#### UNIT – V

#### Inflation

#### Inflation: Types, Causes and Effects (With Diagram)

### 1. Meaning of Inflation:

Inflation is often defined in terms of its supposed causes. Inflation exists when money supply exceeds available goods and services. Or inflation is attributed to budget deficit financing. A deficit budget may be financed by the additional money creation. But the situation of monetary expansion or budget deficit may not cause price level to rise. Hence the difficulty of defining 'inflation'.

Inflation may be defined as 'a sustained upward trend in the general level of prices' and not the price of only one or two goods. G. Ackley defined inflation as 'a persistent and appreciable rise in the general level or average of prices'. In other words, inflation is a state of rising prices, but not high prices.

It is not high prices but rising price level that constitute inflation. It constitutes, thus, an overall increase in price level. It can, thus, be viewed as the devaluing of the worth of money. In other words, inflation reduces the purchasing power of money. A unit of money now buys less. Inflation can also be seen as a recurring phenomenon.

While measuring inflation, we take into account a large number of goods and services used by the people of a country and then calculate average increase in the prices of those goods and services over a period of time. A small rise in prices or a sudden rise in prices is not inflation since they may reflect the short term workings of the market.

It is to be pointed out here that inflation is a state of disequilibrium when there occurs a sustained rise in price level. It is inflation if the prices of most goods go up. Such rate of increases in prices may be both slow and rapid. However, it is difficult to detect whether there is an upward trend in prices and whether this trend is sustained. That is why inflation is difficult to define in an unambiguous sense.

Let's measure inflation rate. Suppose, in December 2007, the consumer price index was 193.6 and, in December 2008, it was 223.8. Thus, the inflation rate during the last one year was

223.8-193.6/193.6 x 100 = 15.6

As inflation is a state of rising prices, deflation may be defined as a state of falling prices but not fall in prices. Deflation is, thus, the opposite of inflation, i.e., a rise in the value of money or purchasing power of money. Disinflation is a slowing down of the rate of inflation.

## 2. Types of Inflation:

As the nature of inflation is not uniform in an economy for all the time, it is wise to distinguish between different types of inflation. Such analysis is useful to study the distributional and other effects of inflation as well as to recommend antiinflationary policies. Inflation may be caused by a variety of factors. Its intensity or pace may be different at different times. It may also be classified in accordance with the reactions of the government toward inflation.

# Thus, one may observe different types of inflation in the contemporary society:

#### A. On the Basis of Causes:

#### (i) Currency inflation:

This type of inflation is caused by the printing of currency notes.

#### (ii) Credit inflation:

Being profit-making institutions, commercial banks sanction more loans and advances to the public than what the economy needs. Such credit expansion leads to a rise in price level.

### (iii) Deficit-induced inflation:

The budget of the government reflects a deficit when expenditure exceeds revenue. To meet this gap, the government may ask the central bank to print additional money. Since pumping of additional money is required to meet the budget deficit, any price rise may the be called the deficit-induced inflation.

#### (iv) Demand-pull inflation:

An increase in aggregate demand over the available output leads to a rise in the price level. Such inflation is called demand-pull inflation (henceforth DPI). But why does aggregate demand rise? Classical economists attribute this rise in aggre-

gate demand to money supply. If the supply of money in an economy exceeds the available goods and services, DPI appears. It has been described by Coulborn as a situation of "too much money chasing too few goods."



Keynesians hold a different argument. They argue that there can be an autonomous increase in aggregate demand or spending, such as a rise in consumption demand or investment or government spending or a tax cut or a net increase in exports (i.e., C + I + G + X - M) with no increase in money supply. This would prompt upward adjustment in price. Thus, DPI is caused by monetary factors (classical adjustment) and non-monetary factors (Keynesian argument).

DPI can be explained in terms of Fig. 4.2, where we measure output on the horizontal axis and price level on the vertical axis. In Range 1, total spending is too short of full employment output, Y<sub>F</sub>. There is little or no rise in the price level. As demand now rises, output will rise. The economy enters Range 2, where output approaches towards full employment situation. Note that in this region price level begins to rise. Ultimately, the economy reaches full employment situation, i.e., Range 3, where output does not rise but price level is pulled upward. This is demand-pull inflation. The essence of this type of inflation is that "too much spending chasing too few goods."



Fig. 4.2: Demand-pull Inflation

# (v) Cost-push inflation:

Inflation in an economy may arise from the overall increase in the cost of production. This type of inflation is known as cost-push inflation (henceforth CPI). Cost of production may rise due to an increase in the prices of raw materials, wages, etc. Often trade unions are blamed for wage rise since wage rate is not completely market-determinded. Higher wage means high cost of production. Prices of commodities are thereby increased.

A wage-price spiral comes into operation. But, at the same time, firms are to be blamed also for the price rise since they simply raise prices to expand their profit margins. Thus, we have two important variants of CPI wage-push inflation and profit-push inflation.

# **Causes of Inflation**

- Primary Causes
- Increase in Public Spending
- Deficit Financing of Government Spending
- Increased Velocity of Circulation
- Population Growth
- Hoarding
- Genuine Shortage
- Exports
- Trade Unions
- Tax Reduction
- The imposition of Indirect Taxes
- Price-rise in the International Markets

Having understood the inflation meaning, let's take a quick look at the  $\frac{factors}{factors}$  that cause inflation.

#### **Primary Causes**

In an economy, when the demand for a commodity exceeds its supply, then the excess demand pushes the price up. On the other hand, when the factor prices increase, the cost of production rises too. This leads to an increase in the price level as well.

#### Increase in Public Spending

In any modern <u>economy</u>, Government spending is an important <u>element</u> of the total spending. It is also an important determinant of aggregate <u>demand</u>.

Usually, in lesser developed economies, the Govt. spending increases which invariably creates inflationary pressure on the economy.

Deficit Financing of Government Spending

There are times when the spending of Government increases beyond what taxation can finance. Therefore, in order to incur the extra expenditure, the Government resorts to deficit financing.

For example, it prints more money and spends it. This, in turn, adds to inflationary pressure.

Increased Velocity of Circulation

In an economy, the total use of money = the money supply by the Government x the velocity of circulation of money.

When an economy is going through a booming phase, people tend to spend money at a faster rate increasing the velocity of circulation of money.

#### **Population Growth**

As the population grows, it increases the total demand in the market. Further, excessive demand creates inflation.

#### Hoarding

Hoarders are people or entities who stockpile commodities and do not release them to the market. Therefore, there is an artificially created demand excess in the economy. This also leads to inflation.

#### Genuine Shortage

It is possible that at certain times, the factors of production are short in supply. This affects production. Therefore, supply is less than the demand, leading to an increase in prices and inflation.

#### Exports

In an economy, the total production must fulfill the domestic as well as foreign demand. If it fails to meet these demands, then exports create inflation in the domestic economy.

#### Trade Unions

<u>Trade union</u> work in favor of the employees. As the prices increase, these unions demand an increase in wages for workers. This invariably increases the cost of production and leads to a further increase in prices.

#### Tax Reduction

While taxes are known to increase with time, sometimes, <u>Governments</u> reduce taxes to gain popularity among people. The people are happy because they have more money in their hands.

However, if the rate of production does not increase with a corresponding rate, then the excess cash in hand leads to inflation.

#### The imposition of Indirect Taxes

Taxes are the primary source of revenue for a Government. Sometimes, Governments impose indirect taxes like excise duty, VAT, etc. on businesses.

As these indirect taxes increase the total cost for the manufacturers and/or sellers, they increase the price of the product to have a minimal impact on their profits.

#### Price-rise in the International Markets

Some products require to import commodities or factors of production from the international markets like the United States. If these <u>markets</u> raise prices of these commodities or factors of production, then the overall production cost in India increases too. This leads to inflation in the domestic market.

#### Non-economic Reasons

There are several non-economic factors which can cause inflation in an economy. For example, if there is a flood, then crops are destroyed. This reduces the supply of agricultural products leading to an increase in the <u>prices</u> of the <u>commodities</u>.

Investment in Gold, Real estate, stocks, mutual funds, and other assets are some of the ways to deal with Inflation.

# **Inflationary Gap:**

We have so far used the theory of aggregate demand to explain the emergence of DPI in an economy. This theory can now be used to analyse the concept of **'inflationary gap'**—a concept introduced first by Keynes. This concept may be used to measure the pressure of inflation.

If aggregate demand exceeds the aggregate value of output at the full employment level, there will exist an inflationary gap in the economy. Aggregate demand or aggregate expenditure is composed of consumption expenditure (C), investment expenditure (I), government expenditure (G) and the trade balance or the value of exports minus the value of imports (X - M).

Let us denote aggregate value of output at the full employment by  $Y_f$ . This inflationary gap is given by  $C + I + G + (X - M) > Y_f$ . The consequence of such gap is price rise. Prices continue to rise so long as this gap persists. Inflationary gap thus describes disequilibrium situation.

Inflationary gap is thus the result of excess demand. It may be defined as the excess of planned levels of expenditure over the available output at base prices. An example will help us to clear the meaning of the concept of inflationary gap.

Suppose, the aggregate value of output at current price is Rs. 600 crore. The government now takes away output worth Rs. 100 crore for its own requirements, leaving thus Rs. 500 crore for civilian consumption. National income analysis says that the value of aggregate money income equals the net value of aggregate output.

Here also the total money income of the people (Rs. 500 crore) is equal to the net value of aggregate output (i.e., Rs. 600 crore – Rs. 100 crore = Rs. 500 crore). Thus, prices will remain stable since aggregate expenditure is equal to aggregate output. Let us further

# assume that the money income of the community is increased to Rs. 800 crore by creating additional purchasing power.

Let the government takes away Rs. 50 crore as taxes. A part of the increased income, say Rs. 100 crore, may now be saved. So the net disposal income available for spending becomes Rs. (800 - 50 - 100 =) 650 crore. Since the aggregate demand at old prices is Rs. 500 crore, an excess of Rs. 150 crore appears.

This excess represents inflationary gap that pulls up prices. If there is no corresponding increase in aggregate output, prices will continue to rise until aggregate output becomes equal to aggregate expenditure.

Keynes' demand inflation is often couched in terms of the concept of inflationary gap. We now graphically explain this gap with the help of the Keynesian cross that we use in connection with the determination of equilibrium national income. In Fig. 11.5, aggregate expenditure is measured on the vertical axis and national income or aggregate output is measured on the horizontal axis.



Fig. 11.5: Inflationary Gap

Let us assume that  $Y_f$  is the full employment level of national income. If C + I + G + (X - M) is the aggregate demand (AD) curve that cuts the 45° line at point A then an equilibrium income is determinded at  $Y_f$ . There will not be any price rise since aggregate demand equals aggregate supply. Now if the AD curve shifts up to AD', equilibrium output will not increase since output cannot be increased beyond the full employment level.

In other words, because of full employment, output cannot increase to Y\*. Thus at Y<sub>f</sub> level of full employment output, there occurs an inflationary gap to the extent

of AB. The vertical distance between the aggregate demand and the  $45^{\circ}$  line at the full employment level of national income is termed the inflationary gap. Or at full employment, there is an excess demand of AB that pulls up prices. To describe inflationary gap in a simple way, we use Fig. 11.6. In this figure, we weigh aggregate demand (i.e., C + I + G + X-M) and aggregate supply. Since the former exceeds the latter, an inflationary gap emerges.



Fig. 11.6: Inflationary Gap

Inflationary gap can be eliminated/ minimized by using monetary policy and or fiscal policy instruments. Under the monetary policy, money supply is reduced and/or interest rates are increased. This gap, however, can be reduced either by reducing money income through reduction in government expenditure, or by increasing output of goods and services, or by increasing taxes.

## **Deflationary Gap:**

If the equilibrium level of income is estimated to be below the full employment level of income then emerges deflationary gap. If in the economy there arises insufficient aggregate demand, equilibrium in the economy will occur to the left of the full employment income  $(Y_f)$ .

In other words, a deflationary gap shows the amount by which aggregate demand must be increased so that equilibrium level of income is increased to the full employment level. Fig 11.7 shows that equilibrium level of income is  $OY^*$  while full employment output is  $Y_f$ .



Fig. 11.7: Deflationary Gap

Thus, the economy faces unemployment situation. The distance between the 45° line and the AD line at the full employment output situation is referred as the deflationary gap. It is AB in Fig. 11.7. Since aggregate demand is less than the country's potential output, the economy suffers from unemployment of labour and other resources.