

MACRO ECONOMICS



Determination of Income and Employment

Effective Demand

1. Determination of equilibrium level of national income

Or

Keynesian theory of income and employment

(a) It refers to that point which has come to be established under the given condition of aggregate demand and aggregate supply, and has tendency to stick to that level under this given condition:

Condition to get equilibrium level of NY

- $AD = AS$

- Investment = Saving

How is Investment = Saving?

Here,

$$AD = AS$$

$$C + I = C + S$$

$$I = C + S - C$$

$$I = S$$

(b) If due to some disturbance, we divert from that position, then the economic forces will work in such a manner so as to drive us back to the original position,

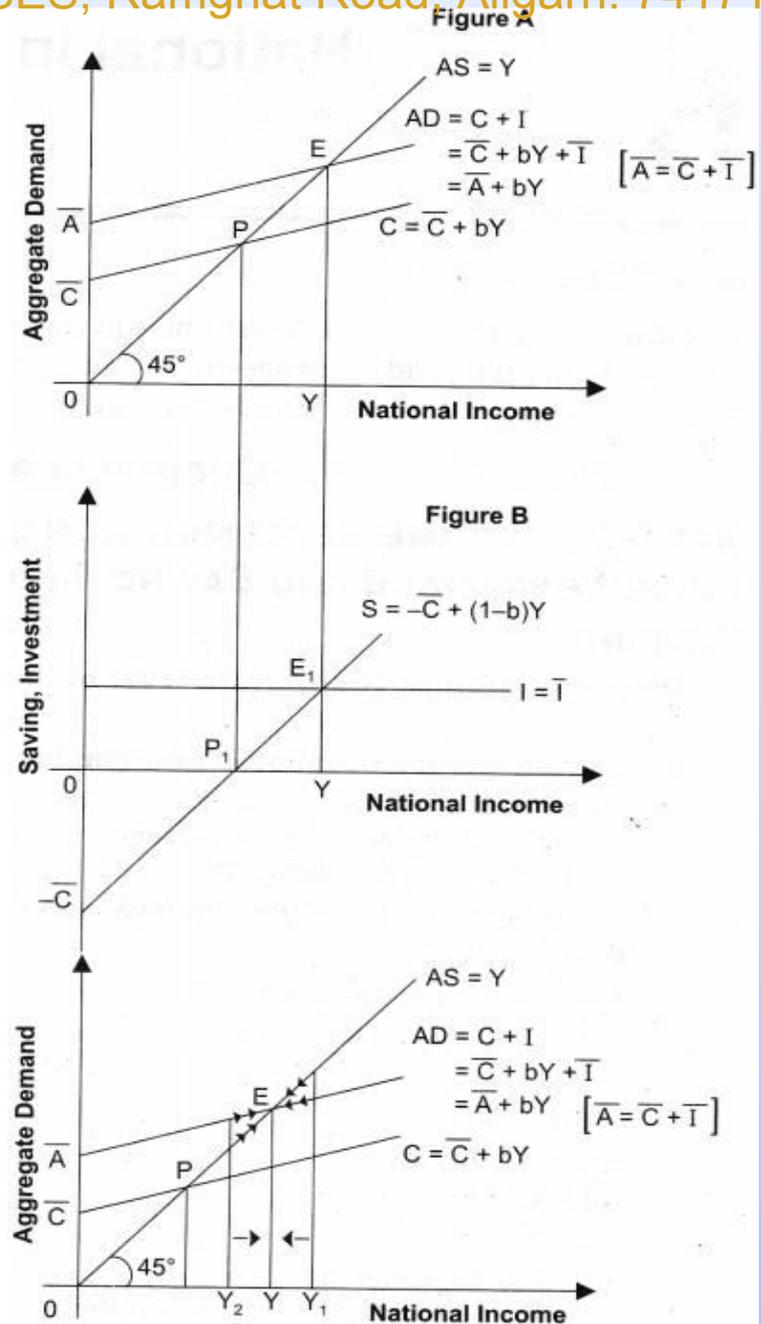
i. e., aggregate demand is equal to aggregate supply.

(c) Any movement from that point would be unstable. In short, it is a position of rest.

(d) It can be explained with the help of following schedule and diagram:

NY	C	S	I	AD	AS	Resulting tendency
3000	3000	NIL	400	3400	3000	Expansion
4000	3800	200	400	4200	4000	Expansion
5000	4600	400	400	5000	5000	Equilibrium
6000	5400	600	400	5800	6000	Contraction
7000	6200	800	400	6600	7000	Contraction

(e) Figure B is derived from figure A. In figure A at point P, income is equal to consumption, which is known as to be breakeven point. Corresponding to point P, we derive point P₁; in figure B, where saving is equal to zero. In figure A, the equilibrium level of national income is attained at point E, where aggregate supply = aggregate demand. Corresponding to point E, we derive the point E₁, where saving = investment.



Determination of equilibrium level of national income through Aggregate demand-Aggregate Supply Approach

- (a) It refers to the point that has come to be established under the given condition of aggregate demand and aggregate supply, and has tendency to stick to that level under this given condition where Aggregate Demand = Aggregate Supply.
- (b) If due to some disturbance, we divert from that position, the economic forces will work in such a manner so as to drive us back to the original position, i.e., aggregate demand is equal to aggregate supply.
- (c) In the above mentioned figure, at point P, income = consumption, which is known as to be a break-even point. The equilibrium level of national income is attained at point E, where aggregate demand = aggregate supply.
- (d) If due to some disturbance we divert from our position, like when $AD > AS$ [at Y_2], then, production will have to be increased to meet the excess demand. Consequently, national income will increase. As we know positive relationship exists between national income and consumption, so consumption will increase, which will thereby increase the aggregate demand till we reach the equilibrium.
- (e) As against it, when $AD < AS$ [at Y_1], then there would be stockpiling and producers will produce less. National income will fall and as a result consumption will start falling, which will thereby fall the aggregate demand till we reach the equilibrium.

Ex-ante saving and ex-ante investment

- (i) In an economy what we plan (or intend or desire) to save during a particular period is called ex-ante saving.
- (ii) Against it, what we plan (or intend or desire) to invest during a particular period is called ex-ante investment.

Ex-post saving and ex-post investment

- (i) In an economy what we actually save or what is left after deducting consumption expenditure from income is called ex-post (or realized) saving.
- (ii) As against it what we actually invest or what we actually add to the physical assets of an economy is called ex-post (or realized) investment.

Determination of equilibrium level of national income through Saving-Investment Approach

- (a) It refers to the point that has come to be established under the given condition of aggregate demand and aggregate supply, and has tendency to stick to that level under this given condition where

$$\text{Aggregate Demand (AD)} = \text{Aggregate Supply (AS)}.$$

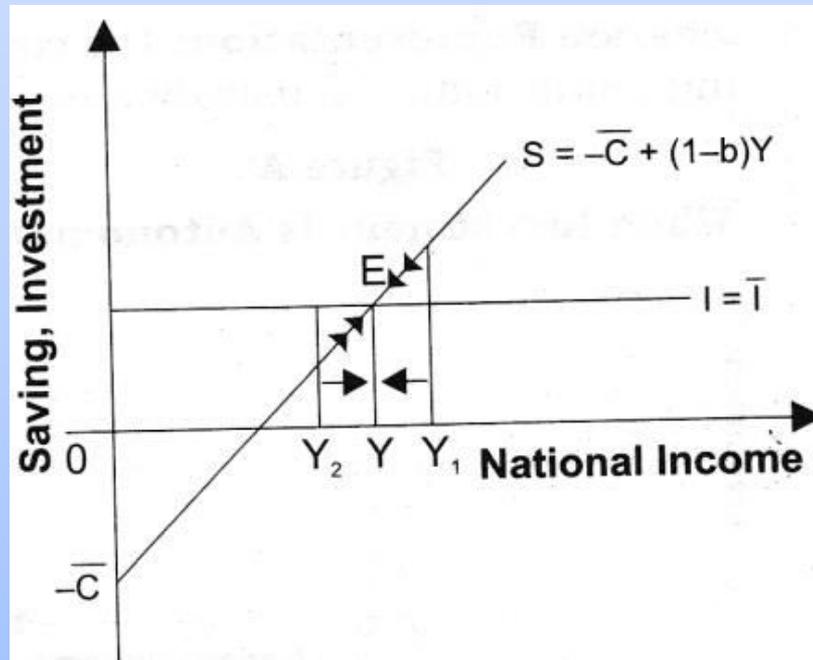
$$AD = AS$$

$$\text{Consumption (C)} + \text{Investment (I)} = \text{Consumption (C)} + \text{Saving (S)}$$

$$I = S$$

- (b) If due to some disturbance, we divert from that position, the economic forces will work in such a manner so as to drive us back to the original position, i.e., Saving is equal to Investment.

- (c) In the above figure, the equilibrium level of national income is attained at point E, where saving = investment which is derived from a point where $AD = AS$.
- (d) If due to some disturbance we divert from our position like when investment $>$ saving [at Y_2], then production will have to be increased to meet the excess demand. Consequently, national income will increase leading to rise in saving until saving becomes equal to investment. It is here that equilibrium level of income is established because what the savers intend to save becomes equal to what the investors intend to invest.
- (e) As against it, when saving $>$ investment [at Y_1], then there would be stockpiling and producers will produce less. National income will fall and as a result saving will start falling until it becomes equal to investment. It is here the equilibrium level of income is derived.



Paradox Of Thrift

1. The term thrift means savings and the paradox of thrift shows how an attempt by the economy as a whole to save more out of its current income will ultimately results in lower savings for the economy.

2. If all the people in the economy make an effort to save more, then the total savings of the community will not increase, on the contrary they will decrease. This is called the paradox of thrift.

3. Reasons for “Paradox of thrift” to operate

(a) As we know that one person's expenditure is another person's income.

(b) If individual 'A' decides to save more by reducing his consumption expenditure, the income of individual 'B' will be less and individual 'B' in turn will spend less.

(c) Thus, if all individuals in the economy decide to save more, the income received by each individual will be less and overall income will fall and also lower will be the total savings.

The concept of paradox of thrift with the help of diagrams and mathematical illustration is as under:

When Investment is Autonomous When Investment is Induced

(a) Paradox of thrift fails in Keynes' theory (when Investment is autonomous):

In figure A, society, households plan to save more at each income level. So, saving curve shifts up and left from S to S₁. Equilibrium national income falls from Y to Y₁. The thing which has to be remembered is that savings is equal to autonomous investment, that is, remains unchanged.

(b) Paradox of thrift is possible when investment is induced: In figure B, we have induced investment function which makes the investment curve upward positively sloping. With the increase in savings, not only the equilibrium income falls, but also savings decline.

5. Numerical Illustration: Suppose the original savings function is given as, $S = -50 + 0.5Y$ and investment $(I) = 25 + 0.25Y$. Equilibrium level of income will be attained at the level where

Saving = Investment ! $-50 + 0.5Y = 25 + 0.25Y$

$0.25Y = 75 \quad Y = 300$

Therefore, savings at $Y=300$ will be $S = -50 + 0.5(300) = 100$

Suppose, every individual in the economy decides

to save 25 more at each level of income. The new savings function will be

$S_2 = -50 + 25 + 0.5Y = -25 + 0.5Y$.

The new equilibrium income will be attained at the level where

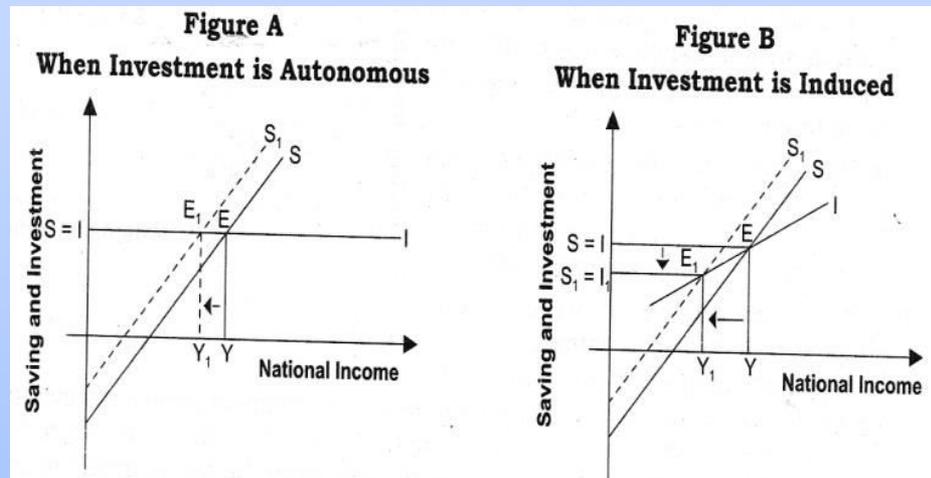
$s_2 = I$

$-25 + 0.5Y = 25 + 0.25Y$

$0.25Y = 50 \quad Y = 200$

Therefore, savings at $Y = 200$ will be $S = -25 + 0.5(200) = -25 + 100 = 75$

Thus, when everybody in the economy decides to save more, the equilibrium level of income falls and the total savings also fall. This is called the paradox of thrift.



Investment Multiplier

Meaning: The ratio of change in national income (ΔY) due to a change in investment (ΔI) is known as multiplier (K).

Formula:

$$K = \frac{\Delta Y}{\Delta I} \quad \text{or} \quad K \times \Delta I = \Delta Y$$

Where K is multiplier,

$$K = \frac{1}{1 - MPC} \quad \text{or} \quad K = \frac{1}{MPS}$$

Derivation of Formula: As we know that,

$$Y = C + I \quad \dots(i)$$

Multiplying the whole equation by Δ , we get,

$$\Delta Y = \Delta C + \Delta I \quad \dots(ii)$$

Dividing both sides of (ii) by ΔY , we get,

$$\frac{\Delta Y}{\Delta Y} = \frac{\Delta C}{\Delta Y} + \frac{\Delta I}{\Delta Y} \quad \dots(iii)$$

$$\text{Or } 1 = \frac{\Delta C}{\Delta Y} + \frac{\Delta I}{\Delta Y} \quad \dots(iv)$$

Rearranging (iv), we get,

$$\frac{\Delta I}{\Delta Y} = 1 - \frac{\Delta C}{\Delta Y} \quad \dots(v)$$

Or Reciprocately,

$$\frac{\Delta Y}{\Delta I} = \frac{1}{1 - \frac{\Delta C}{\Delta Y}} \quad \dots(vi)$$

As we know, $K = \frac{\Delta Y}{\Delta I}$ and $\frac{\Delta C}{\Delta Y} = MPC$, we get,

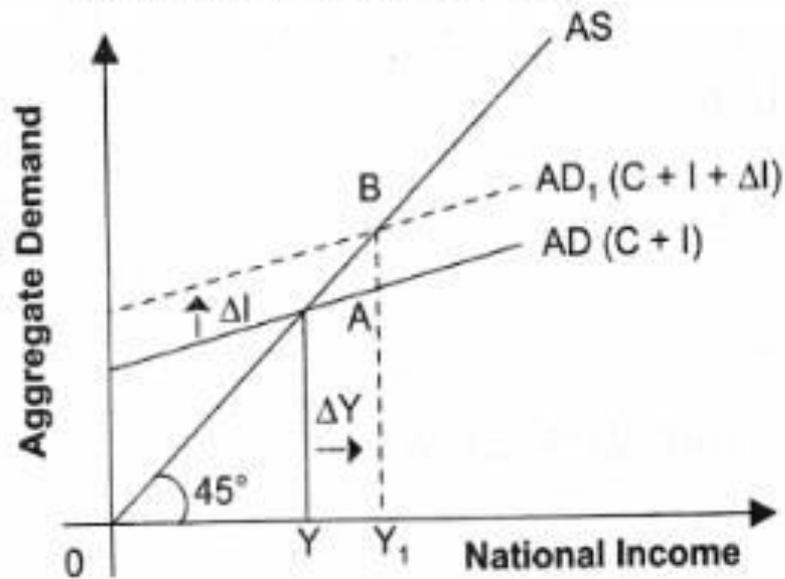
$$K = \frac{1}{1 - MPC}$$

Since, $MPC + MPS = 1$, we obtain,

$$K = \frac{1}{MPS}$$

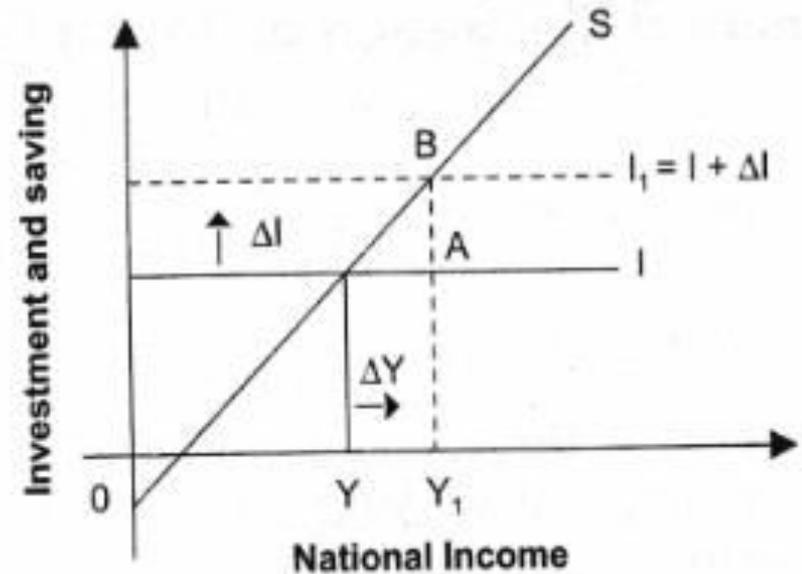
(d) Diagrammatically Representation of Multiplier

Through Aggregate demand and Aggregate Supply Approach



$$K = \frac{\Delta Y}{\Delta I} = \frac{YY_1}{BA}$$

Through Saving and Investment Approach



$$K = \frac{\Delta Y}{\Delta I} = \frac{YY_1}{BA}$$

(e) Maximum Value of Multiplier

(i) The multiplier can have the maximum value if MPC = 1. As we know,

$$K = \frac{1}{1 - MPC} = \frac{1}{1 - 1} = \infty$$

(ii) The multiplier can have the maximum value if MPS = 0. As we know,

$$K = \frac{1}{MPS} = \frac{1}{0} = \infty$$

(f) Minimum Value of Multiplier

(i) The multiplier can have the minimum value if MPC becomes(0) zero. As we know,

$$K = \frac{1}{1 - MPC} = \frac{1}{1 - 0} = 1$$

(ii) The multiplier can have the minimum value if MPS = 1. As we know,

$$K = \frac{1}{MPS} = \frac{1}{1} = 1$$

(g) Relationship between Marginal Propensity to consume (MPC) and multiplier.

(i) If we put maximum value of MPC, i.e., 1, we get maximum value of multiplier, i.e., ∞ .

(ii) As against it, if we put minimum value of MPC, i.e., 0, we get the minimum value of multiplier, i.e. 1.

(iii) So, positive relationship exists between MPC and multiplier. It means when MPC increases, the multiplier also increases and vice-versa.

$$MPC \uparrow \rightarrow K \uparrow$$

(h) Relationship between Marginal Propensity to Save (MPS) and multiplier.

(i) If we put minimum of MPS i.e. 0, we get maximum value of multiplier, i.e., ∞ .

(ii) As against it if we get maximum value of MPS, i.e., 1, if we get minimum value of multiplier, i.e., 1.

(iii) Hence, inverse relationship exists between MPS and multiplier. It means if MPS increases, the multiplier decreases and vice-versa.

$$MPS \uparrow \rightarrow K \downarrow$$

- **Meaning:**

When in an economy, aggregate demand is in excess of 'aggregate supply at full employment', the demand is called an excess demand.

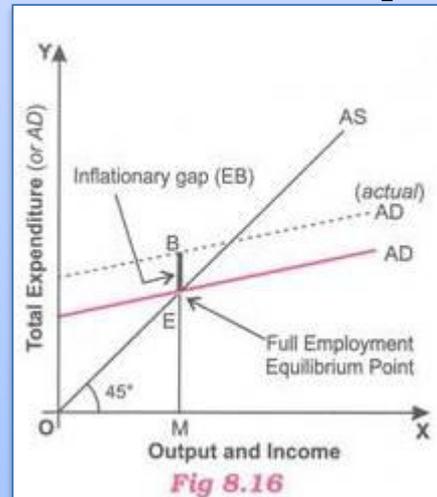
Alternatively when aggregate demand exceeds 'aggregate supply at full employment level' the demand is said to be an excess demand and the gap is called inflationary gap. The gap is called inflationary because it causes inflation (continuous rise in prices) in the economy.

INFLATIONARY GAP

- When aggregate demand is more than 'level of output at full employment', then the excess or gap is called inflationary gap. Alternatively 'it is the amount by which actual aggregate demand exceeds the level of aggregate demand required to establish the full employment equilibrium.' Thus, inflationary gap is a measure of the amount of excess of aggregate demand over 'aggregate supply at full employment'.
- In such a situation, an increase in demand means only an increase in money expenditure without any corresponding increases in output and employment because all the resources have already been fully employed. A simple example will further clarify it.

EXAMPLE OF INFLATIONARY GAP

- Let us suppose that an imaginary economy by employing all its available resources can produce 10,000 qtls of rice. If aggregate demand for rice is, say, 12,000 qtls., this demand will be called an excess demand because aggregate supply at the level of full employment of resources is only 10,000 qtls. As a result, the excess of 2,000 qtls will be called an inflationary gap.
- This situation is depicted in Fig. 8.16. Here, point E lying on 45° line is the full employment equilibrium point. This is an ideal situation because aggregate demand represented by EM is equal to full employment level of output (aggregate supply) represented by OM.
- Suppose, the actual aggregate demand is for a level of output BM which is greater than full employment level of output EM (OM). The difference between the two is EB (BM - EM) which is a measure of inflationary gap or excess demand.
- In short, the inflationary gap is the amount by which the actual aggregate demand exceeds the aggregate demand required to establish full Output and Income employment equilibrium.



REASONS OF INFLATIONARY GAP (EXCESS DEMAND)

The main reasons for excess demand are apparently the increase in four components of aggregate demand. For instance, there may be

- (i) increase in household consumption demand due to rise in propensity to consume;
- (ii) increase in private investment demand because of rise in credit facilities;
- (iii) increase in public (government) expenditure;
- (iv) increase in export demand and
- (v) increase in money supply (deficit financing) or increase in disposable income (due to fall in rate of taxes).

IMPACT OF INFLATIONARY GAP (EXCESS DEMAND)

Impact of Excess Demand:

- **Briefly, it causes rise in prices and increases in equalities:**

Generally, excess demand results in inflation (continuous rise in prices) without increase in output and employment. But in different situations in the economy, the impact will also be different. We discuss the impact of excess demand in reference to these situations, namely,

- (i) Whether, the economy is in a state of unemployment or full employment,
- (ii) Whether the supply of factors of production is elastic or inelastic.

**FOLLOWING WILL BE THE IMPACT OF EXCESS DEMAND ON PRICES,
EMPLOYMENT AND OUTPUT:**

- (i) If it is a state of voluntary unemployment and unemployed factors become ready to work, a rise in demand will lead to an increase in output and employment, i.e., voluntary unemployment will be lessened. Increase in demand helps the output and employment to increase without an increase in prices so long as there are unemployed and under-employed resources.
- (ii) If it is a state of full employment, i.e., involuntary unemployment does not exist, excess demand results in inflation or general rise in price level. Employment will not increase because there is no involuntary unemployment.
- (iii) Output will also not increase since all the available resources are already being used fully. Of course, there can be a possibility of increase in output only if productivity of labour is increased in the long period. But in short period, when it is not possible to increase productivity of labour, an inflationary situation may develop due to rise in prices.

We may conclude that increase in demand beyond the level of full employment does not lead to an increase in output and employment. Without increase in total output (supply), excess demand ultimately consumes itself into price rise, i.e., degenerates into inflation with adverse effects on saving, production and distribution. It is because of this phenomenon that sometimes it is said that increase in aggregate demand beyond the level of full employment leads to an increase not in real income (in terms of goods and services) but in money income.

CAUSES OF EXCESS DEMAND

- (i) Deficit financing (printing of currency notes),
- (ii) Increase in Marginal Propensity to consume, and
- (iii) Increase in autonomous investment.

We can control the excess demand with the help of the following policy:

(a) Monetary Policy (b) Fiscal Policy

Let us discuss it in detail:

(a) Monetary Policy: Monetary policy is the policy of the central bank of a country to control money supply and availability of credit in the economy. The central bank can take the following steps:

(i) Quantitative Instruments or General Tools of Monetary Policy: These are the instruments of monetary policy that affect overall supply of money/ credit in the economy. These instruments do not direct or restrict the flow of credit to some specific sectors of the economy. They are as under:-

• **Bank Rate or Discount Rate (Increase in Bank Rate)**

-> In a situation of excess demand leading to inflation

-> Central bank raises bank rate that discourages commercial banks in borrowing from central bank as it will increase the cost of borrowing of commercial bank.

❖ It forces the commercial banks to increase their lending rates, which discourages borrowers from taking loans, which discourages investment.

❖ Again high rate of interest induces households to increase their savings by restricting expenditure on consumption.

❖ Thus, expenditure on investment and consumption is reduced, which will control the excess demand.

• **Repo Rate (Increase in Repo Rate):**

-> In a situation of excess demand leading to inflation

❖ Central bank raises repo rate that discourages commercial banks in borrowing from central bank as it will increase the cost of borrowing of commercial bank.

❖ It forces the commercial banks to increase their lending rates, which discourages borrowers from taking loans, which discourages investment.

❖ Again high rate of interest induces households to increase their savings by restricting expenditure on consumption.

❖ Thus, expenditure on investment and consumption is reduced, which will control the excess demand.

• **Reverse Repo Rate (Increase in Reverse Repo Rate):**

-> In a situation of excess demand leading to inflation, Reverse repo rate is increased, it encourages the commercial bank to park their funds with the central bank to earn higher return on idle cash. It decreases the lending capability of commercial banks, which controls excess demand.

• **Open Market Operations (OMO) (Sale of securities):**

-> It consists of buying and selling of government securities and bonds in the open market by central bank.

-> In a situation of excess demand leading to inflation, central bank sells government securities and bonds to commercial bank. With the sale of these securities, the power of commercial bank of giving loans decreases, which will control excess demand.

• **Increase in Varying Reserve Requirements or Legal Reserve Ratio:**

-> Banks are obliged to maintain reserves with the central bank, which is known as legal reserve ratio. It has two components. One is the Cash Reserve Ratio or CRR and the other is the SLR or Statutory Liquidity Ratio.

-> **Cash Reserve Ratio (Increase in CRR):**

❖ In a situation of excess demand leading to inflation, the central bank increases statutory liquidity ratio (SLR), which will reduce the cash resources of commercial bank and reducing credit availability in the economy.

(II) QUALITATIVE INSTRUMENTS OR SELECTIVE TOOLS OF MONETARY POLICY:

These instruments are used to regulate the direction of credit. They are as under:

(i) Imposing margin requirement on secured loans (Increase):

- Business and traders get credit from commercial bank against the security of their goods. Bank never gives credit equal to the full value of the security. It always pays less value than the security.
- So, the difference between the value of security and value of loan is called marginal requirement.
- In a situation of excess demand leading to inflation, central bank raises marginal requirements. This discourages borrowing because it makes people get less credit against their securities.

(ii) Moral Suasion:

- Moral suasion implies persuasion, request, informal suggestion, advice and appeal by the central banks to commercial banks to cooperate with general monetary policy of the central bank.
- In a situation of excess demand leading to inflation, it appeals for credit contraction.

(iii) Selective Credit Control (SCC) [Introduce Credit Rationing]:

- In this method the central bank can give directions to the commercial banks not to give credit for certain purposes or to give more credit for particular purposes or to the priority sectors.
- In a situation of excess demand leading to inflation, the central bank introduces rationing of credit in order to prevent excessive flow of credit, particularly for speculative activities. It helps to wipe off the excess demand.

(B) FISCAL POLICY:

The expenditure and revenue policy taken by the general government to accomplish the desired goals is known as fiscal policy. A general government can take the following steps:

(a) Revenue Policy (Increase Taxes):

- (i) Revenue policy is expressed in terms of taxes.
- (ii) During inflation the government impose higher amount of taxes causing the decrease in purchasing power of the people.
- (iii) It is so because to control excess demand we have to reduce the amount of liquidity from the economy.

(b) Expenditure Policy (Reduces Expenditure):

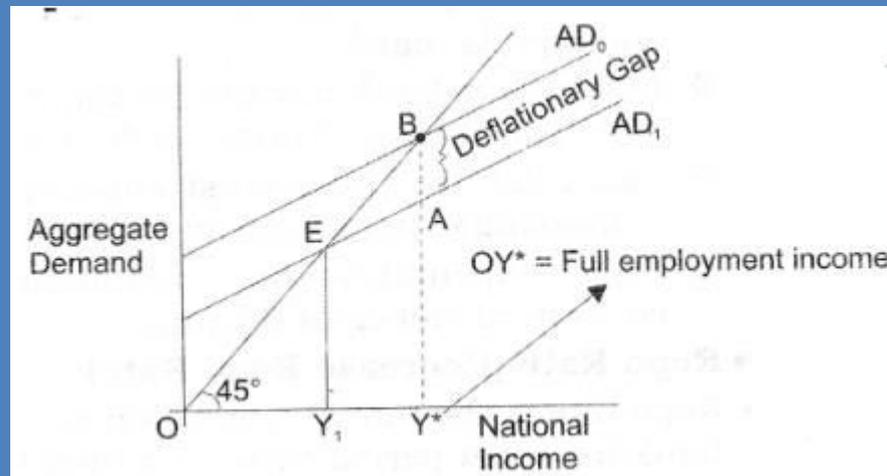
- (i) Government has to invest huge amount on public works like roads, buildings, irrigation works, etc.
- (ii) During inflation, government should curtail (reduce) its expenditure on public works like roads, buildings, irrigation works thereby reducing the money income of the people and their demand for goods and services.

(c) Increase in Public Borrowing/Public Debt:

- (i) This measure means that government should raise loans from public and hence borrowing decreases the purchasing power of people by leaving them with lesser amount of money.
- (ii) So, government should resort to more public borrowing during excessive demand.
- (iii) Government should make long term debts more attractive so that public may use their excess liquidity amount of money in purchasing these bonds, which will reduce the liquidity amount of money in the economy and thereby inflation could be controlled

DEFICIENT DEMAND OR DEFLATIONARY GAP

- (a) When in an economy, aggregate demand falls short of aggregate supply at full employment level, the demand is said to be a deficient demand.
- (b) Deflationary gap is the gap showing Demand deficient of current aggregate demand over 'aggregate supply at the level of full employment'. It is called deflationary because it leads to deflation (continuous fall in prices).
- (c) Let us suppose that an imaginary economy by employing all its available resources can produce 10,000 quintals of rice. If aggregate demand of rice is, say 8,000 quintals, this demand will be called a deficient demand and the gap of 2000 quintals will be called as deflationary gap. Clearly here equilibrium between AD and AS is at a point less than level of full employment. Keynes called it an under employment equilibrium.



REASONS OR CAUSES FOR DEFICIENT DEMAND

The main reasons for deficient demand are apparently the decrease in four components of aggregate demand:

- (a) Decrease in household consumption demand due to fall in propensity to consume.
- (b) Decrease in private investment demand because of fall in credit facilities.
- (c) Decrease in public (government) expenditure.
- (d) Decrease in export demand.
- (e) Decrease in money supply or decrease in disposable income.

IMPACTS OR EFFECTS OF DEFICIENT DEMAND

- (a) Effect on General Price Level: Deficient demand causes the general price level to fall because it arises when aggregate demand is less than aggregate supply at full employment level. There is deflation in an economy showing deflationary gap.
- (b) Effect on Employment: Due to deficient demand, investment level is reduced, which causes involuntary unemployment in the economy due to fall in the planned output.
- (c) Effect on Output: Low level of investment and employment implies low level of output.

We can control the deficient demand with the help of the following policies:

(a) Monetary policy (b) Fiscal policy

Let us discuss it in detail:

(a) Monetary Policy:

Monetary policy is the policy of the central bank of a country of controlling money supply and availability of credit in the economy.

The central bank takes the following steps:

(i) Quantitative Instruments or General Tools of Monetary Policy: These are the instruments of monetary policy that affect overall supply of money / credit in the economy. These instruments do not direct or restrict the flow of credit to some specific sectors of the economy. They are as under:

• **Bank Rate or Discount Rate (Decrease in Bank Rate):** -> In a situation of deficient demand leading to deflation,

- ❖ Central bank decreases bank rate that encourages commercial banks in borrowing from central bank as it will decrease the cost of borrowing of commercial bank.
- ❖ Decrease in bank rate makes commercial bank to decrease their lending rates, which encourages borrowers from taking loans, which encourages investment.
- ❖ Again low rate of interest induces households to decrease their savings by increasing expenditure on consumption.
- ❖ Thus, expenditure on investment and consumption increase, which will control the deficient demand.

• **Repo Rate (Decrease Repo Rate):**

In a situation of deficient demand leading to deflation,

- ❖ Central bank decreases Repo rate that encourages commercial banks in borrowing from central bank as it will decrease the cost of borrowing of commercial bank.
- ❖ Decrease in Repo rate makes commercial banks to decrease their lending rates, which encourages borrowers from taking loans, which encourages investment.
- ❖ Again low rate of interest induces households to decrease their savings by increasing expenditure on consumption.
- ❖ Thus, expenditure on investment and consumption increase, which will control the deficient demand.

• **Reverse Repo Rate (Decrease Reverse Repo Rate):**

-> In a situation of deficient demand leading to deflation, Reverse repo rate is decreased, it discourages the commercial bank to park their funds with the central bank. It increases the lending capability of commercial banks, which controls deficient demand.

• **Open Market Operation (Purchase of Securities):**

-> It consists of buying and selling of government securities and bonds in the open market by central bank.

-> In a situation of deficient demand leading to deflation, central bank purchases government securities and bonds from commercial bank. With the purchase of these securities, the power of commercial bank of giving loans increases, which will control deficient demand.

• **Decrease in Varying Reserve Requirements:**

-> Banks are obliged to maintain reserves with the central bank, which is known as legal reserve ratio. It has two components. One is the Cash Reserve Ratio or CRR and the other is the SLR or Statutory Liquidity Ratio.

-> **Cash Reserve Ratio (Decrease):**

- ❖ It refers to the minimum percentage of a bank's total deposits, which is required to keep with the central bank. Commercial banks have to keep with the central bank a certain percentage of their deposits in the form of cash reserves as a matter of law.
- ❖ For example, if the minimum reserve ratio is 10% and total deposits of a certain bank is Rs. 100 crore, it will have to keep Rs. 10 crore with the central bank.
- ❖ In a situation of deficient demand leading to deflation, cash reserve ratio (CRR) falls to 5 per cent, the bank will have to keep Rs. 5 crore with the central bank, which will increase the cash resources of commercial bank and increasing credit availability in the economy, which will control deficient demand.

-> **The Statutory Liquidity Ratio (SLR) (Increase):**

- ❖ In a situation of deficient demand leading to deflation, the central bank decreases statutory liquidity ratio (SLR), which will increase the cash resources of commercial bank and increases credit availability in the economy.

TYPES OF EMPLOYMENT CONCERNED HERE

1. Full employment:

- (i) Full employment equilibrium refers to the situation where aggregate demand is equal to aggregate supply, and all those who are able to work and willing to work (at the existing wage rate) are getting work.
- (ii) Full employment doesn't mean that there is no unemployment in an economy. Unemployment also exists at full employment level because of voluntary unemployment.

2. Voluntary unemployment:

- (i) Voluntary unemployment refers to the situation when a person is unemployed because he is not willing to work at the existing wage rate, even when work is available.
- (ii) Suppose, if the market wage rate for MBA in the industries is Rs.8,000 a month, but some of the qualified MBA's refuse to accept job at Rs.8,000 a month, they will be considered as voluntarily unemployed.

3. Involuntary unemployment:

Involuntary unemployment refers to a situation in which all able and willing persons to work at existing wage-rate do not find work.

1. **Excess Demand:** When in an economy, aggregate demand exceeds “aggregate supply at full employment level”, the demand is said to be an excess demand.
2. **Inflationary gap:** It is the gap showing excess of current aggregate demand over ‘aggregate supply at the level of full employment’. It is called inflationary because it leads to inflation (continuous rise in prices).
3. **Deficient demand:** When in an economy, aggregate demand falls short of aggregate supply at full employment level, the demand is said to be a deficient demand.
4. **Deflationary gap:** It is the gap showing deficient of current aggregate demand over ‘aggregate supply at the level of full employment’. It is called deflationary because it leads to deflation (continuous fall in prices).
5. **Monetary policy:** It is the policy of the central bank of a country to control money supply and availability of credit in the economy.
6. **Quantitative Instruments or General Tools of Monetary Policy:** These are the instruments of monetary policy that affect overall supply of money/credit in the economy.
7. **Qualitative Instruments or Selective Tools of Monetary Policy:** These instruments are used to regulate the direction of credit.
8. **Bank rate:** It is the rate of interest at which central bank lends to commercial banks without any collateral (security for purpose of loan).
9. **Repo rate:** It is the rate at which commercial bank borrow money from the central bank for short period by selling their financial securities to the central bank.
10. **Reverse repo rate:** It is the rate at which the central bank (RBI) borrows money from commercial bank.
11. **Open Market Operation:** It consists of buying and selling of government securities and bonds in the open market by central bank.
12. **Cash Reserve Ratio:** It refers to the minimum percentage of a bank’s total deposits, which it is required to keep with the central bank.
13. **Statutory Liquidity Ratio:** It refers to minimum percentage of net total demand and time liabilities, which commercial banks are required to maintain with themselves.
14. **Marginal requirement:** Business and traders get credit from commercial bank against the security of their goods. Bank never gives credit equal to the full value of the security. It always pays less value than the security. So, the difference between the value of security and value of loan is called marginal requirement.
15. **Moral suasion:** It implies persuasion, request, informal suggestion, advice and appeal by the central banks to commercial banks to cooperate with general monetary policy of the central bank
16. **Selective credit control:** In this method the central bank can give directions to the commercial banks not to give credit for certain purposes or to give more credit for particular purposes or to the priority sectors.
17. **Fiscal policy:** The expenditure and revenue policy taken by the general government to accomplish the desired goals is known as fiscal policy.
18. **Full employment equilibrium:** It refers to the situation where aggregate demand is equal to aggregate supply, and all those who are able to work and willing to work (at the existing wage rate) are getting work.
19. **Voluntary unemployment:** It refers to the situation when a person is unemployed because he is not willing to work at the existing wage rate, even when work is available.
20. **Involuntary unemployment:** It refers to a situation in which all able and willing persons to work at existing wage-rate do not find work

THANK

YOU