UNIVERSITY OF DAR ES SALAAM
BUSINESS SCHOOL
Department of Finance
FN 101: Principles of Macroeconomics
2020/21 Academic Year
Seminar Discussion Questions – Set One

Group 1

1. Explain why each of the following should be taken into account when GDP data are used to compare the 'level of well-being' in different countries.
   a. Population levels.
   b. The distribution of income.
   c. The amount of production that takes place outside markets.
   d. The length of the average work week.
   e. The level of environmental pollution.

2. Assume the following: 1) UDSM is an autonomous country. 2) The only good/service produced at UDSM is undergrad (freshmen) education.
   a. Fill in the following:

Year	# of UDSM Freshmen	Price (Tuition)	Nominal GDP	Real GDP (1985 Shs)	Real GDP (2015 Shs)
1985	300	2,000,000			
2015	900	20,000,000			
2016	1,000	21,000,000			
2017	1,100	23,000,000			
2018	1,000	25,000,000			
2019	1,200	28,000,000			

   b. Find the growth rate of nominal GDP for 2017, 2018 and 2019.
   c. Find the growth rate of real GDP (using 2015 Shs) for 2017, 2018 and 2019.
   d. Find the growth rate of real GDP (using 1985 Shs) for 2017, 2018 and 2019.
   e. Why are your answers in b), c) and d) different/same?
   f. Compute inflation using GDP deflator (using 2015 Shs) for 2017, 2018, and 2019.
   g. Beside GDP deflator what other price indices are used in measuring inflation?
   h. Which one is the best? Why?

Group 2

1. The CPI is the price of purchasing a fixed basket of goods. It takes a group of goods that represents the consumption of the average urban dweller (done by surveys, not randomly neither theoretically) and get the price for that basket each year and compare it to the prices of that same basket in a base year. Why would CPI overstate the true rate of inflation?

2. Explain, in two or three sentences for each, what each of the following are, what they have to do with the issue of how and whether macroeconomic policies should be used, and also whether they seem to be more relevant, in Tanzania, for monetary policy or for fiscal policy.
   a. Inside lags
   b. Outside lags
   c. Time inconsistency
   d. Leading indicators
   e. Political expediency
   f. Automatic stabilizers

Revision Questions

1. Describe the various components of fluctuations in economic activity over time. Since the level of economic activity fluctuates, how is long-term growth possible?
2. Why is it difficult to identify the turning points in economic activity until months after they occur?
3. Consider a hypothetical economy with three companies A, B, C. Company A grows oranges. Half of the oranges are used by Company B to produce orange juice. Company B exports part of its products and sells the rest to Company C. Company C is a retail store that distributes the juice manufactured by B in the domestic market and the rest of the oranges harvested by A. Below are financials for all three companies for year 2018 and 2019.

Company A	**2018**	**2019**
Revenues from sales	Shs 100,000	Shs 200,000
Expenses	50,000	50,000
Wages	50,000	50,000
Profits	50,000	150,000
Company B	**2018**	**2019**
Revenues from sales	100,000	200,000
Expenses	100,000	150,000
Wages	50,000	50,000
Orange purchases	50,000	100,000
Profits	100,000	50,000
Company C	**2018**	**2019**
Revenues from sales	500,000	600,000
Expenses	150,000	200,000
Juice purchases	100,000	100,000
Orange purchases	50,000	100,000
Profits	350,000	400,000

a. Show three different ways to compute this economy's GDP in both 2018 and 2019.
b. Suppose the number of the oranges and the amount of the orange juice produced are exactly the same for both years. Compute the rate of inflation from 2018 to 2019 based on the GDP deflator.
c. In addition to (b), suppose all individuals in this economy consume only oranges and juices bought from Company C, and Company C sell to consumers only. Compute the rate of inflation from 2018 to 2019 based on the Consumer Price Index.

4. Why do economists pay more attention to national economies than to state or regional economies?
5. What are the major objectives of macroeconomics? Write a brief definition of each of these objectives and explain carefully why each objective is important.
6. Explain why intermediate goods and services generally are not included directly in GDP. Are there any circumstances under which they would be included directly?

7. Explain the difference between economic growth and economic fluctuations. What are the causes of each?
8. In national income accounting, one component of measured investment is net changes in inventories. Why are these changes considered in part of GDP? Also, discuss why it is not sufficient to measure the level of inventories only for the current year.
9. You sometimes hear, "You can't add apples and oranges." Show that we can and do add apples and oranges in the national accounts. Explain how.

10. The following transactions took place in Legoland last year:

Item	**Mln of Shs.**
Wages paid to labour	750
Consumption expenditure	600
Taxes	250
Government transfer payments	50
Indirect taxes less subsidies	0
Firm's profits	200
Net Investment	200
Government expenditure	200
Exports	300
Private Savings	300
Depreciation	50
Imports	250

a. Calculate Legoland's GDP using the expenditure approach and the factor incomes approach.
b. Calculate leakages from and injections into the circular flow of income and expenditure.
c. Calculate the net domestic product.
d. How much are government saving and national saving?
e. If there is a purchase of one corporation by another corporation by swapping shares worth 1 billion dollars, how would it affect the GDP figure?

11. Suppose that there are only 2 goods in the hypothetical economy (denoted by A and B). We have yearly data on prices (p) and quantities produced (q) for each good for the period 2015 – 2017.

t	pA	qA	pB	qB
2015	1	1	2	2
2016	2	2	4	2
2017	2	3	3	1

a. Compute the nominal GDP for each year

b. Compute, for each year in the sample, the real GDP with base-year 2015. Do the same using 2016 and 2017 as base years.

c. Compute the GDP deflator for each year in the sample, using 2016 as base year. Compute the corresponding inflation rate for each year.

d. Suppose that the basket of goods used by the Government to compute the CPI consists of 1 unit of good A and 4 units of good B. Using 2016 as the base-year, compute the CPI and also the CPI based inflation rate for each year. How the numbers do for CPI based inflation compare with the numbers for GDP deflator based inflation obtained above? Do you get more or less deflation between 2016 and 2017? Explain briefly.

e. Compute the growth rates of the chain-weighted real GDP for 2015–2016 and 2016–2017. For the growth rate between 2015 and 2016, does it make a difference to use the chain index as opposed to the growth rate of real GDP with base year, say, 2015? Why?

12. "In an economy with only two goods, the choice of the base year will not affect the growth rate of real GDP with base year, as long as the relative price between the goods (that is, the ratio of the price of one good to the price of the other) is constant over time". *True or False and why?*

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Seminar Discussion Questions Set 2

Group 3

1. Consider an economy with the following (All units are billions of shillings):

   C = 500 + (0.5)Yd, I = 100, T = 80, G = 200

   a) Solve for the good market equilibrium. (Find equilibrium Y, Z, C, and Y_D.)
   b) Graph (with correct labels) equilibrium Y and Z.
   c) Solve for private and public saving.
   d) Calculate and explain the meaning of marginal propensity to consume (MPS), marginal propensity to save (MPS) and the relationship between them.
   e) Calculate and explain the concept of multiplier and autonomous spending.
   f) Now, the government is facing a re-election and increases G from 200 to 240 (Fiscal expansion). Find the equilibrium demand, output, consumption, and disposable income, then graph. Why would the government want to do so?

2. Assume that C = 100 + 0.75 (Y – 100), I = 50, G = 30 and X – M = -100. What is the simple expenditure multiplier? What is the level of real GDP demanded? What would happen to real GDP demanded if government expenditure increase to 40?

3. Explain the meaning of aggregate demand (AD). Explain the difference between aggregate demand and the gross domestic product (GDP) and the relationship between the two. What is aggregate supply?

Group 4

1. What is the Aggregate Demand-Aggregate Supply Model/Framework? Explain the determinants of the aggregate demand. Also, what are the determinants of aggregate supply?
2. You are given the following information about a fixed-price economy:

   $C = 150 + 0.8\ Yd$, $Yd = Y - T$, $T = 5 + 0.5\ Y$

   $I = 54$, $G = 150$, $X = 50$, $M = 0.2Y$, $AE = C + I + G + X - IM$

   Where Y is national income (GDP), Yd is disposable income, C is consumption, I is investment, G is government spending, T is total taxes, X is total exports, IM is total imports and AE is aggregate expenditure.

a) Fill in the blanks in table below:

Y	T	Yd	C	I	G	X-IM	AE
300							
400							
500							
600							

b) Calculate the equilibrium level of real GDP. Illustrate your answer in an income-expenditure diagram.

c) What is the government's budget balance and the trade balance at the equilibrium GDP? Illustrate your answers in diagrams.

d) Assume the potential GDP is 600, and the government decides to set this level as its income target. By how much must the government increase/decrease its expenditure to achieve this target? What will be the impact effects of this change in government expenditure on the budget balance and the trade balance? What is the size of the multiplier?

e) Suppose the economy attains its potential GDP of 600 after the government raises its expenditure. The government, however, decides to raise a lump-sum tax to cover the extra spending, what will be the effects on the equilibrium national income? Will there be any output gap at the new equilibrium national income? Illustrate your answers in a diagram.

3. In detail and graphically, explain the meaning of a natural rate of GDP. How is it related to full employment? Differentiate natural rate of GDP from the equilibrium rate of GDP.

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Seminar Discussion Questions – Set Three

Group 5

1. Answer the following in detail.
   a. What is consumer price index (CPI)?
   b. What is the difference between CPI and the GDP Deflator?
   c. Does Consumer Price Index overstate the true rate of inflation?
   d. Which is the better measure of inflation between CPI and GDP Deflator?

2. In detail, explain each of the following;
   a. Income-Expenditure Model (explain with a help of a diagram)
   b. The difference between planned expenditure and actual expenditure
   c. Goods market and the goods market equilibrium
   d. How the equilibrium level of national income/output is determined?

Group 6

1. Explain how each of the following affects the level of aggregate demand (define aggregate demand first)

   e. Interest rate
   f. Nominal wealth
   g. Consumer Confidence
   h. Income taxes
   i. Business confidence
   j. Government spending
   k. Net exports (exports - imports)

2. With the help of diagrams, answer the following questions,
   l. Define the IS curve
   m. Explain and derive the IS curve from the Keynesian Cross Model
   n. Explain the effect of change in government expenditure on the IS curve
   o. Explain the effect of an increase in tax on the IS curve

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Seminar Discussion Questions – Set Four

Group 7

1. Define aggregate supply and with the help of diagrams explain:-
   a. The difference between the short-run aggregate supply curve and the long run aggregate supply curve.
   b. Factors that can shift the short-run aggregate supply curve (use two vivid examples)
   c. The impact of adverse supply shocks on the economy (using the AD-AS framework)
   d. The economic effect of tax reduction at the full employment level of output

2. Answer the following questions.
   a. Briefly explain the functions of the central bank
   b. With the help of a diagram differentiate between the IS curve and the LM curve

Group 8

1. Answer the following questions.
   a. What is money? Briefly explain the functions of money and the characteristics of good money.
   b. Explain the term double coincidence of wants. How did the advent of fiat money change the necessity of double coincidence of wants in trade?
   c. What is money demand? Explain why would one demand money?

2. Answer the following
   a. Who determines the nation's money supply?
   b. Explain the "**money market model**" and the relationship between its variables
   c. With the help of the equation, explain the quantity theory of money

3. By using the money market model, derive the LM curve
   a. In detail explain three differences between LM curve from the IS curve
   b. Derive AD-AS from the IS-LM model.

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Seminar Discussion Questions – Set Five

Group 9

1. With the help of diagrams, use the money market model and the goods market model to explain;

   a. How does a contraction of money supply affect the national output
   b. How does the increase in national output affect the level of interest rate?
   c. Which form of monetary policy is suitable for stimulating the level of economic activity?

2. Consider a closed economy to which the Keynesian-cross analysis applies. Consumption is given by $C = 200 + 2/3(Y - T)$. Panned investment is $I=300-50r$, $G=300$, and $T=300$.

   a. If $r = 4$, what is the equilibrium level of Y? Calculate the value of national saving.
   b. What is the government spending multiplier? If G increases to 400, what is the new equilibrium value of Y?
   c. Find the equilibrium level of r when $Y = 0$. Use this and the information in part (a) to graph the IS curve

3. Use the IS-LM model to evaluate the macroeconomic responses to events and policies that are provided below from (**a** to **e**). Explain which curves shift in the short-run, in what direction and what is the effect on output and interest rate.

   a. Businesses become more optimistic about the future demand for their goods
   b. Our major trading partner eliminates "***tariffs***" previously imposed on our exports
   c. ***"Stock prices"*** drop by 20 per cent
   d. The government and the central bank agree to boost output without changing the interest rate
   e. Interest rate go up in the rest of the world

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Seminar Discussion Questions – Set Five

Group 10

1. By using the AD–AS Model, explain the macroeconomic effects of the following in (a) and (b)
   a. OPEC raises oil price drastically without warning.
   b. Consumers are fervent about the bright economic future
   c. Explain and illustrate the effect of increase in government spending in the money market.
   d. Using diagrams, explain the relationship between output and interest rate (i) in the money market (ii) in the goods market.

2. Derive the Aggregate Demand curve from the IS – LM model
   a. Show the effect of an equal increase in government expenditure (T) and taxes (T) at the same time (i.e. $\Delta G = \Delta T$)
   b. The government and the central bank want to increase the output without affecting the interest rate; you are asked to advice on the macroeconomic policy to be implemented. Explain it and how it will bring the desired objective

3. The economy is operating at full employment, suddenly a sharp decline in the world oil supply occurs:-
   a. Name the type of the economic shock described above and its effects in the economy
   b. Propose two policy options that can restore the economy back to the full employment