

**ACS(I) 2023 Y6 SL Economics Paper 2 Prelim Exam
Suggested Answers**

Question 1 Suggested Answers

ai) Define the term economic growth (Text B, paragraph 2).

[2]

Level		Marks
0	<i>The work does not meet a standard described by the descriptors below.</i>	0
1	<i>Vague definition.</i> The idea that it is about the economy growing such as increase in actual or potential output/national income/GDP, including idea about per head or per capita.	1
2	<i>Accurate definition.</i> The growth of the real value of output in an economy over time. Usually measured as growth in real GDP. <i>*give full credit if idea of an increase and real GDP / output / national income is there.</i>	2
<u>Markers' comments</u> <i>Mostly well done, except for a handful which provided imprecise definitions, missing out on the concept of real value.</i>		

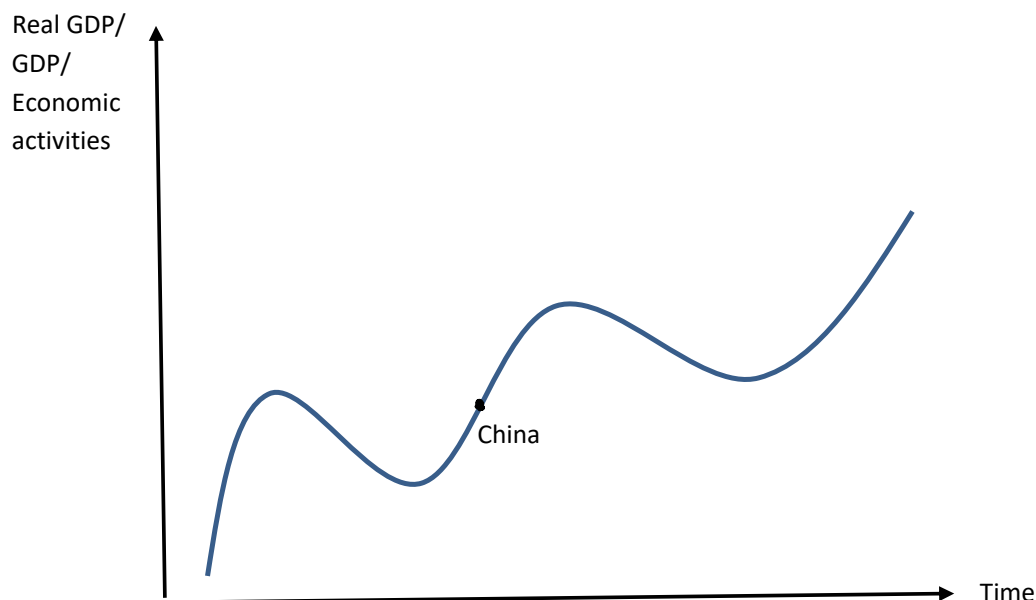
a ii) Define the term tariffs (Text C, paragraph 1).

[2]

Level		Marks
0	<i>The work does not meet a standard described by the descriptors below.</i>	0
1	<i>Vague definition.</i> The idea that it is a barrier to trade, tax on goods and services / indirect tax.	1
2	<i>Accurate definition.</i> A duty (tax) that is placed upon imports to protect domestic industries from foreign competition and to raise revenue for the government. <i>*give full credit for the understanding that they are taxes (duty) on imports / exports.</i>	2
<u>Markers' comments</u> <i>Mostly well done, except some who were imprecise in their definitions. Students need to know that the definition of tariff as a trade barrier that reduce foreign supply and increase price of imports is imprecise as such a definition can also apply to quotas.</i>		

STUDENTS MUST MEMORISE DEFINITIONS TO AVOID LOSING UNNECESSARY MARKS.

- bi) Using a business cycle diagram, indicate where China is on the business cycle in 2021. (Table 1). [3]



1m for fully labelled diagram;

1m for correctly drawn business cycle

1m for indicating that China's economy is in the expansion/recovery phase (in between a trough and peak).

*Diagram title not necessary. Long term growth trend not needed.

Markers' comments

Students lost marks because of wrong labelling of axes, wrong business cycles (no downswings) or incorrect indication of China's position on the business cycle.

- bii) Calculate China's unemployment rate in 2021 (Table 1). [2]

$$\text{Unemployment rate} = [1 - (746.52\text{m}/780.24\text{m})] * 100\% = 4.32\%$$

1m for valid working and 1m for correct final answer.

Markers' comments

Well done except for minority that calculated based on the wrong year.

- c) Using a demand and supply diagram, explain how rising affluence of Chinese households can impact the market for residential housing (Text B, paragraph 2). [4]

Level	Descriptor	Marks
1	There is a correct diagram or an accurate written response.	1-2
	For drawing a correctly labelled demand and supply diagram showing the rightward shift of demand and increase in price and quantity OR for the explanation that rising affluence of Chinese households results in higher disposable income, which increases the demand for goods such as residential housing, resulting in an increase in price and quantity.	

2	<i>There is a correct diagram and an accurate written response.</i>	3-4
	For drawing a correctly labelled demand and supply diagram showing the rightward shift of demand and increase in price and quantity AND for the explanation that rising affluence of Chinese households results in higher disposable income, which increases the demand for goods such as residential housing, resulting in an increase in price and quantity.	

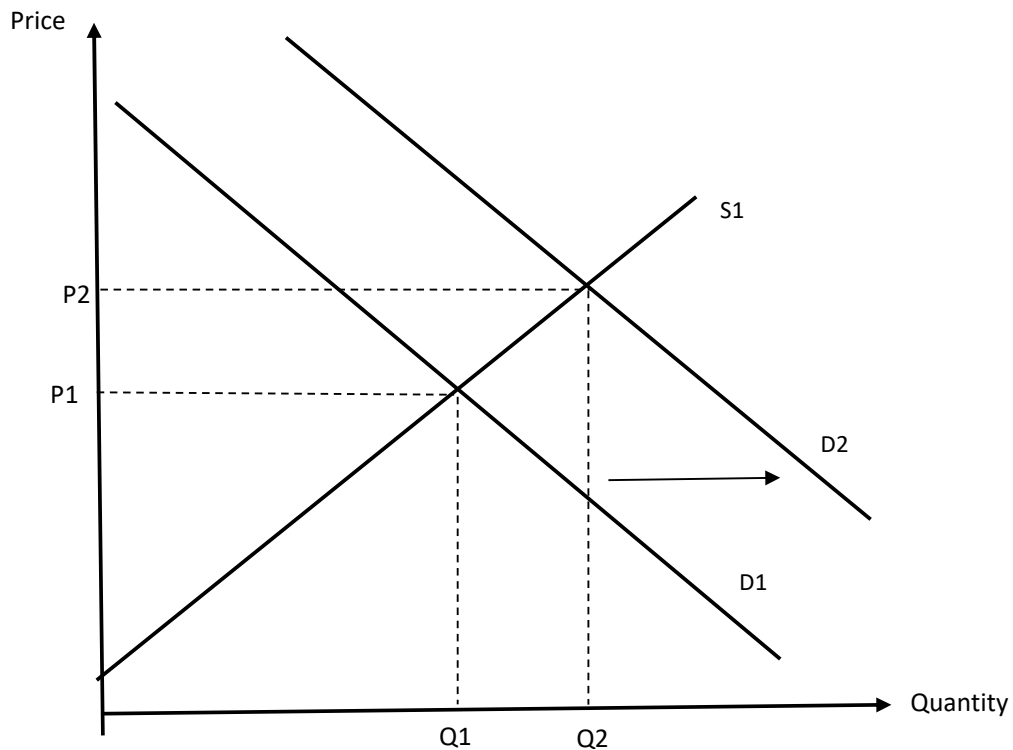
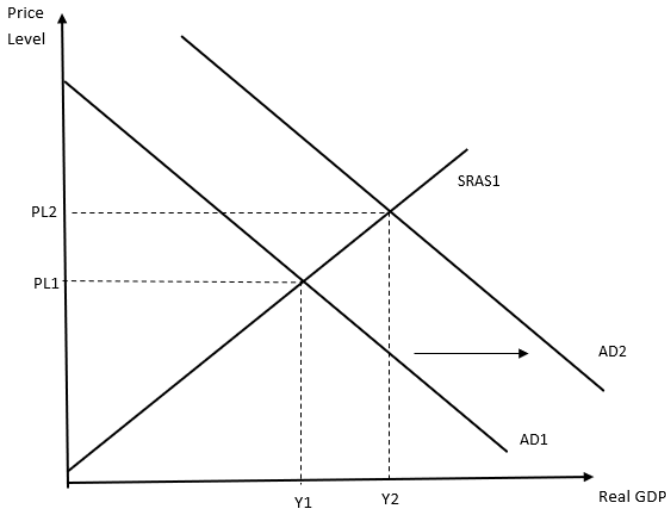


Diagram 2: Market for Residential Housing (title is optional)

Markers' comments

Majority of the responses were able to access Level 2 marks. Those who failed to score full credit were mainly due to missing demand determinant (rising income/purchasing power) or did not reference to diagram drawn.

d) Using an AD/AS diagram, explain how currency manipulation could have impacted China's economic growth. (Text C, paragraph ①) (SL paper only) [4]

Level	Descriptor	Marks
1	<i>There is a correct diagram or an accurate written response.</i>	1-2
	For drawing a correctly labelled AD/AS diagram showing the rightward shift of AD OR the explanation that China has undervalued their currency to make their exports relatively cheaper, hence increasing the exports, and their imports relatively more expensive, decreasing imports. This results in an overall increase in net exports and AD increases, resulting in an increase in real GDP and economic growth.	
2	<i>There is a correct diagram and an accurate written response.</i>	3-4
	<p>For drawing a correctly labelled AD/AS diagram showing the rightward shift of AD AND the explanation that China has undervalued their currency to make their exports relatively cheaper, hence increasing the exports, and their imports relatively more expensive, decreasing imports. This results in an overall increase in net exports and AD increases, resulting in an increase in real GDP and economic growth.</p> 	

Markers' comments

Generally, well done. Most students could understand from the passage that the impact of currency manipulation should be to increase exports as mentioned in the text. Some students instead inferred that exports would fall as a secondary effect, which was not accepted. Explanations of both exports and imports are needed for the full credit.

- e) Using an international trade diagram, explain the impact of China's subsidies on the market for high-tech products in China. (Text B, paragraph 5). [4]

Level	Descriptor	Marks
1	<i>There is a correct diagram or an accurate written response.</i>	1-2
	For drawing a correctly labelled international trade diagram show the rightward shift in domestic supply and lower imports and price unchanged OR explanation that the subsidies would reduce the cost of production of domestic producers, incentivising greater production to increase the supply to the right, resulting in lower imports but price remaining the same.	
2	<i>There is a correct diagram and an accurate written response.</i>	3-4
	For drawing a correctly labelled international trade diagram show the rightward shift in domestic supply and lower imports and price unchanged AND explanation that the subsidies would reduce the cost of production of domestic producers, incentivising greater production to increase the supply to the right, resulting in lower imports but price remaining the same. No change to quantity demanded.	

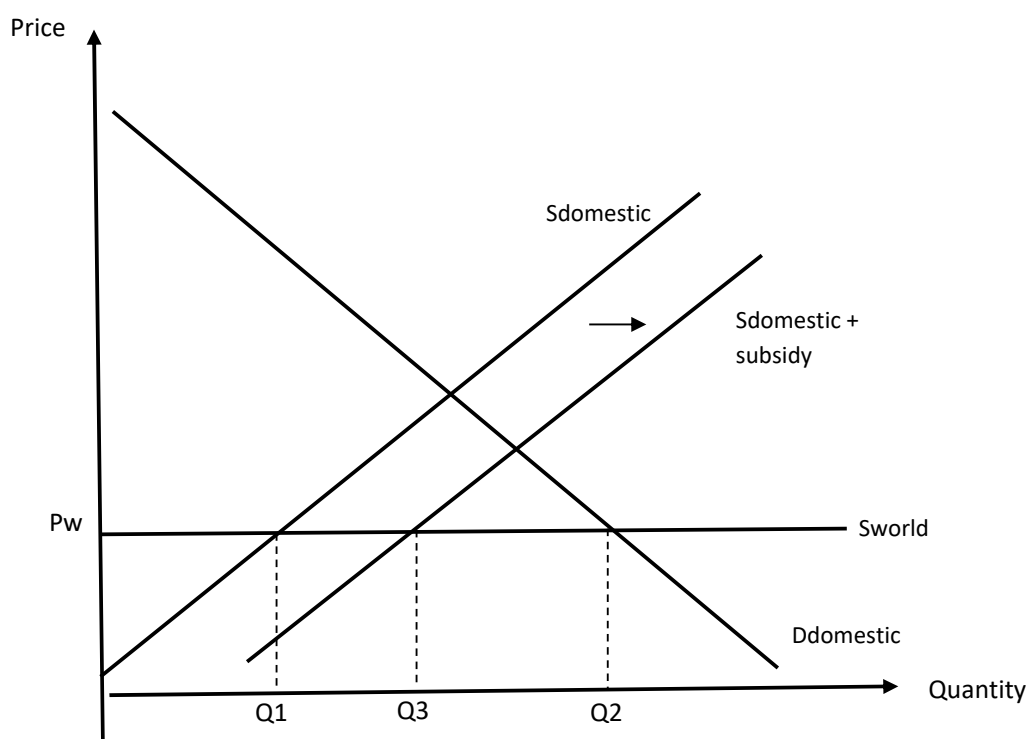


Diagram 4: Market for high-tech products in China (title is optional)

Markers' comments: While most responses were awarded Level 2, most scored 3m due to failure to include the supply determinant (fall in cost of production), incomplete or incorrect explanation for diagram which included failure to mention increase in price of high-tech products, no mention of change in Qs, vol of imports or impact on Qd. Answers that drew an export subsidy diagram instead were awarded max 1m as most of the time, the supporting explanation is inaccurate.

- f) Using a poverty cycle diagram, explain how China's increased investment can affect the poverty rate (Text B, paragraph 1). [4]

Level	Descriptor	Marks
1	<i>There is a correct diagram or an accurate written response.</i>	1-2
	For drawing a correctly labelled poverty cycle diagram OR the explanation that the increased investments in infrastructure would result in higher quantities of physical capital, making labour more productive, resulting in higher income which lowers the poverty rate by breaking the poverty cycle.	
2	<i>There is a correct diagram and an accurate written response.</i>	3-4
	For drawing a correctly labelled poverty cycle diagram AND the explanation that the increased investments in infrastructure would result in higher quantities of physical capital, making labour more productive, resulting in higher income which lowers the poverty rate by breaking the poverty cycle.	

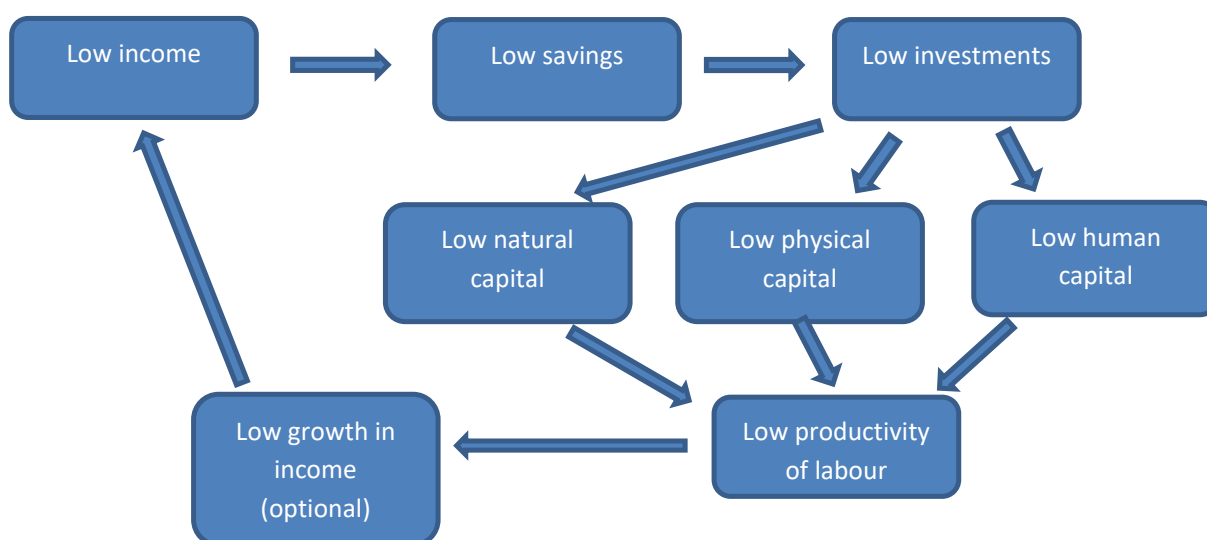
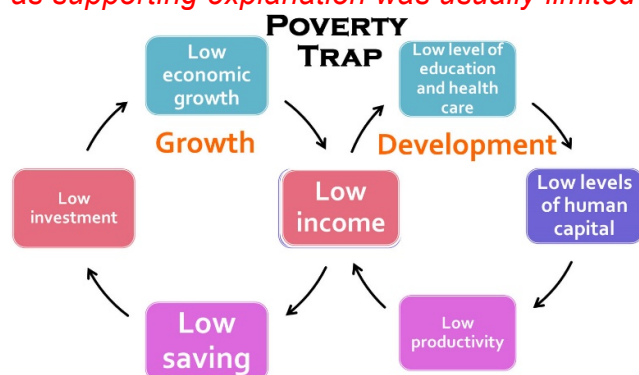


Diagram 5: Poverty cycle diagram for China (title is optional)

Markers' comments: This question proved difficult to a significant number of students as they were unable to draw the poverty trap diagram accurately. Those who drew the above diagram were able to address the requirements of the question fully while those who included a partial poverty cycle (see below) diagram were awarded a maximum of 2 marks as supporting explanation was usually limited with a partial diagram.



A partial diagram is one that only drew 1 out of the 2 connecting cycles below. Both cycles MUST be included for this poverty cycle diagram to be considered complete.

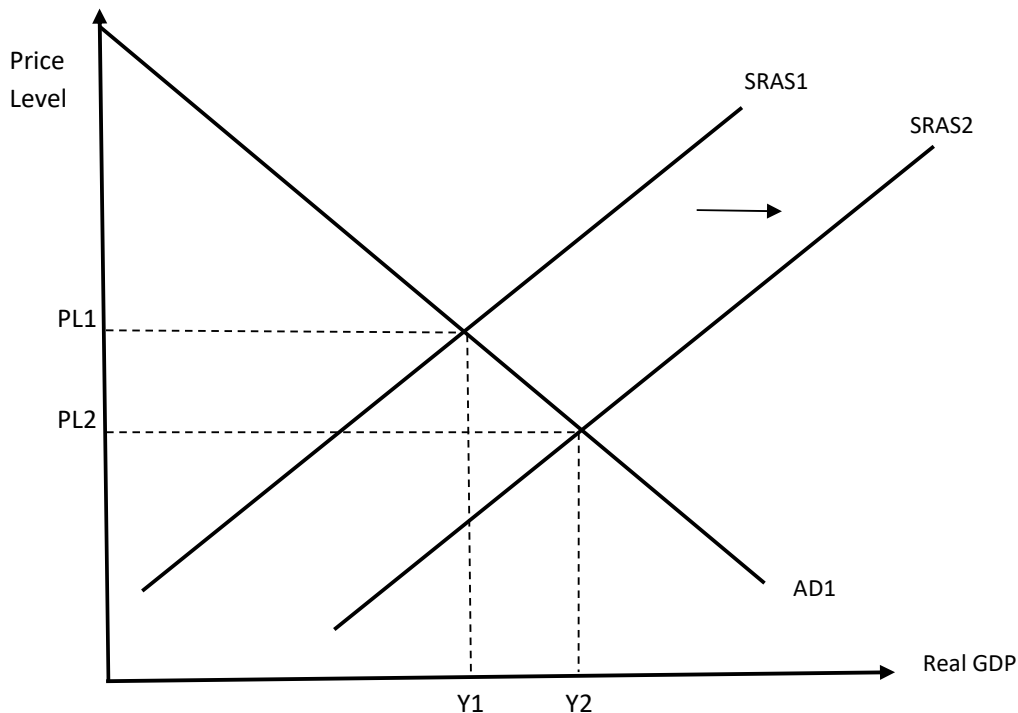
g) Using data from the text and your own knowledge of economics, discuss the consequences of the appreciation of the renminbi on China's economy. [15]

Intro:

- Define appreciation – rise in the price of one currency in terms of another
- Interpret question – the appreciation of the RMB can lead to both positive and negative consequences on China's economy in the area of current account balance, economic growth, unemployment, price level.

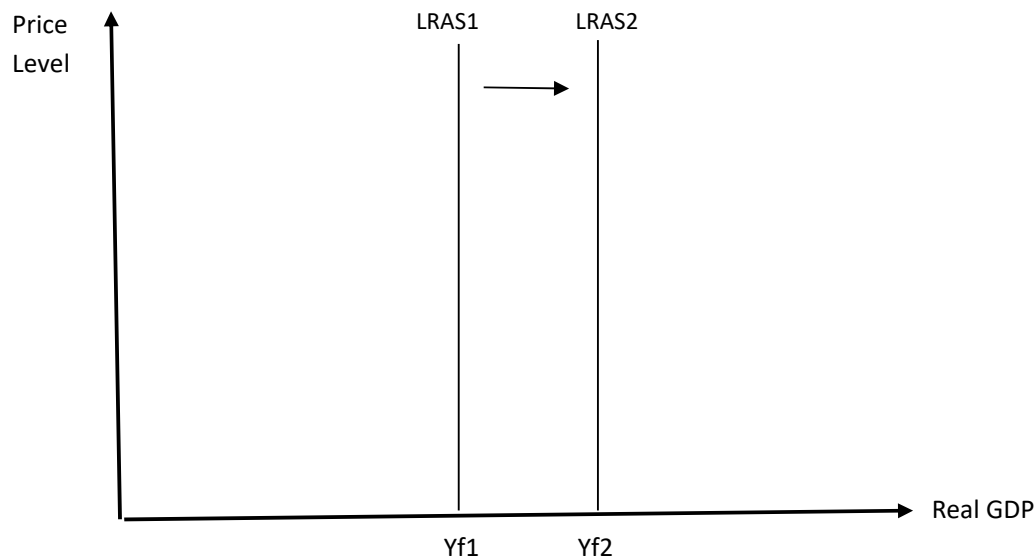
Pros

- Appreciation can help to ease inflation pressures from lowering imported inflation (Text A para 3)
 - Its top imports are integrated circuits, crude petroleum, iron ore, cars, and gold, mainly natural resources and commodities, which are necessities for the production of many goods.
 - Due to lower cost of production as imports are now relatively cheaper SRAS increases and shifts to the right from SRAS1 to SRAS2, resulting in lower price levels from PL1 to PL2 as well as actual growth from an increase in real GDP from Y1 to Y2.



- Appreciation can reduce cost of imports, such as commodities necessary for construction of infrastructure, aiding China's economic growth. (Text B para 2).
 - This reduction in price of imported commodities is heavily used for the construction of infrastructure, this also contributes to a higher quantity of imported physical capital, increasing the productive capacity of the economy and increasing the potential output from Yf1 to Yf2 as well. Appreciation can help China achieve long term economic growth.
 - In the long term, the lowered cost of production may also lead to greater price competitiveness of Chinese exports, enhancing their global market influence

in trade (Text A, para 3), improving current account balance as export revenue is boosted and promoting export-driven growth.



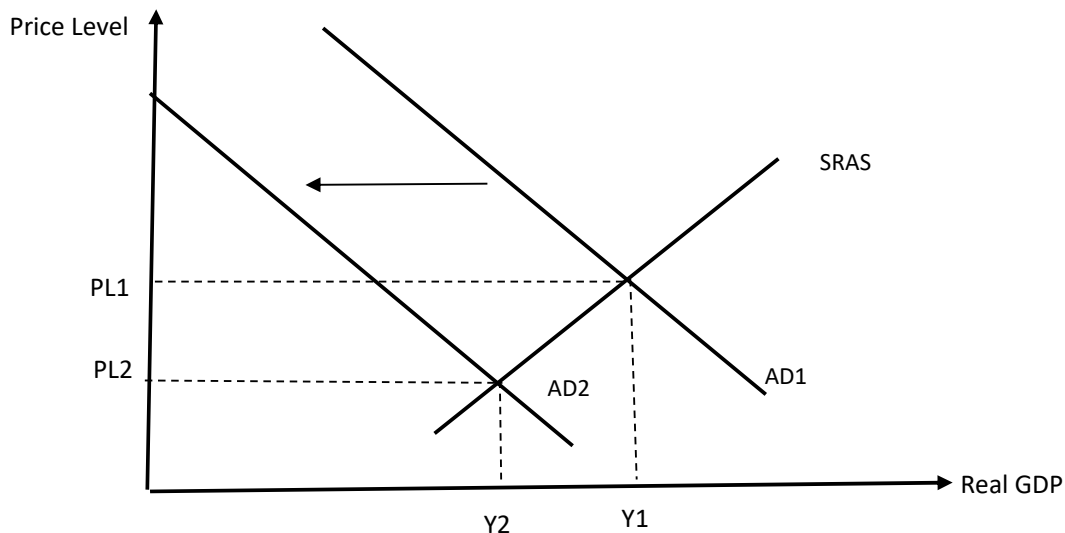
- Greater economic growth can also contribute to lower poverty rates through higher employment of labour as well as higher incomes, which is one of the priorities of China as a significant proportion of its population is still under the \$5.50 poverty line. (Text B para 1).
- A stronger currency can prevent further currency manipulator accusations from China's trading partners like the US and possibility of retaliation. This can help to ease tension and improve relations with the US, prevent trade wars and reduce the possibility of greater tariffs harming its exports in the future → prevent negative impact arising from trade protection from US. (Text C para 1).

Cons

- Consideration of how much appreciation is 'excessive' with more than 8% against a basket of currencies and 2.5% against the USD (Text A, para 2). Additionally, Table 1 shows that appreciation of the yuan has exceeded 5% + China's top exports are broadcasting equipment, computers, office machine parts, integrated circuits, and telephones. Since exports are mainly manufactured goods which likely has a PED >1.
- Appreciation likely to cause a significant fall in export revenue due to more than proportion fall in Qd for Chinese exports (in foreign currency) / significant fall in export demand in Yuan.
- Could erode/harm export competitiveness of Chinese exports by too much, worsening current account balance, reducing net exports and resulting in a fall in AD from AD1 to AD2, resulting in a fall in real GDP from Y1 to Y2, harming economic recovery (Text B para 2,3).
- Export sector employs a large number of people, hence unemployment may increase significantly if the export sector shrinks as requires less to produce the reduced quantity of exports. (Text B para 2). Additionally, the cheaper imported goods may also threaten domestic firms in import-substitution industries (Table 1

where import expenditure is rising), aggravating unemployment problem which is on the rise.

- Might increase poverty rate due to the rise in unemployment in export sectors. (Text B para 1)



Evaluation:

- Although China seems to be relying on production subsidies to domestic firms to mitigate against the adverse impact of the appreciation (Text C) which is also another possible trigger point for trade retaliation by US.

Synthesis:

- Since China is a major trade player and Asian countries becoming increasingly trade dependent on China, the adverse effects of Yuan appreciation may not hurt export revenue as badly since lack of substitutes means that PED for Chinese exports more likely to be low / $PED_x < 1$, despite the fact that they export manufactured goods.
- Economic indicators in Table 1 further supports the positive correlation between appreciation and China's economic performance in term of the improving the current account balance and economic growth.
- While unemployment have risen, this could be due to the delayed response of the labour market from the COVID-19 pandemic in the short term and threat from cheaper imports which can be addressed if domestic subsidies increases.
- Considering the long-term prospects and US being China's biggest trading partner, it might make sense for China to let its currency appreciate so as to prevent trade conflicts and retaliations with the US that might harm its economic growth in the long run, while exploring other ways to negate the erosion of export competitiveness such as domestic subsidies which might be harder to prove.
- Appreciation of currency is a good chance for China to diversify its economy away from being exports dependent to an economy that is most focused on domestic economic activity, as seen from how China is relying more on the building of infrastructure to drive economic growth.

Marks	Level descriptor
0	<ul style="list-style-type: none"> The work does not reach a standard described by the descriptors below.
1–3	<ul style="list-style-type: none"> The response indicates little understanding of the specific demands of the question. Economic theory is stated but it is not relevant. Economic terms are stated but they are not relevant. The response contains no evidence of synthesis or evaluation. The response contains no use of text/data.
4–6	<ul style="list-style-type: none"> The response indicates some understanding of the specific demands of the question. Relevant economic theory is described. Some relevant economic terms are included. The response contains evidence of superficial synthesis or evaluation. The response contains limited use of text/data.
7–9	<ul style="list-style-type: none"> The response indicates understanding of the specific demands of the question, but these demands are only partially addressed. Relevant economic theory is partly explained. Some relevant economic terms are used appropriately. Where appropriate, relevant diagram(s) are included. The response contains evidence of appropriate synthesis or evaluation but lacks balance. The response includes some relevant information from the text/data.
10–12	<ul style="list-style-type: none"> The specific demands of the question are understood and addressed. Relevant economic theory is explained. Relevant economic terms are used appropriately. Where appropriate, relevant diagram(s) are included and explained. The response contains evidence of appropriate synthesis or evaluation that is mostly balanced. The use of information from the text/data is generally appropriate, relevant, and applied correctly.
13–15	<ul style="list-style-type: none"> The specific demands of the question are understood and addressed. Relevant economic theory is fully explained. Relevant economic terms are used appropriately throughout the response. Where appropriate, relevant diagram(s) are included and fully explained. The response contains evidence of effective and balanced synthesis or evaluation. The use of information from the text/data is appropriate, relevant, and is used to formulate a reasoned argument supported by analysis/evaluation.

Markers' comments

- *There were some attempts to interpret the information and data provided although students can be selective in their application of the information in their answers. Hence such responses tend to be theoretical with incidental or superficial application of the evidence in their analysis. Many were unable to explain the impact of appreciation on SRAS and imported inflation as mentioned in the text. Instead, there was an emphasis on demand-pull inflation through reduction in net exports even though this is not entirely supported by the data.*
- *The weaker responses sought to approach the question like an essay with no connection to the data even though the information provided in the text and table is sufficiently rich.*

- *It is also common to see descriptive responses that lack application of relevant economic models/theories to substantiate their evidence and explain the impact of the appreciation. For example, AD/AS model was not applied, or students rely on micro analysis of DD/SS when analysing the impact on economic growth and unemployment.*
- *Another area that needs improvement is in the development/explanation of ideas to enrich the economic analysis. Those who listed the consequences or copied the evidence with little elaboration or analysis tend to produce responses that are under/undeveloped and they find themselves being limited to Level 2.*
- *There were some misinterpretation of the texts with regards to the action of PBOC. These include students stating that PBOC intervened in the foreign exchange to devalue the Yuan, which is a possibility, but did not occur; and the lowering of the reserve requirement ratio to counter the appreciation even when the text mentioned that it is to boost economic recovery. Additionally, some focused on explaining the causes of appreciation at great length, compromising the time available to meet the question requirements.*



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At the start of each answer to a question, write the question number in the box using your normal handwriting.

0 1

- a) i) Economic growth is an increase in real GDP over a period of time, usually a year.
ii) Tariffs are import taxes levied by governments on foreign imports to protect domestic producers and to generate government revenue.

b) i)

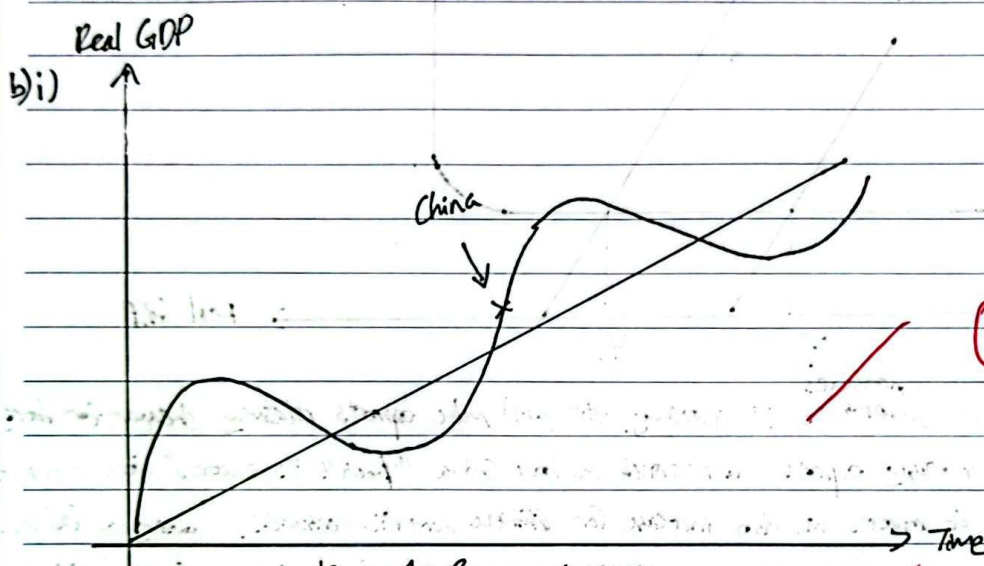


Diagram 1: Business cycle of China.

$$f) \text{ Unemployment Rate} = \frac{780.24 - 746.52}{780.24} \times 100\% \\ = 4.32\%$$

c) Price of Residential Housing

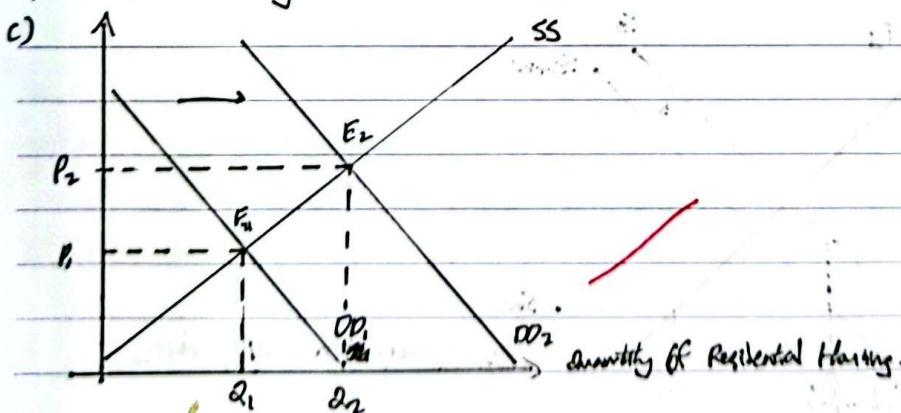
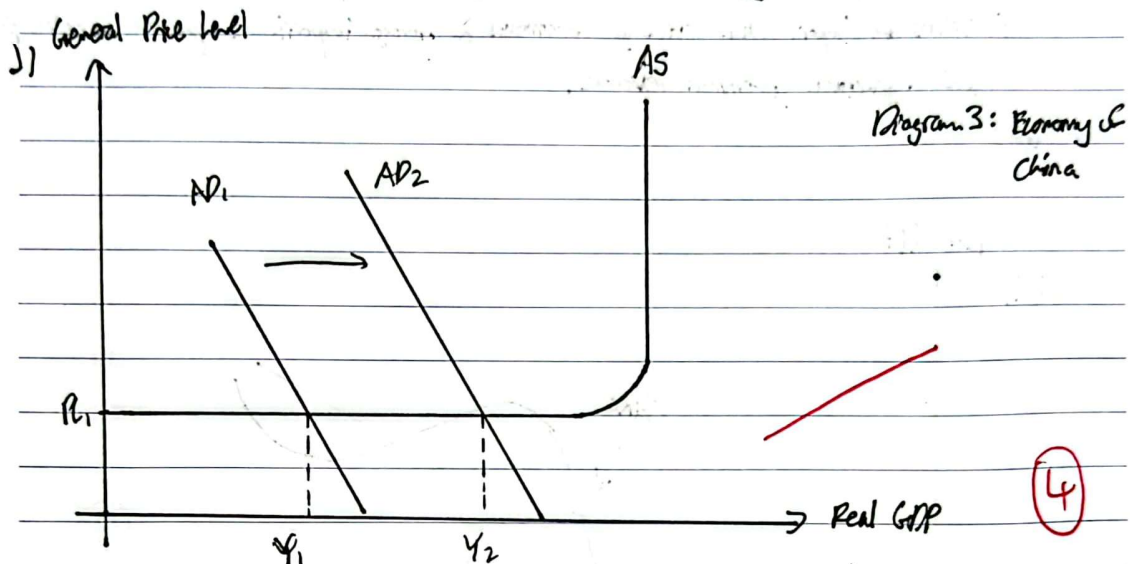
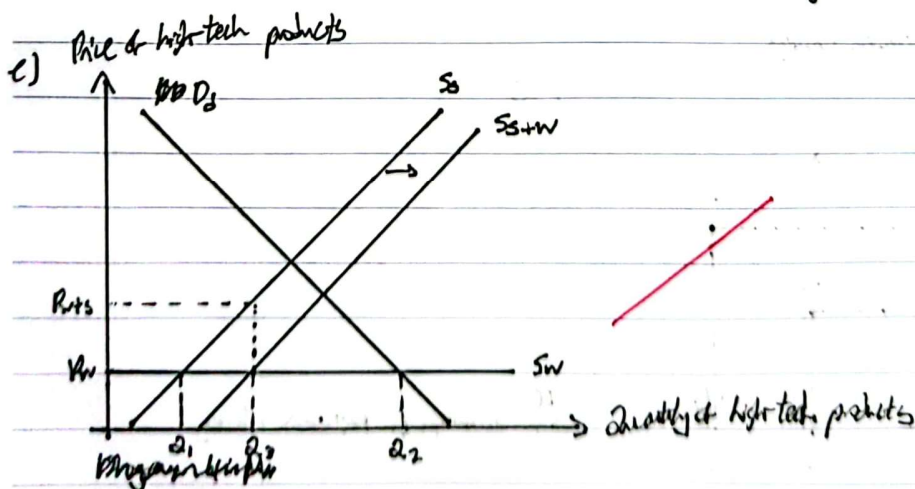


Diagram 2: Market for Residential Housing
in China

they have increased income. This will increase the income of Chinese households, ~~they have increased~~ disposable income, which increases their purchasing power, making them more willing and able to demand residential housing, reflected by a rightward shift of the demand curve from DD_1 to DD_2 . The equilibrium changes from E_1 to E_2 , which increases prices of residential housing from P_1 to P_2 and quantity from Q_1 to Q_2 . This is also reflected in the article where affluent families have the growth in residential housing construction, indicated by an increase in quantity produced and ~~consumed~~ supplied. (4)



When China ~~undervalues~~ ^{undervalues} its currency, this would make exports relatively cheaper for foreign countries, increasing exports, as mentioned in how China "boosts its exports" with this measure. The price of imports will also increase for Chinese domestic consumers, causing a fall in imports. This will lead to a ~~fall in imports~~ ^{increase} in net exports ($X-M$). Since $(X-M)$ is a component of aggregate demand, this will increase AD from AD_1 to AD_2 , increasing real GDP from Y_1 to Y_2 , hence allowing China to achieve actual economic growth.

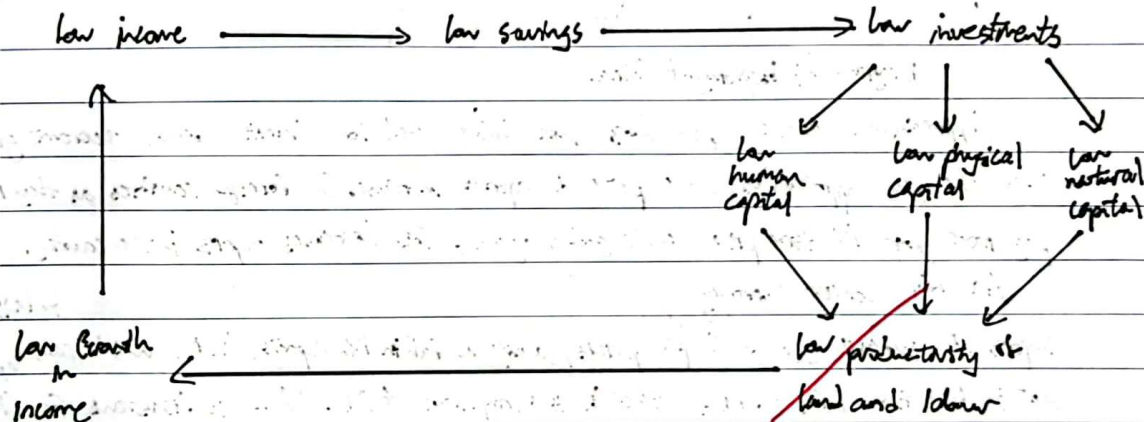




At the start of each answer to a question, write the question number in the box using your normal handwriting.

The production subsidies provided by the government lowers the production costs for producers, so they supply more, as indicated by a rightward shift from S_1 to S_{new} of the supply curve. This increases producer revenue from $P_1 \times Q_1$ to $P_{new} \times Q_2$, and increases their quantity produced from Q_1 to Q_2 . It also reduces foreign imports from $Q_1 - Q_2$ to $Q_2 - Q_2$, reducing foreign competition. ~~import expenditure~~
price and quantity demanded?

f)



Program 5: Poverty Cycle Program

In construction and infrastructure
When Chinese government increases investments, this increases the physical capital of Chinese residents. This can allow them to improve their labour productivity as they are able to be more efficient with better ^{infrastructure systems} infrastructure. This allows them to generate higher incomes as they are more productive and valuable to employers. With an increased income, they can further invest in human capital to update themselves to generate higher income for both themselves and future generations, hence allowing them to escape the poverty cycle. This will reduce the poverty rate in China in the long term.

g) Appreciation refers to an increase in the value of a currency in relation to other currencies in a floating exchange rate system. The appreciating yen has both positive and negative effects on China's economic growth, inflation, unemployment, and ~~also economic~~ material wellbeing.

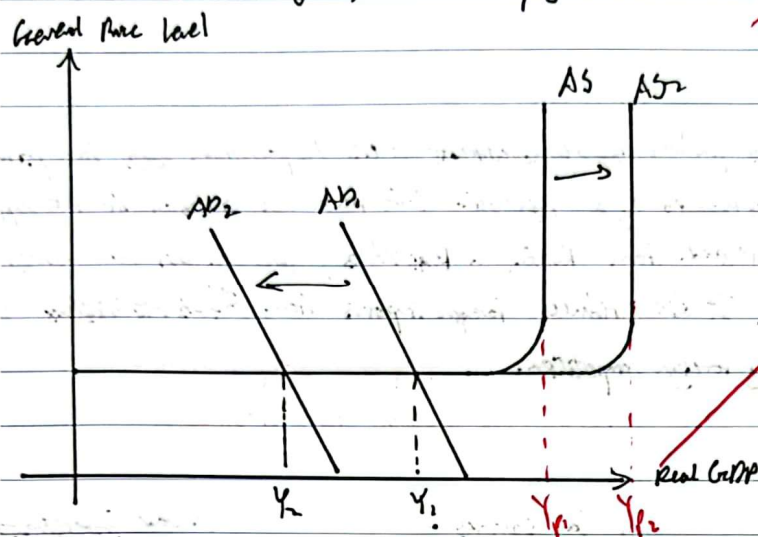


Diagram 6: Economy of China.

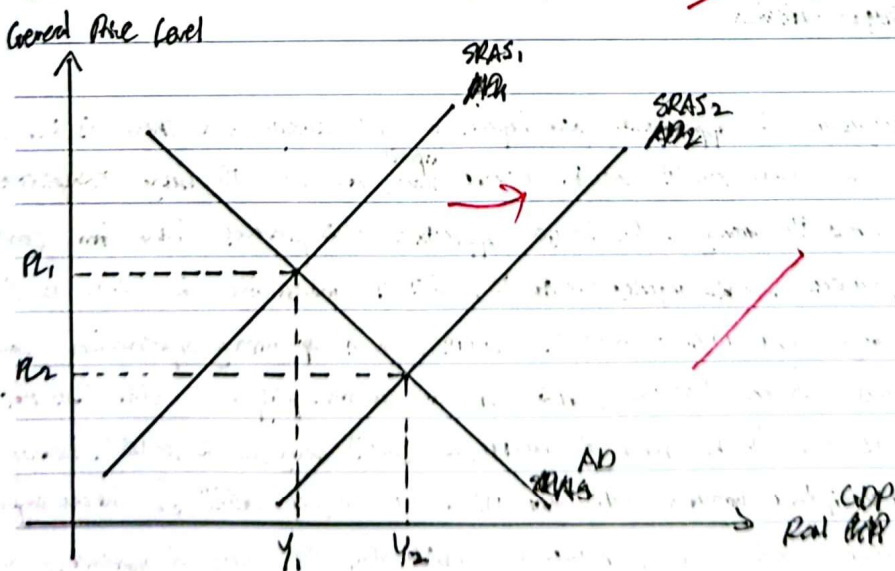
Appreciation of the yen does not bode well for China's actual economic growth. When the yen appreciates, the price of exports increases for foreign countries as they must pay more for the same price of the good in yen. This decreases exports in the country. Similarly, ^{in their domestic currency} imports will increase ^{relatively} due to cheaper prices, causing a fall in net exports, $(X-M)$ which causes a leftward shift in AD from AD_1 to AD_2 since it is a component of AD. This is disastrous for China, who is the "largest trading nation in total trade of goods in 2013". Coupled with an increasing "trade dependency", ~~the shift~~ exports will take up a larger proportion of China's GDP, hence causing a greater leftward shift in AD. This would lead to a fall in economic growth, indicated by a fall in real GDP from Y_1 to Y_2 . The article mentions that China's growth has long been supported by its "robust export growth", so a decrease in net exports will definitely heavily impact China's actual growth. With lower real GDP, this would also translate to lower material wellbeing enjoyed by residents as there are less goods and services available for consumption. This could worsen the poverty problem in China where "13% of the population still falls below the poverty line". With less goods and services to consume, poverty-stricken families will face high difficulty in gaining higher incomes to break free from the poverty cycle, however, some poorer households may also fall into poverty, hence worsening this issue. They could then be stuck in a poverty cycle, illustrated in Diagram 5, where, households are unable to invest in their own and their children's human capital, resulting in poverty that lasts across generations.



At the start of each answer to a question, write the question number in the box using your normal handwriting.

A decrease in actual growth will also increase unemployment in the country. A decrease in AD will lead to a decrease in demand for labour, since labour is a derived demand. This will increase cyclical unemployment in China. This is especially bad for China, where "export sector is a major source of employment". With a decrease in exports brought about by appreciation, the exporting firms will require less labour to produce less exports, hence increasing unemployment. This further lowers material well-being for residents who lose their source of income, ^{for production of goods and services} which may cause them to fall into poverty, as they are unable to purchase essential goods for survival without an income stream.

However, currency appreciation could help alleviate the financial burden of households by lowering imported inflation. An appreciation would make imported goods cheaper, hence households are more willing and able to purchase imported goods. This is seen in the article, where appreciation is allowed by the People's Bank of China (PBOC) to "counter the escalating costs of commodities". ~~It mentions that China imports goods petroleum, iron ore, and rice, all of which are~~ Hence, though currency appreciation, China can "ease inflation pressures", allowing residents to enjoy a higher material well-being from imported goods. Appreciation of the yuan can also reduce inflation.



Imports

China's imports consist includes crude petroleum, ~~disposition~~ iron ore, and cars, all which are essential factors of production for all industries. Hence, with a decrease in import prices due to currency appreciation, firms enjoy a decrease in production costs, allowing them to increase aggregate supply from AS_1 to AS_2 in Diagram 7. This could help drive the economy's actual growth, ceteris paribus, from Y_1 to Y_2 , as well as ease inflationary pressures from P_1 to P_2 . In fact, the article mentions that the decreased prices are "necessary for China's ambitious infrastructure plans". With an increase in investments in infrastructure, this could increase China's productive capacity in the long run ^{by making factors of production more productive and efficient}. This is reflected in a rightward shift of AS from AS_1 to AS_2 in Diagram 6. Hence, currency appreciation could spur potential economic growth, as well as reducing inflation through lower production costs for firms.

Exchange Rate

The impact on economic growth and unemployment are uncertain, and depends on numerous factors. In the short term, the fall in net exports will ~~most likely~~ cause a fall in both actual growth and unemployment, since China's economy is "built on a wide range of exports". However, in the long run, this could be beneficial for China, as it enjoys lower inflation, which leads to ~~lower inflation~~ ^{lowered} ~~reduced~~ local production costs for firms, as well as the building of infrastructure. This will ensure potential growth of the country. ~~Lowered~~ ^{lowered} production costs could also improve ^{China's} export industry's export competitiveness, alleviating the burden of decreased exports. The ~~low~~ decreased inflation can also help raise the standard of living for households, ~~which~~ ^{therefore} ~~improve~~ ^{improve} aggregate demand.

The consequence of appreciation also depends on the situation that China is in. Text C talks about how China and US are in a trade ^{dispute} ~~dispute~~, with the US being "suspicious of how Beijing controls its currency". As the yuan appreciates, this prevents China from conducting currency manipulations to avoid angering the US. This is undesirable for China as they are unable to change interest rates to boost its economy. So an appreciation could create more tension between these two countries. From an economic perspective, this does not bode well for China as "the largest chunk of Chinese goods [are] being sold to the US". Hence, any attempts to manipulate currencies could cause US to set "higher tariffs" on Chinese imports, further jeopardizing China's economy. However, it is possible that the effects of appreciation are not too long-lasting since one of the main factors of the appreciation is due to "China's relatively fast recovery from the Covid-19 pandemic", so the effects of appreciation will likely only last until

Currency manipulation comes from undervaluation/depreciation



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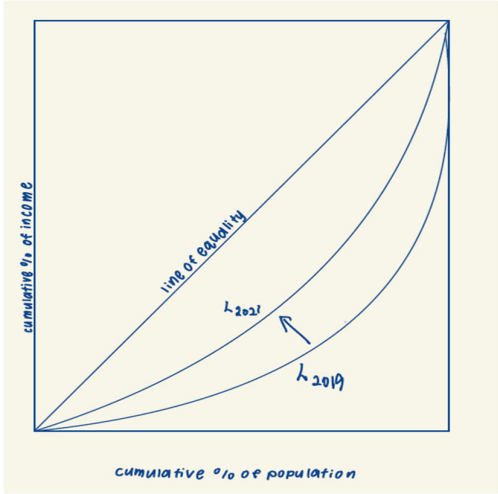
other countries also observe a full ^{economic} recovery.

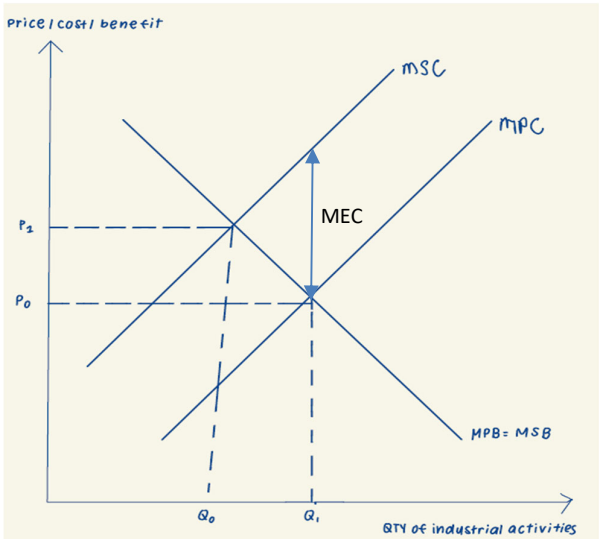
In conclusion, the consequences of a currency appreciation on China's economy is largely dependent on the timeframe considered, as well as the state of the economy. In the short term, China is likely to see a drop in actual growth, which will be compensated in the long term with increased potential growth. China's position in a trade dispute with the US makes currency appreciation undesirable, but the cause of appreciation due to Covid-19 recovery would mean that any benefits or drawbacks from this appreciation are likely short-lived. Hence, the appreciation of the Yuan could be beneficial for China to take advantage of lower import costs to boost the economy in the long run.

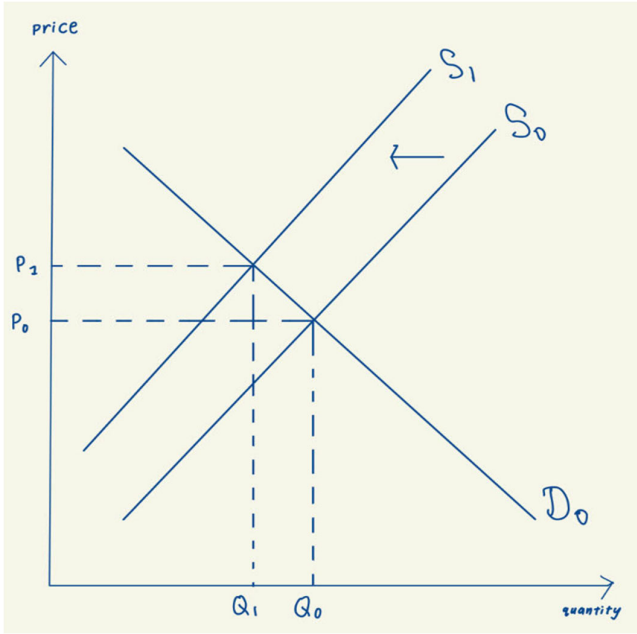
some m3 conceptions but good overall L4 ~~11~~-12

Question 2 Suggested Answers

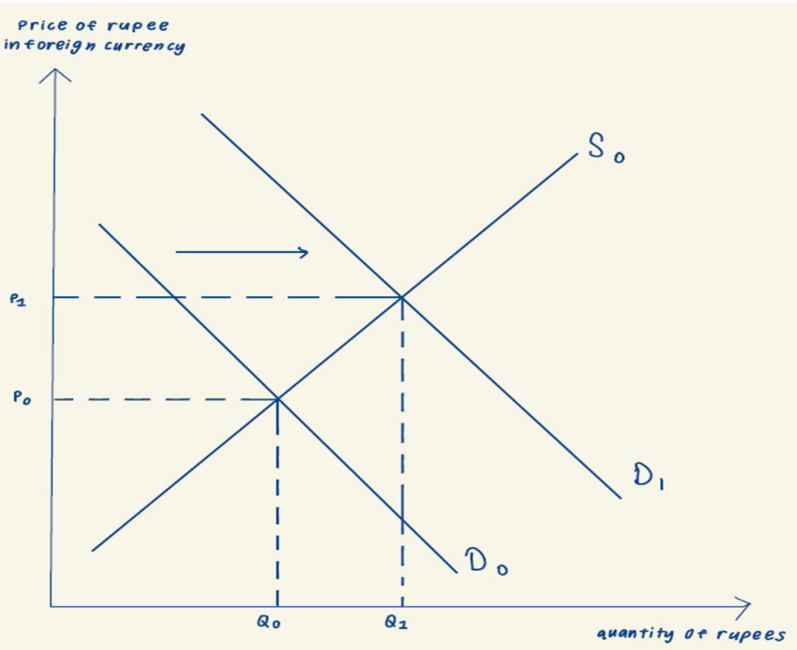
(a)	(i) Define the term economic development indicated in bold in the text (Text D, paragraph ③).	[2]
Lvl		
1	Partial definition where no references were made beyond the idea that living standards improve.	1m
2	An explanation that it is a broad concept involving any two of the following: <ul style="list-style-type: none"> • improvement in standards of living • reduction in poverty • improved health • improved education • reduction in unemployment • greater equality in income distribution • environmental protection • increased freedom and economic choice 	2m
	Markers' Comments: Most students can recall two separate aspects related to economic development.	
	(ii) State any two dimensions that make up the multi-dimensional poverty index (MPI) indicated in bold in Table 2.	[2]
Lvl		
1	Any one relevant dimension stated: <ul style="list-style-type: none"> • Health • Education • Living Standards 	1m
2	Any two relevant dimensions stated: <ul style="list-style-type: none"> • Health • Education • Living Standards <p>© All Rights Reserved (OPHI) Source: OPHI (2018). <i>Global Multidimensional Poverty Index 2018: The Most Detailed Picture to Date of the World's Poorest People</i>. Report. Oxford Poverty and Human Development Initiative, University of Oxford.</p>	2m
	Markers' Comments: Broad dimensions of MPI are acceptable. Students had difficulty recalling the dimensions of MPI and some cited indicators from the Human Development Index (HDI) instead. Others relied on economic indicators found in Table 2 of the DRQ.	

(b)	(i) Using information from Table 2, calculate Pakistan's real GDP in rupees for 2019.	[3]
	<p>GDP in 2019 is 320.9 bil x 163.8 =52,563.42 billion rupees</p> <p>1 mark for workings 1 mark for correct answer corrected to 2 d.p. 1 mark for correct currency stated</p>	
	<p>Markers' Comments: Students were able to show their calculations and write the answers correctly. Some did not show their answers to 2 d.p. and a reminder for these students to read the instructions on the front page of the Question Paper.</p>	
	(ii) Sketch a Lorenz curve to show the changes in Pakistan's Gini coefficient from 2019 to 2021 (Table 2).	[2]
	<p>Sketch a fully labelled Lorenz curve to show it moving towards the line of perfect equality depicting falling income inequality from 2019 to 2021.</p> <p>Fully Labelled X and Y Axis – 1m 2021 Lorenz curve shifting outwards from 2019 – 1m</p> 	
	<p>Markers' Comments: Most students were able to demonstrate the impact of falling income inequality on the Lorenz curve and those who lost marks tended to label their X and Y axis incorrectly.</p>	
(c)	Using an externalities diagram, explain how greenhouse gas emissions from industrial activities could result in market failure (Text D paragraph 2).	[4]
1	<p><i>There is a correct diagram or an accurate written response.</i></p> <p>For a correct negative externality of production diagram with appropriate labelling showing MSC above MPC and market equilibrium quantity indicated above the socially optimum level of output with the welfare loss or externality identified. OR</p>	1-2m

	For explaining that market failure exists because the industrial activities create a negative externality of production due to the negative impact on a 3rd party who are adversely affected by the increased risks from flooding [1] resulting in a welfare loss / external cost / socially optimum quantity is lower than the market quantity / $MSC \neq MSB$ [1].	
2	<p><i>There is a correct diagram and an accurate written response.</i></p> <p>For a correct negative externality of production diagram with appropriate labelling showing MSC above MPC and market equilibrium quantity indicated above the socially optimum level of output with the welfare loss or externality identified.</p> <p>AND</p> <p>For explaining that market failure exists because the industrial activities create a negative externality of production due to the negative impact on a 3rd party who are adversely affected by the increased risks from flooding [1] resulting in a welfare loss / external cost / socially optimum quantity is lower than the market quantity / $MSC \neq MSB$ [1].</p>  <p>(If MEC is not indicated, diagram showing welfare loss is also acceptable)</p>	3-4m
	<p>Markers' Comments:</p> <p>In general, students were able to address the demands of the question but a number who did not get full credit for the explanation failed to relate the industrial activities to negative externalities from production as discussed on the text and specifically asked in the question.</p>	

(d)	Using a demand and supply diagram, explain how a reduction in subsidies may affect the market for electricity (Text E, paragraph 1). (SL Paper only)	[4]
1	<p><i>There is a correct diagram or an accurate written response.</i></p> <p>For drawing a correctly labelled DD/SS diagram showing a leftward shift of SS curve, increase in equilibrium price and fall in equilibrium quantity or an explanation that a reduction in electricity causes an increase in costs of production for firms leading to a fall in quantity traded and a rise in price of electricity</p>	1-2m
2	<p><i>There is a correct diagram and an accurate written response.</i></p> <p>For drawing a correctly labelled DD/SS diagram showing a leftward shift of SS curve, increase in equilibrium price and fall in equilibrium quantity and an explanation that a reduction in electricity causes an increase in costs of production for firms leading to a fall in quantity traded and a rise in price of electricity.</p> <p>Diagram:</p> 	3-4m
	<p>Markers' Comments:</p> <p>SL students were able to tackle this question and those who lost marks did not include the economic analysis related to rising costs of production resulting in the leftward shift of the SS curve.</p> <p>In relating to the diagram, a small number did not relate explanations to the Price and Quantity traded seen on their diagrams.</p>	

(e)	Using an AD/AS diagram, explain how changes in interest rates by the central bank may affect Pakistan's real GDP (Text E paragraph ②).	[4]
1	<p><i>There is a correct diagram or an accurate written response.</i></p> <p>For drawing a correctly labelled AD/AS diagram showing a leftward shift of the AD curve showing decrease in real GDP or an explanation that a rise in interest rates leads to a rise in costs of borrowing leading to a fall in Consumption and Investment (which are components of AD), resulting in the fall in AD and a decrease in real GDP.</p>	1-2m
2	<p><i>There is a correct diagram and an accurate written response.</i></p> <p>For drawing a correctly labelled AD/AS diagram showing a leftward shift of the AD curve showing decrease in real GDP and an explanation that a rise in interest rates leads to a rise in costs of borrowing leading to a fall in Consumption / Investment (which are components of AD), resulting in the fall in AD and a decrease in real GDP.</p> <div data-bbox="508 705 1149 1310" data-label="Figure"> </div>	3-4m
	<p>Markers' Comments:</p> <p>Most students demonstrated a good understanding of the impact of rising interest rates on the costs of borrowing and most related this to the impact on both Consumption (C) and Investment (I) and finally to the AD. Most were also careful to explain the impact on real GDP shown on the their AD/AS diagrams.</p>	

(f)	Using an exchange rate diagram, explain how Pakistan's central bank intervention affected the value of the rupee (Text F, paragraph ①).	[4]
1	<p><i>There is a correct diagram or an accurate written response.</i></p> <p>For drawing a correctly labelled exchange rate diagram showing a rightward shift of the DD curve and an increase in external value of the rupee or an explanation that the intervention by Pakistan's central bank to purchase the rupees in the foreign exchange markets, leading to increase in demand for rupees, causing an appreciation of the rupees.</p>	1-2m
2	<p><i>There is a correct diagram and an accurate written response.</i></p> <p>For drawing a correctly labelled exchange rate diagram showing a rightward shift of the DD curve and an increase in external value of the rupee and an explanation that the intervention by Pakistan's central bank to purchase the rupees in the foreign exchange markets, leading to increase in demand for rupees, causing an appreciation of the rupees.</p> 	3-4m
	<p>Markers' Comments:</p> <p>Of all the 4-mark short response questions, students found this question to be more difficult. This might be due to a lack of understanding in the topic of exchange rates for those who struggled with this question. As additional practice, students should review the concepts and also attempt the DRQ Q1 (China) which has a focus on exchange rates (part g).</p> <p>In reading text F, students need to pay close attention to the text which highlighted the dwindling of foreign currency reserves as a sign of the intervention by the central bank. Some students related to other factors affecting exchange rates outside of text F and did not answer the specific demands of the data response question.</p>	

(g)	Using information from the text/data and your knowledge of economics, evaluate the role of multilateral development assistance from the World Bank in promoting economic growth and economic development in Pakistan.	[15]
	The command word evaluate requires students to make an appraisal by weighing up the strengths and limitations of multilateral development assistance on Pakistan and how it may or may not promote economic growth and economic development.	
	How multilateral development assistance can promote economic growth and economic development in Pakistan	
	Without additional assistance, Pakistan may continue to face low growth, rising inflation and frequent macroeconomic crisis (Text D P1) Multilateral development assistance can help to boost climate resilience and attract FDI to boost economic growth (Text D P3).	
	Flood protection measures and water resource management help to reduced risks of climate related disasters (Text D P3) This can help protect lives and reduce the percentage living under International Poverty Line (Table 2) due to loss of crops and incomes. This is due to the preservation of capital goods and assets such as arable land. This help to reduce the problem of the poverty cycle due to loss of savings need to finance to repurchase of assets lost to floods. Possible diagram showing breaking of poverty cycle.	
	Diversification of energy sources to renewable energy (wind, solar, hydro) can help reduce dependence and mitigate against unpredictable changes in prices of fossil fuels which can adversely affect costs of productions and reduce economic growth especially if prices of fossil fuels see a spike. (Text D P3). If Pakistan is heavily dependent on fossil fuel without substitutes such as renewable energy, a rise in cost of production for firms due to rise in prices of fossil prices in Pakistan can lead to a leftward shift in the SRAS and lower actual economic growth. Impact of renewable energy in helping to reduce dependence on fossil fuel as reliance on fossil fuels generates negative externalities from production, adversely affecting health outcomes and MPI (Table 2). Possible diagram referring to reduction in externalities from production (c)	
	Sustainable agriculture (Text D P4) can help increase output of rural farmers and increase their total revenue and can increase income levels for self-employed farmers. This can help them gain access to necessities such as merit goods. This can help farmers in the poorer rural community gain greater access to healthcare, education which are two of the indicators of MPI which is a composite indicator of economic development. Rising income levels of poorer farmers found in the rural areas can help reduce the Gini coefficient (table 2) and lower income inequality. Possible diagram referring to impact of falling Gini coefficient on Lorenz curve in b(ii). No need to repeat the same diagram.	

	Improved international reputation for Pakistan can provide the country with additional financial support and some may come in the form of grants and technical assistance which does not increase the debt burden for the country (Text D P4). This allows the government to focus on keeping debt burden low and yet continue to receive assistance to boost economic growth. To relate to data on concerns on rising debt burden (Table 2) from 25% in 2017 to 35% in 2021 and how grants and technical assistance will not worsen this debt burden.	
	How multilateral development assistance may not promote economic growth and economic development in Pakistan	
	<p>Multilateral assistance from World Bank are tied to austerity measures. One issue comes from reduction of subsidies on fuel and electricity, causing an increased in costs of production for firms, fall in SRAS, leading to lowering of real GDP and actual growth.</p> <p>Diagram: Impact on SRAS on AD/AS diagram</p> <p>Households will also face rising energy costs and this lowers their savings rates as more money are channelled to tackle to rising costs of living and can worsen the poverty cycle. (Text E P1 & P2) and inability to access necessities who can adversely affect economic development. Relate this to the impact on MPI data (Table 2) as access to necessities such as sanitation, drinking water are captured under living standards.</p>	
	Due to World Bank's condition of exchange rate flexibility (Text E P2) under the austerity measures, the rupee's depreciation can lead to rising costs of imported resources, leading to imported inflation. This can adversely affect economic well-being for households especially those in the lower income brackets who are unable to afford imported necessities such as food and medications.	
	<p>Due to the impact caused by a depreciation of the rupees, the central bank raised interest rates to strength the external value of the rupees. This policy can have an adverse impact on actual economic growth due to rising costs of borrowing leading to falling consumption and investment which are direct components of AD.</p> <p>Possible diagram: refer to impact of rising interest rate on AD in part (e)</p> <p>Text E P2, large scale manufacturing sector were hit hard by increased interest rates and this can lead to rising unemployment which is at 4.4% in 2021. Impact of rising unemployment would increase the percentage living under international poverty line seen on Table 2 and its impact of rising poverty on economic development</p>	
	<p>Possible Synthesis</p> <p><i>(Do note that there are varying approaches to the synthesis which markers will accept)</i></p> <p>The intent of the MDA by the World Bank is to help Pakistan address the recovery efforts from the devastating floods by promoting climate resilience. The MDA help to target short term economic growth during the construction of climate resilience projects as well as long term economic growth to increase the productive capacity of the economy through improvements in the infrastructure. At the same time, sustainable agriculture practices help to uplift the incomes of the rural farmers and address the lack</p>	

of economic development and help to lower income inequality. Completion of flood protection in the long term can help to ensure that the sustainable agriculture practices can continue to positively impact the lower income communities in the rural regions.

However, the burdensome conditions under the MDA has also brought significant immediate challenges to Pakistan due to rising costs of living as necessities such as electricity and imported goods see an increase in prices and evidenced by rising inflation in table 2. The actions by the central bank in raising interest rates to defend the rupee due to depreciation has increased the costs of borrowing for firms and households. Coupled with the reduced subsidies on essential goods such as electricity, the lack of access to necessities in the short term can offset the potential long term benefits from the MDA on climate resilience projects.

Marks	Level descriptor
0	<ul style="list-style-type: none"> The work does not reach a standard described by the descriptors below.
1–3	<ul style="list-style-type: none"> The response indicates little understanding of the specific demands of the question. Economic theory is stated but it is not relevant. Economic terms are stated but they are not relevant. The response contains no evidence of synthesis or evaluation. The response contains no use of text/data.
4–6	<ul style="list-style-type: none"> The response indicates some understanding of the specific demands of the question. Relevant economic theory is described. Some relevant economic terms are included. The response contains evidence of superficial synthesis or evaluation. The response contains limited use of text/data.
7–9	<ul style="list-style-type: none"> The response indicates understanding of the specific demands of the question, but these demands are only partially addressed. Relevant economic theory is partly explained. Some relevant economic terms are used appropriately. Where appropriate, relevant diagram(s) are included. The response contains evidence of appropriate synthesis or evaluation but lacks balance. The response includes some relevant information from the text/data.
10–12	<ul style="list-style-type: none"> The specific demands of the question are understood and addressed. Relevant economic theory is explained. Relevant economic terms are used appropriately. Where appropriate, relevant diagram(s) are included and explained. The response contains evidence of appropriate synthesis or evaluation that is mostly balanced. The use of information from the text/data is generally appropriate, relevant, and applied correctly.
13–15	<ul style="list-style-type: none"> The specific demands of the question are understood and addressed. Relevant economic theory is fully explained. Relevant economic terms are used appropriately throughout the response. Where appropriate, relevant diagram(s) are included and fully explained. The response contains evidence of effective and balanced synthesis or evaluation. The use of information from the text/data is appropriate, relevant, and is used to formulate a reasoned argument supported by analysis/evaluation.

Markers' Comments:

- The question requires students to refer to the varying impact of the MDA by the World Bank on both economic growth and economic development.
- Some scripts did not focus purely on the role of MDA and referred to portions of the text that were not relevant to the conditions tied to the MDA.
- Some students related the rise in prices of fuel and electricity to worsening of income inequality but did not explain how the lower income groups may be worse off in such situations. In such cases, students should refer to the rise in price of necessities to a lack of ability to save and adverse impact on the poverty cycle. Some students drew incomplete poverty cycles or mentioned it but had no diagrams.
- In relating to increased government spending on renewable energy (Text D P3), some students explained how the demand for labour can increase and lower income inequality without explaining on the spending on renewable energy may possibly benefit the lower income workers **more** than higher income workers. Since the spending on building capacity on renewable energy can be capital intensive in nature, the rise in demand for skilled labour not benefit the lower income workers as much as Pakistan's industries are largely labour intensive (Text E P1).
- Some students were clearer in relating to economic growth but lack a clear reference to economic development. In some of the scripts that were vague, students explained that since there is economic growth, Pakistan will also experience economic development. As such, these responses tended to be incomplete or lop sided with a focus largely on economic growth with a lack of clear explanation on economic development.
- A number of scripts did not make references to Table 2 and did not make regular references to the text. Such scripts did not perform as well as the responses were quite theoretical and relied on a set of scripted responses gleaned from past year questions without a close reference to both the text and data.
- Overall, there is an improvement in the quality of responses for the (g) DRQ compared to the Common Tests this year and are heartened to see that students have been working on integrating their content knowledge in development economics and answering the specific demands of the question.

(g) Multilateral development assistance refers to grants and loans from multilateral agencies to aid at assisting developmental projects in developing countries. These multilateral agencies include the World Bank which is an international organisation that provides loans and advice to economically less developed countries to promote economic development and reduce poverty. ~~Pakistan~~ ~~is~~ ~~experiencing~~ economic growth refers to increase in real GDP in an economy over time whilst economic development is defined in (a)(i). ~~As~~ ^{whereas} Pakistan ~~is~~ ~~experiencing~~ ~~that~~ ~~has~~ ~~seen~~ ~~gross~~ economic growth in development in "a trend toward increasing exports" and "significant poverty reduction" (Text D para 1), it still faces several challenges such as "low growth, rising inflation and excessive fiscal deficits". (Text D, para 1). Some of Pakistan's barriers to economic development include lack of access to infrastructure and appropriate technology and poverty.

Hence, the multilateral development assistance from the World Bank ^{that is "US\$9 billion" (Text D, para 3) in value, ~~as~~ ~~in the form of~~ ~~very form~~ ~~courses~~ ~~and~~ ~~ways~~ ~~(Text D para 4)~~} plays a key role in promoting economic growth and development but it comes with strengths and limitations.

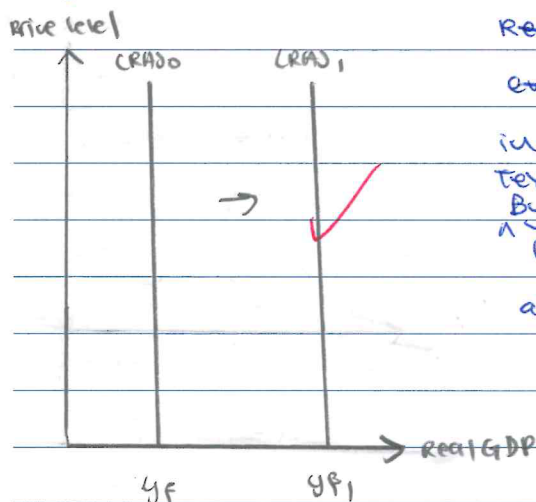
Firstly, the multilateral development assistance from the World Bank that aims to protect the ~~the~~ Pakistan environment will provide long term growth opportunities for sustained economic development. By "implementing flood protection measures and enhancing water resource management to reduce risks of flooding" ^(Text D, para 3), this ~~a~~ assistance will allow for reduction in environmental degradation especially in rural areas.

Increased safety and less destruction of their living environments increases the standard of living and well-being of the Pakistan people therefore increasing economic development. Furthermore, "investment in renewable energy" ^{How?} ~~water resource management~~ targets the root cause of the flooding problem as it diversifies Pakistan's energy sources to ones that produce fewer greenhouse gas emissions that would lead to fewer floods in the long term. As such,

make
links
clear,
step by step

At the start of each answer to a question, write the question number in the box using your normal handwriting.

the Pakistan government's ~~can reduce spending~~ external debt that has increased from 33% to 35% of GDP, largely due to ~~the~~ spending on recovery efforts will ~~be not~~ decrease in the long term. With a decrease in ~~external debt~~ ~~the~~ the government will be able to channel more resources towards developmental projects ~~such as~~ in education and health. Additionally, investing investments in "renewable energy" is a form of investment in Pakistan's physical and natural capital. (Text D, para 3)



Renewable energy sources produce less ~~emissions~~. Furthermore, "investments bring in technology, fostering knowledge transfer". By introducing new technology and knowledge to the Pakistan economy and specifically labour force, this may increase the quality of labor as ~~more~~ ~~people~~ workers learn new skills and gain new experiences especially

with regards to using technology. Productive capacity of Pakistan's economy increased, ~~shifting~~ ~~increasing~~ LRAD from LRAD0 to LRAD1, and increasing potential output from Y_F to Y_{F1} . This potential growth will allow the government to have more funds to continue spending on developmental projects for sustainable economic development. Additionally, at Y_{F1} , ~~the~~ ~~the~~ rate of unemployment is lower as the labor force is better equipped with knowledge and skills to meet the demands of new sectors of the economy such as clean energy sources. hereby reducing structural unemployment. With more employment opportunities at diversified ~~sectors~~ ~~of the economy~~ ~~using~~ ~~that is~~ more technology

relate to the Question

relate to data, text

advanced, ~~not only~~ ~~not that~~ people may see higher incomes ^{which} ~~to~~ increase their material welfare and increase economic development. *Lacks clarity*
from the world bank

Secondly, long term concessional loans also ^{enable "sustainable} ~~(text D, para 4)~~ agriculture practices and infrastructure development". Not only does the multilateral developmental assistance allow diversification into new industries, it ^{also} supports the primary sectors ~~as~~ that are essential for trade.

low income

low savings

low growth in income

low productivity of land labor and capital

low investment in physical, human, natural capital

These ^{low} low income ^{that} increase investment in physical capital such as infrastructure and human capital by ~~invest~~ ^{or supply} introducing ~~introducing~~ ^{introducing} sustainable practices then increase the productivity of the land labor and capital in the

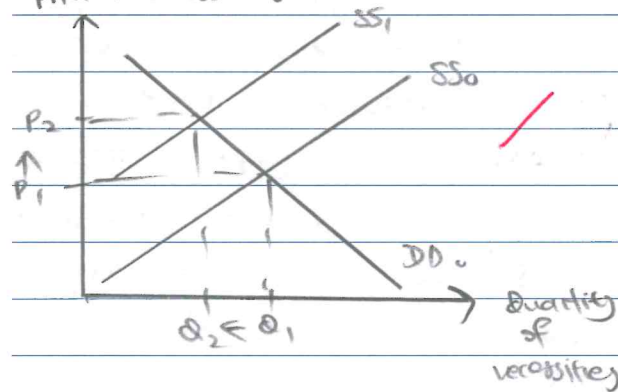
primary sector. ✓ With greater output leading to higher earnings, especially export revenue, this ^{results} ~~increases~~ growth in income, resulting in higher income and higher savings for ~~even~~ additional investment in capital. Hence, there

coaxing work to ~~the~~^{reducing} low income workers break out
to reduce poverty by increasing the number of people living under international poverty line
of the poverty cycle. With fewer people in poverty, tax at a
earning higher incomes, thus reducing income inequality of
and narrowing the gap in income distribution fairly.
promoting economic growth.

However, underdeveloped assistance also bring & limitatively especially due to austerity measures. Firstly, this ~~developed~~ ^{assistance} requires ~~#~~ Pakistan to "raise indirect taxes" ~~and reduce "government subsidies"~~ indirect taxes are a form of regressive tax as the proportion of income paid as taxes increased as income

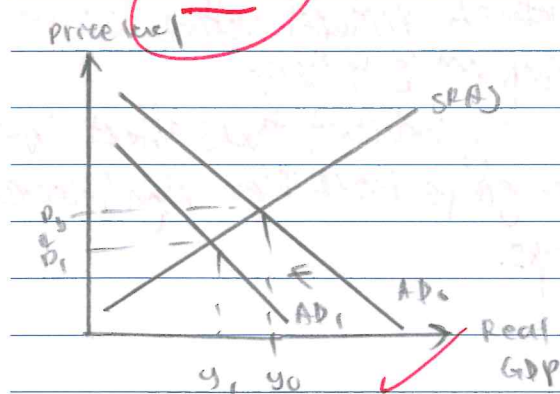
At the start of each answer to a question, write the question number in the box using your normal handwriting.

decreases. Raising indirect taxes which raises the price of goods, reducing purchasing power of low income groups much more heavily than the rich. Hence, inequality may be worsened. Furthermore, "government subsidies on necessities" & increasing cost of production, decreasing supply from SS_0 to SS_1 , and increasing price from P_1 to P_2 . This greatly reduces the material welfare of



low income groups who may struggle to afford basic necessities.

flexibility but led to depreciaⁿ of rupee. Secondly, the multilateral assistance also requires depreciation of the rupee. This would decrease the price of exports, increasing export revenue. However, as price of imports increases, in the short run when price elasticity of demand of imports is low, import expenditure increases as a whole. Hence, where $M > X$ and $(X - M) \downarrow$, this decreases



AD from AD_0 to AD_1 , decreasing actual growth. Furthermore, rising price of imports that are necessities to the people and with a narrowing current account balance, coupled

with increased "cost of borrowing" that further decreases ~~aggregate demand~~ ^{aggregate demand}, this would result in a large reduction in GDP per capita thereby impacting material welfare of the people.

In conclusion, international developmental assistance brings strengths and incentives to economic growth and development in Pakistan. In the short run when $PD M < 1$, it is true that austerity measures such as flexibility in exchange rate and ~~increase~~ ^{increase} in interest rate may slow the economy and impact material welfare of the people especially those in poverty. However, in the long run, these concessional loans & help support ~~new~~ ^{new}, diversified sectors and primary reforms improve in terms of productivity, technology and infrastructure. In the long term, this allows for sustained economic growth ~~as well as~~ ^{as well as} where help ~~help~~ ^{help} ~~increase~~ ^{increase} ~~overall~~ ^{overall} economic development and boost the economy. By improving international image, this enables Pakistan can continue to draw support from developed countries especially in times of need, to prevent ~~serious~~ ^{serious} issues such as default and achieve sustained economic development.

12

- good attempt.
- link between material welfare & dev, development isn't clear
- Explain why indirect taxes affect low income groups more than high income groups.