2022 A Level H1 CSQ Q2 Suggested Answers

(a)	**With reference to Table 2, what can be concluded about projected government spending relative to government revenue in Botswana and Zimbabwe?**	**[2]**

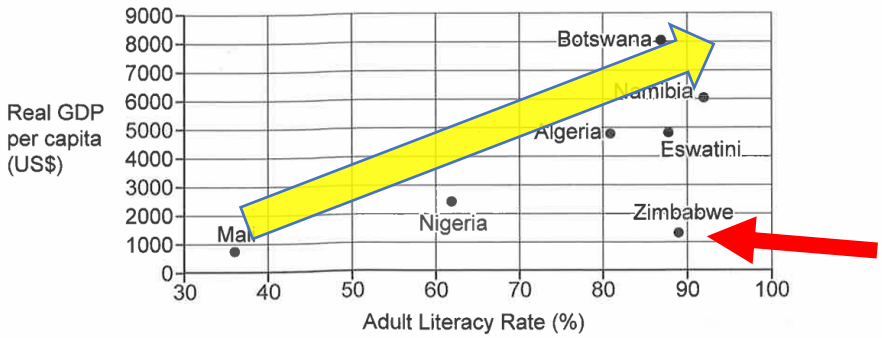
Table 2: Macroeconomic data for selected sub-Saharan African nations projected 2020

	Botswana	Namibia	Zimbabwe
Real GDP growth %	5.1	2.4	5.6
Real GDP per capita growth %	3.0	0.6	4.1
Inflation rate %	3.8	5.4	9.4
Budget balance as a % of GDP	–1.4	–5.0	–6.9

Table 2 shows that both **Botswana's and Zimbabwe's balance budget as a percentage of GDP are negative, reflecting budget deficit** in both countries. [1]
Hence both countries' **projected government spending is larger than government (tax) revenue**. [1]

(b)	**Explain the relationship you would expect between the adult literacy rate and real GDP per capita <u>and</u> comment on the extent to which Figure 3 supports the expected relationship.** 4m - Explain 2m – Comment	**[6]**

Figure 3: The relationship between the adult literacy rate and real GDP per capita (estimated) in selected sub-Saharan African nations (2019)



the adult literacy rate ➔🡐 real GDP per capita

Adult literacy rate and real GDP per capita are expected to have a **positive** relationship. [1]

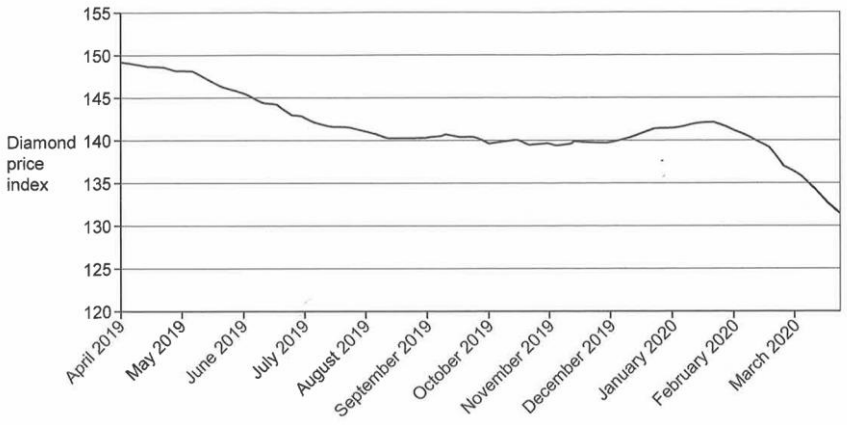
Higher adult literacy rate suggests a higher level of education implying highly trained and skilled labour force in the economy. [1] Workers with high education level are more opened to technological changes and easier to be trained. This increases labour productivity and hence increases the economy's productive capacity [1]. This increases the economy's LRAS and hence increases the country's real national output. The higher real GDP contributes to a higher real GDP per capita, assuming population remain largely unchanged. [1]

Figure 3 supports the expected positive relationship between the adult literacy rate and real GDP per capita to **a large extent**. Botswana and Namibia with higher literacy rates and higher real GDP per capita whereas Mali's low adult literacy rate reflects its low real GDP per capita. [1]

Zimbabwe, however, does not appear to support this relationship, as its real GDP per capita is low despite its high literacy rate compared to other countries in the figure. [1]
There could be other factors contributing to the low GDP per capita for Zimbabwe.

(c)	**The global price of diamonds changed significantly between December 2019 and March 2020.** **Using an aggregate demand and aggregate supply diagram, explain the impact this change might be expected to have on real GDP in Botswana.**	**[6]**

Figure 2: Global diamond price index (December 2007 = 100)



Extract 5:

price elasticity of demand for diamonds in global markets lies somewhere between 0 and 1, and the price of diamonds is falling as shown in Figure 2.

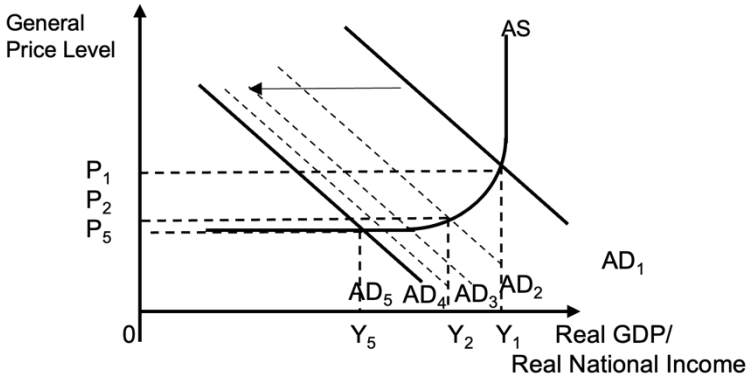
It is stated in extract 5 that diamonds have a PED value of between 0 to 1 - which means that demand for diamonds is considered to be price inelastic.

The global price for diamonds generally decreased between Dec 2019 and Mar 2020. [1]

Given that demand for diamonds is price inelastic - a decrease in price will result in a less than proportionate increase in quantity demanded → total revenue (P x Q) from sale of diamonds will thus decrease. [1]
Given that diamonds contribute 80% to export earnings, (X-M) will decrease [1] →

AD will decrease →
A fall in AD will result in a fall in Real National Income from Y1 to Y2.
This will then lead to a fall in income induced consumption and thereafter, a further fall in AD. This triggers many successive rounds of decrease in national income and income induced consumption. At each round, the decrease in both gets smaller. The multiplier process will end when the decrease in national income is too small to generate further decreases in induced consumption. The autonomous fall in AD from AD1 to AD2 results in a multiplied **decrease in real GDP** from Y1 to Y5 in Botswana for this period.

Diagram [1]


General
Price Level
AS
P1
P2
P5
AD1
AD5
AD4
AD3
AD2
0
Y5
Y2
Y1
Real GDP/
Real National Income

(d)	**With reference to the extracts, explain which information would be most useful when considering the standard of living of Botswana and comment on the reliability of this information.** Note: This question will be 6m in the new syllabus, 4m - Explain 2m – Comment	**[7]**

Standard of Living (SOL) reflects the well-being of an average person in a country. It includes material and non-material well-being. Material well-being refers to the quantity of goods and services available to the average person in a country. Non-material well-being examines the quality of life of an average person in a country. [1]

Explain at least 2 indicators and how they are useful [3]

1. **GDP growth [Extract 5- Botswana had enjoyed strong stable growth till 2019]:** Implies that growth rates and therefore average income levels are increasing at a slower rate resulting in a slower growth in material SOL. **OR**
2. **Gini Coefficient [Extract 5 – Inequality measured by Gini coefficient] :** Provides an understanding on levels of income inequality in the country → Extract 4 mentions that the Gini coefficient has been falling which reflects that income is therefore more equally distributed, affecting that majority of the people are enjoying higher purchasing power and therefore material SOL **OR**
3. **Upper-Middle Income Country [Extract 5] -** Indicates that average incomes are above the world average and as such an average person in the country enjoy higher material standard of living than the average person in the world
4. **Human development index [Extract 5 – strengthening the country's HDI rating]:** An composite index which aggregates information in three areas
   - **GNI per capita (PPP international dollars):** This would be most useful as it allows us to make an assessment of both material & non-material SOL
   - **Life expectancy** can give us an insight on non-material SOL since life expectancy is positively correlated with access, quality of healthcare as well as diet & sanitary conditions.
   - **Mean expected years of schooling:** This can give us an idea on education attainment which contributes both to material & non-material SOL as education can help individuals attain better paying jobs and thus increase in purchasing power & improves non-material SOL due to better satisfaction

This indicator is useful as it reflects overall SOL – both Material and non-material SOL

Reliability of this information [2]

- **Economic growth** may not be a good indicator as it looks at the growth in real income without taking into account changes in population and how the income is distributed among the people.
- While **Gini coefficient** has decreased, data also indicates that it still remains high. This implies that income is still unequally distributed among the people, over-estimating any improvement in material SOL in the country. Moreover, Gini coefficient cannot be used as a standalone indicator for SOL. It has to be used with rea income per capita.
- Being an **upper-middle income country** does not indicate how incomes are distributed in the country. If incomes are unequally distributed in the country as reflected by the high Gini coefficient mentioned, then income is still unequally distributed among the people, over-estimating any improvement in material SOL in the country
- Non-material SOL has many other dimensions which is not capture in **HDI**. E.g. pollution index, stress levels, safety and security

e(i)	**Explain how the management of the Singapore dollar could counteract the inflationary pressure predicted in Extract 4.**	**[4]**
	Inflationary pressures predicted in Extract 4 predicts both demand-pull inflation as "govts offer too much support to businesses and households to keep spending" and cost-push inflation due to "damage to global supply chains caused by the COVID-19 outbreak" Appreciation of the Singapore dollar: i) Counter DD-pull inflation [2] • Px in terms of foreign currency becomes relatively more expensive (constant in terms of local SGD) >> DDx decreases >> X falls • Pm in terms of local currency falls >> quantity demanded for imports rises >> M rises • (X-M) falls → AD falls, c.p. → surplus of goods at original GPL → downward pressure on prices → GPL falls → counteract the DD-pull inflationary pressures **ii) Counter cost-push inflation [2]** • Pm in terms of local currency falls > imported factor inputs become relatively cheaper >> unit cost of production falls → firms are now willing and able to sell each level of output at lower prices, • SRAS falls → surplus at original GPL >> downward pressure on prices → GPL falls → imported cost-push inflation is mitigated	

e(ii)	**Discuss whether governments should be concerned about the consequences of the deflation predicted in Extract 4.** 8m = 6m + 2m EV	**[8]**

Command	Discuss whether
Concepts	Deflation, AD/AS analysis
Context	Context mentioned in Extract 4 – during covid period; May use Singapore, UK, EU as examples.
Approach	Introduction: R1: Why governments should be concerned about the consequence of deflation EV1: Why governments need not be concerned about consequence 1 (deflation) R2: Why governments should be concerned about the consequence 2 EV2: Why governments need not be concerned about consequence 2 EV3: Governments should (NOT) be concerned about the consequences of the deflation predicted in Extract 4.

Introduction:
Deflation is the sustained decrease in general price level over a period of time, usually a year.

R1: Why governments should be concerned about the consequence of deflation

- Expectations of deflation >> reduces consumers willingness to buy goods & services as they would rather wait to buy a later time >> Consumption will fall >> AD falls >> real national income falls via multiplier >> lower or negative actual economic growth & higher demand-deficient unemployment >> will ultimately affect consumers as both material and non-material SOL falls; government will receive less income tax revenue >> may have budget constraints if spending continues to be high due to COVID-19. With shoppers staying away from stores and malls >> this will also reduce firms' profitability as total revenue falls while total costs remain elevated.

- If the deflation becomes prolonged >> may breed investors pessimism as investors may view the economy as stagnant or ailing >> fall in FDI and investments in general >> will affect long term economic growth (both actual and potential) in the long run.

EV1: Why governments need not be concerned about consequence 1

- Governments have already embarked on significant fiscal stimulus package measures which are likely to be excessive and create inflation, countering this transient deflation.
- However, if the deflation is due to an increase in aggregate supply , a result of "sharply decreasing global oil price costs of production" → fall in COP → SRAS increases, shifts downwards → GPL falls and RNY increases → actual economic growth and reduction in cyclical unemployment

R2: Why governments should be concerned about the consequence 2
Deflation → decrease in real value of debts → consumers would therefore be less willing to spend → fall in C → multiplied fall in RNY as described in R1 **or**

OR

	The persistent fall in AD due to COVID-19 as a result of imposition of tough lockdown measures → pessimistic economic sentiments, consumers' precautionary savings rise, consumption expenditure falls → AD falls → reverse multiplier adjustment process → RNY falls ➔ real GDP per capita falls, assuming population remains constant >> mSOL falls ➔ government will receive less tax revenue → may have budget constraints if spending continues to be high due to COVID-19 → less spent to improve quality of education and healthcare → fall in mean years of schooling and life expectancy → non- material SOL ➔ Fall in income per capita, life expectancy and mean years of schooling → fall in HDI → fall in overall SOL. **EV2: Why governments need not be concerned about consequence 2** • There is no 'persistent' cause of deflation - the pandemic is likely a transient factor & associated impacts would likely come to pass. Moreover, the lockdowns were merely temporary. Most countries would have already tried to aim to resume pre-covid activities, so the fall in AD will not persist in the long run. As such, SOL may rise again once economic activities normalize **Conclusion** In conclusion, governments should be concerned about the consequences of the deflation predicted in Extract 4 as it is caused by a fall in AD due to covid 19 and it will be accompanied with a recession and higher unemployment.

(f)	**Discuss whether a government should concentrate on supply-side measures, such as those adopted by Namibia, to achieve inclusive economic growth.** Note: This question will be 10m in the new syllabus, 7m + 3m EV	**[12]**

Command	Discuss whether
Concepts	Inclusive economic growth, supply-side policies an other macroeconomic policy
Context	Namibia; Botswana (as comparison)
	R1: Why governments should concentrate on supply side policies to achieve inclusive growth EV 1: Limitations of Supply- side policies R2: Fiscal policy can also help address inclusive growth EV 2: Limitations of Fiscal Policy EV 3: Government should (NOT) concentrate on supply-side measures, such as those adopted by Namibia, to achieve inclusive economic growth.

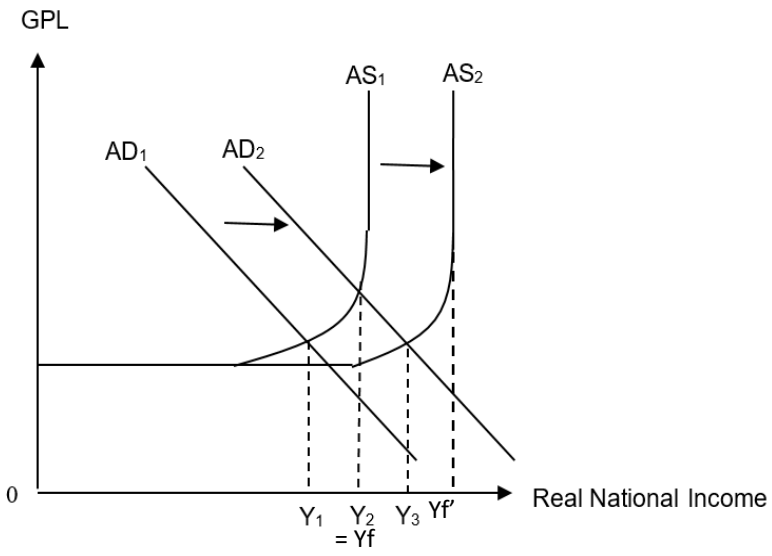
Introduction:

Inclusive economic growth is an economic growth that is *sustained* over a period of time (sustained economic growth) and is broad based across economic sectors for the majority of the country's population.

Among its various policies to achieve economic growth, Namibia adopts both market-oriented and interventionist supply-side policies. Extract 6 seems to show that it is possible for supply-side policies 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.

R1: Why governments should concentrate on supply side policies to achieve inclusive growth

- Government spending on "expansion of higher education and technical and vocational training facilities" increases government spending on building these facilities → an increase in the economy's aggregate demand (AD), ceteris paribus → increase in RNY from Y1 to Y2 via multiplier process, assuming economy is operating below full employment → positive actual economic growth



- The building of these facilities → more workers getting trained → increases labour productivity. This increases the quality of labour and thus economy's productive capacity, hence increases LRAS from AS1 to AS2. This leads to positive potential economic growth from Yf to Yf'.
- Technical and vocational facilities provide training on skills required in the job market → increase labour employability, enabling the low skilled workers to gain employment and earn higher pay → narrows the income gap between the low skilled workers and the highly educated workers.
- Market-oriented supply-side policies such as the "removal of barriers to allow entrance of small and medium enterprises" encourage competition and efficiencies in the economy's various industries → increase in I by these new firms that enter the industry → increase in AD, c.p. → multiplied increase RNY from Y1 to Y2, assuming economy operates below full employment → positive AEG
- The increase in investment as more firms enter the industries → increase in capital stock, assuming increase in I > depreciation → increases the quantity and quality of resources → increase in the economy's productive capacity → increases LRAS from AS1 to AS2 → positive PEG from Yf to Yf'
- At the same time, the growth in the number of small and medium firms provides increase in the number of jobs created, even for the low-income and unskilled workers, enabling them to earn income, reducing income gap and making the Gini coefficient smaller, hence achieving inclusive economic growth.

EV 1: Limitations of Supply- side policies

- Supply-side policies that centers market -oriented supply-side policies, such as privatization and deregulation of industries to promote competition and efficiency, will increase in EG but can widens the income equity equity as profit-oriented firms demand more higher skilled workers at the expense of lower skilled ones. Botswana's initiatives to improve business climate has led to increase in its Gini coefficient to 0.61 by 2020. Hence, there is a need for the government to ensure its supply-side policies are not at the expense of the welfare of the workers.
- Such supply-side policies are very costly and require high government expenditure. This proofs a challenge for the government given its high debt that forces it to reduce its spending to address its budget deficit. This is exacerbated by the long time lag before the impact of the policies on the economic growth is reached.

- However, one may argue that the budget deficit issue is short term. The supply-side policies over the years have led to develop logistics and transport systems as well as educated and trained labour force that enable the economy to achieve sustained and inclusive economic growth in the long run.

R2: Fiscal policy can also help address inclusive growth

A less costly policy that the government can adopt is fiscal policy. Through targeted government spending on social development such as increasing government spending on pre-schools and primary schools and basic healthcare will increase AD, ceteris paribus. The increase in AD leads to lead to increase in income induced consumption and thereafter, further increases in AD. This triggers many successive rounds of increase in national income and income-induced consumption. At each round, the decrease in both gets smaller. This multiplier process will end when the increase in national income is too small to generate further increase in induced consumption. Hence the increase in AD due to the increase in G results in a multiplied increase in RNY, assuming the economy has sufficient spare capacity, thereby increasing economic growth.

This also make education and healthcare accessible and affordable even to the lower income group. Through transfer payments, disposable income of the poor will increase, making the income gap lower, Gini coefficient will be lower, growth will be more inclusive.

At the same time, the government could raise taxes for high income earners, making the tax structure more progressive, can also lead to inclusive economic growth.

By raising the taxes for high income earners, government could collect more revenue that can be used to provide transfer payments to lower income households, increasing their disposable income, increasing their purchasing power, thereby narrowing the income gap between the lower and higher income group, making growth more inclusive.

As the lower income group generally has higher MPC, the increasing their disposable income will lead to higher proportionate increase in consumption. Such high increase in C will lead to increase in AD and, through the multiplier process, leads to increase in RNY and hence increase economic growth.

EV 2: Limitations of Fiscal Policy

- Like supply-side policy, such expansionary fiscal policy will widen the government's budget deficit. This will stunt the rising EG, and may even fall, if the government adopt to adopt austerity measures (lower G and increase T) in order to "rebalance" the widening government spending and tax revenue. This will cause the country's rising EG to fall.
- The effectiveness of FP depends on the value of the economy's multiplier. For developing countries like Botswana, fiscal policy would probably be effective in achieving inclusive economic growth, given its large low-income population. The lower income group is known to have high MPC, thereby contribute to the country's large multiplier. Hence increase the country's AD will lead to larger multiple increase in RNY.
- However, a tax system that is too progressive will slows down the country's economic growth as high tax rates will cause disincentive for the higher income earners and profitable firm to work and invest respectively. Therefore, there is a need to the government to strike

	a balance in its progressive income tax system to ensure inclusiveness is not at the expense of achieving actual EG. **<u>Overall Evaluation/Conclusion</u>** As seen in the case of Namibia, supply-side policy as indeed proven to be effective in achieving inclusive economic growth in the long run. The government provision of higher education and vocational training facilities have opened up the chances for the low-income workers to acquire the skills th contribute to the country's economic growth and at the same time earn higher income for themselves, thereby achieving inclusive economic growth. However, as it takes time for the benefits of supply side policies to be realized, pursuing targeted fiscal support for the low income households may be necessary in the short run as an interim policy.