

## 5. GENERAL PRICE LEVEL & INFLATION:

### HOW IS THE VALUE OF MONEY MEASURED?

The value of money is its purchasing power, that is, the amount of goods and services that can be purchased with a given amount of money. The value of money depends on the general price level. In other words, changes in the price level cause changes in the purchasing power of money. When the general price level rises, the value of money falls because the given amount of money will buy less goods and services.

In practice, changes in the price level and in the value of money are measured by a price index. This is a statistical measure that expresses the average price of some group of commodities in some year as a percentage of the average price of the same commodities in some other year. The calculation of the price index involves certain decisions. First and foremost, there is a need to select a “base year” to serve as a basis for comparison. The next step is to select a basket of goods and services which is a representative of the consumption pattern of the average family. Thirdly, information must be gathered relating to the market prices of the commodities in the base year and in the current year. Finally, weights must be assigned to these goods. The weights in the index of retail prices are devised to take account of the relative importance of different goods in the pattern of expenditure. In other words, it reflects the different amounts of money spent by consumers on each good.

The determination of the value of money can be illustrated as follows:

Items	Current year price index (P)	Weights (W)	Price * Weights (P * W)
Food	130	5	650
Clothing	150	3	450
Other goods	120	2	240
		10	1340

$$\text{Weighted average index for current year} = \frac{\sum P * W}{\sum W} = \frac{1340}{10} = 134$$

The price index in the base year is always 100.

Hence, the percentage increase in the price index since the base year =  $134 - 100 = 34\%$ .

**NOTE:**  $\text{Price Index} = \frac{\text{Current year price}}{\text{Base year price}} * 100$

## **PROBLEMS IN MEASURING CHANGES IN THE VALUE OF MONEY:**

### **1. The choice of the base year:**

The selection of the base year is a very complicated task. The prices in the chosen base year should be reasonably steady. Periods of severe inflation, deflation or recession should be avoided.

### **2. Finding a representative group of commodities:**

In selecting commodities to include in the basket of goods, accurate information on expenditure patterns of households is needed. But there are great difficulties in collecting such data. People are unwilling to disclose their expenditure truthfully. Besides, different income groups do not share the same basket of goods. Even people with the same income do not buy the same commodities in the basket. Thus, the construction of consumer price index involves a lot of guesswork.

### **3. Computing the weights:**

The assignment of weights also involves a certain amount of guesswork. The weights in the index are devised to take account of the relative importance of different goods in the pattern of expenditure. But there is great difficulty in obtaining information because people are usually reluctant to reveal how they spend their income. Furthermore, this weight will not necessarily be typical of what each household consumes. Each household consume bundles of goods and services that differ from one another.

### **4. The price index is not able to take into account changes in quality:**

A commodity may not have changed in price but its quality may have fallen. Conversely, a good may be more expensive because it is of a better quality than before. Such changes in quality affect the consumer's standard of living but cannot be reflected in the price index.

## **INFLATION:**

Inflation is usually defined as a situation in which there is a persistent and excessive increase in the general price level. During inflation, cost of living rises, and hence, the purchasing power or the value of money falls. Thus, a greater quantity of money is required to purchase the same amount of goods and services or the same quantity of money will now purchase fewer goods and services than before.

### **TYPES OF INFLATION:**

Inflation may be classified according to the rate of increase in prices or how drastically prices are rising.

- 1. Mild inflation:** The price level rises slowly. The increase in the price level may be around 1% or 2%.
- 2. Creeping inflation:** The rate of increase in the general price level ranges from about 2% to 6%.
- 3. Galloping inflation:** The price level is rising rapidly, at more than 20%.

### **CAUSES OF INFLATION:**

Inflation may be generally attributed to 3 main causes:

- (1) Rising conditions of demand, known as demand-pull inflation.
- (2) Rising cost conditions in the production process, known as cost-push inflation.
- (3) Monetarist inflation.

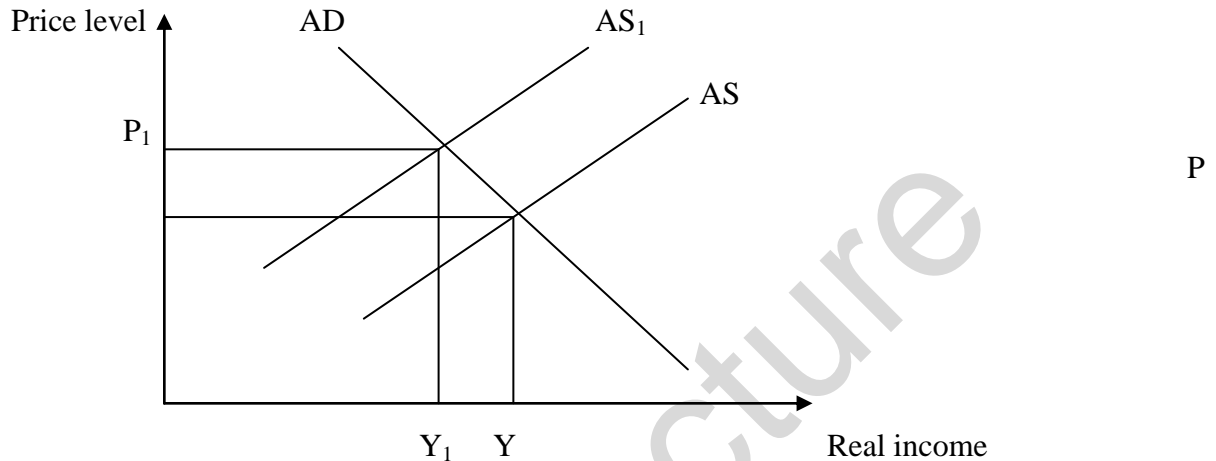
#### **1. COST-PUSH INFLATION:**

Cost push inflation occurs when increasing costs of production are passed on to the consumers in the form of higher prices. This is inflation from the supply side of the economy. There are various factors leading to cost push inflation. First and foremost, the cause of inflation is attributed to an increase in wage costs. It is a widely held view that as prices rise, so real wages fall and this gives rise to another round of wage claims so that eventually a wage price spiral develops. Most cost-push theories are based on the existence of strong trade unions who make use of their monopoly power in the control of the supply of labour to push for wage increases in excess of those required to offset rising prices.

Besides, inflation may be transmitted into the local economy from other countries suffering from inflation. An increase in import prices for consumer goods will affect the cost of living directly. Increased import prices for fuel and industrial raw materials will have a direct impact on production costs.

Furthermore, rising indirect taxes can be a major cause of inflationary pressures in the economy. For instance, an increase in sales tax or value added tax will directly have the effect of raising market prices of all goods and services.

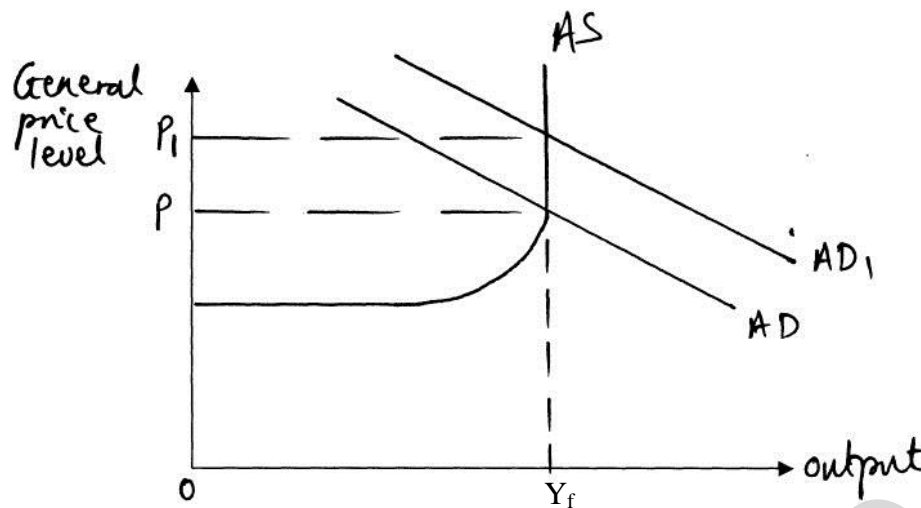
Rising costs shift the Aggregate Supply curve (AS) upwards, thus, causing the general price level to rise. This can be illustrated as follows:



The rising production costs shift the AS curve to the left from AS to AS<sub>1</sub>. With an unchanged AD curve, this reduces the equilibrium level of real income from OY to OY<sub>1</sub> (thereby creating some unemployment) and raises the price level from OP to OP<sub>1</sub>.

## 2. DEMAND-PULL INFLATION:

Demand-pull inflation exists when aggregate demand (AD) exceeds aggregate output at full employment. The excess demand for goods and services cannot be met in real terms and therefore it is met by rises in the price of goods. The excess demand itself can be caused by autonomous increases in government spending, investment, consumption or exports. For instance, if consumption increases due to an increase in national income or a fall in income tax, and if the economy is already at full employment, aggregate demand will increase as well as the rate of inflation. The demand pull inflation can be diagrammatically illustrated as follows:



The initial price level is  $OP$  where the aggregate demand curve,  $AD$ , meets the aggregate supply curve,  $AS$ . It should be noted that at full employment level of output,  $Y_f$ ,  $AS$  is perfectly inelastic. Hence, an increase in aggregate demand curve to  $AD_1$  at full employment causes an increase in the general price level to  $OP_1$ .

### 3. MONETARIST THEORY OF INFLATION:

Monetarists argue that sustained and severe inflation can be produced only by excessive increases in the money supply. Sometimes the government tends to implement an expansionary monetary policy whereby there is an increase in the quantity of money injected in the economy. As a result, a situation of too much money chasing too few goods will emerge. Thus, prices of goods and services will rise. According to Milton Friedman, "inflation is always and everywhere a monetary phenomenon." In other words, periods of inflation coincide with increases in the money supply.

The monetarist inflation can be explained using the Fisher's quantity theory of money:

$$MV=PT$$

where  $M$  is the nominal stock of money in circulation, i.e., money supply.

$V$  is the velocity of circulation of money, that is, the speed at which or the number of times that a unit of money changes hands.

$P$  is the average price of all transactions

$T$  is the total number of transactions that take place during the time period.

Thus, according to monetarists, keeping  $V$  and  $T$  constant in the short run, changes in money supply ( $M$ ) will cause a direct and equal proportionate change in the price level ( $P$ ). For instance, given that  $V$  and  $T$  are constant, a 10% increase in  $M$  would cause a 10% increase in  $P$ . This cause-and-effect conclusion is based on the assumption that the volume of transactions is constant because the economy is at full employment, and the velocity of circulation is constant because of the long-run holding habits of firms and households.

### **ANTICIPATED V/S UNANTICIPATED INFLATION:**

Anticipated inflation is when the rise in the general price level is one, or close to the one, expected. An anticipated inflation occurs generally when the rate of inflation is stable. For instance, inflation may be constant 5% per year and therefore households, firms and government are able to build in this figure to their plans. It will be easier to predict future inflation and hence easier to plan and protect people from harmful effects.

In contrast, unanticipated inflation occurs when inflation either was not expected or is higher than had been expected. Households, firms and government are uncertain what the rate of inflation will be in the future. Unanticipated inflation can bring with it a number of problems.

### **EFFECTS OF INFLATION:**

Inflation is an evil to an economy, and hence, reducing inflation is one of the macro-economic aims of every government. However, the effects of inflation depend on its level, whether it is constant or accelerating and whether it is anticipated or unanticipated. The higher the rate of inflation the greater the economic costs.

**1. Shoe-leather costs:** High rates of inflation mean that people and companies may lose considerable purchasing power if they keep money lying idle and not earning interest. Inflation erodes the value of cash and therefore, firms and households prefer to hold less cash but more interest bearing deposits / assets. Households and firms are then forced to spend more time transferring money from one type of account to another or putting cash into an account to maximise the interest paid. Economists refer to shoe leather costs. These are the costs involved in moving money from one financial asset to another in search of the highest rate of interest. The term can also be applied to firms and consumers spending more time searching out the lowest prices (search for the most favourably priced goods).

**2. Menu costs:** Firms will also suffer from menu costs. These are the costs involved in changing prices. For examples, firms have to incur costs by changing price labels or prices in catalogues (new price lists) or on menus or to adjust slot machines. This involves staff time and is unpopular with customers.

**3. Redistribution:** Inflation leads to an arbitrary redistribution of real income. Different income groups will be affected in different ways. In other words, there will be some “gainers” and some “losers”. Inflation redistributes income away from those on fixed incomes and those in a weak bargaining position to those who can use their economic power to gain large pay, rent or profit increases. In other words, a fall in the value of money will remove purchasing power from those living on fixed incomes, such as pensioners, and redistribute it towards those who draw their living from prices. Similarly,

weakly unionised workers who cannot gain full compensation for price rises will lose at the expense of strongly unionised workers who can do so. Furthermore, if inflation is not fully anticipated, that is, if real interest rate is negative, there will be a redistribution of income from lenders to borrowers. In fact, lenders will lose and borrowers will gain. The spending power of lenders will be eroded by inflation since when the money is paid back, less goods will be purchased.

**4. Uncertainty and lack of investment:** Some economists claim that inflation creates unemployment and lowers growth. Inflation increases costs of production and creates uncertainty in the business community. If it is difficult for firms to predict their costs and revenues, they may be discouraged from undertaking the risk associated with any investment project. This will reduce the rate of economic growth and employment. Besides, the measures taken against inflation may sometimes cause more harmful effects than inflation itself. For instance, a contractionary monetary and fiscal policy measures are likely to raise unemployment and lower economic growth.

**4. Balance of payment:** Inflation is likely to worsen the balance of payment. If a country suffers from relatively high inflation, its exports will become less competitive in world market. At the same time, imports will become relatively cheaper than home produced goods. Thus, exports will fall and imports will rise. As a result, the balance of payment will deteriorate. If the country adopts a fixed exchange rate system, the deficit will tend to deplete the country's reserves. On the other hand, with a flexible exchange rate system, the country with faster inflation and deficit in its BOP is likely to experience a depreciating currency. The currency depreciation itself may create some further inflationary pressure on the domestic economy. (Depreciation increases the price of the country's imports)

It is undoubtedly true that high rates of inflation are damaging to the economy. However, a low, stable and correctly anticipated rate of inflation can be beneficial. It is sometimes argued that a low rate of demand pull inflation is conducive to a faster economic growth. If the rise in general price is caused by increasing aggregate demand, firms can feel optimistic about the future. This is because inflation may stimulate profits if prices rise more than costs. Hence, it is an incentive to producers and a stimulus to the economy.

In the light of the above exposé, it can be said that a small degree of inflation is beneficial for an economy. However, if inflation gets out of hand and develops into hyperinflation, the costs can be very serious. The whole basis of the market economy will be undermined. Firms constantly raise prices in an attempt to cover their increasing costs. Workers demand huge pay increases in an attempt to stay ahead of the rising costs of living. Thus, prices and wages chase each other in an ever rising wage-price spiral. People will lose confidence in money and may resort to barter system. Hence, all these perils of inflation have made the control of inflation one of the major policy objectives of governments.

Mega Lecture