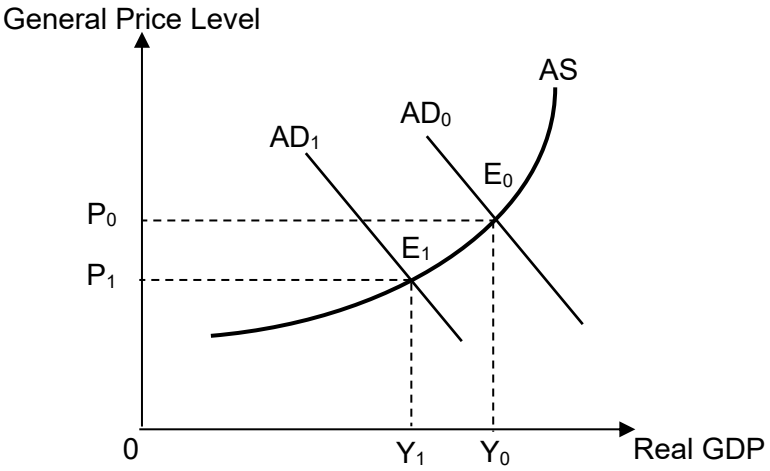
H1 GCE A Level Examinations 2022
Question 2: Price Stability and Growth
Suggested Answers

(a)		**With reference to Table 2 what can be concluded about projected government spending relative to government revenue in Botswana and Zimbabwe?**	**[2]**
		For both countries, government spending is projected to be larger than government revenue. i.e. both countries are projected to have a budget deficit. But Zimbabwe is projected to have a larger budget deficit than Botswana.	
(b)		**Explain the relationship you would expect between the adult literacy rate and the real GDP per capita and comment on the extent to which Figure 3 supports the expected relationship.**	**[6]**
		We would expect a positive relationship between the adult literacy rate and the real GDP per capita. With a higher adult literacy rate, it is likely that the labour force is more productive as they can apply their knowledge and skills in their jobs. The higher efficiency and productivity of these skilled workers lead to higher profit for firms as workers can produce more output per hour and per unit cost of production would be lowered. Investor's confidence will be enhanced, and this could increase the AD. The rise in Ad would lead to a shortage and upward pressure on GPL. The autonomous increase in I will lead to a more than proportionate increase in the real GDP per capita via the multiplier process. Alternative response: With higher real GDP per capita, the government could collect more tax revenues from income and corporate tax which is a percentage of income and corporate profit respectively. The government could use to provide and subsidise education to a larger number of people in the population. Hence, with the provision of more schools in many parts of the country, there will be a higher adult literacy rate. Figure 3 supported this relationship to <u>some extent</u>. For instance, Mali has the lowest real GDP per capita and the lowest adult literacy rate whilst Botswana and Namibia have one of the highest adult literacy rates and also highest real GDP per capita. However this is not the case for Zimbabwe. It has a high adult literacy rate but a low real GDP per capita relative to the rest. Its low real GDP per capita could be because there are other factor, beyond labour productivity, influencing the level of investor confidence. I and hence AD, could be falling if the overall investor confidence is low in the country. This could lead to a more than propionate fall in the real GDP per capita leading to a situation of high literary rates but low real GDP per capita. Hence, adult literacy rate is only one determinant of real GDP per capita. There are other influences on real GDP per capita such as the size of capital stock and level of technology.	
(c)		**The global price of diamonds <u>changed</u> 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]**
		The global price of diamonds fell between December 2019 and March 2020. The price elasticity of demand for diamonds is between 0 and 1, i.e. demand is price inelastic. The fall in price of diamonds leads to a less than proportionate increase in its quantity demanded. This results in a fall in total revenue earned by diamond producers. Botswana exports diamonds and so this fall in the price of diamonds will lead to a fall in the country's total export earnings.	

		Since export earnings is a component of AD, the fall in export earnings thus leads to a fall in AD, creating a surplus in the economy. As shown in the diagram below, the fall in Botswana's export earnings leads to a fall in AD. The AD curve shifts from AD_0 to AD_1 resulting in a surplus which then exerts a downward pressure on the general price level. As prices fall, firms reduce production due to falling profits. The economy reaches a new equilibrium where AD=AS. The fall in export earnings thus results in a fall in Botswana's real GDP from Y_0 to Y_1.  The decrease in Botswana's real GDP is much greater than the initial decrease in its export earnings because of the multiplier effect. When export earnings from the sale of its diamonds fall, incomes of those in the diamond industry also falls. With a decrease in their incomes, these households will reduce their consumption expenditures such as on food and clothing. The amount of decrease in consumption due to the fall in incomes is determined by the value of marginal propensity to consume (MPC). The higher the value of MPC, the greater is the decrease in consumption and hence the larger will be the decrease in real GDP eventually. In the case above, the multiplier effect is somewhat smaller. The decrease in consumption spending is mitigated to some extent by the fall in the general price level, causing a smaller fall on the real GDP of Botswana.	
(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.**	**[7]**
		Standard of living refers to the material and non-material well-being of the average person in the country. One piece of information that would be most useful when considering the standard of living of Botswana is real GDP per capita. It is a measure of the average income per person. From the extract, income is used to rank countries. We can infer from it that Botswana enjoys a fairly high standard of living as it belongs to the "upper middle income" country. It was also mentioned that poverty has fallen and this is a result of increase in per capita incomes. As a country that enjoys a high real GDP per capita, the people could afford more goods and services such as food and housing with "improved living conditions". Thus there is a fairly high level of material well-being. But the use of real GDP per capita as an indicator of living standard has its limitations. We see that its Gini coefficient has risen significantly in 2020 and its value is large. This reflects a high level of income inequality. Thus the value of real GDP per capita is high due to the small number of individuals who earn very high incomes whilst a large majority	

		are earning incomes that are very low. Thus, the real GDP per capita may not be a reliable indicator of standard of living. The real GDP per capita may also be a less reliable measure of the standard of living of Botswana as it does not provide information on the non-material aspect of the standard of living. While Botswana is in the upper middle-income country, the quality of life of its people may not be high. For example, although it has a high literacy rate, there could also be a high level of pollution, traffic congestion and lack of good healthcare facilities. As such, the non-material standard of living may be lower despite the high real GDP per capita. Despite its limitations, the real GDP per capita is still the most useful information to infer about standard of living of a country. It is relatively easy to obtain its monetary value from the economic transactions that take place in the country unlike pollution levels and other non-material aspect of living standards. To get a more accurate assessment of living standard, this indicator must be supplemented with Gini coefficient, literacy rates and life expectancy to obtain the Human Development Index – an attempt to take into account both material and non-material living standard.	
(e)	**(i)**	**Explain how the management of the Singapore dollar could counteract the inflationary pressure predicted in Extract 4**	**[4]**
		The inflation in Singapore is expected to increase quickly in 2021. The Singapore government could appreciate the value of the Singapore dollar to counteract the inflationary pressure. When the Singapore dollar appreciates against other currencies, this will lower the domestic currency price of imports (or price of imports in SGD). As Singapore is heavily reliant on imports of inputs and raw materials, the fall in prices of imports of inputs leads to a fall in the costs of production. Thus, AS will increase and this will lead to a fall in the general price level, lowering cost push inflation. In addition, the appreciation of the Singapore dollar will also increase the foreign currency price of Singapore's exports whilst lowering the domestic currency price of its imports. Assuming demand for Singapore's exports is price elastic, the increase in export prices will lead to a more than proportionate fall in its quantity demanded and hence a fall in export revenue. At the same time, the lower import price will lead to an increase in import expenditure, assuming import demand is price elastic. Together, there will be a fall in net export expenditure. This leads to a fall in AD. The fall in AD leads to a surplus of goods and services which then exerts a downward pressure on the general price level, lowering demand pull inflation.	
	(ii)	**Discuss whether governments should be concerned about the consequences of the deflation predicted in Extract 4.**	**[8]**
		Deflation refers to a sustained fall in the general price level of goods and services. Deflation is often caused by a fall in AD, but it could also be a result of an increase in AS. Whether governments should be concerned about deflation depends very much on its cause as well as the current economic environment of the country. **R1:** Most governments are concerned about the consequences of deflation. The deflation mentioned in the extract was a result of a combination of falling demand from both consumers and businesses coupled with falling oil prices. This means that there was a decrease in AD and an increase in AS resulting in a fall in the general price level. The decrease in AD that was largely due to Covid lockdown was much greater than the increase in AS due to falling oil prices, thereby resulting in a fall in the real GDP or recession.	

Governments should be concerned about deflation in the situation above as when it turns into a deflationary spiral (persistent fall in the general price level) it will adversely affect confidence and business climate. Falling prices imply there is "excess capacity" in the economy and so there is little incentive for firms to invest because they will end up with stocks of unsold goods. Also, when prices keep falling, it means falling revenue and hence profits and so firms reduce investments. Falling investments will lead to a further fall in AD and hence real GDP falls. A fall in real GDP or recession means a fall in real incomes and purchasing power and this means fewer goods and services are consumed. Hence a fall in the standard of living.

The recession that results will also mean lower tax revenues collected by the government because of falling incomes and profits. At the same time, government expenditure on transfer payments is likely to increase as governments increase their support for those who are adversely affected by the recession. As a result, the government's budget balance can turn to a deficit. This may lead to increased borrowing by the government which means an increase in debt and hence a burden on the future generation.

Some firms may be forced to shut down when they are unable to earn enough to cover their costs. As a result of the fall in production, firms demand fewer workers and so some workers are laid off. This fall in derived demand for labour leads to a rise in unemployment.

R2: In some cases though, deflation may not be a bad thing.

For example, when a country is facing severe inflation that erodes business confidence and increases the cost of living significantly in the country, a fall in the general price level may be desirable for households because this means a fall in their cost of living and an increase in their real incomes, ceteris paribus. Hence, with greater purchasing power they could buy more goods and services that will help to raise their standard of living.

It also matters what the cause of the deflation is. When deflation is a result of an increase in AS whether due to falling costs of production or advancements in technology, then governments may not be so concerned because the increase in AS also leads to an increase in the real GDP. However, when deflation is the result of a fall in AD as the situation in Extract 4, then governments are concerned because there is a fall in real GDP (recession) and hence a fall in living standard.

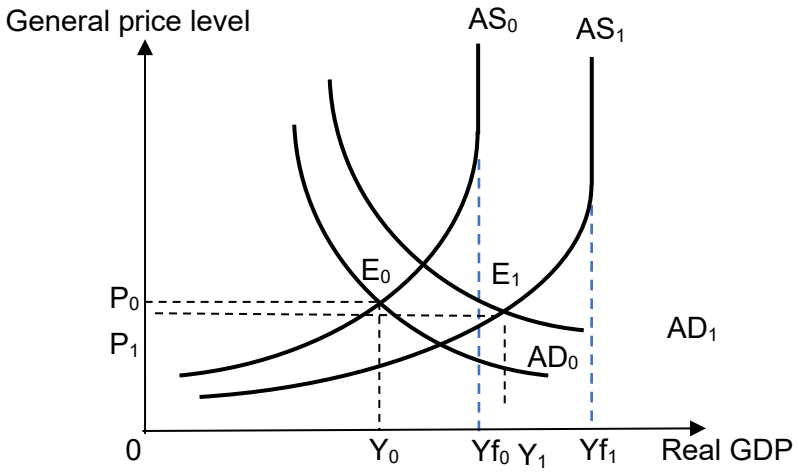
Summative EV:
Whether governments should be concerned about the consequences of deflation **depends on the cause of deflation or the duration** (Focus on 1 to elaborate on). Certainly, if the deflation does not persist, the short-term effect on households is positive. But when it becomes persistent, then the deflationary spiral will have a negative effect on real GDP. This fall in real GDP will ultimately leads to fall in households' standard of living. In addition, we should also consider the cause of deflation. It seems from the case material, the fall in AD has a stronger effect on real GDP. As such, governments should be concerned because the deflation caused by fall in AD also resulted in a recession.

Mark Scheme

Level 2 (4 – 6 mks)	Detailed analysis of both the positive and negative consequences of deflation on an economy i.e. investments, real GDP, standard of living. Use of data to support the analysis.

		Level 1 (1 – 3 mks)	Limited or incomplete or vague explanation of the positive and negative effects of deflation **or** a detailed analysis of either the positive or the negative effects of deflation on an economy. Very limited use of data to support the analysis and hence limited application.
		Evaluation (1 – 2 mks)	Evaluative comment after considering the context or assumptions provided in the analysis.

(f)		**Discuss whether a government should concentrate on supply-side measures, such as those adopted by Namibia, to achieve inclusive economic growth**	**[12]**
		Note: For the latest syllabus, you will not see 12-mark part questions. The response below is tailored for a 10-mark part question. **Introduction** Inclusive economic growth refers to a rate of economic growth that is sustained over a period of time, is broad-based across economic sectors and creates productive employment opportunities for the majority of the country's population. It is economic growth that does not contribute to worsening income distribution. **Body** R1: Supply side measures are necessary to achieve inclusive economic growth. H: These measures aim to increase the long run Aggregate Supply (AS) through increasing the productive capacity of the country. For example, the Namibian government has expanded the provision of higher education and technical and vocational training facilities to boost human capital (Extract 6). These measures have helped Namibia to achieve a very high adult literacy rate which raises the quality of labour. Output per working hour increases for the worker due to higher productivity of labour. In addition, the Namibian government also invested in new capital goods e.g. infrastructure in road and telecommunications and new port facilities. These investments have resulted in increased efficiency in production. As mentioned in the extract, the new container terminal has increased the capacity of the port services. This increases the quantity of capital. Similarly supply-side measures that remove barriers to entry for SMEs successfully created more competition among firms in the country. The increased competition forces incumbent as well as new firms to innovate and increase efficiency. This could increase the technology level. Thus the supply-side measures would boost the productive capacity of an economy and will result in an increase in Aggregate Supply (AS) and more importantly the LRAS. These supply-side measures also have the effect of raising the level of AD. For example, increased government expenditure on building infrastructure like the new container terminal will also lead to an increase in the level of AD.	



Hence as shown in the diagram above, the AS curve shifts rightwards from AS_0 to AS_1 and the AD shifts to the right from AD0 to AD1. Assuming that the AS curve shifts more than the AD curve since the supply side policies is likely to bring about large scale productivity gain to transport efficiency for many industries. At P_0, the level of AS exceeds that of AD. There is excess supply of goods and services that will exert a downward pressure on the general price level. As prices fall, the level of AD and AS adjusts until a new equilibrium E_1 is attained. Overall, it results in an increase in real GDP from Y_0 to Y_1. The country's potential real GDP also increases from Yf_0 to Yf_1 because of the increase in its productive capacity.

There is not only actual and potential economic growth but the growth is also inclusive. The reason is that the supply-side measures such as those that raise the literacy and vocational skills of the workers will help more to increase the employability of low-wage and unskilled workers. Their new skills increase their chances of getting higher-paid jobs and at the same time address the skill mismatch in the country. Similarly, the removal of barriers to entry have helped new SMEs enter the market and earn profits. This will also reduce the huge profits earned by the big and dominant firms in the markets. Thus, these supply-side measures will help to reduce the inequity in the country.

Ev for R1 (Contextualised): There are however some limitations of these measures. These measures require a lot of funding by the government. If the government has a healthy budget balance, then many of these could be implemented. Moreover, many large infrastructural projects are very costly for developing countries like Namibia. However, if the government has a huge budget deficit, then the government may not be able to afford such investments **like those undertaken by the Namibian government**. Furthermore, the opportunity cost of investments in education and infrastructure may be too high in developing countries where large majority of the population are living in poverty and thus where food and housing are the more urgent needs to be met.

OR

Another limitation is that in the case of training and education, the people may not be willing to go for the training despite the subsidies given. For some of them especially the low-wage workers **such as those living in Zimbabwe**, they may have to study part-time or even postpone working in order to study. This involves a high opportunity cost in terms of wages forgone. As such, only some may go for the training and benefit from it. Similarly economic reforms to increase competition may meet strong opposition especially from the bigger players in the industry.

R2: Governments can also adopt demand-management policies to supplement SS-side measure to achieve inclusive growth.

Inclusive growth also means that the economic growth must be sustained. While supply-side measures can lead to actual and potential growth in the long run, for economic growth to be sustained, it is necessary to increase the level of AD. No doubt some supply-side measures as mentioned earlier have the effect of increasing AD, but this may not be sufficient to sustain economic growth. Hence, demand management policies to increase other components of AD such as consumption expenditures or export earnings may be needed. For example, when countries experience a recession, it is necessary to boost its economy using expansionary monetary policies such as lower interest rates to raise consumption and investment expenditures.

Lower interest rates could encourage domestic investments by SMEs which could allow small business to earn higher profits instead of allowing profits to accumulate amongst large firms. SMEs that set up in rural areas can also create more job opportunities for the locals and increase their employment and real income. These can allow economic growth to be sustained and broad-based.

Ev of R2 (Contextualised): Nevertheless, the effects of lowering interest rates to boost AD might be limited because of low investors' confidence in countries such as Zimbabwe where proper infrastructure and sound governance may be lacking. In contrast to Namibia, where there is a presence of well-developed transport infrastructure and political stability (Ext 6), demand for investments in these less developed countries may be interest inelastic.

Summative EV:
It is a challenge to achieve inclusive economic growth. Policies that are targeted to achieve economic growth may not necessarily improve equity. Supply-side policies could certainly help to bring about inclusive economic growth when it is focused on raising the competency and skill level of the labour force. This includes government spending not only on education but also healthcare and housing. The benefits accrue esp to the low-wage workers. **Nonetheless governments should not just concentrate on supply-side policies** (Judgement). **Supply-side policies** that are not complemented with demand-side policies **could result in excess capacity in the economy**. As such, it is still necessary to have policies to stimulate AD (especially during a recession), to bring about sustained and inclusive economic growth.

Mark Scheme

Level 2 (4 – 7 mks)	Answers in this level will analyse the way in which supply-side measures can be used to achieve inclusive economic growth. At the top end, quality AD/AS analysis will be used and there will be some reference to the information provided.

			Level 1 (1 – 3 mks)	Answers demonstrate an understanding of supply-side measures. Limited application to AD/AS analysis or to inclusive economic growth.	
			Evaluation (1 – 3 mks)	Evaluative comment after considering the context or assumptions provided in the analysis.	