**1) AS-AD Analysis**

1.1 equilibrium of national income and the impact of multiplier

**Part (a)**

**Introduction**

* CFI is a model that explains how economy is organized & how participants in the economy interact with one another. It explains how economic activities are conducted under the influence of the multiplier process which depicts how the economic activities are expanded, reaching a state where the national income is attained.

**Body**

In this circular flow of income, it involves 4 sectors of economic entities, namely, the government, the consumers and producers, the financial institutions and the international countries. The flow of income payment and transaction between the firms and the households are increased by injection of fund made through the flow of activities from investment expenditure, government expenditure and export revenue while there is withdrawal from the flow of households and firms like savings, net tax and import expenditure. The injections can lead to expansion of the circular flow of income and raises the national income while the withdrawals lead to contraction of circular flow of income leads to the reduction in national income. This equilibrium level of national income is attained when the multiplier ceases the economic activities.



The circular flow of income is at equilibrium when the total injections are equal to the total withdrawals and the level of national income is at equilibrium. When there is an injection, there will be added economic activities that expand the circular flow of income while the withdrawal reduces the economic activities that contracts the circular of income. This expansion and contraction of the circular flow of income is via the multiplier process until the equilibrium of national income is achieved.

**In the multiplier process**, the initial increase in the aggregate expenditure expands the circular flow of income and then increasing the income of the factor earners which will further expand the circular flow of income with new consumption activities. As long as more consumption activities take place, the circular flow of income will continue to expand at the respective level of economic activities until the withdrawal effect is equal to the initial injections which will cease the expansion of the circular flow of income. Consequently, the national income will increase by several folds, depending on the value of the multiplier which is determined by the sum of the MPW (Marginal Propensity to withdraw - MPS + MPT +MPM).

Therefore the impact of an increase in aggregate demand as an injection leads to an increase in national income via the multiplier process, reaching equilibrium level of national income.

**Conclusion**

* In conclusion, an initial ↑ in exports of $100m will eventually lead to an ↑ in equi level of NI that is > $100m. The total ↑ in NI depends on the value of the multiplier. The larger is the multiplier, the larger the ↑ in NI.

**Chinese consumption decreased from 51% of Gross Domestic Product in 1985 to 43% in 1995, 38% in 2005, and 34% in 2013. By comparison, consumption is around 61% in Japan and 69% in the United States. Regardless of its relative percentage of GDP, China’s consumption has been growing faster than any other economy’s in absolute terms.**

**Explain whether the size of national income multiplier is the main determinant in influencing the change in national income of an economy. [10]**

**Question Analysis**

In this question, students have to assess whether the size of the multiplier’s degree of influence on the value of national income and compared this to other variables that will affect the value of national income. There is also the need to demonstrate the concepts of factual information on how the process of multiplier works.

increase in AD x K = increase in national income

other variables – size of increase in Ad, level of production capacity, cost condition

Approach

* Explain how and why the size of national income multiplier is the **main determinant** in influencing the change in national income of an economy
* Explain **at least one alternative key determinant** in influencing the change in national income of an economy
* Conclude with a concise summary

Introduction

The size of the multiplier is the main determinant in influencing the extent of change in real national income of an economy. However, there are also other factors, like the state of the economy and openness of economy that play a role in affecting the change in real national income.

Main Body

**1a) Explain how the size of national income multiplier affects national income of an economy –**

The size of the national income multiplier k is the main determinant in influencing the change in national income of an economy due to its multiplied impact on any increase or decrease in the components of AD. The effect of the change in national income can be explained via the multiplier process. The national income multiplier k is a measure of the magnitude in national income as a result of an autonomous change in aggregate expenditure. It is defined as the ratio of the change in national income to the initiating change in autonomous expenditure that brings it about.

**1b) Explain how the size of national income multiplier affects national income of an economy – Using the AE diagram**

Given that there is an increase in one of the aggregate demand components, there will be an increase the value of aggregate demand and this will contribute to the rise in the real GDP via the multiplier process.

**In the multiplier process**, the initial increase in the aggregate expenditure expands the circular flow of income and then increasing the income of the factor earners which will further expand the circular flow of income with new consumption activities. As long as more consumption activities are take place, the circular flow of income will continue to expand at the respective level of economic activities until the withdrawal effect is equal to the initial injections which will cease the expansion of the circular flow of income. Consequently, the national income will increase by several folds, depending on the value of the multiplier which is determined by the sum of the MPW (Marginal Propensity to withdraw - MPS + MPT +MPM)

Thus, the size of the national income multiplier shares an inverse relationship with the marginal propensity to withdraw (MPW), the smaller the leakage in the form of the marginal propensity to tax, save and import, the larger the value of the national income multiplier and thus the larger the expansionary effect on the national income of the economy. This applies to resource rich economies like the US which is likely to have a large multiplier due to her abundance of raw materials thus MPM is likely to be small.

Also with her consumerist culture, her MPS is also likely to be low thus leading to a relatively bigger multiplier. For small and open economies like Singapore with limited natural resources, the size of the national income multiplier would be small due to her high marginal propensity to import & high marginal propensity save. Hence an increase in Aggregate Expenditure of the US government would result in a larger increase in real national income than that of Singapore.

**2) Explain other key determinants that influence the change in national income of an economy**

Due to the size of multiplier, the components of AD namely C, I and G played a smaller role in the promoting continuous growth in a small and open economy when the economy is large. Instead, other determinants like external economic outlook, investors’ confidence level & existing capacity of the economy involved, influence changes in national income levels significantly.

Another determinant that influences the change in real national income of an economy would be the state in which the economy is in. For an economy such as the US, operating near full employment, an increase in real national income is limited given an increase in Aggregate Demand. Meanwhile, an economy operating below full employment level such as Russia and India, an increase in AD leads to a larger extent of increase in real national income.

This can be explained using an AD-AS graph. For the US’s economy operating near full employment level, YF, every unit production would incur higher opportunity cost due to competition for scarce resources. For example, the building the New York city subway required many engineers to work there, leaving few engineers for private transportation reparation works, leading to resource crowding out due to scarcity of manpower.

General Price Level

Real National Income

Y0

Y1

YF

AD0

AD1

AD2

0

P0

P1

P2

AS

An increase of AD from AD1 to AD2 would lead to an upward pressure on general price level from P1 to P2, with a less than proportionate increase in real national income from Y1 to YF. For an economy operating way below full employment level, more goods and services can be obtained due to availability of resources. An increase in AD from AD0 to AD1 will cause a more than proportionate increase of real national from Y0 to Y1. Hence, in the long run, increase in LRAS is insignificant. Hence the state of the economy influences the extent of change in real national income of an economy.

Another determinant in influencing the change in real national income of an economy is the nature of openness of the economy. Depending on the openness of a country, this determinant affects different economies to varying extents. For example, Singapore is a small and open economy that is highly dependent on external trade for sustained economic growth. Her export demand to GDP ratio is 326%, indicating the importance of exporting to significantly larger markets such as the US. In this situation, signing of FTAs becomes an important leverage for Singapore and reduces trade barriers between Singapore’s major trading partners through tariffs and quotas. This allows Singapore to export more to these economies. Through FTAs, Singapore benefit from cheaper raw materials and intermediate products to be used for production. Singapore would be able to import cheaper crude oil for refining upon signing FTA with Gulf state, reducing unit cost of production and enabling refined oil products to be relatively more price competitive. This leads to a more than proportionate rise in quantity demanded than the fall in price, leading to rise in export revenue. Ceteris paribus, net exports increases. This increases AD and real national income of the economy significantly via the multiplier effect. However, when compared to a large economy like China, where domestic market is large and is able boost China’s economy, external circumstances play little role in influencing the change in real national income, compared to the size of the multiplier. Thus, external circumstances like world recession and willingness of other countries to trade is a determinant in influencing change in real national income for a trade-dependent economy.

Conclusion

In conclusion, the change in national income of an economy depends largely on the size of the multiplier, besides external circumstances and spare capacity. Since the multiplier is largely fixed for each economy, the government should then take it into consideration when choosing the best approach to achieve sustainable economic growth.

**Amidst the slow growth in the EU, the persistently high budget deficit and ballooning public debt have become major concerns for many governments in the EU. As a result, they have implemented 'austerity measures' to reduce their budget deficit by raising taxes and cutting back on public spending.**

**(a) Explain what would limit the effectiveness of the austerity measures in the EU. [10]**

Introduction

 The aim of the austerity measure is to prevent budget deficit and cut down the public debt and to do so, the government needs to be prudent in government spending and capable in raising tax revenue by creating economic activities that are taxable. There is also a need for the government to ensure that austerity measures will be able to sustain or even raise production, employment and economic growth. However, the effectiveness of these measures is affected by certain economic factors.

Main Body

 One such economic factor to consider is the composition of government expenditure, which can be classified as ordinary or developmental governmental expenditure. The cut down in expenditure will not be feasible since the salaries of civil servants cost of welfare and ordinary public spending cannot be reduced easily. If the reduction in spending is for developmental expenditures, the government will able to reduce such public spending but this will undermine the development of the nation. Thus, there is a need to consider the types of government expenditure which the government can reduce to ensure that there is a balance in achieving the aim to cut public debt and budget deficit without compromising development and the proper functioning of the government.

 There is also a need to consider the influence of other aggregate demand components and the impact of the austerity measures on these aggregate components. If the aggregate demand components like export demand and private and foreign investment can be raised during this period, the cut down in government will be feasible and will not undermine the economic activities. If the cut in government expenditure will lower down the consumption level as the government expenditure is extensively for transfer payment. Thus such cut is less likely to be feasible as this is not supported by the people.

 Another factor to take note is the size of multiplier as the cut down to balance budget or a small surplus may be beneficial as it will still be able to generate adequate expansion of the circular flow of income to raise economic growth and sustain production and employment if the size of the multiplier is large or still equal to one for balanced budget. This will lead to extensive contraction of the circular flow of income if the size of the multiplier is large when the budget is in deficit although it may help to reduce public debt. The fall in economic activities may undermine the economy from raising tax revenue and this may render the effort to cut government expenditure as the lower tax revenue will make it more difficult for the government to reduce public debt.

 It is also important for EU to consider the level of private or public saving and the extent of distribution of the saving among the population as this will help the government to consider the areas of government expenditure it may reduce so as not to lower the private consumption level as high level of saving among the group of consumers will enable them to sustain consumption when the transfer payment is reduced and the public expenditure is cut.

In sum, it is not an easy economic implementation when the government in EU attempts to introduce austerity measures as there many economic factors that will undermine such measure. Many sacrifices must be made to ensure that the aims of the austerity measures are met.

**Essay Question 31**

**Amidst the slow growth in the EU, the persistently high budget deficit and ballooning public debt have become major concerns for many governments in the EU. As a result, they have implemented 'austerity measures' to reduce their budget deficit by raising taxes and cutting back on public spending.**

**(b) Discuss the extent to which the austerity measures in the EU will have an adverse impact on the Singapore economy.**

Introduction

 The impact of the austerity measures in EU will have an adverse impact on Singapore and this can be observed from how the slowdown of the economic activities in Europe will affect Singapore’s trading and investment activities and the flow of fund. These adverse impacts can be observed from how it lower our economic growth and employment and worsen the inflationary and balance of payment.

Main body

 The austerity measure will cause a slowdown in the economic growth of European Union and this will mean a reduction in the standard of living of the member nations. There will be a reduction in the real GDP per capita of the citizens, which will mean the purchasing power of the people will reduce and this will contribute to a fall in import expenditure made by the member nations. As for firms in these economies, they are likely to face bleak business development and there will be lower revenue and profitability will be adversely affected, influencing the firms in Europe to cut down their investments in Asia and thus, Singapore too. As the economic adversity will also mean that the EU may cut their interest rate to stimulate their economic activities, there is likely an outflow of fund from EU and inflow of fund into Asia and Singapore due to interest rate differences.

 This adverse development in EU will cause a fall in Singapore’s export demand to the EU and the inflow of foreign direct investments from EU into Singapore will be adversely affected. The adverse development in the EU will **worsen balance of trade and long term capital account**, which undermine production activities while the inflow of fund from EU in terms of hot money will destabilize the short term capital account and the exchange rate of Singapore.

**Essay Question 23**

**(a) Pump priming is an action taken by the government to stimulate an economy, usually during a recessionary period. Explain why such a measure is more effective when a greater portion of the extra income earned by households is consumed than withdrawn. [10]**

**(b) Assess the view that a large increase in national income is always desirable. [15]**

**What is the command word? (what are the skills required for this question?)**

* ‘Explain why’ → Use economic theory to provide reasons in detail, using examples

**What is the content word?**

(what are the relevant concepts required to answer this question?)

* ‘Pump priming’
	+ Action taken by govt to stimulate economy during recessionary period
	+ Expansionary fiscal/monetary policy to raise AD via rises in C, I and/or G
* ‘measure is more effective’ = the successful impact of increase in AD on NY to stimulate an economy
* ‘a greater portion of the extra income earned by households is consumed than withdrawn’ = larger mpc value vs smaller mpw value
	+ `determines the size of the multiplier effect

**What is the context word? (where or when to apply for this question?)**

* Examples of at least 2 different countries, with different mpc values

**Schematic Plan**

* Pump priming (expansionary fiscal and monetary policies) →stimulate higher domestic C, I and G → higher AD → via multiplier → real NY rises more than proportionate (assume economy <Yf)
* The extent of the increase in NY depends on the size of the multiplier effect → k = 1/(1-mpc) = 1/mpw = 1/(mps+mpt+mpm) → factors that affect size of k
* The larger the mpc, the larger the k, and hence the more effective expansionary policy has on raising NY and stimulating an economy during a recessionary period, through a rise in AD.

Introduction

* Pump priming refers to use of expansionary fiscal and monetary policies to increase AD.
* The level of spending by households (Consumption), firms (Investment) and government (Govt spending) are components of aggregate demand (AD) in a country.
* Expansionary fiscal and monetary policies aim to increase domestic C and I via expansionary FP (cut in direct tax and rise in government spending) or via expansionary MP (via cut in interest rates) to increase aggregate demand. The real national income (NY) in the country (assuming the economy is below full employment, that is economy has unemployed resources) will increase more than proportionately, via the multiplier process, to the increase in AD. The extent of the impact of increases in C, I and G on NY depends on the multiplier effect, which is determined by the size of the multiplier (k).
* The size of k is determined by the marginal propensity to consume i.e. k = 1/(1-mpc) = 1/mpw = 1/(mps+mpt+mpm) for a 4-sector economy.
* The higher the mpc, or the lower the mpw, the greater the size of k, and hence the greater will be the extent of increase in NY given any rise in C, I or G.

Main Body

**1) Expansionary fiscal and monetary policies aim to increase C, I and G and thus increase AD.**

Expansionary fiscal policy involves a rise in G and a cut in taxation. When the government cuts personal income tax rate, households enjoy increases in disposable income and thus higher purchasing power. Households can then increase consumption. A cut in corporate tax rate will increase after-tax profits and thus expected rate of returns for firms. Firms undertake more investments.

Expansionary monetary policy refers to cuts in interest rates. Interest rate is also the cost of borrowing. Thus, a cut in interest rate would make it less expensive for consumers to borrow money and buy on credit for big-ticket items. Also, lower interest rate would encourage consumers to consume (and save less) because the opportunity cost of spending has decreased, that is, less interest forgone on savings. This would cause an increase in consumption. Similarly, business would enjoy lower interest charges on loans for investment. More investment projects are now profitable for the same expected rates of returns. This leads to a rise in investment.

Hence, expansionary fiscal and monetary policies will boost C, I and G. Increases in C, I and G cause AD to increase. For some countries like the US and UK, consumption is the largest component of aggregate demand. A rise in C will have increase AD and hence NY significantly. However, for countries like Singapore where consumption is a relatively small component of AD, a rise in C will increase AD and NY less significantly.

**2) When AD rises, NY will rise by a larger extent due to the knock-on effect on income-induced consumption. The extent of the rise in NY depends on the size of the multiplier (k). What determines the size of the multiplier effect on NY is the marginal propensity to consume (mpc).**

The marginal propensity to consume (mpc) indicates the portion of additional or extra income that is used for consumption expenditures. The size of the multiplier, k, is directly related to mpc, that is K = 1/(1- mpc) = 1/mpw = 1/(mps + mpt + mpm). Assume 4-sector economy here.

Assuming mpc = 0.9, K = 1/(1-0.9) = 1/0.1 = 10. When AE rises by $100m, NY will rise by 10 times to $1000m.

For example, if autonomous investment expenditure rises by $100m, the national income of the economy is immediately raised by $100m via the increase in the incomes of factor input owners. These factor owners will then spend 0.9 (= mpc) of their rise in income on consumption of goods and services, i.e. $90m (mpc x ∆Y = 0.9 x $100m) is passed on to the next round of producers of goods and services, with only 0.1 (= mpw) of the rise in income being withdrawn from the circular flow (0.1 x $100m = $10m). These producers will then spend 0.9 of their rise on income on domestic goods, i.e. $81m is passed on in this third round and $9m withdrawn. The process continues, with each round of domestic spending on goods and services being the next round of income for the producers of goods and services. The process comes to an end when the change in withdrawal is $100m is equal to the initial change in injections of $100m. Final increase in income is 10 times the initial rise of $100m, that is, $1000m.

The larger the mpc, the greater will be the multiplier k and thus the multiplier effect. This is because when incomes rise, households are spending more on domestic goods out of any additional increase in income (rather than withdraw it) and thus each round of the multiplier process leads to a greater increase in national income. When people receive extra (additional) income and consume more of the extra income on locally produced goods, this will create a greater increase in AD and NY in subsequent rounds.

When people save, pay for taxes or spend more of their extra income on imports less money will be passed on through the circular flow as more of the extra income is withdrawn. Hence there will be a smaller increase in AD and NY. Assuming mpc = 0.6, k = 1/(1-0.6) = 1/0.4 = 2.5. When AE rises by $100m, NY will rise by 2.5 times to $250m.

Thus, a higher mpc (smaller mpw) leads to a larger multiplier effect whereas the larger the mpw (smaller mpc) leads to weaker multiplier effect.

**3) Different countries have different values of mpc and thus different sizes of the multiplier, and hence different degrees of effect of rise in AD on NY.**

Singapore has a smaller multiplier than other countries because of our mpc is relatively lower. This is because of our unique Central Provident Fund (CPF) scheme which requires workers to save a certain percentage of their monthly earned income. Singapore has one of the highest savings rate in the world (high mps). In addition, mpm is relatively higher for Singapore too because of our heavy reliance on imports due to our lack of resources. In contrast, USA has a bigger multiplier because their mpc is relatively higher, while the savings rate and import rate are rather low in that country. Assumption is that mpt is the same for both countries.

Asian countries tend to have a higher marginal propensity to save compared to Western countries. This can be attributed to the value of thriftiness, a cultural factor. The propensity to save voluntarily (for retirement or payment for higher medical expenditure due to ageing population & lack of established social safety networks) may also be higher in many Asian countries. Hence, the mps and thus the mpw of many Asian countries will tend to be larger compared to other Western countries (mpc smaller).

Conclusion

In conclusion, pump priming through the use of expansionary fiscal and monetary policies to stimulate an economy during a recessionary period work more effectively in countries with relatively larger mpc as a larger mpc value implies a greater multiplier effect. The rise in AD will lead to larger increases in NY via the multiplier to help the economy. In countries where the mpc is smaller, the government will need to raise C, I or G by greater amounts to achieve the same desired rise in NY to stimulate the economy.

**(b) Assess the view that a large increase in national income is always desirable. [15]**

**What is the command word?**

(what are the skills required for this question?)

* ‘Assess’ – consider both thesis and antithesis and synthesize with a judgment

**What is the content word?**

(what are the concepts required to answer this question?)

* ‘large increase in national income’ = rapid or accelerated economic growth
* ‘always desirable’ = always beneficial, with positive effects on the economy

**What is the context word?**

(what is the context for this question?)

* Different countries, time period

**Schematic Plan**

Increase in national income = Economic growth = Actual and/or potential growth Large increase in national income = Accelerated economic growth

Causes of large ↑Y → Positive & Negative effects of large ↑Y on macro and micro goals

Thesis: A large increase in NY is desirable

Anti-Thesis: A large increase in NY is undesirable

Conclusion

* Whether a large increase in NY is always beneficial depend on the source of the increase in NY (whether it is from rise in AD e.g. from higher C or rise in AS e.g. from higher I), availability of idle resources (whether economy is operating near Yf), the current state of the economy as there may be conflicts between different macroeconomic goals (for example, the economy could currently be facing a BOP deficit) and the extent of material gains compared to non-material costs incurred in achieving the rise in NY.
* It also depends on the factors that led to the large increase in NY. For example, if govt spending contributed to the increase in NY but it was funded from borrowing and greater govt debt, this leads to further negative repercussions. The desirability of a large increase in NY greatly depends in the objectives of the govt.

Introduction

* Increase in national income means the economy is achieving economic growth, which could be actual growth and/or potential growth. A large increase in national income is equivalent to targeting high rate or accelerated economic growth compared to normally.
* Actual growth can be achieved when the economy has excess capacity to accommodate any rise in AD. The rise in AD could be from a rise in C, I, G or X.
* Potential growth can be achieved when the quantity and quality of the resources are expanded or the level of technology is improved to increase the productive capacity of the economy and sustain actual growth without causing a rise in GPL.
* The rise in AD must be large to achieve the large increase in NY via the multiplier effect. The real NY will grow quickly provided the economy has excess capacity

Main Body

**1) A large increase in NY allows the country to achieve other macroeconomic goals, namely lower unemployment rate and lower inflation rate, and probably improvement in BOT.**

This is because higher actual economic growth leads to a greater utilization of resources and hence move the economy towards full employment. There is greater production of goods and services to meet the rise in AD, leading to greater demand for labour and other resources. Hence, unemployment rate falls as demand for labour is derived from the demand for goods and services.

Moreover, greater output and potential growth in the country could have also been based on supply factors such as rise in level of technology and higher productivity. This enables the aggregate supply to rise, and hence overall output and employment can rise. This rise in aggregate supply may lead to a fall in general price level, leading to a low rate of inflation, which is another important macroeconomic aim of a country.

As the goods and services can now be produced at lower prices, exports of the country

become more price-competitive to the rest of the world. This can lead to a rise in export earnings, improving the BOT in the country.

Thus, a large increase in NY is desirable as it can reduce both unemployment and inflation, and improve BOT.

**2) A large increase in NY brings about a higher standard of living.**

First, with a larger income, as measured by Gross Domestic Product (GDP), and with a given population, higher GDP per capita will mean more goods and services are produced and available for consumption for the average person in the country. This should lead to higher standard of living.

Economic growth has led to a greater quantity and range of goods and services for consumers, which contributed to a significant increase in living standard in the country. Citizens have having purchasing power now with the large increase in NY and hence they will be able to enjoy a wider range of consumer goods, improving their material standard of living.

In addition, a large increase in NY enables the government to collect more tax revenues to help fund welfare payments to improve the lives of the citizens. Those in the lower income groups can be assisted in many ways to ensure a better standard of living for them, for e.g. subsidies for housing and healthcare.

Thus, a large increase in NY leads to improvements in the standard of living, a significant aim for many, especially the developing economies.

**3) However, it is necessary to note that rapid economic growth and large increase in NY may bring about conflicts with other macroeconomic goals, namely rising structural unemployment in the long run.**

If potential growth is accomplished with economic restructuring in manufacturing and

industrialization to ensure exports of the country remain competitive, the new jobs created will be in industries where higher skills and education is required. Thus, the less skilled and lowly-educated workers may find that there is a mismatch between their skills and the job requirement, especially those in primary industries, leading to rising structural unemployment in the country.

For example, the problem of structural unemployment is a real concern in Singapore. Professionals, Managers, Executives and Technicians (PMETs) have joined the less skilled, lowly-educated workforce in the ranks of structural unemployed. The ageing workforce in Singapore which is made up of a large group of less skilled and educated workers in their 40s and 50s has further compounded this problem of structural unemployment.

Nevertheless, despite this conflict, economic growth is still a significant aim because it provides government with the tax revenue to fund retraining schemes for the structurally unemployed and the redesigning of jobs. In addition, higher economic growth helps to provides funds for more social security schemes to help the lower-income workers improve their living standards, thus achieving the aim of a more equitable distribution of income in the country as well.

Thus, it is important to note that rapid potential economic growth may bring about large increase in NY but the economic restructuring to achieve it may result in structural unemployment. Although rapid economic growth helps to promote higher employment, it can result in some workers to be permanently out of a job. So it is important for the govt to implement measures to minimize this negative impact of economic growth.

**4) However, the pursuit of large increase in NY may lead to a conflict in pursuing other macroeconomic aims of low inflation and BOP equilibrium in the short-run.**

Rapid actual growth and large increase in NY may lead to higher rate of inflation and balance of payments deficit especially when the country is approaching full employment.

This is because as aggregate demand (AD) rises near full employment where the economy is reaching its full capacity, demand-pull inflation set in due to inability of AS to match increases in AD. This will affect the export competitiveness and hence worsen the country’s balance of payments (BOP).

Higher economic growth and purchasing power may also lead to rising demand for imports of consumer and capital goods and hence worsen the balance of payments further, especially if the economy is already facing a BOP deficit.

Hence, such negative effects of higher actual growth may cast doubt on the significance of promoting rapid actual growth in the country.

**5) Besides the possible negative effects of rapid economic growth and large increase in NY on employment, inflation and balance of payments, there are other adverse impacts on income distribution and non-material SOL.**

The large increase in NY could be a result of rapid growth and expansion in certain industries and will only benefit certain groups of people in the country. Those working in the industries that enabled such large increase in NY could see a quick and high increase in their incomes while those working in other industries not related to this growth may see stagnant or even falling real incomes if GPL rises, leading to a worsening income gap.

Large increase in NY is a result of higher levels of productive activities. This often results in higher levels of negative externalities or spillover effects on third parties, resulting in lower consumer well-being. There will be higher levels of air and water pollution, traffic congestion, longer working hours and stress levels, all leading to a decrease in non-material SOL.

Therefore, such negative effects of large increase in NY may cast doubts on the benefits of promoting rapid economic growth in the country.

Conclusion

Whether a large increase in NY is always beneficial depend on the source of the increase in NY (whether it is from rise in AD e.g. from higher C or rise in AS e.g. from higher I), availability of idle resources (whether economy is operating near Yf), the current state of the economy as there may be conflicts between different macroeconomic goals (for example, the economy could currently be facing a BOP deficit) and the extent of material gains compared to non-material costs incurred in achieving the rise in NY.

It also depends on the factors that led to the large increase in NY. For example, if govt spending contributed to the increase in NY but it was funded from borrowing and greater govt debt, this leads to further negative repercussions. The desirability of large increase in NY also greatly depends on the objectives of the govt as well as the existing world economic situation.

1.2 Consider whether fiscal stimulus is the main influence on the attainment of inclusive growth

1.3 Is consumption the main cause of inflation in a country. (10)

**Question 1**

1. Using the circular flow of income, explain how the effects of an increase in government expenditure on the equilibrium level of national income may differ between a small and open economy and a large and less open economy. [10]

The adoption of fiscal stimulus is the most significant influence to attain actual and potential growth. Discuss. (15)

**Question 3**

**Economic Indicators for Singapore**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | 2016 | 2017 | 2018 | 2019 |
| GDP(in current millions US$) | 318,652 | 341,863 | 373,217 | 372,062 |
| Inflation rate (%) | -0.53 | 0.58 | 0.44 | 0.57 |
| Unemployment (%) | 4.08 | 4.2 | 4.02 | 4.11 |
| GINI coefficient(before taxes and transfers) | 0.458 | 0.459 | 0.458 | 0.452 |

Sources: *WorldBank* and *Singstat*

a) Based on the above data, assess the economic performance of Singapore from 2016 to 2019. (10)

b) Identify and evaluate how the supply policy adopted by the government can further improve and enhance economic growth in Singapore. (15)