

## Question 2: Trouble in the United States and Singapore

### Suggested Answers

(a)	With reference to Table 2,																													
(i)	Describe what happened to the rate of inflation and the price level in US between 2019 and 2022. [3]																													
		<p>Rate of inflation has increased. [1] General price level has increased [1] at an increasing rate. [1]</p> <p>OR</p> <p>Rate of inflation has increased [1] with a fall in 2020. [1] General price level has increased. [1]</p> <table><tr><th colspan="3">Markers' Report</th></tr><tr><th colspan="2">Skills</th><th rowspan="4">Aha moment!</th></tr><tr><td colspan="2">Strengths (+): What are the required skills that were well-demonstrated? Areas for improvement (-): What are the skills that were lacking/ not well-demonstrated?</td></tr><tr><td>(+)</td><td>Majority wrote 3 distinct observations.</td></tr><tr><td>(-)</td><td>Some did not answer the question explicitly by linking to CPI instead of price levels. Students need to address the question directly.</td></tr><tr><td>(-)</td><td>A few scripts did a comparison of inflation rates and price levels between Singapore and US which is not the question intent.</td><td></td></tr><tr><th colspan="2">Content</th><th rowspan="4">Aha moment!</th></tr><tr><td colspan="2">Strengths (+): What are some concepts that were well-explained with clear linkages made? Areas for improvement (-): What are some concept gaps / conceptual errors?</td></tr><tr><td>(+)</td><td>Majority of the students can identify 3 main observations on inflation rate and price level.</td></tr><tr><td>(-)</td><td>A handful picked up that the largest increase in prices in US was in 2022 but the information is not the most meaningful from the data set.</td></tr><tr><td>(-)</td><td>Some students wrote that price level increases at a decreasing rate from 2019 to 2020 but the time period is too short to consider the rate of change. This is a similar issue when students explain that price level increase at an increasing rate from 2020 to 2022.</td><td></td></tr></table>		Markers' Report			Skills		Aha moment!	Strengths (+): What are the required skills that were well-demonstrated? Areas for improvement (-): What are the skills that were lacking/ not well-demonstrated?		(+)	Majority wrote 3 distinct observations.	(-)	Some did not answer the question explicitly by linking to CPI instead of price levels. Students need to address the question directly.	(-)	A few scripts did a comparison of inflation rates and price levels between Singapore and US which is not the question intent.		Content		Aha moment!	Strengths (+): What are some concepts that were well-explained with clear linkages made? Areas for improvement (-): What are some concept gaps / conceptual errors?		(+)	Majority of the students can identify 3 main observations on inflation rate and price level.	(-)	A handful picked up that the largest increase in prices in US was in 2022 but the information is not the most meaningful from the data set.	(-)	Some students wrote that price level increases at a decreasing rate from 2019 to 2020 but the time period is too short to consider the rate of change. This is a similar issue when students explain that price level increase at an increasing rate from 2020 to 2022.	
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		(-)	A small group of students interpreted a fall in inflation rate as a fall in price level. However, the data shows that inflation rate is still in the positive region.																										
	(ii)	<b>Explain why a nominal rate of interest of 4.5 per cent in the US in 2022 would be described as being ‘negative’ in real terms.</b>			<b>[2]</b>																								
		Real interest rate is the nominal interest rates adjusted for inflation.  As stated in Extract 2, the interest rate is at 4.5% in 2022 and inflation rate is 8% as reflected in Table 1. Real interest rate is negative because $4.5 - 8 = -3.5\%$ . <u>OR</u> Real interest rate is negative as inflation rate is higher than the nominal interest rate.																											
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(b)	<b>Explain how a negative real interest is likely to affect the exchange rate in the US.</b>		[3]																				
		<p><b><u>Explain effect on exchange rate</u></b></p> <p>With negative interest rates, there is also less hot money inflow into US. This will lower the demand for US Dollar.</p> <p>There is more hot money outflow from US seeking for higher interest rates elsewhere. This will increase the supply US Dollar.</p> <p>This will lower the exchange rate in US (i.e. US Dollar depreciates).</p> <table><tr><th colspan="2">Markers' Report</th></tr><tr><td colspan="2"><b>Skills</b></td></tr><tr><td colspan="2">Strengths (+): What are the required skills that were well-demonstrated?</td></tr><tr><td colspan="2">Areas for improvement (-): What are the skills that were lacking/ not well-demonstrated?</td></tr><tr><td>(-)</td><td>A handful of students misinterpreted the question to look at how exchange rate policy can be used to tackle the negative interest rates instead of looking at the impacts.</td></tr><tr><td colspan="2"><b>Content</b></td></tr><tr><td colspan="2">Strengths (+): What are some concepts that were well-explained with clear linkages made?</td></tr><tr><td colspan="2">Areas for improvement (-): What are some concept gaps / conceptual errors?</td></tr><tr><td>(-)</td><td>Some students explain how negative interest rate will affect C&amp;I but this will not help to answer the question on the impact on exchange rates.</td></tr><tr><td>(+/-)</td><td>Majority of the students can recognise how demand or supply of currency changes with interest rates falling however they are less able to explain the reason behind it. Also, some students only look at either the impact of fall in dd or increase in supply but not both.</td></tr></table>	Markers' Report		<b>Skills</b>		Strengths (+): What are the required skills that were well-demonstrated?		Areas for improvement (-): What are the skills that were lacking/ not well-demonstrated?		(-)	A handful of students misinterpreted the question to look at how exchange rate policy can be used to tackle the negative interest rates instead of looking at the impacts.	<b>Content</b>		Strengths (+): What are some concepts that were well-explained with clear linkages made?		Areas for improvement (-): What are some concept gaps / conceptual errors?		(-)	Some students explain how negative interest rate will affect C&I but this will not help to answer the question on the impact on exchange rates.	(+/-)	Majority of the students can recognise how demand or supply of currency changes with interest rates falling however they are less able to explain the reason behind it. Also, some students only look at either the impact of fall in dd or increase in supply but not both.	<p><b>Aha moment!</b></p>
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(c)	<b>With reference to Extract 5 and using a supply and demand diagram, comment on the likely effects on the food market in the US.</b>		[6]																				

**Explain change in DD for food [1]**

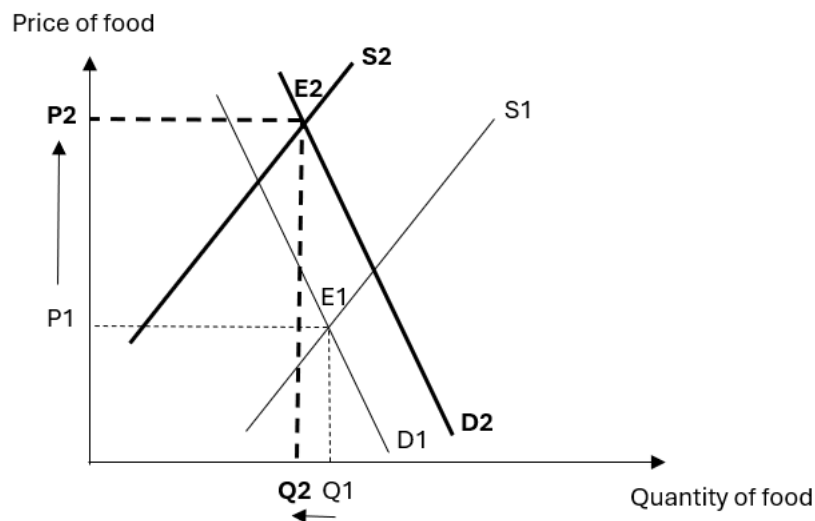
As stated in Extract 5 para 1, the Covid-19 pandemic has led to “panicked shoppers stockpiled groceries” where consumers expect future prices of food to increase, hence **increases DD for food** at present.

**Explain change in SS of food [1]**

According to Extract 5 para 1 “Russia’s invasion of Ukraine has pushed up the prices of energy and fertilisers”, therein implies a rise in COP which in turn leads to a fall in profit margins for food producers, hence **decreases SS of food** OR

According to Extract 5 para 1 “droughts and an avian flu outbreak” has resulted in **decrease in SS of food** due to extreme bad weather condition / outbreak of diseases destroy crops.

**Explain market adjustment process to derive impact on eqm P & Q [2]**



- **[Initial eqm]** Initial equilibrium is at E1 with corresponding equilibrium price and quantity at P1 & Q1 respectively.
- **[Shifts]** As explained above, DD for food increases, thus a rightward shift of DD curve to D2 and since SS of food has decreased, there will be a leftward shift of SS curve to S2.
- **[Justification – 1m]** In this context, the fall in SS would be greater than the rise in DD for food since Russia is a “major exporter” of chemical fertilisers. Furthermore, fertiliser is a major factor input for farmers to ensure healthy crops, so since fertiliser price has increased significantly, the COP for farmers would have also increased significantly which thereby causes SS of food to decrease significantly. As such,  $\downarrow SS > \uparrow DD$ , ceteris paribus.
- **[Shortage/Surplus]** Shortage at original price P1 since  $QD > QS$ , thus exerts upward pressure on price. As price increases, quantity demanded decreases and quantity supplied increases. This process continues until a new equilibrium (E2) is reached

- **[New equilibrium: impact on P & Q – 1m]** The market for food is back at equilibrium at E2, where equilibrium price increases to P2 and in this context of  $\downarrow SS > \uparrow DD$ , equilibrium quantity has decreased to Q2.

**Comment on the likely effects on the food market → comment on the extent of change in equilibrium P & Q [2m]**

- **Extent of change in equilibrium price**  
**[Reinforcement effect]** The fall in supply and rise in demand for food reinforce each other to cause a sharp increase in price to P2, as seen in diagram above.
- **Extent of change in equilibrium quantity**  
**[Indeterminate effect]** In this given context where  $\downarrow SS > \uparrow DD$ , equilibrium quantity has decreased to Q2, as seen in the diagram above. But if  $\downarrow SS < \uparrow DD$ , then equilibrium quantity may increase.

The effects on the market equilibrium price and quantity can also be affected by the price elasticities of supply and demand for food.

The demand for food is price inelastic as food is necessary for survival thus has a high degree of necessity for consumers. This means that for given fall in supply of food, there will be a large increase in price and small decrease in quantity. **OR**

The supply of certain food items may be price inelastic due to factors such as limited arable land, seasonal variations, producers operating close to capacity or even in the short-run (time period). This means that for given rise in demand for food, there will a large increase in price and a small decrease in quantity. However, in the long-run, with technological improvement such as the development of precision agriculture techniques has enabled more targeted and efficient application of fertilisers, supply of food may increase and at the same time, become price elastic. Therefore, with increase in DD for food, there will be a fall in price and increase in quantity of food in the long-run.

**Mark Scheme:**

**Level 2:** Up to 4 marks for an explanation on how  $\uparrow DD$  and  $\downarrow SS$  with application to context given affect the market eqm price & quantity for food

**Level 1:** Up to 2 marks for an explanation on how either  $\uparrow DD$  or  $\downarrow SS$  with application to context given affect the market eqm price & quantity for food

**Evaluation:** Up to 2 marks for an appropriate comment on the extent of change in eqm price and eqm quantity



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<b>Skills</b> Strengths (+): What are the required skills that were well-demonstrated? Areas for improvement (-): What are the skills that were lacking/ not well-demonstrated?		<b>Aha moment!</b>
(-)	Majority of the students had weak/ no evaluative comments. 1. Some students applied relevant PED/PES concepts but did not link back to answer the question as to how it affects the extent of change in price and quantity. 2. Some students mistook that the justification on extent of shift is the evaluative comment required. Justifying the extent of shift was necessary to conclude the impact on the quantity/ price.	
(-)	A handful of students extended their answer to analyse the impact on total revenue/ consumers expenditure which is not required of the question.	
(-)	Majority of the students tend to quote the evidence and assert the impact on demand and supply respectively. They did not explain how the events would affect demand and/or supply.	
(-)	A significant number of students presented a single shift analysis coupled with application of PED. They failed to identify the demand factor(s) mentioned in Extract 5.	
<b>Content</b> Strengths (+): What are some concepts that were well-explained with clear linkages made? Areas for improvement (-): What are some concept gaps / conceptual errors?		<b>Aha moment!</b>
(+)	Most students were able to apply demand/supply analysis well with a relevant diagram.	
(-)	There were a handful of students who were still confused between: 1. Demand vs quantity demanded 2. Supply vs quantity supplied 3. Market adjustment process & adjustment process for macroeconomics (eg. terms like fall in inventories were used)	
(-)	A handful of students used PED/PES to justify whether demand/supply shifted more. Rather,	



		PED/PES should be used to comment on the extent of change in price and quantity.		
	(-)	Majority of the students could justify the PED value for food, however, they need to review their application of PED. At times, PED was not applied at all though mentioned in their answers.		
	(-)	A handful of students applied ADAS analysis instead of demand/supply analysis.		
(d)	<b>With reference to Extract 7 and using aggregate demand and supply analysis, explain <u>two</u> causes of Singapore's inflation in 2022. [4]</b>			
	<b><u>Explain internal factor resulting in demand-pull inflation [2]</u></b> <b>[Elaborate the rise in components of AD]</b> As mentioned in Extract 7 para 3, households and firms have <b>greater confidence (optimism) level</b> in the economy since "Demand in Singapore grew strongly as there was robust rebound in growth in 2021". This leads to <b>↑C &amp; ↑I, hence ↑AD</b> , ceteris paribus.  <b>[Elaborate how demand-pull inflation arises]</b> Assuming economy is operating with <b>limited spare capacity</b> , <b>↑AD → ↑factor prices</b> causing <b>↑GPL → persistent ↑AD → DD-pull inflation</b> ensues.  <b><u>Explain external factor resulting in cost-push inflation [2]</u></b> <b>[Elaborate the rise in unit COP that caused SRAS to fall]</b> As mentioned in Extract 7 para 3 "ongoing conflict between Russia and Ukraine...caused commodity prices to spike..." has led to <b>↑energy prices which increases COP</b> since oil is a crucial factor input to most production processes. This in turn <b>↓SRAS</b> , ceteris paribus.  <b>[Elaborate how cost-push inflation arises]</b> <b>↓SRAS → shortage at GPL1 → ↑GPL → persistent ↑COP → cost-push inflation</b> ensues.			
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<b>Skills</b> Strengths (+): What are the required skills that were well-demonstrated? Areas for improvement (-): What are the skills that were lacking/ not well-demonstrated?			<b>Aha moment!</b>	
(+)	Students used the correct evidence from Extract 7 in their answer.			
(-)	The question looked at 2 causes of inflation but some students only wrote one cause of inflation. These students largely focus on demand pull inflation.			
<b>Content</b> Strengths (+): What are some concepts that were well-explained with clear linkages made?			<b>Aha moment!</b>	



	Areas for improvement (-): What are some concept gaps / conceptual errors?		
	(+)	Majority of the students were able to link to increases in AD and fall in AS.	
	(-)	Some students used rise in income instead of confidence level to explain initial shift in AD. Students should note that this is an induced consumption.	
	(-)	Students were able to identify how general price level increased but some did not include the key reason for the increase, i.e. increase in factor prices.	
	(-)	Some students did not explain and link to how there is a sustained increase in general price level either by looking at repeated shift in AD or AS.	
	(-)	Some students focused on the multiplier process and linked to the impact of increase in national income instead of sustained increase in general price level.	
(e)	<b>Explain <u>two</u> reasons why Singapore uses the exchange rate as its main policy tool to achieve price stability instead of interest rates.</b> [4]		
<b><u>Explain why SG uses ERP and not interest-rate policy (any 2 reasons)</u></b> <b>Cite evidence:</b> Use evidence from Extract 7 – ERP is a tool that helps SG to achieve price stability because of her nature of economy.			
<b>Reason 1:</b> SG is a small economy that <b>lacks natural resources</b> <b>Explanation:</b> SG is heavily reliant on imports for raw materials and final products for production & consumption, which implies that <b>SG is highly susceptible to imported inflation</b> . Thus, changing interest rates would have a less direct impact on prices we pay compared to exchange rate which affects prices of imports directly. <b>Therefore, using ERP would be a better policy to keep imported inflation at bay.</b>			
<b><u>OR</u></b>			
<b>Reason 2:</b> SG is a small economy that <b>results in small domestic demand</b> <b>Explanation:</b> As SG has a <b>small population</b> , this translates to a small domestic demand. Therefore, it is <b>ineffective for SG to use i/r</b> as a policy tool since domestic <b>C &amp; I only take up a small proportion of our AD [1m]</b> . <b><u>OR</u></b> As SG has a <b>small population</b> , this translates to a small domestic demand. Therefore SG must rely on exports to drive her growth, in which her <b>external demand X-M takes up a large</b>			



**proportion of our AD. Therefore, using ERP would be a better policy to combat demand-pull inflation at bay.**

**OR**

**Reason 3: SG is a financial centre with free capital mobility**

**Explanation:** This together with the choice of managing its exchange rate would mean that Singapore loses control over its interest rates. That is, Singapore is a **price taker in interest rate and cannot use its interest rates as a monetary tool**. That is, Singapore faces the Open Economy Trilemma which states that a country cannot have an open capital market, conduct conventional monetary policy based on domestic interest rates, and manage its currency at the same time. It can choose only two of the three policy options.

**Markers' Report**

**Skills**

Strengths (+): What are the required skills that were well-demonstrated?

Areas for improvement (-): What are the skills that were lacking/ not well-demonstrated?

**Aha  
moment!**

(-) Many students did not understand the question requirement. Question is about why Singapore uses the exchange rate as its main policy tool to achieve price stability and not about the limitations of interest rate.

(-) Students lacked scope in their reasoning. Explaining that exchange rate is a better policy as it influences (X-M), which is more effective for trade-reliant Singapore, is similar to explaining that interest rate is not as effective as it influences C and I, which make up a small proportion of AD.

**Content**

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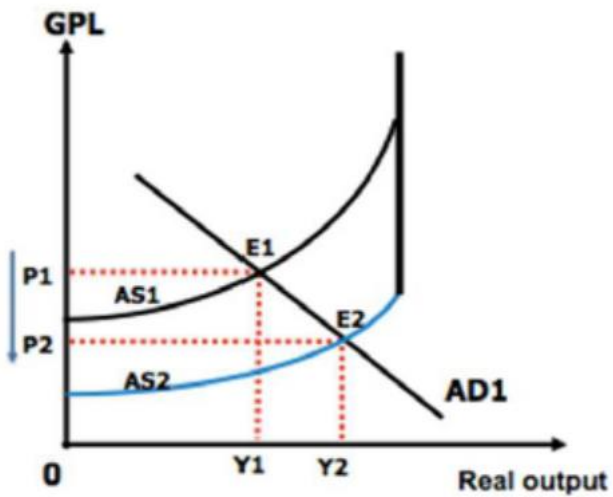
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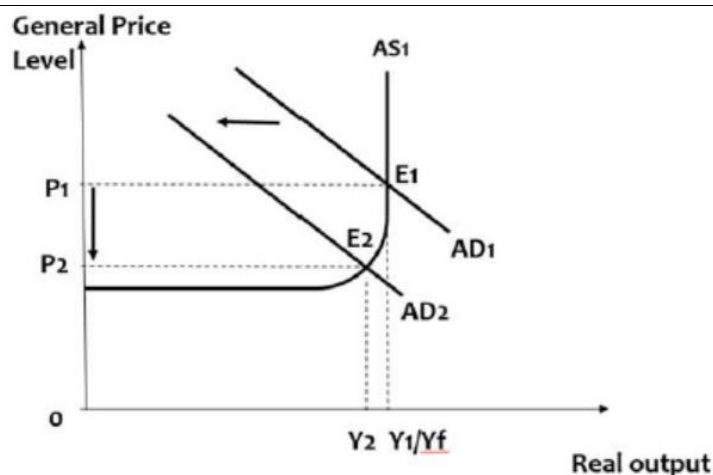
(+) Many students were aware that Singapore is a small and open economy that has a small domestic market and lacks natural resources.

(-) Many students simply wrote all the characteristics of Singapore economy without clear analysis to link to price stability.

Note that Singapore lacking natural resources and hence dependent on imports means we are more



		<p>susceptible to imported inflation, not demand-pull inflation.</p> <p>Similarly, Singapore is reliant on trade, hence exchange rate policy is more effective to directly affect (X-M) to combat demand-pull inflation not imported inflation.</p>		
	(-)	The explanation of why Singapore is an interest rate taker can be improved.		
(f)	<p><b>Using the information provided and AD/AS analysis, assess the extent to which appreciation of exchange rate can achieve price stability for Singapore.</b></p> <p style="text-align: right;"><b>[8]</b></p>			
	<p><b><u>Introduction</u></b></p> <p>Maintaining a low and stable rate of inflation is one of macroeconomic objectives.</p> <p><b><u>Requirement 1: Explain how appreciation of the Singapore dollar help achieve price stability</u></b></p> <div style="text-align: center;">  <p>The diagram is an AD/AS model. The vertical axis is labeled 'GPL' (Gross Price Level) and the horizontal axis is labeled 'Real output'. A downward-sloping line is labeled 'AD1'. There are two upward-sloping curves: 'AS1' (initial) and 'AS2' (shifted rightward). The initial equilibrium 'E1' is at the intersection of AD1 and AS1, corresponding to price level 'P1' and output 'Y1'. The new equilibrium 'E2' is at the intersection of AD1 and AS2, corresponding to a lower price level 'P2' and a higher output 'Y2'. Dashed lines connect these points to the axes. A blue arrow points from AS1 to AS2, indicating a rightward shift.</p> </div> <ul style="list-style-type: none"> <li> <p><b>[mitigating cost-push inflation]</b> When the Monetary Authority of Singapore (MAS) adopt a gradual &amp; modest appreciation of the SGD, it can lower inflation rate by lowering imported cost-push inflation. A rise in the external value of SGD will make <b>imported raw materials</b> cheaper which can lead to a fall in unit cost of production of final goods and services for domestic firms. Hence, firms in the economy are willing and able to increase production at every price level, causing a rightward shift of the AS curve from AS1 to AS2 as seen in Figure above. GPL falls from P1 to P2, hence reducing imported inflationary pressures. Additionally, the price of <b>imported finished product</b> will also be lower in SGD.</p> </li> </ul>			



- **[mitigating demand-pull inflation]** A gradual and modest appreciation of SGD will lead to a rise in price of exports in terms of foreign currency. Assuming the Law of Demand holds i.e.,  $PED_x > 0$ , the rise in price of exports will cause foreigners to decrease their demand for Singapore's exports leading to a decrease in export revenue (X) measured in SGD. At the same time, since imported goods are relatively cheaper in SGD, Singaporeans will switch away from domestically produced goods to imported goods, assuming that there are substitutes. As such, there will be a fall in domestic consumption, C. With a decrease in C and X, this will lead to a decrease in AD, ceteris paribus. *Assuming that the economy is operating with limited spare capacity*, there is now a surplus of goods and services at original GPL, resulting in a built-up of inventories which incentivises producers to cut back on production. As utilised resources are returned back to the economy, factor prices will start to fall as weaker demand for factor inputs such as manpower, factory space, and machines are observed, resulting in an eventual downward pressure in GPL. This will reduce demand pull inflationary pressure in the economy by reducing GPL from P1 to P2, as shown in Figure above.

**[E/Criterion]** The import content of domestically produced goods is very high in Singapore.

**[E/Reasoning]** For every Singapore dollar spent in Singapore, approximately 40 cents leak out as imports.

**[E/Opinion]** Gradual & modest appreciation of SGD will be highly effective as imported inflationary pressure keeps the cost push inflationary pressure strong.

**Requirement 2: Explain how appreciation of the Singapore dollar cannot help achieve price stability → Limitations of appreciation of the Singapore dollar**

- However, excessive appreciation of SGC will have unintended consequences such as eroding Singapore's export price competitiveness (in particular the service sectors such as tourism, education and health services targeted at foreign consumers where such services do not have high imported input content unlike manufactured goods) and international cost competitiveness as a business location. If the Singapore dollar persists to be overly strong for a long

period of time, it can hurt SG's exports and discourage FDI which can lead to contractionary effects on the economy as AD falls, leading to deflationary pressures in the long run. As such, it is necessary for the SG government to ensure that the appreciation of SGD is one that is gradual and modest so as to achieve its goal of relieving inflationary pressures while mitigating the potential conflicts with other macroeconomic objectives that could arise from an appreciating exchange rate.

**OR**

- In the short run, the demand for a country's exports and imports tends to be highly price inelastic due to time lags. It takes time for producers and consumers to adjust their purchases to the changed prices brought about by the appreciation. Firms will have orders planned in advance and will not react to the price changes to a significant extent for a number of months due to contractual obligations. Hence, an appreciation may lead to a increase in (X-M) and worsening inflation in the short run.

**Conclusion – Ans the Qn: extent to which policy helps**

Hence, appreciation of Singapore dollar is necessary to achieve price stability but by itself is not sufficient.

**[E/Criterion]** Root cause of inflation facing Singapore.

**[E/Opinion + E/Reasoning]** Exchange rate policy is critical when the economy faces imported inflation as a result of fresh global shocks in the short run. In the long run, it should be complemented with supply-side policies for a more permanent solution. The supply-side policies must specifically target the rise in energy prices. Examples include providing tax incentives for adopting green technologies and funding research and development in alternative energy. These policies aim to reduce dependence on imported oil and mitigate the impact of global energy price shocks on the domestic economy./ As explained in (d), the main cause of demand-pull inflation in Singapore is due to greater confidence in the economy which leads to increase in C & I. However, as appreciation leads to a fall in AD via mainly a fall in (X-M) and a fall in C indirectly, appreciation may not be an effective policy to address inflation in Singapore. Contractionary fiscal policy that is targeted directly at C & I could be more effective.

**Mark Scheme**

Knowledge, Understanding, Application and Analysis		
L2	For a well-developed answer that provided an analysis to give a clear explanation on how appreciation of the Singapore dollar helps reduce <b>both</b> imported inflation and demand-pull inflation to achieve price stability, with reference to case material.	4 – 6
L1	For an underdeveloped answer that contains some analysis on how appreciation of the Singapore dollar helps reduce inflationary	1 – 3



	pressure, to achieve price stability, with limited/no reference to case material.	
<b>Evaluative Comment</b>		
Ev	In addition, up to a <b>further 2 marks</b> for valid evaluative comment that discusses the extent to appreciation of the Singapore dollar helps achieve price stability.	1 – 2
<b>Markers' Report</b>		
<b>Skills</b> Strengths (+): What are the required skills that were well-demonstrated? Areas for improvement (-): What are the skills that were lacking/ not well-demonstrated?		<b>Aha moment!</b>
(+)	Most students attempted to evaluate whether appreciation can effectively address price stability.	
(-)	Some students did not understand the question requirement or read the question wrongly. The question is on appreciation and not depreciation or interest rate policy.	
<b>Content</b> Strengths (+): What are some concepts that were well-explained with clear linkages made? Areas for improvement (-): What are some concept gaps / conceptual errors?		<b>Aha moment!</b>
(+)	Many students could explain how appreciation can address demand-pull inflation.	
(-)	Many students did not explain how appreciation can address cost-push inflation. Students need to note that appreciation is one of the main tools to address cost-push inflation in Singapore context.	
(-)	Some students explained that a limitation of appreciation is that it cannot address cost-push inflation. This is conceptually wrong.	
(-)	Some students explained the worsening of macroeconomic goals as limitations of appreciation. Please note that this question is asking about the effectiveness in achieving price stability, so the limitations must be linked to that.	

(g)	<p><b>Discuss whether the inflationary problem is more damaging for the US or the Singapore economy.</b></p> <p style="text-align: right;"><b>[10]</b></p>
	<p><b><u>Introduction</u></b></p> <p>Inflation is defined as sustained increase in general price level. The ideal is to achieve a low and stable rate of inflation for an economy. In general, most countries set an inflation rate target of 2-3%.</p> <p>Over the years from 2019 - 2022, both US and Singapore are facing increasing inflation, with high inflation experienced in year 2022. (Table 1)</p> <p><b><u>Requirement 1: Explain the internal (negative) impact of inflation on economy (any 1)</u></b></p> <p><b>[Topic sentence]</b> Inflation may result in worsening of SOL.</p> <p><b>[Elaboration]</b> Inflation creates uncertainty which can result in a fall in investment, as seen in Extract 5 para 3 “causing confidence to fall”. When firms are uncertain about the future prices of their products and hence the rates of return on their investments, they will be less willing to take risks and invest, especially in long-term projects. A fall in investment will then reduce the AD, ceteris paribus which leads to surplus at initial GPL where total output is greater than total spending. The surplus leads to a rise in inventories, incentivising producers to reduce production to decrease output. Via the reverse multiplier effect, there will be a multiple decrease in production and real output, eventually reducing the rate of economic growth of the country. Assuming population size remains unchanged, this implies a fall in per capita income for the average individual citizens, which translate to lower purchasing power and hence lower ability to consume goods and services. Hence <b>material SOL is lower</b>, evident from Extract 5 para 3 “Rapidly climbing costs are hitting consumers in the pocketbook”. Furthermore, as capital stock accumulation decreases over time, LRAS would decrease, impeding potential growth which translates to <b>lower future material SOL</b>.</p> <p><b>[Topic sentence]</b> Fixed nominal income receivers suffer more in times of inflation compared to variable income earners.</p> <p><b>[Elaboration]</b> Given a constant income, an increase in the general price level will result in a fall in real income indicating a fall in the amount of goods and services that money income can buy. On the other hand, variable income earners, whose incomes are expressed as a percentage of the value of the work undertaken, may see a rise in their nominal incomes during inflation. <i>For example</i>, property agents may actually obtain higher commission during inflation as property prices increase. This means that the real incomes of the variable income earners actually remain unchanged during inflation. Since fixed income earners such as welfare recipients tend to be poor, and variable income earners tend to be rich, <b>inflation can worsen inequity as the poor finds it even more difficult to access basic goods and necessities due to the fall in their real incomes</b>. This is seen in Extract 5 para 3 “...burden is falling most intensely on lower-income households, which devote a big chunk of their budgets to daily necessities that are now swiftly becoming more expensive.”</p>



**[Topic sentence]** Should there be cost-push inflation in an economy, the fall in SRAS (as explained in part (d)) will reduce production, employment and investment.

**[Elaboration]** This is because firms which cannot absorb the higher factor prices might find it difficult to survive. With no excess demand, these firms are unable to pass on the higher cost to the consumers. As firms cut back on production instead, demand for labour falls, hence increasing unemployment.

**Requirement 2: Explain the external (negative) impact of inflation on economy**

**[Topic sentence]** Inflation reduces a country's international competitiveness and leads to weakening of the exchange rate.

**[Elaboration]** A country suffering from high inflation rate than other competing countries will experience a fall in the quantity demanded of her exports. This is because her export prices are relatively higher than other countries, thus become less price competitive. The quantity demanded for exports by foreigners will fall more than proportionately if  $PED_x > 1$  as foreigners will switch to cheaper alternatives from other countries, leading to a fall in export revenue. As such, this leads to a fall in the demand for domestic currency in the foreign exchange market ( $\downarrow DD$ ). At the same time, the country suffering from high inflation rate will likely increase the demand for imports as foreign goods become relatively cheaper than domestically produced goods. This results in an increase in import expenditure, causing a rise in supply of domestic currency in the foreign exchange market ( $\uparrow SS$ ). The simultaneous fall in demand and rise in supply of the domestic currency in the foreign exchange market will reinforce each other to cause a steep fall in the external value of the domestic currency, i.e. depreciation of exchange rate.

**Conclusion – which country has more damage from inflation?**

**[E/Criterion: Size/severity of inflation]**

**[E/Opinion]** US would have a more damaging impact overall as her inflation rate is higher than Singapore's.

**[E/Reasoning]** Should there be large fluctuations in price levels over a short period of time, this generally reflects greater instability in prices and hence greater distortion of price signals. Consumers and firms are hence less able to make consumption and investment decisions due to a fall in confidence. This causes a fall in C & I and hence AD, giving rise to a greater contractionary impact on economy, which may lead to negative growth and rise in unemployment. Therefore, the country with higher inflation would have a more damaging effects on the economy.

**[E/Criterion: Nature of economy – root cause of inflation]**

**[E/Opinion]** Singapore would have a more damaging impact overall as a result of her nature of economy, compared to US.

**[E/Reasoning]** Both US and Singapore face cost-push inflation but cost-push inflation is likely to be more damaging for Singapore than US, given the nature of Singapore economy. As Singapore is a small and open economy, she relies heavily on imports as she lacks resources thus cost-push inflation, particularly global supply shocks. Thus, her SRAS would fall more than US as US is a large and open economy, in which she is in better position to withstand global shocks by turning



towards domestic resources. As a result, SG real output would decrease by a larger extent, unemployment may rise to a larger extent, and more importantly, Singapore may lose her export price competitiveness due to increased cost of production stemming from cost-push inflation which may affect cause a larger extent of fall in AD. This could be seen from Extract 7 para 4 where Singapore is going to have GST hike to 8%, and evident from Table 2 where Singapore experiences a higher inflation rate than US in 2023, despite policies implemented to combat inflation.

**[E/Criterion: Ability and success of the policies implemented to keep inflation at bay]**

**[E/Opinion]** Singapore would have a more damaging impact overall as a result of her nature of economy, compared to US.

**[E/Reasoning]** While both US and Singapore governments have taken appropriate policies to combat inflation and is somewhat successful given that the inflation has eased relatively for both countries. However, Singapore is still experiencing a higher inflation than US.

### **Mark Scheme**

<b>Knowledge, Understanding, Application and Analysis</b>		
L2	<ul style="list-style-type: none"> <li>Answers in this level will provide a balanced answer that considers 2 impacts of inflation, making meaningful reference to case material.</li> <li>Rigour in the analysis will be demonstrated with the use of economic models such as the AD/AS, as well as clear linkages to SOL.</li> </ul>	4 – 7
L1	<ul style="list-style-type: none"> <li>Answers in this level will have some knowledge and understanding of the impacts of inflation, with limited reference to case material</li> <li>Attempt to use economic models with inaccuracy or misconception.</li> </ul> <p><b><u>Low L1</u></b></p> <ul style="list-style-type: none"> <li>Inappropriate economic concepts, theories and principles are used. Inaccurate economic analysis.</li> </ul>	1 – 3
<b>Evaluation</b>		
Ev	Evaluation marks will be awarded for evaluative comment that arrive at a conclusion after considering the relative extent of damage inflation has on both US and Singapore.	1-3



Markers' Report		
Skills		Aha moment!
Strengths (+): What are the required skills that were well-demonstrated? Areas for improvement (-): What are the skills that were lacking/ not well-demonstrated?		
(-)	This question was not well-attempted, with many students misinterpreting the question requirement which looks at the impacts of inflation. Instead, many wrote at length on the impacts of <i>either</i> the causes of inflation <i>or</i> policies to rectify inflation respectively.	
(-)	Lack of reference to the evidence in the case materials to support their answers.	
(-)	Poor time management. Some students either did not attempt or were not able to complete this question.	
(+)/(-)	While students were aware of the need for balanced approach, some lacked scope in their answers in which their elaboration on the impact of inflation focussed only on SOL.	
(+)/(-)	Many students attempted to conclude with an evaluative conclusion. However, students need to note that there is a need to take a stand. This means that students should not conclude by stating that inflation is damaging to both Singapore and US. Furthermore, there should be economic reasoning to support the stand, making reference to the case materials and/or own knowledge.	
Content		Aha moment!
Strengths (+): What are some concepts that were well-explained with clear linkages made? Areas for improvement (-): What are some concept gaps / conceptual errors?		
(+)	Students showed good linkages of impacts to SOL in their responses.	
(-)	Some students were confused between movement along AD and shift of AD in their explanation on the impacts of inflation. Most wrote that rising GPL would lead to a fall in C, which is a movement along AD curve and not a leftward shift of AD.	

## **MY REFLECTION/LEARNING POINTS FROM CSQ1**

After going through the corrections in class and reviewing the suggested answers to CSQ1, here is my...

**1** reflection/learning point with respect to SKILLS:

**1** reflection/learning point with respect to CONTENT:

