Suggested Answers: SECTION B: CASE STUDIES

Case Study Question 1:

Imbalances in the United Kingdom and China economies

Table 2: Government debt (percentage of GDP)

Year	China	UK
2010	33.7	76
2011	33.6	81.6
2012	34.3	85.1
2013	37	86.2
2014	39.9	88.1
2015	42.6	89

Source: IMF

Table 3: GDP Composition breakdown by percentage in 2015

	China	UK
Consumption Expenditure	37%	65%
Government Expenditure	14%	19%
Gross Capital Formation	45%	17%
Export Revenue	22%	28%
Import Expenditure	18%	29%

Source: World Bank

Extract 5: Is the game up for China's much emulated growth model?

From the early 1990s, China adopted an export-led strategy that delivered continuously increasing shares of the world market, fed by relatively low wages and very high rates of investment, enabling massive increases in infrastructure. It led to big increases in inequality and even bigger environmental problems, but the strategy seemed to work – until 2008-09, when exports were hit by the global financial crisis.

Yet even then, China, India and other large emerging markets continued to grow. The talk at the time was that they were already dissociated from the west. In reality, China (and much of developing Asia) had simply shifted to a different engine of growth without abandoning the focus on exports. The Chinese authorities could have generated more domestic demand by stimulating

consumption through rising wage shares of national income, but this would have threatened their export-driven model. Instead they put their faith in investments to keep growth rates buoyant.

So the “recovery package” in China essentially encouraged more investment, which was already nearly half of GDP. Provincial governments and public sector enterprises were encouraged to borrow heavily and invest in infrastructure, construction and more production capacity. To utilise the excess capacity, a real estate and construction boom was instigated, fed by lending from public sector banks. Total debt in China increased fourfold between 2007 and 2014, and the private debt-GDP ratio nearly doubled to over 280%.

All this comes in the midst of an overall slowdown in China’s economy. Exports fell by around 8% in 2014. Stimulus measures such as interest rate cuts do not seem to be working. As such, the recent devaluation of the yuan is clearly intended to help revive the economy.

However, it will not really help. Demand from the advanced countries – still the driver of Chinese exports and indirectly of exports of other developing countries – will stay sluggish. Meanwhile, China’s slowdown infects other emerging markets across the world as its imports fall even faster than its exports.

A weaker yuan is bad news for export-oriented economies like Singapore, Hong Kong, South Korea and Taiwan as their exports will be more expensive to Chinese buyers. Their exports to other countries will also have to compete against Chinese rivals who have the advantage of a weaker currency.

This is not the end of the emerging markets, but is – or should be – the end of this growth model. Relying only on exports or debt-driven bubbles to deliver rapid growth cannot work for long. For developing countries to truly “emerge”, a more inclusive strategy is essential.

Sources: The Guardian, 23 August 2015 and The Straits Times, 7 January 2016

Extract 6: New economic crash fears as British families run £40 billion deficit.

British families are on course to spend £40 billion more than they earn this year, fuelling fears that the country’s economic growth is based on soaring levels of debt and could easily collapse.

The forecast by the independent Office for Budget Responsibility (OBR) led to warnings that the UK could be heading towards a credit crunch similar to that of 2008 because of unsustainable levels of borrowing and household spending.

Five years ago, UK households were comfortably not in debt, running a surplus of £70 billion as Britons tightened their belts in the wake of the financial crash and put money aside to save.

But the new OBR figures show households are now deeply in debt, as growing economic confidence has led to a national spending spree. There is a real risk that millions of families will face serious hardship if interest rates start to rise.

A Bank of England study found that the average mortgage debt in Britain rose from £83,000 in 2014 to £85,000 this year. Unsecured debt, which includes credit card charges, personal loans, student loans and utility bills, stands at around £8,000 per household.

Source: The Independent, 21 December 2015

Extract 7: UK trade deficit widens to four-year high.

UK's trade deficit last year was the widest since the alliance of political parties came to power, dealing a blow to the government's drive to rebalance the economy away from consumer spending.

Forecasting the outlook for this year, economists said exports would come under pressure from a stronger pound and a slowdown in important markets, especially the UK's main trading partner, the Eurozone.

The Eurozone remains unlikely to see much of an acceleration in growth in 2015, particularly given the uncertainty being generated by the prospect of a Greek exit from the single currency area. In addition, economic expansion is expected to continue cooling in China over the medium term, weighing down on export prospects there.

Chris Leslie, the shadow chancellor, said: "Britain needs a serious strategy to help exporters – this means redoubling efforts to boost productivity, tackling infrastructure obstacles, addressing the skills deficit and ensuring innovators can access the funds they need."

Source: The Guardian, 6 February 2015

Questions

(a) Compare the change in government debt levels as a percentage of GDP in China and the UK from 2010 to 2011. [2]

(b) With reference to Extract 5,

(i) "A weaker yuan is bad news for export-oriented economies like Singapore"

Using a supply and demand diagram, explain how the devaluation of the Chinese Yuan may eventually affect the revenue (in SGD) of a Singapore firm that exports to other countries. [4]

(ii) Explain the possible reasons why neither a cut in interest rates nor a devaluation of currency seem to work for China. [4]

(c) With reference to Extract 6, explain how households' standard of living in the UK may be affected if UK interest rates were to rise. [2]

(d) Assess the effectiveness of the UK government's proposed strategy to boost exports. [8]

(e) Discuss the factors that the UK and China's governments should consider in their macroeconomic decisions to rebalance their economies to achieve sustained economic growth. [10]

Suggested answers

(2017 ACJC H2 Prelims) Question 2: Imbalances in the United Kingdom and China economies

(a) Compare the change in government debt levels as a percentage of GDP in China and the UK from 2010 to 2011. [2]

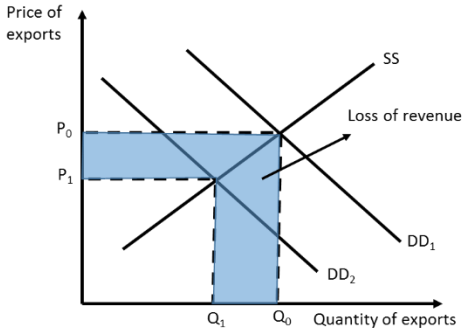
- Direction of change: China's debt levels as a % of GDP decreased while UK's increased [1]
- Magnitude of change: UK's change is much larger while China's is an insignificant change. [1]

(b) With reference to Extract 5,

(i) "A weaker yuan is bad news for export-oriented economies like Singapore."

Using a supply and demand diagram, explain how the devaluation of the Chinese Yuan may eventually affect the revenue (in SGD) of a Singapore firm that exports to other countries. [4]

- Singapore goods may be substitute to Chinese goods in other countries [1]
- Devaluation causes Chinese goods to be relatively cheaper in other countries' currency [1]
- Leads to a fall in demand for Singapore's exports. Therefore fall in price, quantity, and total revenue [1]
- Diagram showing shift of demand curve to the left → lower equilibrium price and quantity → lower total revenue [1]



For students that only focus on exports to China: maximum 2 marks for an accurate explanation.
Teaching point: Students can show the change in revenue using the diagram.

3 marks to explain impact on revenue
1 mark for accurate diagram

(ii) Explain the possible reasons why neither a cut in interest rates nor a devaluation of currency seem to work for China. [4]

(2 marks) Explain why cut in interest rates does not work: **Poor confidence in the economic outlook**
If consumers expect the future economic outlook to be bad → expect future income to fall / stagnate → despite the fall in interest rates → may not stimulate borrowing → C may not rise

(2 marks) Explain why devaluation does not work: **foreign countries suffer from poor economic performance**

- Poor foreign (advance countries) economic performance → **lower foreign household incomes → lower purchasing power and hence, fall in demand for China's exports**
- Despite the devaluation of CNY → Price of chinese exports cheaper in foreign currency, but the quantity demanded still does not increase.

(c) With reference to Extract 6, explain how households' standard of living in the UK may be affected if UK interest rates were to rise. [2]

- Rise in interest rate → **cost of borrowing increase** (also known as debt burden) [1m]
- Increase in amount needed to finance loans (service the debt) → fall in disposable income (income after paying taxes and interest) → **purchasing power fall, less ability to consume goods → SOL fall** [1m]

(d) Assess the effectiveness of the UK government's proposed strategy to boost exports. [8]

Question analysis

Assess effectiveness	Suggests: 1) Explain how the proposed strategy works to boost exports 2) Evaluate the strengths and limitations of the proposed strategy
Strategy to boost exports	Link to export revenue, export demand
UK context	

<u>Explain of how UK proposed strategy boost exports works</u>.
Evidence: boosting productivity, addressing skills deficit, tackling infrastructure obstacles, innovators access to capital

Aim to raise labour productivity → reducing unit labour cost → pass on the lower cost to consumers by reducing prices of X → improve price competitiveness of UK exports (Pr of X in domestic currency falls)

Aim to **reduce PED** of UK exports

- Therefore, increase demand for exports due to better quality of exports.

- At the same time, reduce PED for X → when price of X is increased, the Qd falls by less than proportionately → gain in revenue from higher price outweighs the losses from revenue due to fall in Qd → overall export revenue will increase

Limitations of the proposed strategy:

- Skills training to raise labour productivity may **encounter resistance** from both employees and employers. Impact on labour productivity can also be seen only in the long term
- Innovation → **unpredictable** outcome even in long term → may not be successful
- Given **UK's debt increasing** to almost 90% of GDP (From Table 2), government may not be able to provide adequate financial support for innovation → **high opportunity cost** → unable to sustain this strategy in the long term.
- **China devaluing their currency → China, one of the largest world markets, for UK's exports.** With a cheaper RMB, this will **make UK imports more expensive** in RMB → may not buy UK's X as much, despite the lowering of UK's X prices via a lower unit COP

Possible Judgement

- Overall, the benefits outweigh the costs **if the government and the UK economy can overcome the limitations.**
- For example, the government may **reallocate their expenditure** in other areas such as unemployment benefits, so as to increase their spending on raising skills productivity and training.
- At the same time, government can work together with the employers to **provide public education to the workers to reduce their resistance to skills training.**
- Alternatively, in the short term, the government may also **consider devaluing** the UK pound by selling more UK pound into the foreign currency market, so that it can complement the better-quality UK's exports.

L2	• Well-developed analysis of how UK's proposed strategy could boost exports AND the constraints that will limit its effectiveness. A balanced answer with supporting evidence e.g. govt debt, strength of pound *For balanced answer that is only well developed on one side: max 4 marks*	**4-6**
L1	• Balanced answer but superficial analysis of how strategy works to boost exports and constraints. • No / Inadequate evidences cited incidentally. • One-sided answer.	**1-3**
E	• Make a reasoned judgement on whether UK strategy to boost exports, is likely to be effective	**1-2**

(e) Discuss the factors that the UK and China's governments should consider in their macroeconomic decisions to rebalance their economies to achieve sustained economic growth. [10]

Note to students:

The question's focus on the **decision-making** by the government to achieve the macroeconomic objective of sustained economic growth. This question is testing on the

policies/strategies adopted to achieve this macro goal & whether such decisions are effective / rational.

Even though the focus is on decision-making, the framework adopted to answer such question is:

- Benefits → link to how the policy works
- Costs → link to limitations of the policy
- Constraints → link to evaluation / criteria (e.g. government budget) that may hamper the effectiveness of the policy

Introduction:

- Meaning of sustained economic growth
- refers to actual and potential economic growth
- continued rise in real GDP and productive capacity

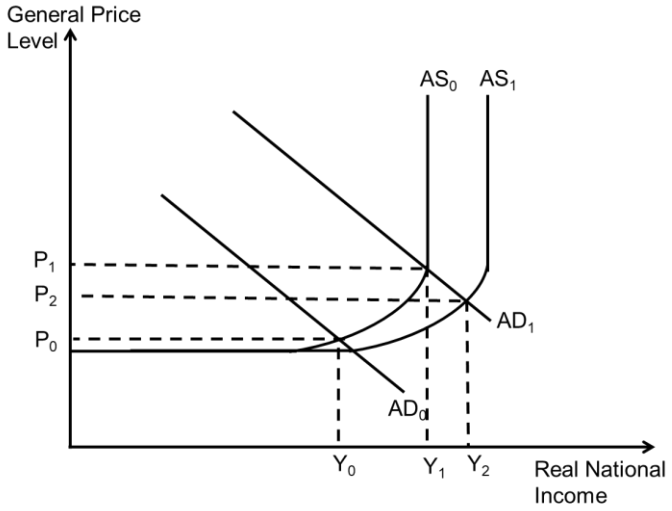
- Meaning of rebalancing economy
- **China** switching to **reduce reliance on the export sector** as engine for growth and instead to **focus on strategies to generate investment-led growth and consumption-led growth**.
- **UK** switching from reliance on domestic consumption **to exports to boost actual economic growth**

Factors that governments should consider in making macroeconomic decision in rebalancing economy for sustained economic growth

For China
Current challenges: poor economic performance from advanced countries → demand for China's exports stay sluggish

Benefit by reducing reliance on exports and focus on boosting (I):

- Less vulnerable to external shocks
- Increase in I, *assuming that it offsets the drop in X-revenue* → increase in AD → increase in RNY **via the multiplier process**
- Spending on buildings / infrastructures → firms increase production of output → increase demand for workers → higher household incomes → greater induced consumption → further increase in AD and hence RNY increased by a multiplied amount.
- At the same time, the increase in capital investment such as land and capital resource → **increase in quality and quantity of resources** → expand China's production capacity and hence, **LRAS** → increase in full employment output and hence, potential economic growth is achieved
- With the increase in AD and LRAS, the **RNY can continue to increase without causing a sharp increase in GPL,** as seen by how the prices are kept low and stable in the diagram below → instead of increase price to P1, the price only increases to P2 instead → **sustained EG is achieved.**
- Maintain households' purchasing power, since incomes rise and GPL is kept low → better SOL



Costs of reducing reliance on exports and focus on boosting (I):

- To rebalance and invest more → firms and governments are encouraged to **borrow more heavily** (from other countries) → increase in China's total debt (fourfold increase)
- The heavier debt suggests that the China's government will need to **repay them in the future**
- As such, part of the increase in RNY will **flow out of China** to service the debt, therefore reducing the extent of benefits that the increase in RNY can bring to the residents and firms.
- May not be sustainable in the long term.

For UK

Current challenge: rise in household debts → limit consumption expenditure → limit the increase in AD and hence, achieving actual economic growth

Benefits of reducing C and increase X to boost growth:

- Households debt could be reduced → since households need not be borrowing as much → lesser debt to repay → higher SOL
- Policy adopted to boost X can help to reduce trade deficit of UK – UK is suffering from the largest trade deficit at all times.
- Policy can also achieve both actual (via higher X-revenue) and potential economic growth (via the increase in quantity and quality of resources – seen earlier in part (d).)
- **With the increase in AD and LRAS, the RNY can continue to increase without causing a sharp increase in GPL, as seen by how the prices are kept low and stable in the diagram below → instead of increase P to P2, the price only increases to P3 instead → sustained EG is achieved.**

Costs of reducing C and increase X to boost growth:

- Reliance on export sector for growth → **increase country's vulnerability** to external shocks.

For example, the future outlook for Eurozone (main trading partner of UK) remains poor → rise in uncertainty → expected economic performance to be slow or even negative → may reduce the demand for UK's X, despite it being of better quality / cheaper price.

- **UK's still enjoying growing economic confidence** (Extract 6) → even if the UK households are still in debt, they may continue to borrow and **spend more, leading to a rise in AD.**
- The strategies to boost X **needs time and the effects are uncertain** → therefore, **if the LRAS does not increase in tandem** with the rise in AD → UK may suffer from **demand pull inflation** as the economy competes for more scarce resources → bid up prices of FOPs → increase in unit COP → **threatening sustained economic growth**.
- Govt spending to promote X (via skills training) → **worsens government budget position** → incurs opportunity cost in other sectors of economy

<u>Final conclusion (some form of judgement)</u>

- Whether the rebalancing macroeconomic decisions are rational, depends on whether the **benefits outweigh the costs**.
- This will hence depend on **whether the government can adopt complementary measures** to overcome the costs of the decisions.
- For example, as China may incur more debt if they rebalance away from X growth to Investment-led growth → China government may need to think of ways to cut government expenditure so as to reduce their debt burden. For example, they may consider reducing unemployment benefits or even raise taxes for the riches to finance such debt in the meantime.
- Govt should not just focus on only one sector for sustainable economic growth. Imbalances in any economy are usually not sustainable in long term. In rebalancing economy for sustained economic growth, a more feasible strategy in the long term is for govt to boost all sectors in the economy, be it domestic or external.

Mark Scheme:

L2	• Well-developed analysis of factors (consider both benefits and costs) that affects the economic decision to rebalance their economy • Use of relevant macroeconomic concepts of AD/AS framework • A balanced answer with supporting evidence from both countries	**5-7**
L1	• Balanced answer but superficial analysis of factors that influences governments in their decision to rebalance economy. • No / Inadequate evidences cited. • One-sided answer (e.g. only the benefits are considered).	**1-4**
E	• Judgement is stated, weak attempt to justify / synthesize	**1**
	• Judgement is explained and supported with sound logical reasoning • Use of criteria (at least 1) in the judgement	**2-3**

Case Study Question 2:

A more inward-looking China and the Russian-Ukraine Conflict

Table 2: GDP growth (annual %)

Year	United States	China	Singapore
2017	2.2	6.9	4.5
2018	2.9	6.7	3.6
2019	2.3	6.0	1.3
2020	- 2.8	2.2	-3.9
2021	5.9	8.4	8.9
2022	2.1	3.0	3.6

Source: *World Bank*, 2023

Extract 6: The regional impact of Russian's invasion of Ukraine

The ongoing war in Ukraine has dimmed prospects of a post-pandemic economic recovery for emerging and developing economies in Europe and Central Asia, says the World Bank's Economic Update. Energy price shocks continue to impact the region. So far, however, the region has weathered the storm of Russia's invasion of Ukraine better than previously forecast. Regional output is now expected to contract only by 0.2% this year due to the prudent extension of pandemic-era stimulus programs by some governments.

Source: *World Bank,* 2023

Extract 7: Why a more inward-looking China is bad news for the world economy

Ever since the 2008 global financial crisis, when the West's reliability as a trading partner was thrown into question, self-reliance has become a more decisive organising principle for Chinese officials. As a result, the export-dependent growth model on which China built its economic rise in recent decades has been fraying. Exports as a share of China's GDP peaked at 35 per cent in 2007 but had fallen to around 20 per cent by last year, a level not seen since before China's accession to the World Trade Organisation in 2001. This shows that net exports no longer make any meaningful contribution to Chinese GDP growth.

Although China's inward tilt towards self-reliance may have started out as a response to purely economic phenomena – the post-crisis global recession, belt-tightening in the West, the eurozone crisis, and a general softening of global trade growth in the post-crisis years – China's more inward-looking development path became clear in its response to the aggressive tariffs and export controls introduced by the Trump administration in the US.

The more obvious result of China's inward-looking approach is a rebalancing of China's economy away from a reliance on external demand as a stimulus to growth ('international circulation') towards increased self-dependence ('domestic circulation'). China is reducing its economic dependence on the West by reshaping trade and investment links. A greater push has been made for 'stronger, better, and bigger' state-owned enterprises (SOEs) and the past five years have indeed seen a measurable rise in the role that SOEs play in the Chinese economy. These firms

now account for more fixed investment in the economy than private foreign firms, for the first time since 2005.

Since its dependence on imported technology, food, and fossil fuels, has created a substantial strategic vulnerability, Chinese policymakers will likely attempt to build up the country's ability to supply its own semi-conductors, food, and green energy source over the next few years. This all amounts to a more inward-looking Chinese economy that is more dependent on internal factors rather than external factors for its growth. For China itself, growth is likely to suffer, since there is a wealth of analysis to suggest that the efficiency of SOE-led investments is lower than that of foreign direct investments. For the rest of the world, a China that is more inclined to buy its own stuff than import also that means other countries will receive less of a boost to their economic activity per unit of China's GDP. And that is bad news for the world economy.

Source: Adapted from *Chatamhouse.org*, 2022

Extract 8: Russia-Ukraine conflict has a limited impact on China's food prices

China's emphasis on its own food production and security helps mitigate the impact of the Russia-Ukraine conflict on domestic food prices, analysts said. Notably, China is the world's second-largest consumer of corn, but only 9.4% of domestic corn consumption in 2021 came from imports. Only 5.9% of China's wheat consumption last year was imported. China has boosted agriculture production at home and expanded the sources of imported food.

However, soybeans are the only major crop for which China relies heavily on imports — 84% of domestic consumption in 2021, mostly from the U.S. and Brazil. Soybean prices have climbed as traders worry that a shortage of sunflower oil from Ukraine might boost demand for other vegetable oils, said chief executive officer of the U.S. Soybean Export Council.

Source: CNBC, 3 March 2022

Extract 9: The impact of Russia-Ukraine conflict on Singapore

Global supply chains had already been hammered by the Covid-19 related challenges and have been further dislocated by geopolitical tensions such as the Russia-Ukraine conflict. Tensions between the two countries could impact the global economy and contribute to rising living costs. Singapore is no exception.

Russia is the world's second-largest oil exporter. As the conflict worsened, it triggered an energy crisis, driving up oil and gas prices. Oil refining produces gasoline and natural gas, which are widely utilised in energy generation in many nations, including Singapore, which relies mainly on natural gas for power generation. Russia and Ukraine are also major exporters of metals and minerals. Supply disruptions in these commodities might have a big impact on the manufacturing industry, which makes stainless steel, sensors, transistors, and chips.

The situation in Ukraine has influenced inflation expectations, with prices of food staples such as wheat and corn skyrocketing. Ukraine is the world's third-biggest maize exporter and fourth-largest wheat exporter, with Russia being the world's largest wheat exporter. In January, food inflation was one of the critical causes of increasing consumer prices in Singapore.

Source: *Nexia Singapore,* accessed 19 July 2023

Questions

(a) Using Table 2, state three findings of Singapore's growth rates compared to other countries. [3]

(b) State the possible economic relationship between real GDP growth rate and inflation rate. [1]

(c) Using an aggregate demand and aggregate supply diagram, explain how China "that is more inclined to buy its own stuff" (Extract 7) might affect economic growth in Singapore. [4]

(d) Account for the climb in soybean prices as seen in Extract 8. [4]
Note to students: this is a question that tests on microeconomic concept, your tutor may skip this question for the purpose of this topic on Macroeconomic Policies.

(e) Discuss whether China should rely more on domestic or external factors to boost its growth rates further. [8]

(f) In the light of the Russian-Ukraine conflict, and China turning inwards, discuss how Singapore can boost its economic performance. [10]

Suggested Answers

(a)	**Using Table 2, state three findings of Singapore's growth rates compared to other countries.**	**[3]**

Similarity:

- Overall, the growth rates of Singapore, China and the US have fallen from 2017 to 2022. **[1]**

OR

- Growth rates of both Singapore and the US were generally positive except for 2020. **[1]**

Difference:

- Singapore's growth rates are higher than the US' growth rates, except in 2019 and 2020. **[1]**

- Singapore's growth rates are lower than China's growth rates except in 2021 and 2022. **[1]**

- Singapore's growth rate was generally positive except for 2020 whereas China's growth rate remained positive throughout. **[1]**

Any three of the above, but there must be at least 1 similarity and 1 difference compared across all countries.

Marker's comments:

- *Students are to avoid year on year or period by period tracking. For example, from 2017 to 2019 and from 2020 to 2022, etc. Students should be looking at the overall trend.*
- *Students are not to calculate the percentage change of a change (presented in %). Data is already in the correct form, no further conversion required. If you want to consider the difference between such data, you can calculate the difference and present as follows:*
  - *From 2017 to 2022, Singapore's GDP growth rate has decreased by 0.9 % points.*
  - *Students are to note that the question is asking for GDP growth rate and NOT GDP.*
  - *Students can split comparisons across countries but there must be at least one comparison that addresses all 3 countries.*

(b)	**Explain how inflation rates and real GDP growth rates are related.**	**[2]**

- Inflation rates and real GDP growth rates are **inversely/negatively related**. **[1]** *The higher the inflation rates, the lower the real GDP growth rates.*

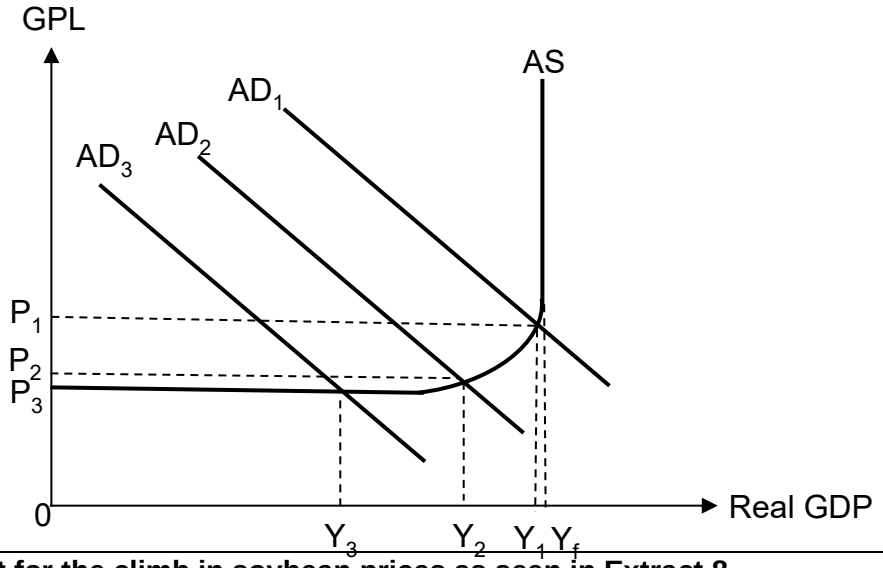
- This is because real GDP growth rates = nominal GDP growth rates - inflation rates. **[1]**

(c)	**Using an aggregate demand and aggregate supply diagram, explain how China "that is more inclined to buy its own stuff" (Extract 7) might affect economic growth in Singapore.**	**[4]**

- When China is "more inclined to buy its own stuff", it will demand for less imports from the rest of the world, including Singapore. This will lead to a fall in demand for Singapore's exports from China, causing a fall in Singapore's net exports and hence AD. **[1]**
- As the AD of Singapore falls from AD_1 to AD_2, this triggers the reverse multiplier effect where there are multiple rounds of decreases in income-induced consumption, leading to further falls in AD to AD_3. **[1]**

- This leads to a multiplied fall in real output from Y_1 to Y_3 and hence <u>negative economic growth</u> in Singapore. **[1]**

Figure 1: Negative economic growth in Singapore



(d)	**Account for the climb in soybean prices as seen in Extract 8.**	**[4]**

- From Extract 8, the "shortage of sunflower oil" in Ukraine will lead to an upward pressure on its price, causing the price of sunflower oil to rise. **[1]**
- Given that sunflower oil and soybean oil are <u>substitutes</u> which satisfy the same need, **[1]** the demand for soybean oil, a type of vegetable oil, will increase. *This is supported by the "boost [in] demand for other vegetable oils." (Ext 8)*
- This will cause an increase in the <u>derived demand</u> for soybean, **[1]** a factor input to produce soybean oil.
- In the market for soybean, <u>at the initial equilibrium price</u>, a shortage occurs, and this will create an <u>upward pressure</u> on the price of soybean. **[1]** Hence, the climb in soybean prices as seen in Extract 8.

(e)	**Discuss whether China should rely more on domestic or external factors to boost its growth rates further.**	**[8]**

<u>Question Interpretation</u>

Command word/phrase	*Discuss whether*	To provide a balanced analysis of how reliance on domestic factors and external factors may be possible ways for China to boost its growth rates, before coming to a well-reasoned judgment on whether China should rely more on domestic or external factors to boost its growth.
Content	*Rely more on domestic or external factors to boost its growth rates further*	Domestic factors refer to components of C, domestic investment, and G. External factors refer to FDI and X. In this context, boost growth rates refer to both actual and potential economic growth.
Context	*China*	China, specifically Extracts 7 and 8 should be utilised to support analysis.

This question requires students to explain how reliance on domestic factors and external factors may be possible ways for China to boost its growth rates, before coming to a well-reasoned judgment on whether China should rely more on domestic or external factors to boost its growth.

Introduction:

- **[Set context]** The case mentions that China has become more "inward-looking', shifting "away from a reliance on external demand as a stimulus to growth towards increased dependence on domestic factors" (Extract 7).
- **[Outline approach]** This answer will explore the benefits and costs associated with a more inward-looking China, before evaluating whether China should rely more on domestic or external factors to boost its growth rates further.

Thesis: Explain how reliance on domestic factors can be beneficial to help China boost its growth rates further

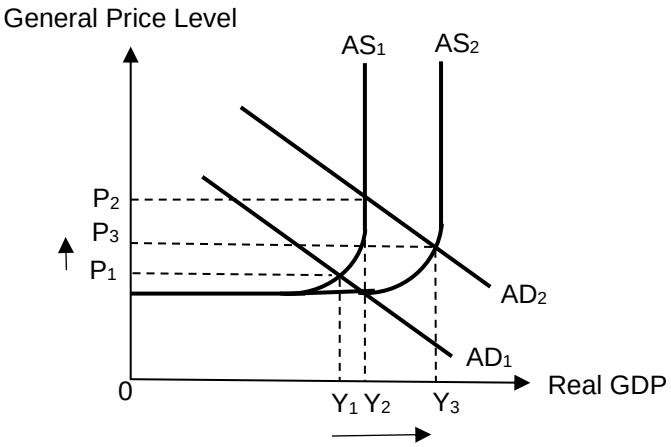
- **Reliance on domestic factors like consumption, government expenditure, and domestic investment like "state-owned enterprises (SOEs)" (Ext 7) may be beneficial to help China boost its growth rates further.**
- This is because greater reliance on domestic factors can help China become more self-reliant and buffer against negative external shocks in the global economy, reducing the negative impact on China's economic growth.

Choose 1 external factor from the following:

- From Extract 7, the "post-crisis global recession, belt-tightening in the West, the eurozone crisis, and a general softening of global trade growth in the post-crisis years" will lead to a fall in global incomes. Assuming that China exports are normal goods, the fall in national incomes of China's trading partners will lead to a fall in the demand for China's exports, leading to a fall in its AD.
- In addition, the "aggressive tariffs and export controls introduced by the Trump administration in the US" (Ext 7) would reduce China's net exports, reducing its AD. **The tariffs would increase the prices of China's exports**, **reducing its price competitiveness** and hence the quantity demanded of Chinese exports would fall.
    - Assuming that the price elasticity of demand for Chinese exports is greater than one (demand for Chinese exports is price elastic) due to the availability of substitutes in the world markets, the **higher export prices of China will lead to a more than proportionate fall in its quantity demanded, leading to a fall in China's export revenue and hence net exports.**
- **The export controls on the US on Chinese exports will reduce the quantity of China's to the US, reducing China's export revenue.** The combined effect is a fall in the net exports of China.
- As China's AD falls, coupled with the reverse multiplier effect, this triggers multiple successive rounds of decreases in income-induced consumption, leading to a multiplied fall in China's real GDP, resulting in **negative economic growth, which will reduce the SOL of China.**
- By reducing reliance on external factors like net exports, which "no longer make any meaningful contribution to Chinese GDP growth" (Ext 7), this can reduce the adverse impacts of a fall in China's net exports on its growth given the external shocks.

- Extract 8 also mentioned that greater reliance on domestic consumption, as seen from the boost in "agriculture production at home" and "emphasis on its own production and security can help mitigate the impact of the Russia-Ukraine conflict on domestic food prices. This can **reduce the extent to which the higher imported food prices can lead to a rise in cost-push inflation, reducing China's real GDP growth rates.**
- By increasing its reliance on domestic factors, China can continue to push for more SOEs to boost its growth rates further even in the face of external challenges.
- **A rise in domestic investment will increase China's I, boosting its AD since I is a component of AD. Assuming spare capacity is present, this will trigger the multiplier effect, leading to successive rounds of increases in income-induced consumption, eventually leading to a multiplied increase in China's real GDP from Y_1 to Y_2, and actual economic growth as seen in Figure 2. This will help to mitigate the negative economic growth that China may experience due to the negative external shocks.**
- Furthermore, an increase in I will increase the quantity of capital stock in China, leading to an **increase in its productive capacity and hence (LR)AS will increase, allowing for greater potential growth.**
- As AD and AS increases in tandem, China can experience sustained economic growth, where **real GDP increases from Y_1 to Y_3, but GPL rises only slightly from P_1 to P_3.**

Figure 2: Sustained growth from China's greater push for SOEs



Anti-thesis: Explain how reliance on external factors can be beneficial to help China boost its growth rates further

- However, greater reliance on domestic factors may not be as beneficial in boosting China's growth rates. *In fact, "growth is likely to suffer", since "the efficiency of SOE-led investments is lower than that of foreign direct investments (FDI)" (Ext 7).* This suggests that the increase in AD and (LR)AS in allowing China to experience sustained growth rates in the future may **not be as high as compared** to reliance on external factors like private foreign investment (investment from external sources).
- Compared to FDI, greater reliance on SOEs may lead to slower actual growth due to the slower than expected growth in I and hence AD. Over time, this can lead to pessimism in the outlook of the economy and negatively affect consumer and business confidence. As C

and I fall because consumers are pessimistic about their future expected incomes, and firms are pessimistic about their future expected profits, this will reduce the benefits associated with greater reliance on domestic factors to boost China's growth rates.

- Moreover, with slower growth, the government will collect less tax revenue, which can in turn limit its ability to enact redistributive policies to reduce income inequality to promote more inclusive growth which will boost China's SOL over time.
- In addition, greater reliance on external factors like X can allow China to tap on its comparative advantage to engage in trade with other countries to boost its growth rates. Given China's endowment of a large population size, it has a comparative advantage in the production of labor-intensive goods and services, which allows it to sell goods like apparel and footwear at a lower price due to its lower opportunity cost of production. This can boost China's export demand and increase it net exports, boosting its actual growth rates via an increase in AD, coupled with the multiplier effect.

Evaluative Conclusion *(a reasoned stand plus 1 well-substantiated ATMS would suffice)*

- **[Stand]** Both domestic factors and external factors can help to contribute towards China's growth rates, but in the long run, China should rely more on domestic factors to boost its growth rates further.
- **[Magnitude/Situation]** Over time, as China improves its efficiency of SOE-led investments with greater R&D efforts, this can help reduce the extent to which growth rates will fall with its greater reliance on internal factors to boost growth. This will also help to reduce its vulnerability to external shocks, allowing China to sustain its growth rates in the long run.
    - China is also shifting away from manufacturing labour-intensive goods for exports and increasing its focus on more high-tech exports like robotics, semiconductors. Time is needed for China to successfully redevelop its new areas of comparative advantage. This will mean that the benefits of relying on external factors like trade to boost China's actual growth would be reduced.

Mark scheme

Level	Knowledge, Application/Understanding, and Analysis	Marks
L2	For a well-developed answer that has: ● **good scope and balance** – explains the benefits of relying on domestic factors AND external factors to boost sustained growth rates; and ● **good rigour** – explains using AD/AS analysis and relevant diagram(s); and ● **good application to context** – uses the case material where appropriate, to support analysis	4 – 6
L1	For an under-developed answer that: ● lacks scope and balance – only explains the benefits associated with greater reliance on domestic factors OR external factors in boosting both actual and potential economic growth; and/or ● lacks rigour – descriptive explanation with little use of AD/AS analysis or diagram	1 – 3

		● lacks application to context – limited use of case material to support analysis	
	Level	**Evaluation**	**Marks**
	E	● A well-reasoned judgement on whether China should rely more on domestic or external factors to boost its growth rates further.	1 – 2

(f)	**In the light of the Russian-Ukraine conflict, and China turning inwards, discuss how Singapore can boost its economic performance.**	**[10]**

Question Interpretation

Command word/phrase	*Discuss how*	Give a balanced analysis (O-W-L framework) of at least two different policies, comprising both demand-management and supply-side, in boosting Singapore's economic performance, before coming to a well-reasoned judgment on the best policy to adopt.
Content	*…boost its economic performance*	The AD/AS analysis and diagram(s) should be used to explain the workings and limitations of the policies to allow Singapore to achieve its macroeconomic goals.
Context	*In the light of the Russian-Ukraine conflict and China turning inwards, Singapore*	The Russian-Ukraine conflict has disrupted global supply chains, contributing to "rising living costs (Extract 9). China turning inwards will mean "bad news for the world economy" as "other countries will receive less of a boost to their economic activity per unit of China's GDP." (Extract 7) The analysis should be applied to the case context, specifically extracts 7 and 9.

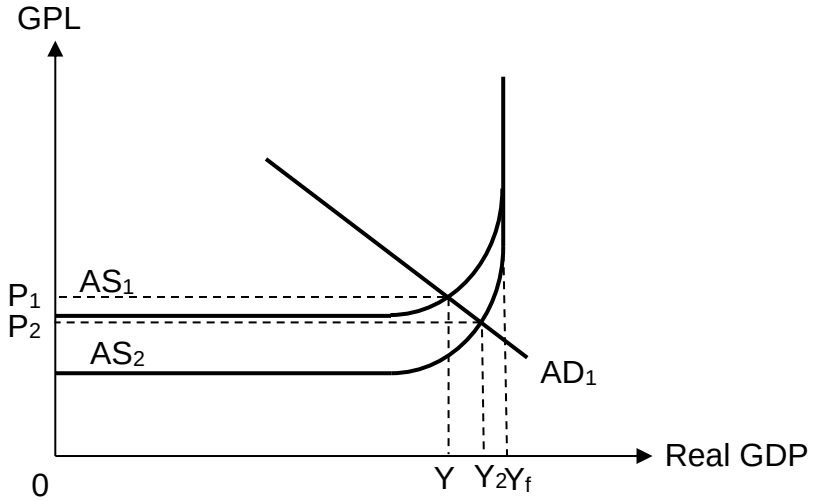
This question requires students to explain at least two different policies, comprising both demand-management and supply-side (using O-W-L framework), in boosting Singapore's economic performance, bearing in mind the context of Russian-Ukraine conflict & inward looking China, before coming to a well-reasoned judgment on the best policy to adopt.

Introduction

- **[Set context]** From Extract 9, the Russian-Ukraine conflict has disrupted global supply chains, which have driven the prices of "oil and gas" and led to "prices of food staples such as wheat and corn skyrocketing." As oil and gas are used in the production of many goods and services economy-wide, and wheat and corn constitute essential raw materials, the increase in prices of these commodities will increase the unit cost of production for Singapore, leading to a fall in its (SR)AS, and result in cost-push inflation.
- **[Outline approach]** Coupled with China turning inwards, which will negatively affect Singapore's economic growth, as earlier explained in part (d), Singapore may choose to implement contractionary exchange rate monetary policy and supply-side measures to boost its economic performance to improve its trade balance (BOT), raise economic growth and promote price stability.

- **Key Argument 1: One measure that Singapore may implement to reduce cost-push inflation and boost its economic performance is contractionary exchange rate monetary policy, but it is not without costs.**
- An appreciation of the Sing dollar via the selling of foreign reserves to purchase more SGD will reduce the prices of imports in SGD. Given that Singapore lacks natural resources and is heavily reliant on imported raw materials for the production of many goods and services, the fall in prices of imported raw materials will reduce the unit cost of production for the economy, leading to a rise in AS.
- Diagrammatically, this is illustrated as a downward shift of the AS curve from AS_1 to AS_2. As AS increases from AS_1 to AS_2 as seen in Figure 3, this will reduce GPL from P_1 to P_2, reducing the cost-push inflation due to the Russian-Ukraine conflict, hence boosting Singapore's economic performance by promoting greater price stability.
- In addition, the increase in AS would also increase the real GDP of Singapore from Y_1 to Y_2, boosting actual economic growth.

Figure 3: Greater price stability from an appreciation of SGD



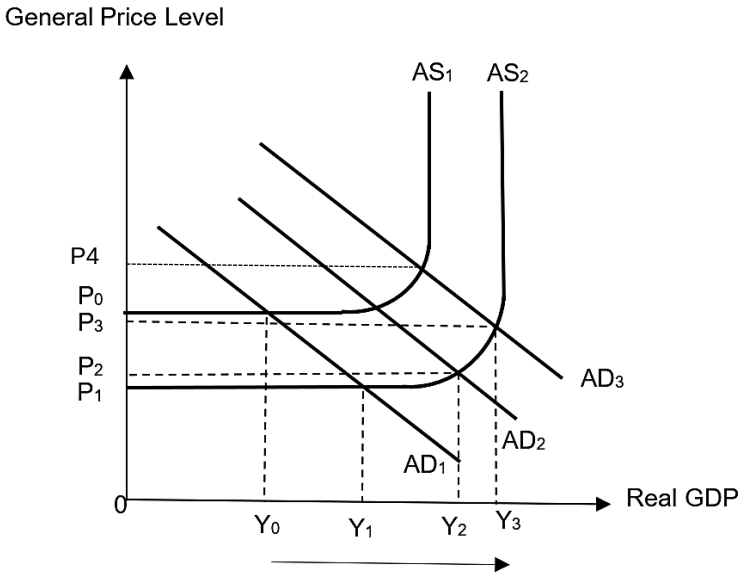
Limitations

- However, an appreciation of the SGD also increases the price of exports in foreign currencies, reducing the quantity demanded for exports. The lower prices of imports in SGD will lead to an increase in the quantity demanded for imported goods and services.
- Over time, an appreciation could lead to a fall in Singapore's export revenue as our exports become less price competitive. This has a direct impact on reducing / slowing down the growth of our Singapore's AD. Coupled with the reverse multiplier effect (as explained earlier), there would be a multiplied fall / (or a slower increase) in Singapore's real output, leading to the unintended consequence of decreased / slower economic growth. This may mitigate the increase in actual growth from the increase in AS, and possibly, aggravate the fall in economic growth experienced by Singapore from the decrease in X-volume and trade from the Chinese economy turning inwards.

Key Argument 2: The Singapore government may implement supply-side policies to achieve sustained growth, but it is not without limitations.

- To address the worsening BOT and fall in economic growth, supply-side policies such as **subsidising exporting firms in the training of workers and R&D efforts for innovation** could be used by Singapore to boost its economic performance.
- These subsidies would reduce the marginal cost of production for firms, incentivising them to increase the training of workers, and engage in greater R&D efforts. As workers' skills improve, this may lead to an **increase in labour productivity, allowing the workers to produce more output per man-hour, hence reducing the average production costs**. At the same time, as the **quality of labour improves**, this will **also increase the productive capacity** of the economy. The result is an increase in AS, where the AS curve shifts downwards and **rightwards from AS_1 to AS_2.**
- Since there are now more available resources, the economy is now able to produce more potential output (Yf increases).

Figure 4: Sustained economic growth for Singapore



- At the same time, the lower production costs could be passed on to consumers in the form of lower export prices, allowing Singapore to maintain our exports competitiveness, hence **boosting our export revenue → increasing Singapore's AD.**
- The greater R&D efforts to innovate, such as in the area of product development, may also **raise the quality of Singapore's exports, increasing the attractiveness of Singapore's exports** to foreign trading partners. This could lead to a favourable change in taste and preferences towards Singapore's exports, **increasing the demand for exports and hence export revenue.**
- Hence, there could be an increase in Singapore's (X-M) and hence AD. Assuming spare capacity, the **increase in AD from AD_1 to AD_2** will trigger the multiplier effect, where there will be **multiplied increases** in income-induced consumption, leading to a further increase **in AD2 to AD_3**. This results in a multiplied increase in real GDP from Y_1 to Y_3.
- As both AD and AS increases in tandem, the **increase in RNY can be larger**, as seen in the increase in real GDP from Y_0 to Y_3 and at the same time, keeping our **general prices low & stable at P3** (instead of P4 when there is no expansion of LRAS). Singapore's

economic performance is boosted via higher sustained economic growth, allowing it to achieve there is **positive and stable actual growth with insignificant increase in GPL.**

Limitations

- However, the success of such supply-side policies are uncertain and there are likely long time-lags before these policies bear fruit. The boost in AS and AD would hence tend to be limited in the short run. Moreover, these measures pose a strain on the government's budget, and incur relatively high opportunity costs. The high funding required could be allocated to other sectors like healthcare, which is equally crucial given Singapore's ageing population.

Notes:

- *Alternatively, students may choose to bring in expansionary fiscal policy, diversification or trade policies e.g. signing of Free Trade Agreements (FTAs) to improve Singapore's BOT as well. These alternative policies were also accepted.*
- *To ensure sufficient rigour, AD/AS analysis and diagram(s), where appropriate, should also be employed for these alternative arguments.*

Evaluative Conclusion *(a reasoned stand plus 1 well-substantiated ATMS would suffice)*

- **[Magnitude/Situation]** While contractionary exchange rate monetary policy can address cost-push inflation stemming from the Russia-Ukraine conflict and promote price stability, it is not a good measure on its own to boost Singapore's economic performance as it will worsen its BOT and economic growth. Likewise, the long time lags for supply-side policies will mean that they have limited effectiveness in the short run.
- **[Stand]** Therefore, a combination of both contractionary exchange rate monetary policy and supply-side policies is needed to boost Singapore's economic growth. The supply-side policies will help to boost Singapore's economic growth and mitigate the fall in growth from the fall in (X-M) from an appreciation, whereas the appreciation can help to reduce GPL in the short run because of the shorter time lags.

Mark scheme

Level	Knowledge, Application/Understanding, and Analysis	Marks
L2	For a well-developed answer that has: ● **good scope** – analyses two policies, comprising demand-management and supply-side; and ● **good balance** – explains both the workings and limitations of the policies; and ● **good rigour** – uses AD/AS analysis and diagram(s) where appropriate; and ● **good application to context** – uses the case material where appropriate, to support analysis	4 – 7

	L1	For an under-developed answer that: ● lacks scope – analyses only one macroeconomic policy, or lacking either AD or AS effects, or only one macroeconomic impact on the economy (e.g. growth); and/or ● lacks balance – analyses only the workings or limitations of the policies; and/or ● lacks rigour – descriptive explanation little use of AD/AS analysis or diagram; and/or ● lacks application to context – limited use of case material to support analysis or policies chosen are not fully applied to the Singapore context	1 – 3	
	Level	**Evaluation**	**Marks**	
	E	● A well-reasoned judgement on the relative effectiveness/appropriateness of the measures Singapore can undertake to address cost-push inflation and falling (X-M) from China turning inwards in order to boost its economic performance.	1 – 3	