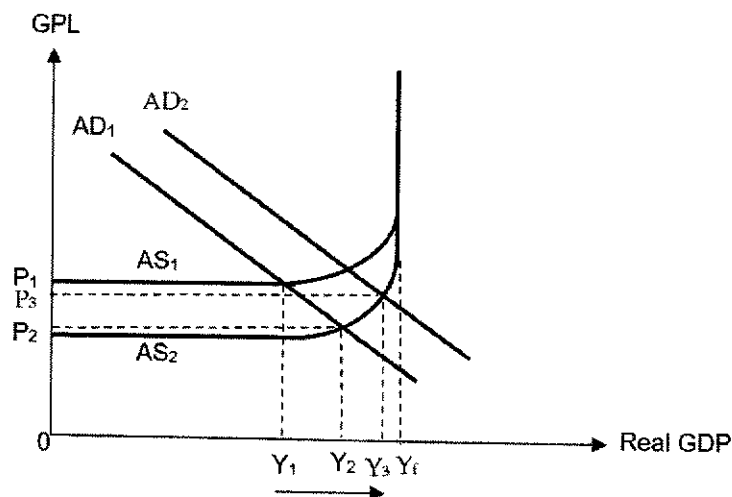
o Furthermore, this increase in productivity could also potentially attract foreign direct investment (FDI) into the country, thus increasing the AD.

o This increase in AD triggers the multiplier effect, where there is successive rounds of increase in income-induced consumption, thus increasing the AD and shifting it rightwards from AD_1 to AD_2.

o The real GDP thus increases further from Y_1 to Y_3 as shown in the figure. With an increase in real GDP, firms will increase their derived demand for factors of production like labour, thus reducing demand deficient unemployment from $(Yf_1 - Y_1)$ to $(Yf_1 - Y_3)$.

• **However, increasing productivity does has its own limitations.**

o Some of the R&D processes take very long time to fruition and its outcome may also be uncertain. As such, the AS and hence rise in real GDP may not increase as much as expected.

o Furthermore, the increase in productivity through the infusion of technologies in the production process may lead to a rise in structural unemployment instead, as some low-skilled workers may be displaced from their jobs and lack the skills to move to expanding industries.

KA2: Skills training works to reduce structural unemployment

• **Skills training for workers will help to reduce the skills mismatch, thus reducing structural unemployment in the economy.**

o From extract 8, it was mentioned that the Singapore government has announced a $4000 SkillsFuture credit top-up, allowing workers to attend selected training programmes and training for sectors adhering to the Progressive Wage Model.

o This policy measure helps to train workers, especially the low-skilled workers who may have been structurally unemployed to gain new skillsets to transit into expanding sectors.

o This would reduce structural unemployment in the country.

- **However, skills training for workers has its own limitations.**
  - The effectiveness of such a policy to reduce structural unemployment is dependent on the receptivity of workers to attend such training courses to gain new skillsets. Workers may not have the correct attitudes towards skills training, thus limiting the effectiveness of the policy in reducing structural unemployment.
  - Furthermore, such a policy also may take a long time to see its effects as well.

Students can also use any demand management policy that can increase the AD and hence reduce demand-deficient unemployment.

Evaluative Conclusion (1 stand + 1 well-substantiated ATMS angle is sufficient)

- **[Stand]** Ultimately, whether increasing productivity is the best way to reduce unemployment in a country depends on the unemployment that the country is suffering from and the method by which the country increases its productivity.
  - **[Situation]** In a country like Serbia where the level of structural unemployment seems to be high and severe, increasing productivity via technology may in fact worsen the unemployment situation in the country. On the other hand, if a country is mainly suffering from demand-deficient unemployment, increasing productivity may be a better policy measure as it is able to reduce unit cost of production and increase real GDP and reduce unemployment.
  - **[Situation]** Should a country employ pervasive use of technology in the production process to realise the increase in productivity, this may result in displacement of lowly skilled workers and therefore worsen unemployment in the country. However, if the country instead focuses on targeted technical courses and training for workers, it may help to reduce both demand-deficient and structural unemployment in the country.

Mark scheme

Level	Knowledge, Application/ Understanding and Analysis	Marks
L2	For a well-developed answer that has: • **Good scope and balance** – explains both the workings and limitations of increasing productivity to reduce unemployment; together with 1 other policy to reduce unemployment; • **Good rigour** – utilises suitable framework and AD/AS analysis; and • **Good use of context** – explains with relevant case material to support the analysis.	4 – 7
L1	For an under-developed answer that: • **Lacks scope and balance** – either explains working or limitations of increasing productivity and / or that of 1 other policy; • **Lacks rigour** – explains workings of policies in a descriptive manner that lacks sufficient economic analysis; and/or • **Lacks application** – explains policies with no application to the case and no support using relevant case material.	1 – 3
Evaluation		

E	Up to 3 additional marks for valid evaluative comment(s) on whether increasing productivity is the best policy to reduce unemployment in a country.	1 – 3	