# Question 1: The clothing and textile 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.[3]							
Sim	ilarity:							
• -	The percentage change in both price indices have increased over the period. [1]							
Diffe	Differences:							
• \	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. [1]							
•	The percentage change in price index for food has always been higher than that for clothing. <b>[1]</b>							
(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							
t	hat the proportion of income spent on clothing is increasing. [1]							
•	Hence, the value of PED of clothing is increasing / getting larger [1]; demand is							
	pecoming more price elastic.							
	(ii) Using a demand and supply diagram and given the relationship that exists between PED and total revenue, 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							
i	n 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]							
	A File							
	S S							
	A							
	P <sub>2</sub>							
	B							
	Quantity of clothing							
	$Q_2 \qquad Q_1$							

- The fall in revenue due to the decrease in quantity demanded (area Q<sub>2</sub>BCQ<sub>1</sub>) is likely to exceed the increase in revenue due to the increase in price (area P<sub>2</sub>ABP<sub>1</sub>). **[1]**
- Assuming that the cost of production remains constant / ceteris paribus, profits of producers will fall. [1]
- (c) A public good has the characteristics of non-rivalry and non-excludability. Comment on the extent to which a clean aquatic environment (Extract 2) fulfils these characteristics. [6]

Question Interpretation

Command phrase	Comment on the extent	This question requires a <u>balanced approach</u> on whether a clean aquatic environment exhibits the characteristics of a public good.
Content	Public good	Two characteristics of non-rivalry and non- excludability are to be examined.
Context	Clean aquatic environment	Context has been specified.

### Introduction:

- Non-rivalry refers to the case where the consumption of a good by one does not diminish the availability or quality of the good to the next consumer. Non-excludability is the case where it is impossible or prohibitively expensive to exclude a non-payer from consuming the good once it is provided.
- The following response will consider if a clean aquatic environment fulfils the characteristics of a public good

### Thesis: A clean aquatic environment can be non-rivalrous and non-excludable.

- A clean aquatic environment can be argued to be non-rivalrous in its consumption as one's enjoyment of the clean aquatic environment for e.g. scenic view does not diminish another's enjoyment of the same environment if it is in abundance.
- A clean aquatic environment can also be argued to be non-excludable as it can be very costly, and hence unfeasible, to exclude others from enjoying the environment for e.g. it is almost impossible to stop people from enjoying the aquatic life underwater by containing it or at high seas where these areas beyond national jurisdiction.

### Anti-thesis: A clean aquatic environment can be rivalrous and excludable.

- If one were to exploit or overuse the aquatic environment for the resources, it provides or the case of water pollution with toxic chemicals & micro plastic fibres that enter the water system (Extract 2) such that the quantity and quality of aquatic life is severely diminished then a clean aquatic environment can be argued as rivalrous in nature.
- In the context of aquatic environment, one can be excluded from the enjoyment of it where there are maritime boundaries drawn for monitoring and enforcement purposes. Non-permit holders (non-payers) can be excluded or not allowed access from such environment.

### Evaluative Conclusion:

•	[Stand & Situation/Magnitude] A clean aquatic environment cannot be deemed to
	be a public good although it has public good characteristics. Given that there are
	issues with environmental degradation and potential over-usage of the resources
	(aquatic life), a clean aquatic environment is not a public good.

Mark Scheme

Level	Knowledge, Application, Understanding and Analysis	Marks		
L2	<ul> <li>For a well-developed answer that has:</li> <li>Good scope and balance – explains both cases of non- rivalry &amp; rivalry and non-excludability &amp; excludability</li> <li>Good rigour – good application to context of a clean aquatic environment</li> </ul>			
L1	<ul> <li>For an underdeveloped answer that         <ul> <li>Lacks scope and balance – only explains either non-rivalry/rivalry and non-excludability/excludability</li> <li>Lacks rigour – descriptive explanation the concepts of non-rivalry/rivalry and non-excludability/excludability/excludability/without linking to context</li> </ul> </li> </ul>			
	Plus up to 2 marks for Evaluation			
Е	For a well-substantiated evaluative judgement on whether a clean aquatic environment is a public good	1 - 2		

(d) (ii) With reference to Extract 2, explain the negative externalities from the production of clothing. [2]

[ET] 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 [1] by residents who stay near or use these water sources.

(d) (ii) With the aid of a diagram, explain why the market fails from the production of clothing. [5]

- **[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. An example of the marginal private benefit (MPB) of clothing production is its marginal revenue, while an example of the marginal private cost (MPC) is the marginal cost of wages paid. **[1]**
- However, as mentioned in dii, there are external costs incurred on third parties.
- **[Divergence]** The presence of MEC creates a divergence between MSC and MPC. Diagrammatically, the MSC of clothes production lies above the MPC by the amount equivalent to MEC as shown in Figure 1. **[1]** Assuming that there are no positive externalities, MPB = MSB.

- **[Qp vs Qs]** Without government intervention, the free market produces Qp units of clothing, where MPB = MPC. However, the socially optimum level of production is Qs units of clothing, where MSB = MSC. There is overproduction as Qp > Qs. **[1]**
- **[Deadweight loss]** From Qs to Qp units, the total social costs (area QsacQp) exceed the total social benefits (area QsabQp). The shaded area 'abc' represents the net costs to society and is thus a deadweight loss to society. The private optimal quantity is allocative inefficient. **[1]**



- As mentioned in (i), market failure in the clothing 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 to mandate that fashion brands contribute to a green fund for every piece of clothing they produce.
- This will force producers to internalise 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 underestimation 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 'EDB' and the market failure issue is alleviated.



### 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

- **[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.
- **[Situation-Addressing the root cause of the issue]** 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).	

	<ul> <li>L1 For an undeveloped answer that:</li> <li>Lacks scope and balance – either explains only one policy and</li> </ul>					
	its	limitations OR expl				
	• Lac	cks rigour – descrip				
i	analysis.					
	Evaluation					
	E For an answer that uses economic analysis to support an 1-2					
	evaluative judgement on the most appropriate policy to address					
(f)		e impact of the	e growing textile industry on Ban	nladesh	ı's	
(')	attainment	of inclusive and su	istainable economic growth.	[1	0]	
<u>Q</u>	uestion Interpre	tation				
	Command	Discuss the	This question requires students to pres	sent a		
	word/phrase	impact	balanced analysis by analysing how inc	lusive		
	-		growth and sustainable growth can	be or		
			cannot be attained and provide a	well-		
			reasoned judgement on the attainme	ent of		
			inese goals.			
	Content	Impact of	For Extract 3, the growing textile industr	y has		
		growing textile industry	been propelled by influx of FDI.	5		
			Inclusive growth indicates a rate of growt	h that		
		Inclusive growth	is sustained over a period of time, is b	proad-		
			based across economic sectors, and cr	eates		
			majority of the population. It takes in			
			distribution into consideration and doe	es not		
			contribute to worsening income inequali	ty.		
			Sustainable growth is a rate of growth the	at can		
		Sustainable	be sustained without creating other sign	ificant		
		growth	economic problems (such as der			
			particularly for future generation.	enis),		
	Context	Bangladesh	Make reference to the case material and	apply		
			analysis to the context of India.	,		
-						

Students are required to first explain how sustained growth can be achieved with the growing textile industry due to increasing FDI before discussing whether this influx of FDI could help to achieve inclusive and sustainable growth or not. The evaluation entails a judgement on the extent to which increasing FDI could help Bangladesh achieve inclusive and sustainable growth.

### Introduction

- **[Define key terms]** Inclusive growth indicates a rate of growth that is sustained over a period of time, is broad-based across economic sectors, and creates productive employment opportunities for the majority of the country's population. It takes income distribution into consideration and does not contribute to worsening income inequality. Sustainable growth is a rate of growth that can be sustained without creating other significant economic problems (such as depleted resources, environmental problems), particularly for future generation.
- **[Outline approach]** While increasing FDI into the textile industry can allow Bangladesh to achieve sustained growth, the extent of attainment of inclusive and sustainable growth will need to be further analysed.

### Body

Thesis 1: Explain how FDI into the textile industry would allow Bangladesh to achieve sustained growth and hence inclusive and sustainable growth.

- From Extract 3, the increase in FDI into Bangladesh would allow Bangladesh to achieve sustained growth, which is essential for inclusive growth.
- The influx of FDI which will directly increase AD as investment (I) is a component of AD. The AD curve will shift rightwards from AD<sub>1</sub> to AD<sub>2</sub> in the figure below. Assuming the presence of spare capacity, this increase in I would trigger the multiplier effect and hence real output increase by a multiplied amount. Actual growth is achieved when real output increases from Y<sub>1</sub> to Y<sub>2</sub>.
- Furthermore, from Extract 3. FDI brings along technological know-how which increases the quality of factors of production such as entrepreneurs. FDI also increase the quantity of capital. With the increase in productive capacity, the AS increases, as shown by the rightwards shift of the AS curve from AS<sub>1</sub> to AS<sub>2</sub>, thus achieving potential growth.
- As a result, sustained growth is achieved, with a further increase in real output from Y<sub>2</sub> to Y<sub>3</sub>, and only a slight increase in GPL to P<sub>3</sub> instead of P<sub>2</sub>.



### Figure: Sustained growth

### • The increase in FDI into Bangladesh would allow Bangladesh to achieve inclusive growth.

- From Extract 4, it has been stated that 80% of the employees in the textile industry are Bangladeshi women. Given the increase in employment due to the influx of FDI, the demand for more female workers in the textile industry is likely to increase and in turn boosting their wages. As the wages of women increase, this may reduce the income/wage between the lower-income women receive and the higher-income men tend to receive. Thus, the increase in female employment due to increase in demand for female workers in the textile industry would allow a more equitable redistribution of income and reduce income inequality between men and women, allowing India to achieve inclusive growth.
- The increase in FDI would allow Bangladesh to achieve inclusive and sustainable growth.
- The corporate tax revenue collected by the Bangladesh government by from the FDI in the textile industry can be used for redistributive policies (for example, skills training programmes for low-skilled workers etc.) and policies to manage negative externalities that arise from production of textile (for example, enforcement regulations, grants for using environmentally friendly production methods etc.).

# Anti-thesis: Explain why influx of FDI may not achieve inclusive and sustainable growth.

- However, the influx of FDI into the textile industry may be limited in achieving inclusive and sustainable growth
- From Extract 4, the non-adherence to labour law and women gets stuck in the lower pay grades/structures suggest that female workers are likely to be receiving an income/wage that is lower than what their skills level and increasing demand for them could have brought about.
- Furthermore, the proportion of male workers that receive a salary of more than 128 USD is 3 times that of female workers suggest there is significant income disparity between the males and females, and thus more must be done for inclusive growth to be achieved in Bangladesh.
- From part (d), significant negative externalities have been analysed and this suggests that the adverse impact that growing textile industry in Bangladesh on the environment where natural resources are depleted and are irreversible. Future generations will be adversely affected, and hence sustainable growth is unlikely to be achieved.

### Evaluative Conclusion

- [Stand] The growing textile industry in Bangladesh is likely to allow it to attain inclusive and sustainable growth, provided that the government harness on the benefits that the influx of FDI bring into the country.
- **[Magnitude/Situation]** With the growing textile industry, it will bring about greater corporate tax revenue. This can allow the government to have the budget to actively implement policies for income redistribution to allow for more inclusive growth and

environmental policies for sustainable growth. Stricter monitoring and enforcement of labour laws would ensure that women receive a fair wage, based on their skills and hence reduce income disparity between males and females. Furthermore, the government can also tap on the technological know-how that FDI may have pertaining to more environmentally friendly ways of textile production and provide grants for the use of such production methods. This can bring about a more sustainable economic growth.

#### Mark Scheme

Lev	Knowledge, Application/ Understanding and Analysis	Mark		
L2	<ul> <li>For a well-developed answer that has:</li> <li>Good scope and balance – explain s the impact of growing textile industry on the attainment and non-attainment of inclusive and sustainable growth;</li> <li>Good rigour – utilises suitable framework and AD/AS analysis; and</li> <li>Good use of context – explains with relevant case material to support the analysis</li> </ul>	<u>s</u> 4 – 7		
L1	<ul> <li>For an under-developed answer that:</li> <li>Lacks scope and balance – either explains the impact of growing textile industry on the attainment and non-attainment of inclusive growth or sustainable growth</li> <li>Lacks rigour – explains the impact of growing textile industry in a descriptive manner that lacks sufficient economic analysis; and/or</li> <li>Lacks application – explains the impact of growing textile industry with no application to the case and no support using relevant case material.</li> </ul>	1 – 3		
	Evaluation			
E	Up to 3 additional marks for valid evaluative comment(s) on whether Bangladesh can attain inclusive and sustainable growth with its growing textile industry.	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) Using an aggregate demand and aggregate supply diagram, explain a possible relationship between unemployment and inflation. [5]
- There is likely to be an <u>inverse / negative relationship</u> between unemployment and inflation. **[1]**
- When there is high unemployment in the country, there is likely to be low business and consumer confidence in the economy, thus decreasing the Consumption expenditure (C) and Investment expenditure (I). [1]
- As AD = C + I + G + (X-M), this decrease in C and I will decrease AD causing total output to exceed total spending, resulting in a surplus. Inventories accumulate and producers will cut back on production while selling off excess stocks at lower prices. As GPL falls, there is a movement down along the AD & AS curve. The process continues until a new equilibrium is reached where AD<sub>2</sub> = AS. As one's reduction in spending reduces the income of another, real output decreases by a multiple from Y1 to Y2, and GPL decreases from P1 to P2. Low business and consumer confidence leads to further weakened consumer expectations. This causes the consumption of domestic goods to decrease, hence AD decreases further to AD<sub>3</sub>.
- As AD decreases and shifts left from AD<sub>1</sub> to AD<sub>3</sub>, the general price level reduces from P<sub>1</sub> to P<sub>3</sub>, thus reducing inflation.

[1] for accurate and fully labelled AD/AS diagram showing the shifts of the AD curve, with clear indications of the demand-deficient unemployment and the GPL.



(c)	Comment 'youth bra	Comment on the extent to which a country should be concerned with a youth brain drain' (Extract 5). [6]					
Que	Question Interpretation						
Command word/phrase		Comment on the extent	This question requires a <u>balanced approach</u> on the benefits and the costs of the trigger – "a youth brain drain" to an economy / government (on macroeconomic goals or SOL) before providing a reasoned comment to the extent to which a country should be concerned.				
Со	ntent	Youth brain drain	The youth brain drain refers to the massive emigration of mostly young, educated and skilled people (Ext 5) in search of better job opportunities. This fall in labour will have AD and AS impacts.				
		Country should be concerned	Impact of a youth brain drain on the macroeconomic goals and/or SOL should be analysed. The relevant tool of analysis here is AD/AS.				
Context		A country	Context is not specified, though students should use the case evidence from Serbia in Extract 5 to analyse				

### Introduction

- A youth brain drain refers to the "massive emigration" of the "mostly young, educated and skilled people" (Extract 5) in search of better job opportunities.
- This can bring about both costs and potential benefits to a country, which will be discussed.

### KA1: A youth brain drain may have potential costs to a country

- A country may be concerned with a youth brain drain as it may result in negative economic growth and reduce material living standards.
- The youth brain drain reduces the quantity of labour and possibly the quality of labour with "skilled" people and "youth talent" (Ext 5) leaving, leading to a fall in the country's productive capacity and fall in the AS.
  - Diagrammatically, the (LR)AS shifts leftwards from AS<sub>1</sub> to AS<sub>2</sub>, leading to a fall in full employment output from Y<sub>f1</sub> to Y<sub>f2</sub>, and potential growth falls.
- With a smaller population left in the country, the youth brain also "decrease[s]... consumption" (Ext 5). With C being a component of AD, this will decrease AD causing total output to exceed total spending, resulting in a surplus. Inventories accumulate and producers will cut back on production while selling off excess stocks at lower prices. As GPL falls, there is a movement down along the AD & AS curve. The process continues until a new equilibrium is reached at E2 where AD<sub>2</sub> = AS. As one's reduction in spending reduces the income of another, real output decreases by a multiple from Y1 to Y2, and GPL decreases from P1 to P2 and result in negative economic growth.



- The combined impact of a fall in AD and AS is a fall in sustained growth, with real output falling from Y<sub>1</sub> to Y<sub>2</sub>.
  - As real GDP falls, assuming population size is constant, there is a decrease in real GDP per capita.
  - The fall in real GDP per capita reduces the income and purchasing power of citizens, reducing the ability to purchase and hence the material standard of living falls.
- Thus, a government may be concerned about the youth brain drain due to the negative impacts on growth and standards of living.

### KA2: A youth brain drain may have potential benefits to a country

- A country may not be too concerned about a youth brain drain if there is increased government intervention to attract foreign direct investment to boost the economy.
  - Extract 5 states that the youth brain drain can be reframed as a viable opportunity for socioeconomic development" if the government can achieve a "narrative change" by rebranding the country as a "fertile ground for investment and innovation". Should it be successful, this will attract foreign direct investment (FDI) into Serba.
  - This will result in an increase in Investment expenditure (I), thus increasing AD. Assuming spare capacity, this will result in successive rounds of incomeinduced consumption, leading to further increases in AD and a multiplied increase in real GDP to achieve actual economic growth.
  - At the same time, the increase in I represents an increase in firms' expenditure on capital, increases the quantity of capital. This increases the productive capacity, increasing the AS, boosting potential growth.
  - The increase in AD and AS in tandem helps the country achieve sustained growth, which is long-run inflationary growth.

- With an increase in real GDP with minimal increase in GPL, this will result in higher purchasing power and hence greater ability to purchase goods and services, leading to an increase in material standard of living.
- Therefore, a government need not be too concerned about the youth brain drain as there could be positive impacts on growth and standards of living, if the country can "attract FDI as a new driver of growth."

### Evaluative Conclusion

- The extent to which a country should be concerned about a youth brain drain depends on two factors the availability of funds to spend on government intervention measures and its attractiveness as a FDI destination.
  - **[Situation]** As the government would need to spend significantly to fund the training and education of the workforce and establishment of relevant infrastructure to attract FDI, a country facing a budget deficit would not be able to have the financial resources to be able to sustain the required expenditure.
  - Situation] In addition, the attractiveness of a country as a FDI destination would depend on the establishment of intellectual property rights and a skilled workforce. If the country has sufficient protection of intellectual property rights through the establishment of laws, rules and regulations, they will likely be an attractive destination for FDI into the country. [Stand] With increased efforts in rebranding as a fertile ground for investment and innovation, they should not be too concerned about the youth brain drain as the potential benefits would likely outweigh the costs in the long run.

#### OR

[Stand + Magnitude] Despite the potential benefits that increased FDI may bring, a country should be concerned with a youth brain drain, especially in the short run. A skilled and productive workforce is crucial to attract FDI and with the "mostly young, educated and skilled people" leaving, the loss of youth talent would reduce the likelihood of foreign firms investing in the country. Moreover, the benefits of FDI would only be reaped in the long run. Hence the costs of a youth brain drain would outweigh the potential benefits, especially in the short run.

### Mark scheme

Level	Knowledge, Application, Understanding and Analysis	Marks
L2	<ul> <li>For a well-developed answer that has:</li> <li>Good scope and balance – explains both the benefits and costs of youth brain drain and its impact on the economy.</li> <li>Good rigour – good use of the AD/AS framework with appropriate use of diagram(s) and case evidence for analysis</li> </ul>	3 - 4
L1	For an underdeveloped answer that	1 - 2

	<ul> <li>Lacks scope and balance – only explains either the benefits or costs of youth brain drain on the economy</li> <li>Lacks rigour – descriptive explanation of the youth brain drain, without linking to AD/AS or material standard of living</li> </ul>							
Plus up to 2 marks for Evaluation								
	EFor a well-substantiated evaluative judgement on whether a country should be concerned about a youth brain drain.1 - 2							
(c	l) Expla one o of an	ain an other e econo	opportunity co xample of your mic decision.	st faced by a youth leaving his country choice, explain what might be an oppor	and using tunity cost [4]			
•	Oppor	rtunity c	ost is defined as	s the <u>value</u> of the next best alternative forg	one when a			
•	When the po [1] *A	on is m a youn ssible i ny othe	ade. <b>[1]</b> Ig person leaves mprovements in <i>er plausible expl</i> have earned if <i>l</i>	his country, he incurs an opportunity cost health as a result of the country's quality of anations are accepted (e.g. potential wag	in terms of healthcare. hes/incomes			
•	When	a stude	ent decides to sp	bend one hour on studying Economics, the	opportunity			
	cost th	hat he i	ncurs is the satis	sfaction / utility [1] of using that one hour t	o watch his			
(e	e) Asse	ess the	favourite Netflix show at home. [1]					
	capita can be used to compare living standards between Serbia and							
0	Capit	a can	be used to	compare living standards between S	GDP per Serbia and			
	Singa Singa Uestion i	a can apore.	be used to	compare living standards between S	GDP per Serbia and [8]			
	Capit Singa uestion i Comma	a can apore. nterpre nd	tation Assess the	This question requires students to p	GDP per Serbia and [8]			
	Capit Singa uestion i Comma words/p	a can apore. nterpre nd hrase	tation Assess the extent	This question requires students to p balanced analysis on the usefulness and l of national income indicators in comparin- income statistics between two countries.	bresent a limitations g national			
	Content	a can apore. nterpre nd hrase	tation Assess the extent National income indicators like	This question requires students to p balanced analysis on the usefulness and I of national income indicators in comparing income statistics between two countries. To compare material SOL over space, PPP-adjusted GDP/GNI per capita w needed.	bresent a limitations g national , data on would be			
	Capit Singa uestion i Comman words/p	a can apore. nterpre nd hrase	tation Assess the extent National income indicators like real GDP per capita	<ul> <li>This question requires students to p</li> <li><u>balanced</u> analysis on the usefulness and I</li> <li>of national income indicators in comparing</li> <li>income statistics between two countries.</li> <li>To compare material SOL over space,</li> <li>PPP-adjusted GDP/GNI per capita w</li> <li>needed.</li> <li>PPP: to account for the purchasing por</li> <li>of the residents by adjusting for difference in two countries;</li> </ul>	bresent a limitations g national , data on would be wer ability prences in g between			
	Capit Singa uestion i Comman words/p	a can apore. nterpre nd hrase	be used to tation Assess the extent National income indicators like real GDP per capita	<ul> <li>This question requires students to p</li> <li><u>balanced</u> analysis on the usefulness and I</li> <li>of national income indicators in comparing</li> <li>income statistics between two countries.</li> <li>To compare material SOL over space,</li> <li>PPP-adjusted GDP/GNI per capita w</li> <li>needed.</li> <li>PPP: to account for the purchasing por</li> <li>of the residents by adjusting for difference in price levels in terms of the cost of living</li> <li>two countries;</li> <li>per capita: account for difference in p</li> </ul>	bresent a limitations g national , data on would be wer ability erences in g between population			

Serbia and Singapore			

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.
  - Material SOL is associated with the amount of goods and services available for consumption by the residents of an economy.
  - 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.
- 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.

- [optional] 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.
  - [optional] 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)
  - 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 <u>converts</u> GNI of different countries <u>into a common currency</u> 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

- **[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 <u>PPP-adjusted</u> <u>GNI per capita</u>. 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.

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Ма	ark Sche	me		
	Level	Knowledge, Application, Understanding and Analysis	Marks	
	L2	<ul> <li>For a well-developed answer that has:</li> <li>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</li> <li>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</li> <li>An answer that discusses only material OR non-material SOL will be capped at L2 – 4m.</li> </ul>	4 – 6	
	L1	<ul> <li>For an underdeveloped answer that</li> <li>Lacks scope and balance – only explains either the usefulness or limitations of national income indicators in comparing SOL between two countries</li> <li>Lacks rigour – descriptive explanation of the usefulness of national income indicators in measuring SOL and/or limited contextual application</li> </ul>	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	
(f)	With unen	the aid of a diagram where appropriate, explain two likely ployment in Serbia.	causes o	
•	occupational immobility, resulting in a skills mismatch between the unemployed workers and the job vacancies. [1]			
•	Extract 6 mentioned that the "Serbian economy is growing to rely more on IC" and "needs at least 15,000 more engineers in the tech sector" to "meet th increasing demand for ICT exports". This suggests that the ICT industry is a expanding / rising industry which requires skills that unemployed workers ma not possess currently. <b>[1]</b> Due to <b>occupational immobility</b> , the unemployed workers do not have the skills to take up jobs in the ICT industry.			
•	The s unemp From investr which that th	second cause of unemployment is likely to be <u>deman</u> <u>bloyment</u> due to a lack of AD. Extract 7, with Serbia facing challenges that include "slowing ment" OR an expected recession in a large number of Europear could lead to a "further slowdown in economic activity in Serbia", ere could be a potential fall in (X-M) and/or I, which would reduce <i>i</i>	<u>d-deficien</u> trade and n countrie this implie AD, shiftin	

the AD curve leftwards from AD<sub>1</sub> to AD<sub>2</sub>. [1] This will trigger the reverse multiplier effect and result in a multiplied fall in real GDP from  $Y_1$  to  $Y_3$ . 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 rises to from (Yf-Y<sub>1</sub>) to (Yf - Y<sub>3</sub>). **[1]** 



### 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.
  - 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.
  - $\circ$  As shown in the figure below, the increase in productivity will lead to AS shifting downwards from AS<sub>1</sub> to AS<sub>2</sub>. This increases real GDP from Y<sub>1</sub> to Y<sub>2</sub>.



- Furthermore, this increase in productivity could also potentially attract foreign direct investment (FDI) into the country, thus increasing the AD.
- Assuming the presence of spare capacity, this increase in AD would trigger the multiplier effect and hence real output increase by a multiplied amount. Actual growth is achieved when real output increases further from Y1 to Y3 as shown in the figure.
- With an increase in real output, firms will increase their derived demand for factors of production like labour, thus reducing demand deficient unemployment from (Yf<sub>1</sub> - Y<sub>1</sub>) to (Yf<sub>1</sub> - Y<sub>3</sub>).
- However, increasing productivity does has its own limitations.
  - 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.
  - 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.
  - 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. 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.
  - With more retraining, this leads to a fall in supply of low-skilled manufacturing workers to S<sub>1</sub>. At the same time, labour mobility increases, and these workers can move to the sunrise industries (e.g. IT industry), resulting in an increase in supply of workers to S<sub>2</sub>. This reduces the problem of structural unemployment.



Hence when there is economic restructuring in a country which leads to more and more job listings that require specific skills, structural unemployment will arise. Unemployed workers who are looking for work do not have the skills to be qualified for the available positions. However, education and upgrading of skills for these workers will help to ensure their 'employability' by equipping them with the relevant skills to move between different jobs and filled up these vacancies. As a result, structural unemployment is reduced.

• 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. For an ageing population like Singapore, this would be quite likely to happen due to its ageing population which would decrease the likelihood of receptivity by the older workers to participate in training programmes. • 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

- **[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:	4 – 7		
	• Good scope and balance - explains both the workings and			
	limitations of increasing productivity to reduce unemployment;			
	together with 1 other policy to reduce unemployment;			
	<ul> <li>Good rigour – utilises suitable framework and AD/AS analysis; and</li> </ul>			
	<ul> <li>Good use of context – explains with relevant case material to support the analysis.</li> </ul>			
L1	For an under-developed answer that:	1 – 3		
	<ul> <li>Lacks scope and balance – either explains working or limitations of increasing productivity and / or that of 1 other policy;</li> </ul>			
	<ul> <li>Lacks rigour – explains workings of policies in a descriptive manner that lacks sufficient economic analysis; and/or</li> </ul>			
	<ul> <li>Lacks application – explains policies with no application to the case and no support using relevant case material.</li> </ul>			
Evaluation				
E	Up to 3 additional marks for valid evaluative comment(s) on whether	1 – 3		
	increasing productivity is the best policy to reduce unemployment			
	in a country.			

TJC 2024 Prelim H1 Answers updated and aligned to TM Econs