UNIVERSITY OF DAR ES SALAAM

FN: 101 PRINCIPLES OF MACROECONOMICS ANALYSIS

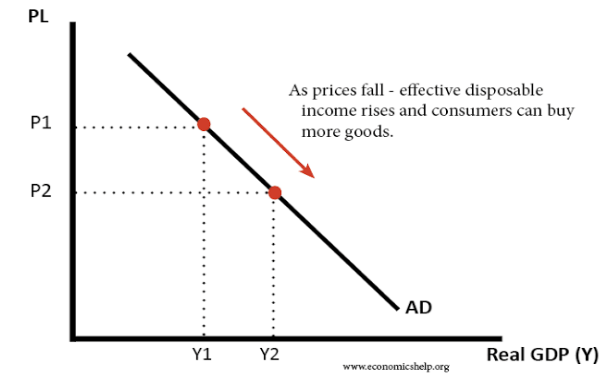
SEMINAR LEADER: Sir Gilbert

SEMINAR DAY: THURSDAY 1800HRS TO 1900HRS

VENUE: SC 111

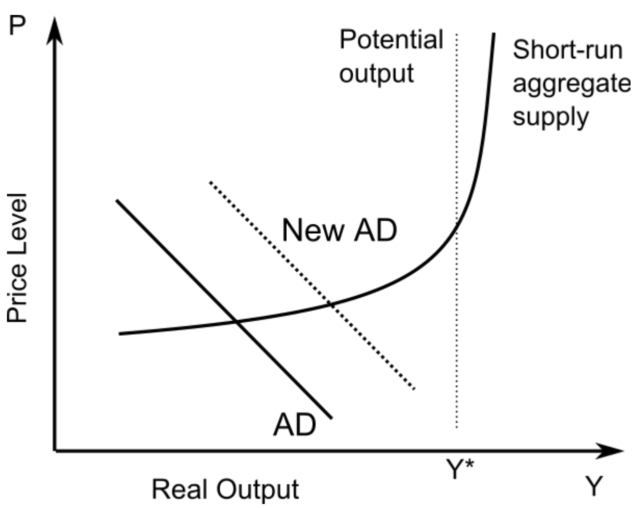
S/N	NAME	REG: #	COURSE
1	Kimaro Grayson G	2020-04-04018	B.com in finance
2	Lubamba Maggy N	2020-04-04744	B.com in human resources
3	Katabazi Prince	2020-04-10508	B.com in accounting
4	Salija Careen R	2020-04-10977	B.com in accounting
5	John Jackson William	2020-04-02759	B.com in Marketing
6	Kaaya Mercy Z	2020-04-03071	Bsc.in BIT
7	Maguha Agness Nimilwa	2020-04-05241	B.com in finance
8	Mshiu Gladness H	2020-04-08038	B.com in finance
9	Mushy Benedictor R	2020-04-08460	B.com in marketing
10	Mosha Veronica	2019-04-07864	B.com in Tourism

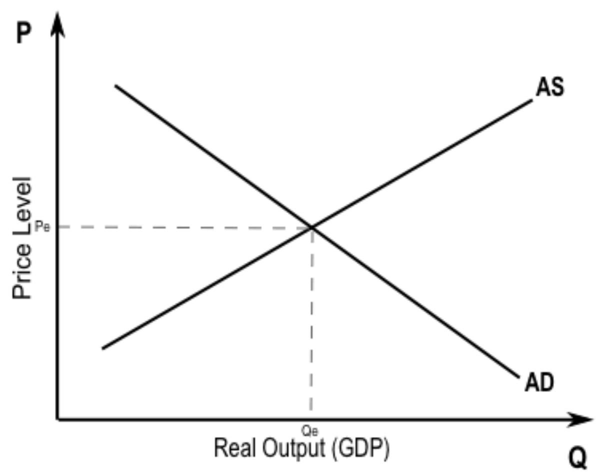
1.Aggregate demand; According to macro economics defined as a total demand of final goods and services in an economy at a given time. Sometimes it's called effective demand as the law of demand says that, people will buy more when price falls. There arerious components of aggregate demand including consumers spending , business spending, Government spending, Export -Import. Aggregate demand is calculated by the formula as AD=C+I+G+(X-M).



Aggregate supply; According to macro economics defined as total supply of goods and services that firms in national economy plan on selling during a specific period of time or can be defined as the total amount of goods and services that firms are willing and able to sell at a given Price level in an economy. The main components of aggregate supply is consumption and saving as formula AS = C + S

Aggregate demand -Aggregate supply model/framework; Is macro economics model that explains the price level and output through the relationship of aggregate demand and aggregate supply .It is based on the theory of John Maynard Keynes presented in his work The General Theory of Employment, Interest and Money.





There are various determinants of aggregate demand and aggregate supply ;The

following are determinants of aggregate demand ;

Monetary policy; Monetary policy impacts the money supply in an economy, which influe

nces interest rates and the inflation rate, The large increase in money supply lead to a fall in the interest rate as money is more readily available it's cheaper to borrow and increases in aggregate demand also in inflation rate as money supply increase lead to price to be higher due to that it affect the aggregate demand lead to demand to falling.

Fiscal policy; Is the one of the government attempt to influence the economy by setting and changing government expenditure on goods and services as well as taxes and transfer payment .Increase in government expenditure lead to increases in aggregate demand AD. Expansionary fiscal policy usually enacted in response to recessions or employment shocks, increases government spending in areas such as infrastructure, education, and unemployment benefits. According to Keynesian economics, these programs can prevent a negative shift in aggregate demand by stabilizing employment among government employees and people involved with stimulated industries. The theory is that extended unemployment benefits help to stabilize the consumption and investment of individuals who become unemployed during a recession.Contractionary decreased in government expenditure lead to fall in aggregate demand also increases in direct taxes lead to reduce purchasing power of people's hence lead to falling in demand.

The exchange rate; It involves the appreciation and depreciation of domestic currency in term of foreign currency as when the local currency appreciates (the domestic currency buy more interm of overseas currencies so due to that the import demand will increase and export demand falls and AD falls .A depreciation of domestic currency leads to decrease in import demand while export demand rises and the AD for imports decreases.

Foreign income levels; the more strongly overseas countries are growing, especially the trading partners ,the higher is the demand for domestic goods overseas and aggregate demand increases. conversely the more the domestic economy is growing, the higher is the demand for imported goods and aggregate demand declines.

Expectations; due to the prediction of the future change in income, future profits and future inflation (change in general price level)may influence current expenditure decisions causes economic agents such as firms ,households and even governments to adjust their current expenditure and lead to the increase in aggregate demand and vice versa.

There are various determinants of aggregate supply as follows

Technology level;This is the one of the factor that determine the level of aggregate supply as when the level of technology is higher can influence the higher production which causes the increase in aggregate demand and on other hand when the level of technology is low led to low level of production hence it decrease the level of aggregate supply,An increase in technology causes an increase (rightward shift) of both aggregate supply curves. A decrease in technology causes a decrease (leftward shift) of both aggregate supply curves.

Size of labour force;This is the one of the factor that affect the level of aggregate supply as when the size of labour force is high it will lead to increase of productivity in various activities such as factories , agricultural, hence lead to increase in aggregate supply and viseversa(when the size of labour force be low it will lead to the decrease of the productivity hence lead to decrease the size of aggregate supply.

Taxes and subsides; This is the one of the determinant that affect the aggregate supply as when the indirect tax From the firm's perspective, taxes or regulations are an additional cost of production that shifts supply to the left, leading the firm to produce a lower quantity(decrease in aggregate supply) at every given price. Government subsidies reduce the cost of production and increase supply at every given price, shifting supply to the right.

Cost of production;This is the one of the factor that determine the level of aggregate supply as when the cost of production such as the raw material,wages,rent it decreases, the quantity that producers are willing (and able) to supply at a given price increases. ... Conversely, if production costs increase, the quantity supplied at a given price will decrease. Higher costs mean that producers will have to produce less to be able sell a product at a given price.

Capital;This is the one of the determinant that determine the level of aggregate supply as When capital increases, the aggregate supply curve will shift to the right, prices will drop, and the quantity of the good or service will increase hence will lead to increase the aggregate supply and viseversa (when the capital decrease ,the supply curve will shift to left and the quantity of goods or service will decrease hence lead to decrease in aggregate supply.

2.(a) Given,

$C = 150 + 0.8\ Yd$

$Yd = Y - T$

$T = 5 + 0.5\ Y$

$I = 54$

$G = 150$

$X = 50$

$M = 0.2\ Y$

$AE = C + I + G + X - IM$

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.

To fill in the blanks in table below:

Y	T	Yd	C	I	G	X-IM	AE
300	155	145	266	54	150	-10	460
400	205	195	306	54	150	-30	480
500	255	245	346	54	150	-50	500
600	305	295	386	54	150	-70	520

From, T=5+0.5Y

Y	300	400	500	600
T	155	205	255	305

From, Yd=Y-T

Y	300	400	500	600
T	155	205	255	305
Yd	145	195	245	295

From, C=150+0.8Y

Yd	145	195	245	295
C	266	306	346	386

From, X-M=50-0.2Y

Y	300	400	500	600
X-M	-10	-30	-50	-70

b).To calculate the equilibrium level of real GDP

$$Y=AE$$

$$Y=C+I+G+X-M$$

$$Y=150+0.8Yd+54+150+50-0.2Y$$

$$Y=404+0.8(Y-T)-0.2Y$$

$$Y=404+0.8Y-0.8(5+0.5Y)-0.2Y$$

$Y=404+0.6Y-4-0.4Y$

$Y=400+0.2Y$

$Y-0.2Y=400$

$0.8Y=400$

$Y=500$

Hence the equilibrium level of real GDP is 500.

INCOME – EXPENDITURE DIGRAM

From the graph , line (Y=E) represent all the level of output where economy income level with the economy aggregate expenditure.

The slope of line C=146+0.4Y

c).What are the government budget balance and the trade balance at the equilibrium GDP ? illustrate your answer in diagram solution

Government budget balance

Government Budget Balance =Tax-Government expenditure

When , $T=5+0.5Y$, $G=150$

Government Budget Balance =T-G

$=(5+0.5Y) -150$

$=5+0.5Y-150$

$=5+0.5Y-150$

At equilibrium GDP we know the $Y=500$

$=5+0.5(500)-150$

$=5+250-150$

$=105$

Therefore, The Government Budget balance is 105.

Trade balance =X-M

$=50-0.2Y$

When , $Y=500$

$=50-0.2(500)$

$=-50$

Therefore, trade balance is -50

Diagrammatically;

The Government budget balance is the excess of government taxes over the government expenditure

Government expenditure= Tax

$150=5+0.5Y$

$145=0.5Y$

$0.5Y=145$

$Y=240$

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

The condition; The government should increase the level of the government expenditure in relation to multiplier formula

Multiplier , b=MPC

From;

$C=150+0.8Yd$,

But, $Yd=Y-T$ and $T=5+0.5Y$

$C=150+0.8Yd$

$=150+0.8(Y-(5+0.5Y))$

$=150+0.8Y-4-0.4Y$

$=150+0.8Y-4-0.4Y$

$=146+0.4Y$

By general formula

$C=a+by$

$C=146+0.4Y$

On compering the value of b=0.4

Or , $C=146+0.4Y$

MPC= = (c)

$=(146+0.4Y)$

$=0.4$

$MPC=b=0.4$

$=1/(1-0.4)$

$=1/0.6$

=1.667

But income should increase by 100 units, then the change in income=100.

Change in government expenditure = 60 units

So the government must increase its expenditure by 60 units in order to reach the potential GDP of 600

The impact of government budget balance will be:

Government budget balance = Tax – government expenditure

=255-150

=105

But now will be;

=255-210

=45

This means that the budget will decrease by 60

But in trade balance their not affect since there is no any change in import and export

The size of multiplier is 1.667

(e) suppose the economy attain its potential GDP of 600 after the government rise its expenditure. The government however, decide to rise lump-sum tax to cover the extra spending what will be effect of equilibrium income?

Lump-sum tax is a special way of taxation , based on the fixed amount ,lather than on the real circumstance of the taxed entity. In contrast with a per unit tax , lump-sum tax does not increase in size as the output increase.

Disposable income (Yd) = personal income – personal tax

So the increase in tax will lead to decrease in yd and hence lower the purchasing power of the household. This is because consumption is a function of disposable income.

In other hand the government expenditure has rise so decrease in level of consumption due to the introduction of lump-sum tax will be compensated by the increase in government expenditure

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 equilibrium rate of GDP.

ANSWERS:

The natural rate of GDP Is also reffered to as the natural Gross domestic product it means the highest level of real GDP(potential output) that can be sustained in the long term. Actual output happens in real life while potential output shows the level that can be achieved.

Relationship between natural rate of GDP and full employment.

Full employment is an economic situation in which all available labor resources are being used in the most efficient possible. Full employment embodies the highest amount of skilled and unskilled labor that can be employed in an economy at any given time. And Potential output is what can be produced if the economy were operating at maximum sustainable employment where employment is at its natural rate

*An economy is considered to be at full employment when real Gdp is equal to potential gdp

B)When an economy is below full employment real GDP is less than potential GDP and when an economy is above full employment real GDP is greater than potential GDP

C)Difference between natural rate of GDP and equilibrium rate of GDP.

The Natural rate of real Gross domestic product means the highest level of real GDP(potential output) that can be sustained in the long term that is the potential output where as Equilibrium Gross domestic product is when real Gross domestic demanded is equal to Real Gross Domestic Product supplied at a point of intersection of the average demand curve and average supply curve Therefore if Real Gross domestic Product qunatity supplied rises and exceeds Gross Domestic Product demanded inventories will pile up and firms

therefore will cut production and prices and when gross domestic product demanded is high and exceeds Gross domestic products supplied price will rise and goverment will intervene causing price to fall back to equilibrium level and most of the times output at equilibrium is the actual output