LESSON 22

CONCEPT OF EXCESS DEMAND AND DEFICIENT DEMAND

In the previous chapters we have studied the theory of Income Determination propounded by Keynes, Keynes severely criticized the Classical ideology.

It is very important to understand the chief thought of Classicals and Keynesian before we deal with this chapter. According to Classical economists, income and output were determined by real factors such as capital, stock, labour supply. There is no effect of general price level. According to them, general price level was determined by the supply of money.

Keynes thought because of the prevailing world wide Economic Depression of 1930. Keynes in his theory of income and output determination assumed that price level remained constant. According to him, income was determined at a point where aggregate demand equals to aggregate supply. The problems of economy under the grip of Depression characterised by unemployment and excess production capacity for which the main cause responsible was lack of effective demand.

Aggregate Demand (AD) and Aggregate Supply (AS) model explains the determination of general price level and fluctuations in output. On the basis of which government adopts the monetary and fiscal measures. First, it is necessary to know what is aggregate demand and aggregate supply. Let us first understand these concepts in following manner.

Aggregate Demand (AD)

Aggregate Demand includes consumption expenditure, private investment expenditure, government purchases of goods and services and net export ($Y = C + I + G + X_n$). Aggregate demand is total quantity of goods and services that are bought by the consumer, investors, government, and foreigners at each price level, other things remaining constant.

The components of aggregate demand in the equation can be expressed as :-

$$Y = C + I + G + X_n$$

Where

C = consumption expenditure

I = investment expenditure

G = government expenditure

X_n = X-M (X = total exports, M = Total Imports)

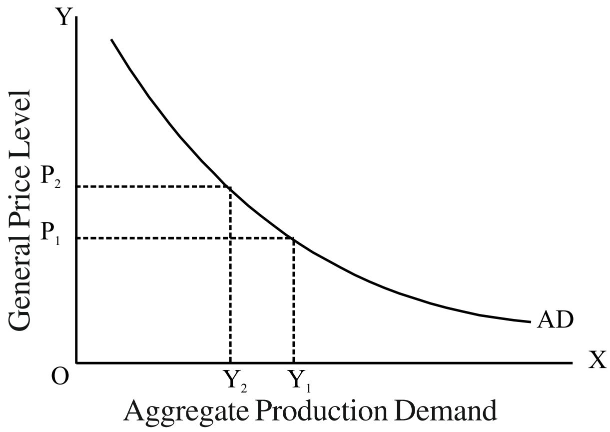


Figure 22.1

Figure 22.1 depicts the Aggregate Demand Curve. On X axis, level of aggregate output demanded and on Y axis, general price level is measured.

The curve shows the relationship between aggregate demand of goods and services and price level. The initial price is OP_1 and output OY_1, if price increases from OP_1 to OP_2 then there are three effects:-

1. With rise in price, consumption expenditure falls.
2. At a higer price level, people will require more money for conducting transactions, which cause the rate of interest to go up resulting decrease in demand for investment.
3. A rise in price leads to increase in imports and decline in exports which cause a decline in net exports(X-M). Thus while rise in price the aggregate demand declines. Figure 22.1 depicts that the aggregate output demand decreases from OY_1 to OY_2. On the contrary, with the fall in price the aggregate output demand increases.

Derivation of Aggregate Demand Curve:- The derivation of aggregate demand curve can be done using Keynesian income determination model.

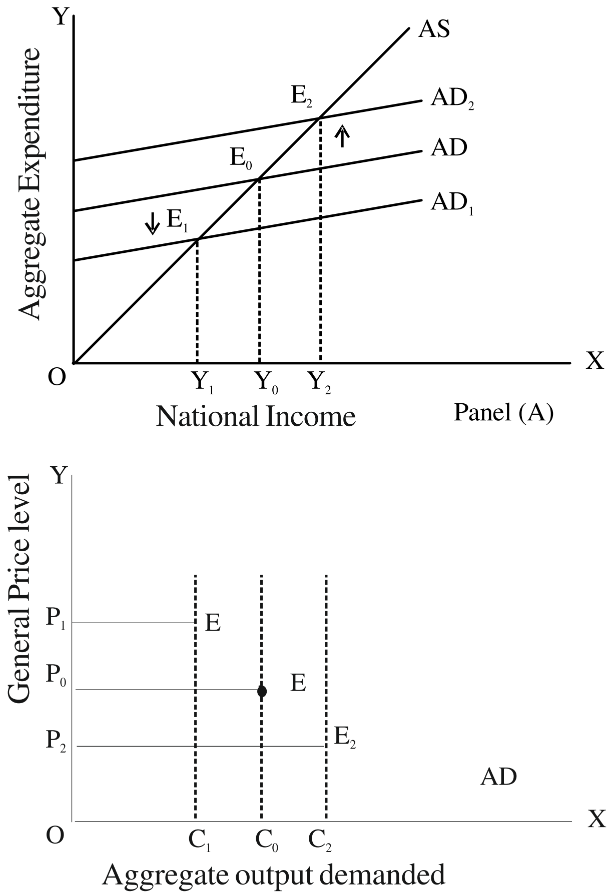


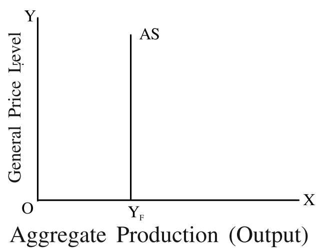
Figure 22.2

As depicted in panel of fig.22.2(A), the aggregate expenditure (planned expenditure) at various levels of national income (GNP) is shown. In panel B derived aggregate demand at various level of price is depicted.

As Initially, the aggregate demand and aggregate supply (45^0 line) intersect each other at E_0. At which income determined is Y_0. In panel B at Y_0 level of income the aggregate demand is C_0 and general price level is OP_0 in a similar manner, if the general price level decreases to P_2 , then the purchasing power of people increases leading to rise is consumptions expenditure. AD shifts to AD_2 upwards. The equilibrium is at AD_2 = AS (45 line) at E_2 where income is Y_2. The aggregate demand is OC_2. Thus, at lower price the aggregate output demanded is high. On contrary, at a high price equilibrium is at E_1 where AS = AD_1 level of income is Y_1 and aggregate demand falls to OC_1. In this way inverse relation exists between the general price level and aggregate output demanded which is shown in panel B by AD curve.

Aggregate supply (AS)

The quantity of goods and services that firms in an economy are willing to produce at each possible price level, other things remaning constant is called Aggregate Supply. The theory of Classical Economists is based on the assumption of full employment. Thus, the aggregate supply curve is vertical line under full employment conditions which is depicted by fig 22.3 AS is perfectly inelastic.



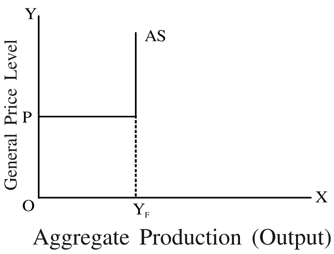


Figure 22.3 **Figure 22.4**

Keynes considered the situation of economic depression thus initially the aggregate supply curve is a horizontal straight line up to the level of full employment, then after this level it is vertical line at OY_F level of aggregate output shown in fig 22.4. In the horizontal zones with increase in aggregate demand the output increases but price remains unchanged whereas with vertical aggregate demand the output does not increase, but there is rise in the price as resources are fully employed.

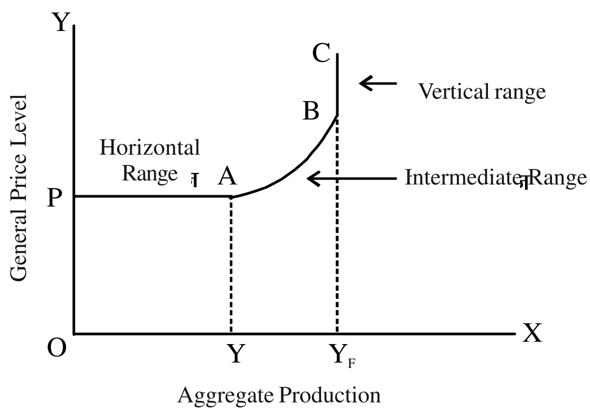


Figure 22.5

In figure 22.5, the horizontal aggregate supply curve (PA) is called Keynesian range. The idle or unused resources can be put to use without causing any rise in unit cost of production and therefore without any rise in the price level, if any output is expanded in this range. The PA part of the curve depicts the depression in an economy.

The intermediate range is between in the levels of aggregate output Y and Y_f. The increase in aggregate output brings about rise in price level. Before full employment of resources the per unit cost increase as the output increases which causes an increase in the price level.

Aggregate supply in the vertical range (BC) is perfectly inelastic, which depicts the full employment level of output. This range is also called the classical range. It imples that change in price level will fail to cause any change in output (unchanged) because the available resources are already used up to full potential.

Macro economic equilibrium:-

Having explained the necessary concept of aggregate demand and supply we shall now try to understand how the macro economic equilibrium is achieved by AD=AS model.

Short run equilibrium depicts the actual state of the economy, the real GDP fluctuates around the potential GDP. The purpose of the AD=AS model is to explain how the monetary and fiscal policies are effective.

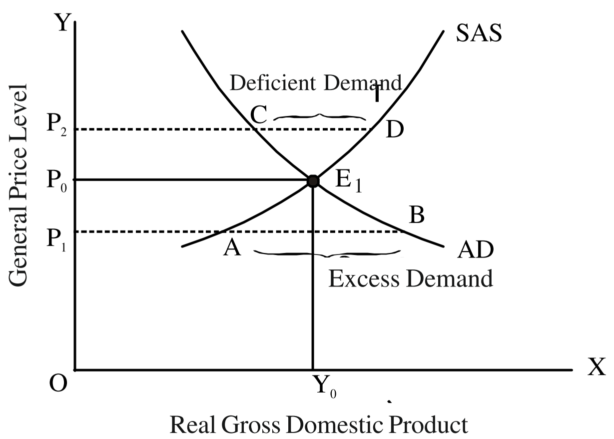


Figure 22.6

The equilibrium point E_1 occurs at which aggregate demand and short run aggregate supply, curve are equal. The income level OY_0 and P_0 are determined. Suppose, if price level is P_2 the quantity of real GDP supplied is more than real GDP demand (CD) which is called deficient demand. As a result, unintended inventories gets piled up the firms are not able to sell all their output. The firms will cut both the production and prices. This process of cutting prices will continue until the equilibrium price level P_0 is reached.

On the contrary, suppose the price level is OP_1 then the aggregate demand is more than the aggregate supply (AB) which is called excess demand. The high demand will induce the firms to increase the production. For this, the producers will increase the demand for factors of production which will cause rise in production cost. The price of goods will keep on increasing until price level P_0 is reached.

In short run, the money wage rate is fixed. The real GDP can be less than or greater than potential GDP.

In the long run, equilibrium is achieved, where aggregate demand is equal to long run aggregate supply curve. In the long run, aggregate supply curve being vertical is equal to potential GDP. In the long run, equilibrium occurs when real GDP equals potential GDP.

Depression

When there is a slow down in economic activities like fall in production of goods & services, employment, income, demand and prices over the course of a normal business cycle.

Prosperity

There is inflationary rise in prices. The levels of output, employment and income are high. There is increased demand for goods & services

Monetary and Fiscal Policy

The above discussion clarifies that the cause of depression is deficiency of aggregate demand i.e. aggregate demand is less than aggregate supply. In such a situation, the government adopts fiscal policy. A major measure is the increase in expenditure by the government on several types of public works which cause rise in aggregate demand. The public expenditure for instance includes, road construction, dam construction, building construction for schools and hospitals etc. which will generate employment, income and demand. Another measure is reduction is taxes which increases the disposable income of the people. This effort will be only effective when government does not make any increase in variety of taxes. Similarly, under monetary policy the supply of money is increased which results in fall of rate of interest this causes increase in private investment, which leads to increase in aggregate demand. For this purpose the bank rate is decreased, purchase of securities by Central Bank through open market operation, the cash reserve ratio is also decreased. To conclude, it can be said that in situation of deficient demand the government adopts expansionary, monetary and fiscal policy. During depression fiscal policy proves to be more effective than monetary policy, the business firms are unable to sell their piled stock during deficient demand (depression). Thus, even with fall in rate of interest they are not motivated for new investment. The consumer class too, because of unemployment and low income does not desire to take loans for durable goods. Hence, monetary policy is not much successful.

Fiscal policy- The government adjusts it's spending levels and tax rate to achieve full employment and price stability.

Monetary policy is adopted when central bank controls the supply of money to achieve the goals of economic policy.

In contrast, in situation of excess demand and inflation contractionary monetary and fiscal policy is adopted by the government. The government while implementing the fiscal policy should increase the taxes. So unnecessary expenditure could be reduced, the aggregate demand can also be reduced. There should not be high increase in the tax otherwise, it would adversly affect investment and production. Government can also execute compulsory saving schemes and repayment of public debt can be stopped. Similarly, tight monetary policy should be adopted. To combat, the increasing prices because of excess demand, central bank should increase the bank rate, sale the securities in open market and the reserve ratio should also be increased. The qualitative measures like credit margin requirement should be increased. Beside these measures, demonetisation of currency can also be done. Thus, the situation of deficient and excess demand can be overcome by adoption of balanced measures of both monetary and fiscal policy.

Demonetization - When the government of a country legally bans the old currency. Recently on 8 Nov. 2016 mid-night the government banned 500 and 1000 rupee notes.

Important points

- The aggregate demand includes consumption expenditure, Investment expenditure, government expenditure and net export $AD= C+I+G+X_n$
- Aggregate demand depicts the quantity of total good and services demanded on various price levels
- There is inverse relation between aggregate demand and general price level.
- Aggregate supply shows the firm's total production of goods & services at various possible price levels.
- Deficient demand means, when aggregate demand is less than aggregate supply,
- Excess demand means, when aggregate supply is less than aggregate demand or aggregate demand is more than aggregate supply.
- Deficient demand apprise of the situation of depression.
- Excess demand apprise of the situation of inflation.
- During depression expansionary monetary & fiscal policy are effective.
- During excess demand (inflation) contractionary monetary and fiscal policy are adopted which causes decline in aggregate demand.

Exercises Questions

Objective TypeQuestions :-

1. Deficient demand is when-

(A) $AD < AS$

(B) $AD > AS$

(C) $AD = AS$

(D) AD # AS

2. Aggregate demand is-

(A) Consumption of investment expenditure

(B) Government expenditure

(C) Net exports

(D) All the above

3. The measure of fiscal policy in depression is-

(A) Increase in taxes

(B) Increase in public expenditure

(C) Decreases in public expenditure

(D) Increase in prices

4. To control inflation the measure of monetary policy is -

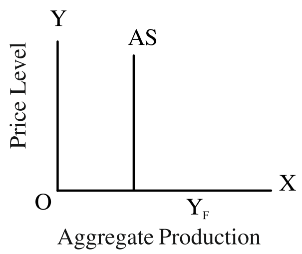
(A) Increase in bank rate

(B) Reduction in taxes

(C) Increase in public expenditure

(D) Decrease in bank rate

5. The aggregate supply in the figure is according to-



(A) Keynesion

(B) Classical

(C) Monetarist

(D) Ratex

Very Short Answer Type Questions:-

1. Write the meaning of aggregate demand.
2. Write the four components of aggregate demand.
3. Write the meaning of aggregate supply.
4. What is the meaning of macro economic equilibrium?
5. Write meaning of depression.

Short Answer Type Questions:-

1. Explain deficient demand.
2. What is the meaning of excess demand ?
3. What is meant by monetary policy ?
4. What are the tools of fiscal policy ?
5. What measures of monetary policy are adopted during inflation ?

Essay Type Questions:-

1. Explain the AD and AS model in detail.
2. Differentiate between the Classical & Keynesian supply curve with the help of a Figure.
3. How fiscal policy is effectively used during depression?
4. Write four measures adopted by government to control inflation.

Answer Table

1	2	3	4	5
A	D	B	A	B