**Economic Growth**

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|  | Singapore recession forecast for 2020 worsens to between – 4% and –7%.Source: *The Business Times*, May 2020 |
| **(a)**  | Using AD-AS analysis, explain the key determinants of actual and potential growth.  | [10] |
|  | **(b)** | Discuss whether the size and openness of Singapore’s economy would influence its choice of macroeconomic policies to counter the recession. [15] |

Q6 Singapore recession forecast for 2020 worsens to between -4% and -7%.

 Source: *The Business Times*, May 2020

1. Using AD-AS analysis, explain the key determinants of actual and potential growth. [10]
2. Discuss whether the size and openness of Singapore’s economy would influence its choice of macroeconomic policies to counter the recession. [15]

Suggested answer

Actual growth refers to the percentage increase in a country’s real gross domestic product (GDP) over a period of time, usually a year. Potential economic growth refers to an increase in the country’s productive capacity. Actual growth occurs when there is an increase in the country’s Aggregate Demand (AD), intersecting with the Aggregate Supply (AS) at a higher national output level, while potential growth occurs when there is an increase in the country’s Long Run Aggregate Supply (LRAS).

**Determinants of Actual Growth**

One of the key determinants of actual economic growth would be the level of confidence in the economy. When there is optimism in the economy such that consumers and firms expect future incomes and profits to increase, it would encourage them to increase consumption and investment. Since consumption and investment are components of aggregate demand, this would lead to an increase in aggregate demand, which in turn leads to a multiple increase in national income through the multiplier process. Hence increased optimism in the economy leads to actual economic growth.

Another determinant of actual economic growth would be the economic growth of the country’s major trading partners. This would affect the external demand for the country’s goods and services. When its trading partners experience a recession, their incomes and purchasing power falls, which forces them to reduce consumption, especially of imported goods. Therefore, the country would experience a fall in export revenue and its aggregate demand falls, leading to a fall in actual economic growth.

Therefore, the more dependent a country is on trade to drive its economic growth for example Singapore, the more the economic growth of its major trading partners is a key determinant of its actual economic growth. In comparison, countries like China who can depend on their domestic market for a significantly larger proportion of the demand for their output, would not be as greatly affected by the economic growth of their trading partners.

**Determinants of Potential Economic Growth**

Potential growth is affected by changes in the quantity of resources in the economy. One of its key determinants would hence be changes in the size of the country’s labour force or its level of capital accumulation. For example, Singapore is concerned about its slow population growth, which may hinder the economy’s potential growth in the future. More investment and capital accumulation in the economy also allows for potential growth as the capacity to produce more goods and services in the future will increase.

The second determinant of potential economic growth would be the quality of its resources and the level of technology in the economy. For example, with a higher level of education/ skills or technology in the labour force, there would be an improvement in the quality of labour, leading to an increase in labour productivity and an increase in the potential output of the economy. These would mean a higher Long Run Aggregate Supply curve than a country with a lower skilled/educated labour force or a lower level of technology. This explains Singapore’s emphasis on education, skills training and investment in technology that has allowed her to enjoy relatively high rates of potential growth despite our limited resources.

**Figure 1: AD/AS Diagram to illustrate actual and potential economic growth**

 

* Initially, real output is at Y0 and the economy is not operating at full employment.
* An increase in AD from AD0 to AD1 will raise the real output from Y0 to Yf1. This increase represents an increase in actual output or actual growth.
* For economic growth to be sustained in the long run, there would also have to be an increase in potential output, AS1 shifts right to AS2,which represents potential growth.
* When AS shift rightwards together with the increase in AD, output is able to increase beyond Yf1 allowing for further actual growth as production capacity increases.
1. **Discuss whether the size and openness of Singapore’s economy would influence its choice of macroeconomic policies to counter the recession. [15]**

Introduction

The small size of the Singapore economy would imply a small and limited domestic market with small population size.

It will mean that Singapore will have to seek external growth in order to achieve ideal growth levels – net exports and foreign direct investments are important. In another words, Singapore’s aggregate demand for goods and services is heavily reliant on external sources, such as exports and FDI, as compared to domestic drivers of consumption and government expenditure.

Also, for Singapore, its small size also comes with a general lack of resources, which makes it dependent on imports of both raw materials and final goods and services. Import dependence create increased vulnerability towards import disruptions and global recession.

Macroeconomic policies include

* + - Fiscal policy
		- SG exchange rate policy which is also its Monetary policy
		- Supply side policies

Body

**Thesis: Size and openness affect choice of macroeconomic policies in countering recession**

Size and openness affects the effectiveness of fiscal policy

* + - * Expansionary fiscal policy involves an increase in G and/or reduction in direct taxes. An increase in G is a direct injection into the economy, AD increases. A reduction in corporate tax increases post-tax profitability of firms, incentivising firms to increase investments. This causes I to increase. A reduction in income tax increases disposable income, increasing the ability of households to consume. This causes C to increase.
		- Small and open economies tend to have relatively smaller C, I and G relative to X and M. Such economies tend to have relatively large X as the need to export to access large global markets. They also tend to have relatively large M due to relatively less abundant and diversified natural resources. Singapore’s economy annual trade value of (X+M) is more than 3 times the GDP.
			* Small and open economies tend to have smaller multiplier values due to higher MPW, which comprises MPS, MPT, MPM.
			* From above, we note that expansionary fiscal policy for countering a recession tend not to be effective for small and open economies as the multiplier size will be relatively smaller.

Size and openness affects the effectiveness of exchange rate policy.

* + - Small and open economies are more reliant on X and M components of AD, hence exchange rate policy can be used to counter a recession.
		- During a recession, a small and open economy can implement depreciation of its currency to stimulate the economy. Depreciation of the currency causes the price of exports (in foreign currency) to fall and the price of its imports (in local currency) to increase.
		- Measured in the local currency, the value of exports will increase, whilst for value of import, if it has a price elastic demand, will fall. Net export (X-M) increases and as a component of AD, AD increases as well.
* However, depreciation may also lead to higher cost push or imported inflation, lowering or shifting AS to the left, resulting in a fall in economic growth and even a recession.

Supply-side policy

* Examples include government subsidies skills upgrading to improve productivity of labour force. This helps to lower COP as well as increase the production capacity of the economy. Lowering COP helps the economy to become more competitive, can thus stimulate an economic recovery. [Can also cite other examples of supply-side policy that brings an increase in economic activity].
* Though supply side policy is adopted by both small, open and large economics to improve competitiveness in the short and long term, small economies are more vulnerable to structural changes especially when there are shifts in comparative advantage in the global market whenever there is a global recession.
* During a global recession which is currently induced by the pandemic, structural changes are likely to occur and hence for countries need to adopt supply side policies to ease out of recession and going forward prepare for ‘new normal’ in the future. It is more crucial small and open economy like Singapore to be equipped with this policy to make structural changes.

**Anti-thesis: Other factors affect choice of macroeconomic policies in countering a recession**

Sentiments of households and firms affect effectiveness of policies

* Expansionary fiscal policy such as cutting income or corporate taxes and providing direct subsidies can be less effective as it depends on the decisions of the households and firms to continue to consume and invest respectively which is affected by their sentiments and expectations of future economic conditions.
* On the other hand, if expansionary fiscal policy which involves direct injection into the economy is adopted, this will be more effective in times of recession.

 Ability to finance fiscal deficits

* + - Economies that have significant national debt may lack the financial ability to conduct expansionary fiscal policy during a recession. If such an economy finances its expansionary fiscal policy through borrowing, it may result in the crowding-out effect which reduces the effectiveness of the policy.

Trade-offs in macroeconomic objectives

* + - Depreciation policy can cause significant imported inflation. As such, the extent of depreciation that can be pursued may be limited by this macroeconomic objective trade-off. If inflation is a significant macroeconomic problem, a depreciation policy may not even be feasible.

[Could also accept analysis of any factors which affects the choice of macroeconomic policies in countries.]

**Conclusion**

* Although without doubt, the openness and small size of the Singapore economy affect the choice of macroeconomic policies could adopt to counter the current global pandemic induced recession, there are other factors unique to its economic situation which would also affect the policy choices.
* Size and openness tend to influence the choice of demand-management policies more significantly. Fiscal policies can be seen as more of a stopgap measure to temporarily boost Singapore growth.
* According to MAS, as the economy braces for recession, it eases the SGD in a measured move.
* As an open economy, SG has to ensure its currency remains competitive in the global market, thus only measured depreciation is seen. However, SG is also mindful of cost push inflation as it is dependent on imported resources and goods, hence it cannot be seen depreciating the currency by large extent to spur recovery unlike a bigger and less open economy.
* Though there is large leakage as an open economy and that G component in AD comparing with the external demand is small and hence may not be able to offset the fall in X, nonetheless in this current recession which is global in nature and induced by the pandemic. Hence the Singapore government spent about S$100 billion in 2020 to help businesses and those who become unemployed. It is fortunate that the Singapore government has sufficient budget to see through G expenditure without the need to go into debt.
* Therefore, the nature of Singapore economy as one that is small and open economy does have some influence in the macroeconomic policies, other factors seem to be having a larger influence such as expending a large fiscal spending focusing on jobs support and helping SMEs in the current recession.
1. **Discuss whether raising consumption is the most appropriate policy approach for countries to achieve sustainable and inclusive economic growth. [15]**

**Question analysis**

* It is necessary to make clear the meaning of the growth terms ‘sustainable’ and ‘inclusive’ as these are the reference points for examining whether raising consumption can enable countries to achieve these two objectives.
* Although sustainability refers to environmental impact of economic growth (EG), this question is macroeconomics in scope, which means answer should not go into the technicalities of market failure generated from rising consumption.
* A sound evaluation will need to recognize that while raising consumption raises aggregate demand (AD) and this creates the condition for EG, sustainability and inclusivity of EG requires several factors such as continued expansion of productive capacity, the moderation of the environmental effects of consumption and EG, and the distributional outcomes of the expansion in earnings from economic growth.
* The term ‘most appropriate’ requires a comparison with at least one other growth policy approach, such as that of raising investment or government expenditure. The focus of evaluation must be centered on achieving sustainable and inclusive growth.

**Suggested answer**

**Introduction:** Briefly explaining the terms in question and giving a preliminary insight on the issue posed.

* Consumption (C) refers to expenditure by households on goods and services, such as food, consumer durables and services. It usually forms a key component in a country’s aggregate demand (AD), but C expenditure includes expenditure on imports. Imports must be removed from C for the true contribution to the country’s AD.
* Sustainable economic growth (SEG) refers to a rate of growth of Real GDP which does not generate significant macroeconomic problems, for both current and future generations. SEG is about countries achieving healthy rate of expansion in domestic production without significant worsening of pollution and rapid depletion of reserves. SEG requires both the improvements in productive capacity and environment impacts.
* Inclusive economic growth (IEG) refer to growth which brings about broad-based benefits on the population in their standard of living. A growth rate that is healthy accompanied by lower Gini Coefficient indicates IEG as it means there is a better spread of the Real GDP among the household groups across the income spectrum.
* Raising consumption does create the expansion of AD but to make EG both sustainable and inclusive is not easily achievable as there are many conditions and policies needed.

**Briefly explaining how raising consumption generates EG**



* Raising consumption will increase AD leading to rising national income, as shown in diagram above.
* A government can attempt to raise C through expansionary fiscal policy measures such as providing consumption-linked payouts or expansionary monetary policy of lowering interest rate to induce consumption borrowing.
* The autonomous increase in C from government policies induces expansionary multiplier effect because the initial increase in AD due to this new C injection will create further C and investment (I) from the initial increase in national income. The Y1-Y2 increase in NY is therefore multiple times larger than the initial increase in C.

**Examining whether raising C can bring about SEG**

* **Evaluation**: Making the expansion of C the key growth strategy will not be an effective policy approach for SEG because continued EG requires a build-up of productive capacity**.**
	+ To make growth sustainable, productive capacity must expand too so that firms can continue raising their output. Referring to the diagram above, the LRAS must shift to the right from improvements in the quality and volume of resources. Consumption is spending that enhances SOL but not on productive capacity. Taking the example of ASEAN, the expansion of middle class households will generate consumption demand but the entry of the young population into the labour force and the adoption of digital technology are needed too for countries in the bloc to be able to produce more to meet the C expansion. Without sufficient investment in machinery, technology and skills, growth will be stifled as demand-pull inflation will set in, raising production costs and limiting continuous growth.
* **Evaluation**: Raising C can compromise environmental sustainability because rising C creates many forms of negative environmental impacts.
	+ Rising C generates negative environmental impacts, from the C activities and the production of goods and services. Higher consumption generates more waste by households and the production of more consumption goods and services generates various forms of gas emissions from rising energy use.
	+ SEG requires policy measures which manage the extent of resource depletion and pollution, e.g. promoting recycling or circular (zero waste) consumption, energy conservation, renewal energy sources.
* **Evaluation:** Whether raising C can improve inclusivity would depend on the focus of the policy measures. IEG can be better achieved if there are policies in place to improve the employability and raise wages of low income and poor households. However, this policy may still not be enough for effective growth impact due to the lower value of consumption of these household groups.

**Offering an alternative or complementary policy approach to achieve sustainable and inclusive economic growth**

* To achieve both growth objectives, both the environmental impact and distributive outcome of economic growth matter. Raising consumption is not promising for such outcomes because consumption does not raise productive capacity and does not directly work on reducing environmental damages.
* Raising investment which works on productive and energy efficiency (lower energy usage in production) offers more success possibility for SEG. Through such investment the government can grow the productive capacity and mitigate the environmental effects of economic growth.
* Inclusive growth through investment can be facilitated by policy measures which are broad-based in nature, covering wide spectrum of industries and which also include investment in labour skills.
* **Evaluation:** However, eventhrough investment approach, the impact on inclusivity is not certain because it can be the higher income population benefiting more from investment-oriented measures. Hence the need to bring in the low income population into the investment-driven approach, e.g. investment support to level up industries where low income workers are employed and ensuring they are given justifiable wage rise by employers..

**Note:** Answer can offer alternative/complementary policy approach of raising government expenditure but the justification must point to how sustainability and inclusivity can be achieved.

**Overall judgement:**

* Raising consumption is not a sound policy approach to achieve both sustainability and inclusive economic growth. It can help as a short term approach to revive economic growth but not appropriate for a long term aims of sustainability and inclusivity. To make economic growth sustainable, governments will need to encourage investment in productive capacity, labour and environment. Policies which manage waste of resources and various forms of pollution are also needed.
* While raising consumption appears to improve standard of living, the consumption gains can be concentrated among the middle and higher income population only, hence the necessary conditions for inclusive growth are not fulfilled. To have broad-based consumption gains, governments will need to adopt growth policies throughout many industries, particularly those with high concentration of lower wage workers, and give attention to improving the skills, employability and wages of low income population.

**Unemployment**

**- causes of unemployment**

- is unemployment the result of internal and external factors for unemployment

**- why the government keep a low rate of unemployment**

- consider the significance of unemployment in Singapore

- explain and evaluate how the various policies can solve the types of unemployment in Singapore

**Essay Question 1**

**5 (a) Explain the various causes of unemployment. [10]**

**Synopsis:**

Students are to explain the different types of unemployment, namely cyclical, structural and frictional unemployment, and provide real world examples to illustrate them.

**Suggested answers:**

**Introduction**

* Define & explain unemployment & how unemployment is calculated.
* Outline the approach to the question.

**Content**

* **Cyclical or Demand-deficient unemployment**

- caused by fluctuations in business cycle

- Explain how a fall in the various components of AD will lead to cyclical unemployment.

- With the use of Singapore’s context, explain how the characteristics of Singapore, being small and open, have caused her economy to be susceptible to external shocks. Recent even of the Covid-19 pandemic has resulted in a sharp decline in global demand 🡪 🡫 DD for exports from Singapore 🡪 🡫 export revenue (X). At the same time, poor investment sentiment in view of the uncertainties that the pandemic brings, lowers future expected profits leading to a fall in investment expenditure (I). Fall in X and I 🡪 🡫 AD 🡪 🡫 real national output 🡪 🡫 DD for labour as it is in derived DD 🡪 🡩 cyclical unemployment.

* **Structural unemployment**

**-** caused by structural changes in the economy

**-** Structural rigidities and occupational immobility of labour that cause skills mismatch are the main causes of structural unemployment.

- For example, as a result of globalisation, countries such as China and other low-cost producers of low-end manufactured goods enter the world market and threaten the exports of developed countries. As a result of the closure of these sunset industries that compete directly with those imports, there will be mass unemployment as these industries tended to be labour intensive. However, those who are unemployed are not able to find employment in sunrise industries due to their lack of relevant skills (skills mismatch).

- Apply to Singapore’s context e.g. As Singapore’s economy has to cope with globalisation and outsourcing, it has to restructure its economy and in the process, structural unemployment will result e.g. Singapore moved from manufacturing (especially in the areas of chemical, electronics and engineering) in the 1990s to the current knowledge-based economy that focuses on R&D, especially in the areas of environmental & water technology, biomedical sciences and interactive & digital media. Though Singapore is into biomedical sciences, it is by and large focusing on R&D activities. Hence, there will be greater need for skilled labour in these sunrise industries. However, the unemployed from the sunset industries lack the skill set to fulfil these new job requirements, causing structural unemployment.

* **Frictional Unemployment**

- caused by lack of information and/or lack of incentive to look for jobs. These have caused a long time period for the unemployed to fill job vacancies.

- Lack of information could be due to poor information dissemination infrastructure that affect internet connectivity and usage. Hence, the unemployed lack the necessary information on the job vacancies. This will be more prevalent in developing countries or rural areas in large countries.

- Lack of incentive could be due to attractive unemployment benefits and/or high income tax rate that discourage the unemployed to look for jobs since they would lose the unemployment benefits and yet, subject to prevailing income tax payment. This is more common in western countries that have an established social welfare system.

**Conclusion**

- High rate of unemployment will have severe repercussions on the economy such as dampening of domestic consumption, increased government expenditure and hence debt burden, and skills erosion. Thus, appropriate government intervention is necessary to eradicate the causes of unemployment to protect the welfare of the citizens.

**Essay Question 2**

**Why should the government focus on low rate of unemployment?**

Introduction

Unemployment occurs when workers who are willing to work but are not offered a job. The level of unemployment can be determined by the unemployment rate which is the ratio of unemployed workers to the labor force or active working population. It is imperative for the government to maintain a low rate of unemployment to ensure that the adverse effects of unemployment will not surface.

Main Body

It is imperative for the government to keep a low rate of unemployment to reduce the opportunity cost of idle resources when there is high rate of unemployment. This can be seen from the loss of output and rising government expenditure on unemployment benefit when there is unemployment.

Low rate of unemployment will help the government to prevent the problem of budget strain as low rate of unemployment would mean that the government can maintain a high and more diverse source of tax revenue while reducing the cost of government expenditure on unemployment benefit. This will prevent the government from experiencing sovereign debt due to the need of greater borrowing to finance budget deficit. Without budget deficit, the government need not raise tax revenue which will be politically unfavorable and it may create economic pressure for the middle income group.

When there is low rate of unemployment, the nation would have a higher production of output or national income. This would enable a country to raise their standard as the real per capita income or real GDP per capita can be higher, holding the inflation rate and population growth constant. Furthermore, a higher level of tax revenue attained from higher level for national income would enable the government to improve the infrastructure, making the life of the people more convenient and more comfortable.

Low rate of unemployment would also so mean that the degree of unequal distribution of income can be reduced since unemployment tends to affect the lower income group who will lose their source of income when they are unemployed especially when there is structural unemployment. The rise in tax revenue when there is low unemployment imply a higher level of national income and this would enable the government to use more funding to help the lower income and thus, dampening the negative effects of unequal distribution of income.

Lastly, the low rate of unemployment is an indication that the economy is competitive as it is able to maintain a higher level of production where the production capacity is kept high due to the country’s ability to raise export demand and attract more foreign direct investment.

Conclusion

In sum, it is imperative for the government to keep unemployment rate low so as to avoid the negative effects of unemployment and ensure that the government can achieve the other economic aims like raising standard of living and eradicating the problem of income and wealth disparity.

**Question for discussion for Unemployment**

**Question 1**

Is balance of trade deficit the main cause of unemployment and how can a country like Singapore that relies on trade can overcome such cause of unemployment. (25)

**Question 2**

A top IMF official on Friday warned that the global public debt is expected to exceed 100 per cent of the GDP in 2020-21, and the average overall fiscal deficit is expected to soar to 14 per cent of the GDP in 2020, pointing out that never have public debt and deficits risen so high and so fast.

Source: The Economic Times, 10 July 2020

In view of the unprecedented high level of government debt and fiscal deficit, discuss whether a government should adopt interest rate based monetary policy to address the high rate of unemployment in the country (15)

**Question 3**

Singapore has one of the fastest ageing populations in the world, with an average life expectancy at above 83 years. Economists are of the view that ageing economies tend to lose competitiveness over time.

In light of the challenges caused by an ageing population, discuss the appropriateness of the economic policies implemented to achieve full employment in Singapore. [25]