## Question 1: Impact of Russia-Ukraine War on Various Industries
## Suggested Answers

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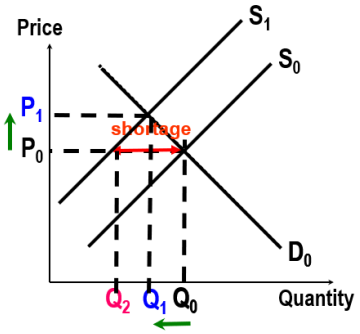
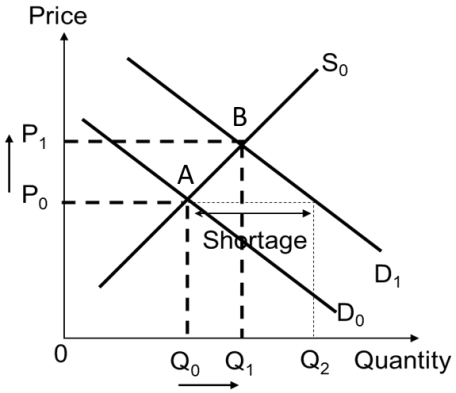
| **(a)** | | **With reference to Table 1, compare the prices of meat, cereal and dairy over the period shown.**<br><br>• The prices of meat, cereal, and dairy increase over the period of 2016 - 2022. [1]<br>• The price of cereal rises every year over the period of 2016 – 2022 while others do not. [1]<br>• The price of dairy has the largest increase, followed by the price of cereal and lastly the price of meat. [1] | **[3]** |
| **(b)** | **(i)** | **Explain one function of the price mechanism.**<br><br>• Price serves **signalling function** as consumers indicate their desire for a good or service through the price he is willing and able to pay. The higher the desirability for the product, the higher the willingness and ability to pay.<br>• This further serves as **incentive function** for producers, who will then channel resources towards producing goods and services that fetch the highest price since higher price guarantees higher profit.<br>• Lastly, price also serves **rationing function**. As resources and hence goods and services are scarce, a shortage will exert upward pressure on prices. The increase in price will eliminate consumers who unwilling and unable to pay. Hence the scarce goods and services are rationed out to the consumers who are most willing and able to pay for them.<br><br>State [1] and explain [1] any 1 of the 3 functions above. | **[2]** |
| | **(ii)** | **With reference to Extract 1, explain and comment whether demand or supply factors have a greater impact on the rising price of food.**<br><br>• To determine whether demand factors or supply factors have a greater impact on the market for food in the long run, we will consider the extent of shifts in demand and supply.<br>• **Explain change in SS of food:** From Extract 1, unplanted land in Ukraine and poor harvest worldwide due to bad weather will reduce supply of food grains and crops. Price of food grains will rise. Cost of production for food will rise. Cost of production will also rise due to increase payment and transport costs. With an increase in cost of production, supply of food will fall. | **[6]** |




- **Explain market adjustment process to derive impact on eqm P & Q when ss falls:** A decrease in supply will shift the supply curve for food leftwards from S0 to S1. At the original price, P0, this creates a shortage of Q0Q2, since quantity demanded (Q2) exceeds quantity supplied (Q0). The surplus puts an upward pressure on price, causing quantity supplied to rise and quantity demanded to fall. The adjustment process continues until the new equilibrium price and quantity is reached at P1 and Q1 respectively. Hence, the decrease in supply causes a rise in the equilibrium price from P0 to P1 and a fall in equilibrium quantity from Q0 to Q1.

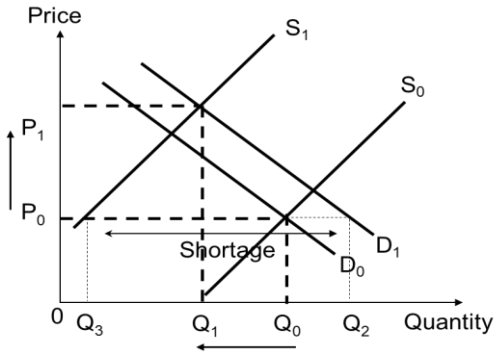
- **Explain change in DD for food:** From Extract 1, there is a "sharp rebound in post-pandemic lockdown demand". This could be due to a change in tastes and preferences of consumers as consumers could gather with friends and dine out, increasing the demand for food.




- **Explain market adjustment process to derive impact on eqm P and Q when dd rises:** An increase in demand will shift the demand curve rightwards from D0 to D1. At the original price, P0, this creates a shortage of Q0Q2, since quantity demanded (Q2) exceeds quantity supplied (Q0). The shortage puts an upward pressure on price, causing quantity demanded to fall and quantity suppled to rise. The adjustment process continues until the new equilibrium price and quantity is reached at P1 and Q1 respectively. Hence, the

increase in demand causes a rise in the equilibrium price from P0 to P1 and quantity from Q0 to Q1.

- **Make a judgement on whether demand or supply factors have a greater impact on the rising price of food:** Supply factors may have a greater impact on the rising prices of food. Both Russia and Ukraine are major producers of food "accounting for about 30 per cent of global wheat trade". In addition, poor harvests worldwide due to bad weather could decrease supply of food significantly. The increase in demand for food is probably not as significant




considering that there is a limit to how much more food each consumer can consume.

- **Explain market adjustment process to derive impact on eqm P and Q when rise in dd < fall in ss:** Market equilibrium is established where the demand and supply curves D0 and S0 intersect, resulting in equilibrium price P0 and quantity Q0. An increase in demand and decrease in supply causes the demand curve to shift from D0 to D1 and the supply curve to shift from S0 to S1 respectively. This increase in demand and decrease in supply would collectively lead to a shortage of Q3Q2 causing a definite rise in equilibrium price from P0 to P1. Since the increase in demand is less than the decrease in supply, supply will dictate the direction of quantity, leading an overall fall in equilibrium quantity from Q0 to Q1.

**Mark Scheme**

| Knowledge, Application, Understanding and Analysis | | |
|---|---|---|
| L2 | • A **clear** and coherent answer that is **relevant** to the question requirements and case study material.<br>• Answer covers sufficient **scope** with *both demand and supply factors*:<br>○ Explains how demand factor leads to increase in price.<br>○ Explain how supply factors lead to increase in price. | 3-4 |

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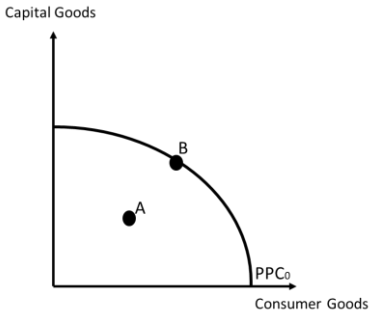
| | | | ○ Explain how an overall combination of demand and supply factors could lead to increase in price.<br>• Answer is **accurate** and has sufficient **depth**:<br>○ Detailed and accurate explanation of economic concepts.<br>○ Economic analysis is applied to the context of the case study. | |
| | | L1 | • Answer is mostly relevant to the question requirements but lacks scope (e.g. explain either the demand or supply factor only).<br>• Explanation of economic concepts may be incomplete or contain inaccuracies, with limited application to the question. | 1-2 |
| | | E1 | • One evaluative point that is well-explained with a clear, overall relevant stand in the conclusion. | 1-2 |
| **(c)** | | **Using Extract 1 and a production possibility curve diagram, explain the impact of the Ukraine war on the Ukrainian economy.**<br><br>• From Extract 1, "20 to 30 per cent of land in Ukraine producing winter grains, corn and sunflower will remain unplanted". [1]<br><br>• There is an under-utilisation of resources (land), leading to a fall in the production of goods in the economy with the productive capacity unchanged. [1]<br><br>  <br><br><br>• Point B on $PPC_0$ shifts inwards to point A as shown in the above PPC diagram. [1] | **[3]** |
| **(d)** | | **Using a relevant price elasticity concept, explain the impact of the Russia-Ukraine war on Russia's fertiliser export revenue.** | | **[4]** |

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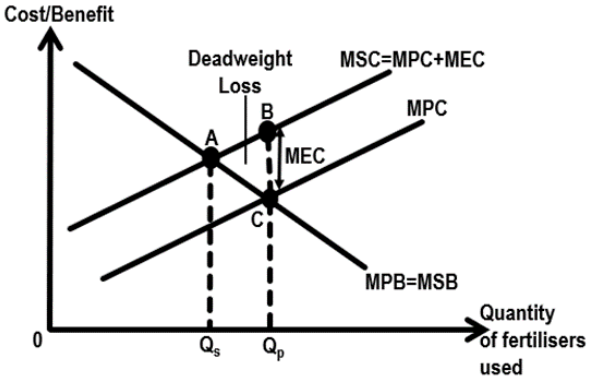
| | | • From Extract 2, "Russia's invasion of Ukraine in February, and the sanctions and trade supply disruptions that followed then pushed prices even higher". There is an increase in the price of fertilisers. [1]<br>• Since fertiliser plays a crucial role in modern farming due to its high level of necessity for ensuring robust crop yield, the demand for fertilisers is price inelastic. [1]<br>• With an increase in price, the fall in revenue due to fall in quantity will be lesser than then gain in revenue due to rise in price. [1]<br>• Overall, total export revenue will rise. [1] | |
| **(e)** | **(i)** | **With the aid of a diagram, explain the source of market failure in the fertiliser market as mentioned in Extract 3.**<br>  <br><br>• **[Divergence]** There is Marginal External Cost (MEC) from the consumption of fertilisers, either as higher medical costs from consuming water (monetise the external costs) that contains harmful algal bloom or loss of income to fishermen (identify the 3rd party) due to decrease in aquatic life. The existence of MEC creates a divergence between MPC and MSC by the amount of MEC.<br>• **[Socially optimal output]** Considering the full benefits of the healthcare screening to the society, the socially optimum output should only be Qs, where MSB = MSC.<br>• **[Market output]** However, rational decision-making by individuals, acting in pursuit of their self-interest, disregard the MEC. As such, they consume up to Qp, the point where the last unit of fertilisers consumed brings them as much benefits as it costs them to consume it, i.e. where MPB = MPC.<br>• **[Allocative inefficiency]** There is thus over-consumption of QpQs units of fertilisers in the free market.<br>• **[Deadweight loss]** The last unit consumed (Qp) adds more to society's costs than it does to society's benefits, indicating that | [4] |

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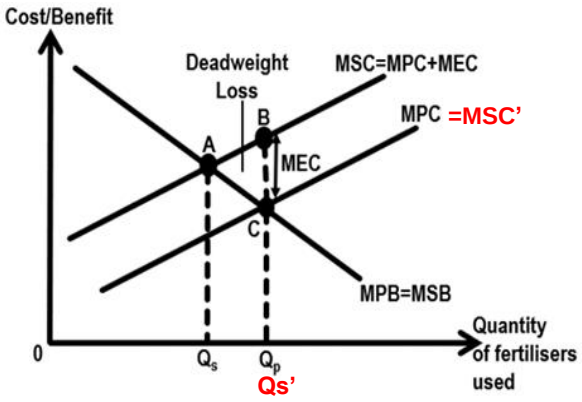
| | | society's welfare can be increased further by consuming less of the good. There is inefficient allocation of resources leading to deadweight loss to society by area ABC as shown in Figure 1.<br><br>Mark Scheme:<br>• Fully labelled diagram [1]<br>• Divergence [1]<br>• Socially and market o/p [1]<br>• Allocative inefficiency and deadweight loss [1] | |
| | **(ii)** | **Assess the various policies a government could undertake to achieve efficient allocation of resources in the fertiliser market.**<br><br>**<u>Approach</u>**<br><br>**Command word**: Assess: Workings and limitations of each policy with an overall evaluation<br>**Content**: Policies to solve negative externality from consumption: Education of Nutrient Management Techniques with limitations and one other policy with limitations.<br>**Context**: Market for fertiliser<br><br>*<u>Synopsis</u>*<br>*Students are expected to explain education of Nutrient Management Techniques and another policy, in terms of their workings and limitations, before making a well-reasoned judgment on the overall effectiveness of the policies in addressing the market failure.*<br><br>**Policy 1: Explain how education of Nutrient Management Techniques can achieve efficient allocation of resources, alongside its limitations**<br><br>• **<u>Explain what is Nutrient Management Techniques:</u>** In Extract 3, "Farmers can adopt the Nutrient Management Techniques and improve nutrient management practices by applying chemical fertilisers in the right amount, at the right time of year, with the right method and with the right placement. This would reduce the negative impacts on others."<br><br>**<u>Explain how it works in resolving market failure:</u>** The government could educate farmers on the Nutrient Management Techniques. If famers adopt the techniques, there will be lesser fertilisers loss from farm fields and will lower MEC to the third party. In an ideal case, MEC will be eliminated, MSC could fall to MSC' and coincide with MPC. If MSC' = MPC, the new socially optimal consumption level will be at Qs' where MSB = MSC' which coincides with Qp. Since Qs' | **[8]** |

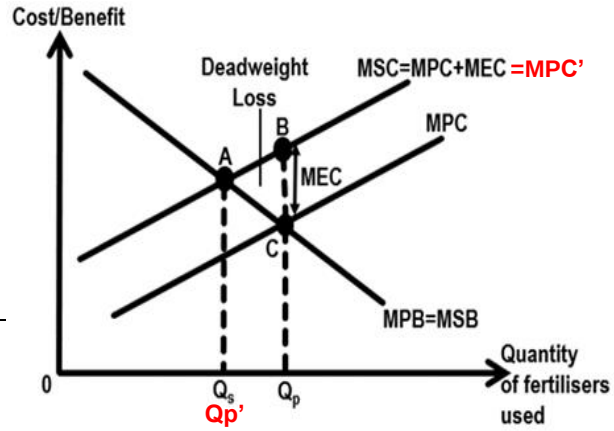
= Qp, consumption is now at the new socially optimal level. The problem of over-consumption is solved, and deadweight loss of ABC is eliminated.




- **Limitations:** However, effectiveness of education depends on how farmers respond to the information given. If farmers are not receptive to the Nutrient Management Techniques, they will continue with their current practices and MSC will still be the same even after education. There will still be allocative inefficiency in the market for fertilisers. In addition, effect from education takes time as it involves changing mindsets and long-standing practices.

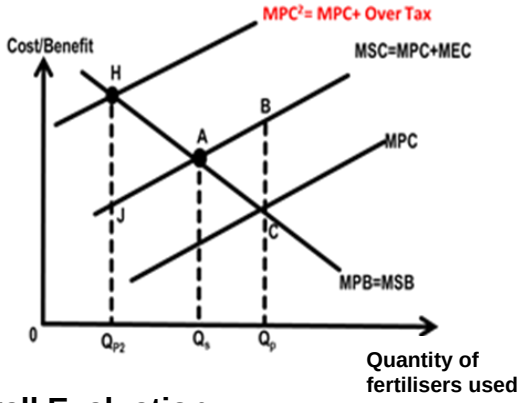
**Policy 2: Explain how an indirect tax can achieve efficient allocation of resources, alongside its limitations**

- **Explain what is indirect tax:** The government may impose an indirect tax that is equal to MEC on fertilisers to disincentivise farmers from consuming fertilisers. With an indirect tax, cost of production for fertilisers will rise and supply will fall. Price of fertilisers will rise.
- **Explain how it works in resolving market failure:** If price of fertilisers increases by the amount of MEC, farmers will internalise the negative externality. The MPC of farmers will rise by the amount equal to MEC and coincide with MSC.



If MPC'= MSC, farmers would consume at Qp' where MPC'=MPB which coincides with Qs. Since Qp' = Qs, consumption is now at the socially optimal level. The problem of over-consumption is solved and deadweight loss of ABC is eliminated.

- **Limitations:** However, it is difficult to quantify MEC and the government may tax more than the MEC. If the government over-tax, MPC will rise to $MPC^2$ and farmers would consume at $Qp_2$ instead. Since $Qp_2$ < Qs, fertilisers are under-consumed. The new deadweight loss created, HAJ could be greater than the original deadweight loss of ABC. Social welfare is worsened.




**Conclusion - Overall Evaluation**

**[E/Criterion: Time period]**

- Imposing an indirect tax on fertilisers could be a better policy than education in the short run since it requires time for education to work. An indirect tax can be imposed and enforced easily within a short period of time. In addition, a tax could generate tax revenue to the government to fund the education of Nutrient Management Techniques.
- Education is a better policy in the long run. Once mindsets are changed, the impacts will be lasting and the MEC could be eliminated. Thus, both policies could be needed.

**Mark Scheme**

| Knowledge, Understanding, Application and Analysis | | |
|---|---|---|
| L2 | • A **clear** and coherent answer that is **relevant** to the question requirements and case study material.<br>• Answer covers sufficient **scope** with *at least two* distinct points of analysis: | 4–6 |

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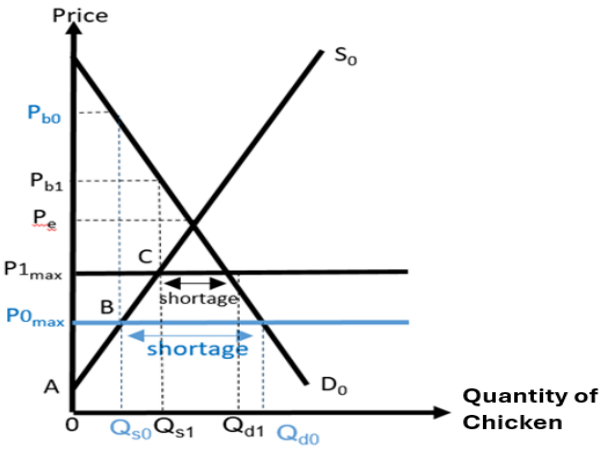
| | | | ○ Explains how education of Nutrient Management Techniques could reduce MSC to achieve allocative efficiency.<br>○ Explains how an alternative policy could achieve allocative efficiency.<br>• Answer is **accurate** and has sufficient **depth**:<br>○ Detailed and accurate explanation of economic concepts.<br>○ Economic analysis is applied to the context of the case study and supported by accurately labelled and explained diagrams (i.e. cost/benefit analysis) and contextual evidence. | | |
| | | L1 | • Answer is mostly **relevant** to the question requirements but **lacks scope** (e.g. consider either education or an alternative policy).<br>• Explanation of economic concepts may be incomplete or **inaccurate**, with limited application to the question.<br>• Lack of diagrams or diagrams are **not accurately** explained or applied to support analysis. Limited use of contextual evidence. | 1–3 | |
| | | **Evaluation** | | | |
| | | E | One evaluative point that is well-explained with a clear, overall relevant stand in the conclusion.<br>One evaluative point that is explained. | 2<br>1 | |
| **(f)** | | **Discuss whether increasing the price ceiling of chicken together with cash assistance to low- and middle-income households is the best way "to ensure the Malaysian family isn't burdened by the challenges of the cost of living."**<br><br>**<u>Approach</u>**<br><br>**Command word**: Discuss: Two-sided with evaluation<br>**Content**: Policies to reduce challenges of cost of living: Increasing price ceiling and cash assistance with limitations and one alternative policy with limitations<br>**Context**: Malaysia<br><br>*<u>Synopsis</u>*<br>*Students are expected to explain increasing price ceiling with cash assistance and another policy, in terms of their workings and limitations before making a well-reasoned judgment on the overall effectiveness of the policies in addressing the challenges of the cost of living.* | | **[10]** |

**Introduction**

- Cost of living measures the level of expenses required to sustain a certain level of living.
- From Extract 4, the rising cost of living in Malaysia is due to the heavily weakened ringgit that cause prices of imports to rise drastically. The rising import cost has caused prices of goods and services that require imported factors of production, such as chicken for its imported livestock feed, to increase. A higher level of expenses and thus, income are required to sustain a certain level of living.
- To overcome the challenges, the Malaysian government should aim to either lower prices or increase the income of consumers, or both.

**Policy 1: Explain how increasing price ceiling with cash assistance can address the challenges of the cost of living, alongside its limitations.**

***Increasing the price ceiling of chicken***




- Assuming the Malaysian government sets a new effective price ceiling, the price ceiling increases from P0max to P1max which is still below the free-market equilibrium price of Pe. This makes chicken affordable compared to if there was no price ceiling. This helps to overcome the challenges of the rising cost of living.
- The shortage of chicken is reduced from QdoQs0 to Qd1Qs1 as quantity of chicken produced increases from Qs0 to Qs1. With a smaller shortage, lesser consumers will turn to the black market which charges a much higher price of Pbo that is higher than P1max. In addition, for consumers who are turning to the black

market, the new black market price Pb1 is lower than the original price of Pb0. These help to overcome the challenges of the rising cost of living.

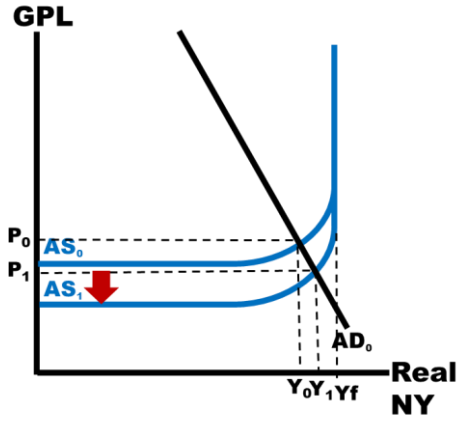
- However, a rise in price ceiling for chicken from P0max to P1max would mean that consumers are paying a higher price than before the rise. Expenditure on chicken rises and this leads to rising cost of living.

***Cash Assistance***

- From Extract 4, "cash aid of RM500 will be given to eligible low- and middle-income households. Some 8.6 million households are slated to receive up to RM2,600 in aid this year."
- Cash assistance increases disposable income and purchasing power. Households could afford to consume more goods and services such as chicken. This helps to overcome the challenges of the rising cost of living.
- However, there is no information on the inflation rate. If the inflation rate is high, households real purchasing power may fall even with the cash assistance. Thus, the cash assistance is insufficient to overcome the challenges of the rising cost of living.

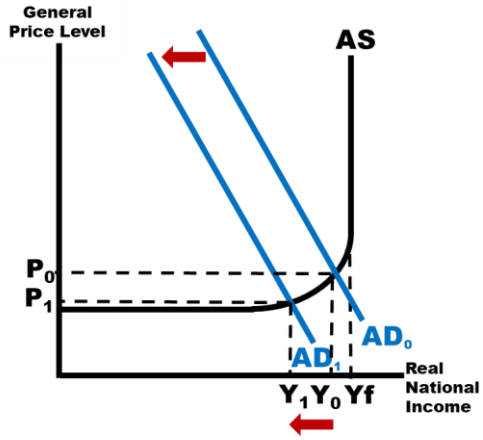
**Policy 2: Explain how appreciation can address the challenges of the cost of living, alongside its limitations.**

- From Extract 4, rising cost of living is due to the heavily weakened ringgit. The central bank of Malaysia could appreciate the Malaysian ringgit by buying ringgit to address the challenges of the cost of living.
- With a stronger currency, price of imports in ringgit fall. Imported factors of production are cheaper, lowering cost of production and increasing SRAS.



- SRAS rises from ASo to AS1. GPL falls from Po to P1 and RNY rises from Yo to Y1. With a lower GPL and a higher RNY, households real purchasing power rises, and this helps to solve the rising cost of living.

- However, an appreciation of RM will lead to a rise in price of exports in terms of foreign currency. Assuming the Law of Demand holds i.e., PEDx > 0, the rise in price of exports will cause foreigners to decrease their demand for Malaysian exports leading to a decrease in export revenue (X) measured in RM. At the same time, since




imported goods are relatively cheaper in RM, Malaysians 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. If PEDm>1, a fall in the price of imports brings about a more than proportionate rise in quantity demanded and leads to a rise in import expenditure (M). With a decrease in C and (X-M), 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 build-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. The overall fall in AD has resulted in multiple falls in real national income from Y0 to Y1. GPL falls from Po to P1. A fall in real national income means that income and real purchasing power of consumers fall. This does not help to overcome the challenges of the rising cost of living.

**Conclusion - Overall Evaluation**

**[E/Criterion: Government Constraints & Nature of the economy]**

- Increasing the price ceiling of chicken together with cash assistance to low- and middle-income households may not be the best way "to ensure the Malaysian family isn't burdened by the challenges of the cost of living".
- Chicken is just one of the many goods and services that a typical household would consume and there are many other goods and services that may not have price ceiling implemented. Cash assistance of RM500 may also not be sufficient since prices of imports have risen drastically (Extract 4). This suggest that prices of goods and services, especially those that require imported factors of production may have increased drastically too.
- Appreciation could be a better policy since it deals with the root cause of "heavily weakened ringgit". In addition, as Malaysia is an open economy that relies on imported factors of production, the supply effect from appreciation could be greater than the demand effect. Thus, appreciation could be a better policy.

**Mark Scheme**

| **Knowledge, Application, Understanding and Analysis** | | |
|---|---|---|
| L2 | • A **clear** and coherent answer that is **relevant** to the question requirements and case study material.<br>• Answer covers sufficient **scope** with ***at least two*** distinct requirements (i.e. areas of analysis):<br>○ Explain how raising price ceiling with cash assistance can address the challenges of the cost of living.<br>○ Explain how appreciation can address the challenges of the cost of living.<br>• Answer is **accurate** and has sufficient **depth**:<br>○ Detailed and accurate explanation of economic concepts.<br>○ Economic analysis is applied to the context of the case study and supported by accurately labelled and explained diagrams and contextual evidence. | 4-7 |
| L1 | • Answer is mostly relevant to the question requirements but lacks scope (e.g. explain how either raising price ceiling with cash assistance or appreciation works to address the challenges of the cost of living).<br>• Explanation of economic concepts may be incomplete or contain inaccuracies, with limited application to the question.<br>• Lack of diagrams or diagrams are not accurately explained or applied to support analysis. Limited use of contextual evidence. | 1-3 |

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| | | | E | One evaluative point that is well-explained with a clear, overall relevant stand in the conclusion.<br>One evaluative point that is explained | 2-3<br><br>1 | |
| | | | | | | **[Total: 40]** |

**Question 2: Unemployment and Growth**
**Suggested Answers:**

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| **(a)** | **With reference to Extract 5** | | |
| | **(i)** | **Explain the main type of unemployment faced by South Africa.** | **[2]** |
| | | • South Africa mainly faces <u>structural unemployment</u>. **[1]**<br>• Evidence: As mentioned in extract 1 "many poorly educated workers have entered the labour force, leading to skills mismatches" and their "economy is shifting towards more skill-intensive sectors like retail, financial services and telecommunications while agriculture and mining, which had historically offered opportunities for unskilled labourers, are now in decline ".<br>This suggests a change in structure of the economy resulting in the low-skilled workers being unemployed as they do not have the necessary skills to seek employment in the skill-intensive sectors. This thus leads to structural unemployment being the main type of unemployment faced by South Africa. **[1]** | |
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| | **(ii)** | **Explain why high youth unemployment rates can be detrimental to an economy.** | **[4]** |
| | As mentioned in Extract 5, 'When a larger portion of the youth population is unable to find employment, it can lead to increased poverty, social unrest, and a loss of productivity and potential'.<br><br>When youth unemployment rate is high,<br>**SR impact [Any of the following] [2]:**<br>**Negative impact on standard of living:**<br>• Most of the unemployed will experience a fall in income. The amount they receive from unemployment benefits is likely to be lower than the amount they were earning when in work. This fall in income will lower their purchasing power and hence ability to purchase goods and services. This results in a fall in material living standards. | | |

| | | |
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| | • With high youth unemployment rate, the youths may not have an income after they graduate. This may result in them going on strikes resulting in social unrest or turn to crime. This would adversely affect the quality of life for everyone else and thus worsen their non-material standard of living.<br>• The physical health of a person can be significantly impacted by unemployment. Due to the high level of stress that comes with being unemployed, the unemployed may develop stress-related health conditions like high blood pressure, diabetes, heart disease, which can worsen their non-material SOL as well.<br>• **LR impact [Any of the following] [2]:** With high youth unemployment rate, this would mean that resources (labour) are not fully utilised and thus the economy is not operating at its maximum capacity. Over time, the youth *may leave the country and/or lose their skills* resulting in a fall in quantity and/or quality of labour. This will cause a fall in LRAS resulting in productive capacity to fall and reduce potential growth.<br>**[Max 2 marks for answers focusing only on SOL.]** | |
| | | |
| **(b)** | **With reference to Extract 5 and using an aggregate demand and aggregate supply diagram, explain the impact of a 'proposed minimum wage' on South Africa's economy.** | **[4]** |
| | • As stated in Extract 1, 'Some economists argue that the proposed minimum wage risks adding to the hiring costs faced by businesses'.<br>• Therefore, when a minimum wage is introduced or increased, it generally leads to higher costs of production for businesses. The higher production costs will cause the short-run aggregate supply (SRAS) curve to shift upward. **[1]**<br>• Firms facing a rise in costs, would respond by cutting back on production. Thus, an increase in the cost of production causes the aggregate supply curve to shift upwards from $AS_0$ to $AS_2$. At the current price $P_0$, there is a shortage of goods and services. Shortages drives up prices from $P_0$ to $P_2$. Thus, cost-push inflation occurs as GPL starts to rise from $P_0$ to $P_2$. **[1]**<br>• Real national income falls from $Y_0$ to $Y_2$ as firms cut back on their production. Additionally, the reduction in output may lead to increased unemployment especially for low-skilled workers. This will be more detrimental for South Africa as they are already facing extremely high rate of unemployment. **[1]** | |

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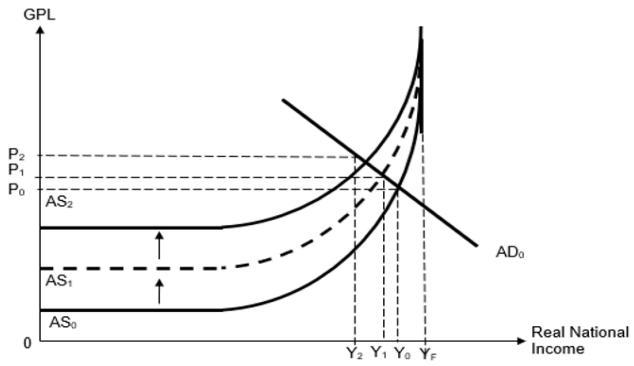
| |  <br>**Figure 1**<br>Full Labelled Diagram **[1]** | |
| | | |
| **(c)** | **With reference to Table 2, explain the change in living standards in South Africa over the period 2015 to 2023.** | **[4]** |
| | • Living standards comprise of material and non-material standard of living. Material SOL measures the quantity and quality of goods and services accruing to each person in the country. Non-material SOL measures the intangibles and focuses on the quality of life. **[1]**<br>• Real GDP growth rate has been positive except for year 2020. However, as the population growth rate has been positive and higher than the real GDP growth rate for some of the years (2015, 2016, 2019, 2020 & 2023), real GDP per capita may not have risen. (E.g. year 2023 real GDP per capita growth rate: 0.6% - 0.87% = - 0.27%). **[1]** Therefore, each consumer may be facing lower income leading to falling purchasing power. They will thus be unable to consume as many goods and services as before, **worsening their material standard of living. [1]**<br>• With falling income and purchasing power, consumers will also be unable to spend on healthcare and/or leisure activities that seek to improve their quality of life. This will thus lead to **worsening of their non-material standard of living. [1]**<br>• Overall, the living standards have worsened. | |
| | | |
| **(d)** | **Using aggregate demand and aggregate supply analysis, explain the relationship you would expect between unemployment rate and inflation rate and comment on the extent to which Table 2 supports the expected relationship.** | **[6]** |
| | • **Expected Relationship:** Inverse relationship **[1]**<br><br>• **Reason:** | |

| | | |
|---|---|---|
| | - When there is economic growth in the country caused by rising AD, it will lead to a multiplied increase in real national income via the multiplier effect.**[1]**<br>- An increase in real national income will lead to falling unemployment rate as labour is in derived demand. **[1]**<br>- And as AD rises (assuming economy is operating in the intermediate range of AS), GPL rises and result in rising inflation rate. **[1]**<br><br>• **Comment:** Table 2 largely **does not support** the expected relationship **[1]** as only years 2016-17, 2019-20 and 2021-22 exhibited an inverse relationship between unemployment and inflation rate. **[1]** | |
| | | |
| **(e)** | **With reference to Extract 6, explain how Rwanda's strong economic growth can enable the government to improve the non-material living standards.** | **[2]** |
| | • Rwanda's strong economic growth leads to higher national income and subsequently boosts government revenues through increased tax revenues and other public income sources. **[1]**<br>• With higher revenue, the government is better positioned to allocate funds towards improving the quality and accessibility of non-material living standards by increasing investments in areas such as nutrition, health care, and education, thereby enhancing the overall non-material standard of living (quality of life) for the people of Rwanda. **[1]** | |
| | | |
| **(f)** | **With reference to Extract 7, discuss whether technology might be expected to result in "weak and uneven income growth, high inequality, and weak social mobility".** | **[8]** |
| | **Introduction:**<br>In Extract 7, technology has contributed to the shrinking of middle-class jobs in some industries. With technology, more businesses can replace jobs with the use of AI and adaptive robots to improve efficiency.<br><br>**Thesis: Technology will result in "weak and uneven income growth, high inequality, and weak social mobility'.**<br>• Due to advancement of technology, it has sought to replace low-skilled workers in some industries→ Demand for them will fall from D0 to D1 as shown in figure 2 → surplus of Q0Q2 will exist at the original wage rate W0, which will create a downward pressure on wages → Wages eventually fall from W0 to Wlow<br>• On the other hand, demand for high-skilled workers such as digital engineers will increase due to the need for these to innovate and | |

make use of technology to increase productivity → Demand for these high-skilled labour rises from D0 to D1 as shown in figure 3→ shortage of Q0Q2 will exist at the original wage rate W0, which will create an upward pressure on wages → Wages eventually rise from W0 to Whigh

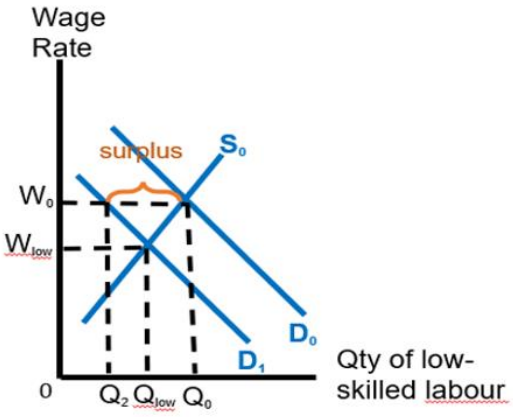



Figure 2

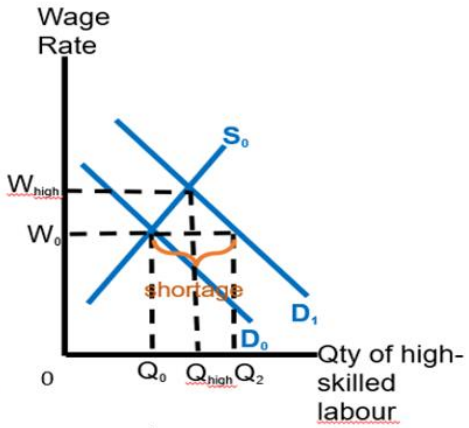



Figure 3

- Therefore, as the income for low-skilled workers gets depressed while income for high-skilled workers increases → result in weak and uneven income growth, high income inequality and weak social mobility

**Body 2: Technology may not result in "weak and uneven income growth, high inequality, and weak social mobility'**

- Technology can help firms improve efficiency and enjoy cost savings which can be used by them to expand their businesses. This may encourage them to employ more workers creating more employment opportunities and reducing uneven income growth and inequality.
- Also, if workers seek to upgrade their skills level by going for training or government provide subsidies and training programmes for these low-skilled workers to upgrade their skills → Increase their capability and ability to seek new employment opportunities in new industries. As stated in extract 7 "It's about the state playing a more active and purposeful role to achieve important longer-term goals - to raise productivity". For example, in Singapore the Govt has implemented the Skills Future initiative that aims to promote lifelong learning and skills development. The CET initiative also provides industry relevant training for working adults.
- In this way, they will be able to seek employment and with upgraded skills, they will be able to command higher wages → reduce uneven income growth, inequality and improving social mobility.

**Conclusion:**

**Stand:** Whether technology may result in "weak and uneven income growth, high inequality, and weak social mobility' depends on the time

period and extent of government intervention *(students only need to choose one to explain).*

**[Time Period]**

- **SR →** There are more uncertainties in the short term as time is needed for workers to learn new skills. Therefore, many of them may still be structurally unemployed and have no/low income.
- **LR →** However, in the long run when training is provided for the low-skilled workers, it allows them to find new employment opportunities → earn income → reduce income gap and improves inequality and social mobility.

**[Extent of Government intervention]**

Technological advancement can potentially exacerbate income inequality and hinder social mobility without government intervention. However, the extent of government intervention significantly influences the mitigation of technology's potential negative effects: with appropriate policies in education, labour markets, taxation, and social welfare, governments can mitigate these negative effects.

**Mark Scheme**

| **Knowledge, Application, Understanding and Analysis** | | |
|---|---|---|
| L2 | • A **clear** and coherent answer that is **relevant** to the question requirements and case study material.<br>• Answer covers sufficient **scope:**<br>○ Explain how technology **will result** in "weak and uneven income growth, high inequality, and weak social mobility'<br>○ Explain how technology **will not result** in "weak and uneven income growth, high inequality, and weak social mobility'Answer is **accurate** and has sufficient **depth**:<br>○ Detailed and accurate explanation of economic concepts.<br>○ Economic analysis is applied to the context of the case study. | 4-6 |
| L1 | • Answer is mostly relevant to the question requirements but lacks scope (e.g. covers only how technology will or will not result in "weak and uneven income growth, high inequality, and weak social mobility'). | 1-3 |

| | | | |
|---|---|---|---|
| | • Explanation of economic concepts may be incomplete or contain inaccuracies, with limited application to the question. | | |
| E | One evaluative point that is well-explained with a clear, overall relevant stand in the conclusion. | 1-2 | |

| | | |
|---|---|---|
| **(g)** | **According to Extract 7, governments need to "repurpose fiscal policy and the role of the state" to drive inclusive growth.**<br><br>**Discuss whether a government should concentrate on supply-side measures to achieve inclusive growth.** | **[10]** |
| | **<u>Introduction</u>**<br>Define inclusive economic growth.<br>• Inclusive growth indicates a rate of growth that is sustained over a period, is broad-based across economic sectors, and creates productive employment opportunities for the majority of the country's population. It is economic growth with benefits incurred by every section of society.<br>• Supply side policies can be a measure to address inclusive growth to ensure that whilst trying to grow the economy, the lower income group also benefits from the growth in an equitable way.<br><br>**<u>Body 1: A govt should concentrate on supply-side policies to achieve inclusive economic growth</u>**<br>Supply-side policies involve active government intervention to increase the quantity and quality of the factors of production (land, labour, capital, entrepreneurship). As mentioned in Extract 6, Rwandan government planned to provide equitable opportunities for poor and vulnerable households by investing in their nutrition, health care, and education. Also mentioned in Extract 5, the South African Govt has set up number of initiatives with the NYDA in assisting young people to start their own business. These supply-side measures facilitate to boost human capital and will lead to an increase in productivity of labour. The productivity of workers would also increase as they learn new skills and could produce more goods and services in the same amount of time. Thus, the productive capacity of the economy would increase, and the cost of production would fall. AS would increase from $AS_1$ to $AS_2$, leading to increase in full employment level from $Y_{f1}$ to $Y_{f2}$, achieving potential growth.<br><br>Additionally, supply side policies like increasing government expenditure on infrastructure (Extract 7) like communications and road networks will make production more efficient, encouraging investment expenditure, leading to an increase in AD from $AD_1$ to $AD_2$. This rise in AD causes an unplanned fall in the firm's inventory. To maintain their inventory, firms | |

will employ more resources such as labour. As more labour are hired, they receive more in wages. The purchasing power of the labour force rises. This leads to a multiple rise in induced consumption. Each subsequent rise in induced consumption will be increasingly smaller. This results in a multiple rightward shift in the AD curve, where AD is rising at a decreasing rate, to $AD_2$ eventually.

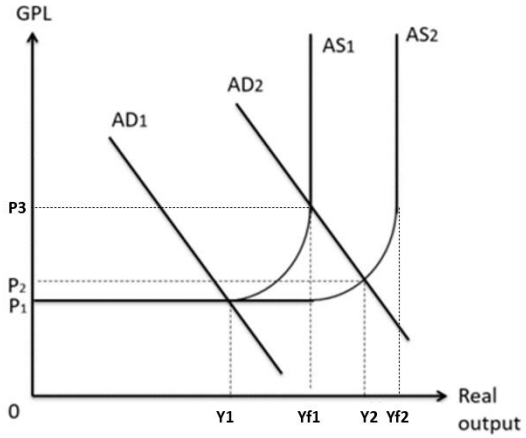



**Figure 4: Sustained Growth**

The overall rise is AD results in a multiple rise in real national income from $Y_1$ to $Y_{f1}$ and the GPL to increase from $P_1$ to $P_3$. LRAS also increases from $AS_1$ to $AS_2$, thus productive capacity rises from $Y_{f1}$ to $Y_{f2}$. Real national income increases from $Y_{f1}$ to $Y_2$ and GPL falls from $P_3$ to $P_2$. Since the real national income and productive capacity have increased, and the general price level has fallen, there is sustained growth without inflationary pressure.

In addition, this may also lead to a fall in income inequality as policies to boost productivity will lead to increase in their incomes. As shown in figure 5, rising productivity leads to rising demand for labour from $D_0$ to $D_1$. Higher demand will lead to a shortage of $Q_0Q_2$ at the original wage rate $W_0$ and this shortage will exert an upward pressure on wages leading to a higher wage from $W_0$ to $W_1$. With more low-skilled workers being employed and earning a higher income, the income inequality could reduce. Thus, these will lead to inclusive growth.

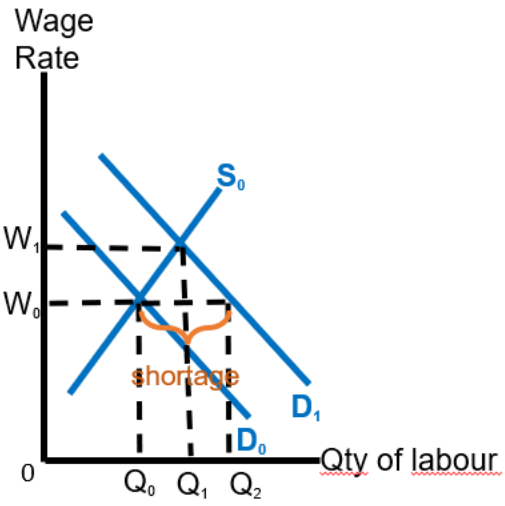



**Figure 5**

**Limitations of supply side policies:**
However, supply-side policies require large amounts of government spending. For example, as mentioned in Extract 6 Rwanda needed support from the World Bank to carry out their supply side policies. If countries have a budget deficit, the government may need to borrow to finance these spending. With borrowing, the government will be competing with the private sector for loans. This drives up interest rates in the financial market. In addition, the rise in government expenditure on goods and services will mean that the government is competing with the private sector for resources such as land and labour. The higher demand for resources would lead to higher factor prices in the factor market. Higher interest rates and higher factor prices results in lower profits for firms. With decrease profits, firms may be less willing and able to invest. This leads to a fall in investment expenditure (I). With higher interest rates, cost of borrowing increases and rate of returns on savings increases. Thus, consumers would rather save than to spend and this will lead to a fall in consumption expenditure (C). If the fall in C and I outweigh the rise in government expenditure, it may lead to an overall fall in AD causing real national income to fall and demand-deficient unemployment to rise as labour is a derived demand. Thus, inclusive growth will not be able to be achieved.

**Body 2: A govt should also concentrate on other policy to achieve inclusive economic growth**

Fiscal policy as a demand-side policy can also help address inclusive growth. Implementing targeted policies to achieve economic growth and focusing on redistributing income from the rich to the poor could yield a faster result to achieve inclusive growth.

To reduce income inequality, the government could increase expenditure on final goods and services (G) or provide transfer payments in the form of welfare payment and subsidies on various groups who are left behind to achieve inclusive growth. This include those who do not hold jobs such as retirees, the sick and disabled, students, and those who are unskilled. For example, Singapore government provides transfer payments to households such as cash enhancement payouts, GST Voucher, U-Save payouts. This will increase the disposable income of households, increasing their purchasing power and consumption expenditure (C).
Increase in Govt Expenditure (G) and consumption expenditure (C) will lead to increase in AD from $AD_0$ to $AD_2$. Due to the multiplier effect, RNY will increase from $Y_0$ to $Y_2$ achieving actual growth.

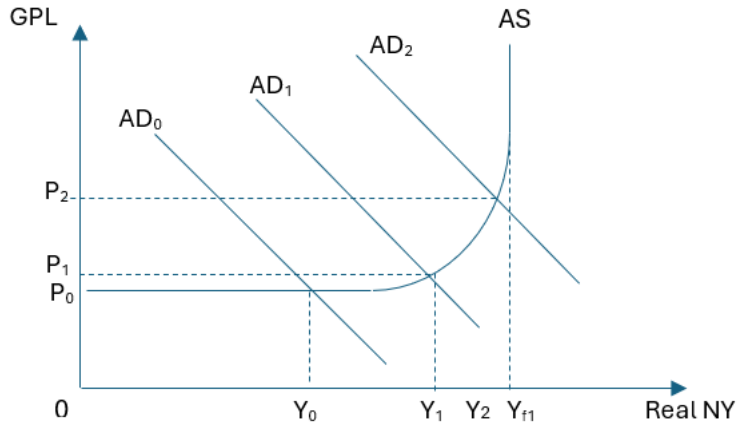



**Figure 6: Expansionary FP**

At the same time transfer payments are often structured in a tiered system based on household income levels. Thus, this targeted approach directs more financial support to lower-income families, effectively increasing their disposable income and narrowing the income gap and helps to achieve inclusive growth.

**Limitations of expansionary FP**

Expansionary demand side policies such as fiscal policy aimed to promote inclusive growth may have unintended consequences. The transfer payments and increased government expenditure may fuel inflation (GPL increase from $P_0$ to $P_2$ in figure 6 via increased C & G and rise in AD) diminishing the intended benefits of the monetary transfers. Inflation is particularly detrimental to lower-income workers, whose wages often lag productivity growth and fail to keep pace with rising prices. This erodes purchasing power of households and may be counter-productive to achieving inclusive growth.

**Conclusion – Overall EV**

**Take a Stand:** Overall, the governments should concentrate on supply-side measures to achieve inclusive economic growth.

**[Root cause]** The choice of policy tool depends on the root cause of inequality. For example, as seen in extract 5 the high unemployment in South Africa is driven by skills mismatch and hence supply-side measures that target skills upgrading programs and improved skills and job matching initiatives would be the most appropriate policy to achieve inclusive growth. In contrast, Singapore faces challenges from global economic decoupling and disruptions. Given its stronger fiscal position, Singapore can more readily implement demand-side policies, such as transfer payments. These measures are better suited to Singapore's situation in pursuing inclusive growth while navigating global economic shifts.

**[Time period]** In the short run in most countries, governments would rather increase more components of the AD as much as possible, hence a more effective and appropriate approach will be to combine both transfer payments and the other expansionary policy tools like interest-based monetary policy or exchange rate policy to ensure that the national output can be increased faster. In the long term, however, as AD begins to rise, governments need to complement with LR supply-side policies to attain sustained growth.

**Mark Scheme**

| Knowledge, Understanding, Application and Analysis | | |
|---|---|---|
| L2 | • A **clear** and coherent answer that is **relevant** to the question requirements and case study material.<br>• Answer covers sufficient **scope** with *at least two* distinct requirements (i.e. areas of analysis):<br>○ Explains how a govt should concentrate on supply-side policies to achieve inclusive economic growth with limitations<br>○ Explain how a govt should also concentrate on other policy to achieve inclusive economic growth with limitations<br>○ Analysis of both policies without limitations – max 4m<br>• Answer is **accurate** and has sufficient **depth**:<br>○ Detailed and accurate explanation of economic concepts.<br>○ Economic analysis is applied to the context of the case study and supported by accurately labelled and explained diagrams (i.e. AD-AS framework) and contextual evidence. | 4 - 7 |

| | | | | |
|---|---|---|---|---|
| | L1 | • Answer is mostly relevant to the question requirements but lacks scope (e.g. only explain how inclusive economic growth is achieved through supply-side policy with no alternative policy explained).<br>• Explanation of economic concepts may be incomplete or contain inaccuracies, with limited application to the question.<br>• Lack of diagrams or diagrams are not accurately explained or applied to support analysis. Limited use of contextual evidence. | 1 - 3 | |
| | **Evaluation** | | | |
| | E2 | One evaluative point that is well-explained with a clear, overall relevant stand in the conclusion. | 2-3 | |
| | E1 | One evaluative point that is explained | 1 | |