Inflation

It is a persistent rise in general price level over a period of time. Inflation is a continuous process and it occurs when there is an increase in the prices of the most of the goods of a basket.

Causes of inflation

There are two different approaches which describe causes of inflation.

Firstly, monetarist approach, according to which inflation is a monetary phenomenon. It occurs due to increase in supply of money, as supply of money increases, consumers prefer to spend more, and as a result general price level rises.

Fisher theory (Quantity Theory of Money)

Fisher a monetarist economist elaborate monetarist approach in this theory. He says "ceteris paribus, as supply of money is doubled, prices will be doubled and value of money will be halved. Similarly if supply of money is halved, prices will be halved and value of money will be doubled." It is also called as Quantity Theory of Money.

He explained his theory with the help of following equation.

$$MV=PT$$

Where M is supply of money, V is the velocity of money i.e., the rate at which money changes hands. P is the price and T is number of transaction in the given period of time. Let us assume if M=$100, V=10, T=50 than price will be $20. If supply of money is doubled from $100 to $200 and provided that, there is no change in V and T then price will be $40. PT is also considered as the GDP hence Y=PT.

It is difficult to keep V and T constant when prices are changed. There is an inverse relation between M and V, hence M increases V falls and vice versa. Similarly, transactions can be changed in the same directions as supply of money changes.

Therefore, idea that changes in the price level are due entirely to changes in the money supply is very much disputed. Nevertheless, certain long term trends can be partially explained by the quantity theory. So, it can be concluded that, supply of money is the one of the source of inflation but inflation may not occur at the same proportion at which supply of money changes.

Secondly, Keynesian approach, according to which inflation occurs due to increase in aggregate demand or due to decrease in aggregate supply. Former is called demand pull inflation and later is called as cost push inflation.

Demand pull inflation

It occurs in an economy when too much money chases too few goods. An economy experiences inflation when consumers increase their spending due to increase in their income/ wage rate or employment. It also occurs when there is a rise in government spending. Another reason for demand pull inflation is the rise in the demand for exports. Other reasons for demand pull inflation may be increase in firms' spending (investment), fall in direct taxes, fall in rate of interest etc. On the other hand firms unable to meet the demand and due to shortage of goods and services prices rise.

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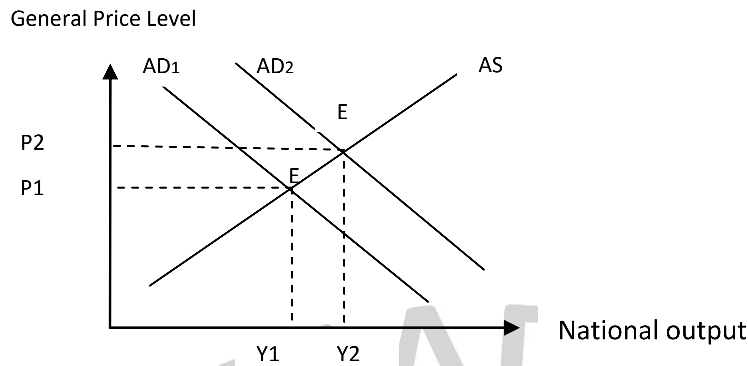
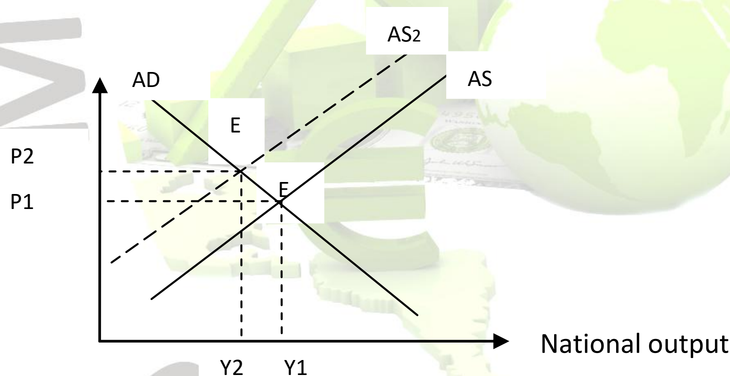


Cost push inflation

It occurs in an economy if there is an increase in cost of production. Cost of production increases due to increase in labour cost or in the prices of raw material. Cost also rises if there is an increase in the rate of interest or due to the impositions of indirect taxes. Trade unions also the source of cost push inflation because due to trade unions not only labour cost increases but also there is a fall in productivity of workers which increase per unit cost of production. In last decade major reason for an increase in inflation across the globe was a rise in oil prices. As cost of production increases, firms increase prices to maintain their profits; therefore, general price level rises. Due to increase in cost of production aggregate supply curve shifts leftwards, which result an increase in the general price level and decrease in the national income.



Consequences of inflation

Consequences of inflation depend on rate of inflation. If rate of inflation is mild or creeping, it might have a good effect on the economy. For instance, at low inflation rate workers will accept low increase in wage rates, therefore, profit margin will increase, firms feel optimistic about future which encourage producers to produce more. Similarly there is no considerable effect on the cost of living of consumers or fixed income groups.

Another advantage of inflation is that it **stimulates consumption**. This is because real interest rate decreases or even in some cases it becomes negative because it does not tend to change in line with inflation. So debt burden may falls and people may be able to or encourage spending more.

On the other hand if economy experiences high rate of inflation or hyperinflation, firms have severe fear that workers will press them to increase wages which raises cost of production, as a result

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prices will have to increase which reduces demand. Accelerating inflation causes uncertainty and discourages investment.

Secondly, cost of living rises considerably which create political instability in the economy. Due to hyperinflation individuals incur **shoe leather** costs. It is the cost in terms of time and energy with the intention counteract effect of inflation. For an investor these are the costs involved in moving of assets from one place to another to earn better yield. For an individual it may be additional visits to the bank who want to hold less cash in order to keep more money in interest bearing accounts.

Firms also incur **menu costs** due to high rate of inflation. These are the cost which involved in changing prices. For example, catalogues, price tags, advertisement all have to be changed. This additional cost may not be expected and in certain cases even it is not the part of the budget.

Usually firms take their decisions on the bases of changing prices. In case of inflation right decisions are not taken because of **inflationary noise**, price signals are not reliable. For instance increase in prices indicates to produce more but if that rise is just because of inflation, there may be over production. Similarly if tendency of increase in price of a commodity is lower as compare to other goods i.e. it becomes relatively cheaper but it is not because of fall in its demand but because of inflation.

During inflation low income groups **spend more and there is a fall in their saving** because they need to spend large proportion of their income on basic needs, whereas, since high income groups spend small proportion of their income on necessities, so they save more to protect future value of their savings. It also has adverse affect on distribution of income because low income groups are unable to accumulate wealth as their savings fall and on the other hand high income groups are able to accumulate more wealth.

It will also affect the **'loan market'** provided that if it is not indexed with inflation rate. During inflation borrowers gain and lenders lose if they deal in non-interest bearing and even non-indexed interest bearing assets.

Fixed income groups and usually 'salaried persons' suffer more during inflation because there is no change occur in their income throughout the year though price index rises.

Consequences of inflation also depend on whether economy is experiencing **fluctuating or Stable rate** of Inflation. Stable inflation rate can be predicted therefore, it may not have that much of adverse affect but if there is a fluctuating and inflation rate, firms and buyers are not able to take long term decisions. It will slow down economic activities.

If rate of inflation is according to **anticipation o**r even closed to expectation, certain measures can be taken to avoid harmful effect but if rate of inflation is different to that which is expected, it brings number of problems. It damages consumption and investment pattern badly.

Causes of inflation also matters on its consequences. For example**, demand pull inflation** may not have as many harmful effects as compare to cost push inflation. In case of cost push inflation not only prices rise but also there is a fall in real GDP. During **cost push inflation** not only there is a fall in real wages but also unemployment rises and living standard deters.

Due to inflation an economy also loses its **competitiveness.** If its general price level increases more as compare to rate of inflation trade in other countries, its exports will fall and imports will rise, which deteriorate its balance of trade. This uncertainty also discourages inflow of capital and foreign investments. As demand for currency falls there is a fall in the exchange rate. So fall in the internal value of a currency may fall its external value, however, if exports remain competitive even after inflation then there is an increase in exports revenue and balance of trade improves.

Conclusion: it can be concluded that an economy must have a mild and stable rate of inflation which can be anticipated. A mild rate takes out the economy from stagnation which improves economic activities and employment opportunities.

Inflation and functions of money

Inflation reduces the effectiveness of money as a **medium of exchange**. High inflation means that it becomes difficult to place a value on goods because the value of money is always falling. In extreme cases of hyper inflation prices can rise so much that money becomes worthless and people resort to a barter economy.

Money may lose its function **of unit of account** because in case of hyperinflation value of money falls quickly so prices are no longer true representative of the value of products.

As inflation increases, the volatility of the inflation rate tends to increase. This means that it is harder to place a value on money, thus it becomes more difficult to use it as a **store of value.**

With a high rate of inflation, the real value of debt erodes. This means that it is effectively easier to pay back the debt. Therefore, in periods of high inflation, banks will be less willing to lend money because they will lose out if people pay back the debt in the future when money is worth less. Similarly, individual are also reluctant to lend or sell anything on credit. So, money is unable to perform its function of means of **deferred payments**.

How to measure rate of inflation?

Retail Price Index (RPI) is used to measure rate of inflation in an economy. Index numbers deal with percentage changes rather than with absolute changes.
First of all a basket of goods is selected. In UK that basket of goods contain 600 items where as in Pakistan it contains almost 400 items. In UK prices of these 600 items are collected from 5000 different outlets on weekly bases.
Secondly, base year is selected with the help of which a comparison is made. The base year should be normal year i.e. no extraordinary economic activities should take place that year. Percentage changes in prices are calculated and index is formed with the help of following formula.

$$\text{Price index}=\frac{price\ \ index\ \ of\ \ base\ \ year}{price\ \ index\ \ of\ \ current\ \ year}\times 100$$

(The index number100 is given to each price in the year on which we base our comparison i.e., base year price is taken as 100 Subsequent price changes are expressed as movement from 100. If price increases, that percentage increase is added to 100 or if decreases that percentage is subtracted from 100.)
Thirdly, weightings are given to goods according to consumers' spending patterns. These weightings are multiplied with the price index numbers. Sum of the products of weightings and price index is then divided on the sum of the weightings.100 are subtracted from the new RPI to calculate rate of inflation.

Illustration:

Items	Base year price	Current year price	Price index Base year price=100	Weightings	Price index x weightings
A	16	20	125 (25%) ↑	2	150
B	20	18	90 (10%) ↓	2	180
C	10	12	120 (25%) ↑	4	480
D	20	21	105 (25%) ↑	2	210
				10	1020

Retail price index (RPI_n) = $\frac{\sum((P1 \ X \ W1)+(P2 \ X \ W2)+(P3 \ X \ W3)......+(Pn \ X \ Wn))}{\sum(W1+W2+W3.....Wn)}$

$$= \frac{1020}{10} = 102$$

Rate of inflation = (RPI_n) - (RPI_{n-1})

= 102 – 100 =2%

Limitations of the retail price index:

First problem is the selection of the basket of goods, I.e. which goods should be included or excluded because of the changing pattern of consumption of consumers due to change in income taste and fashion.

Secondly, retail price index shows average spending pattern, but different families have different spending pattern, therefore this method is not accurate.

Thirdly, many commodities are subject to change in design, quality or performance. Therefore, a change in price is accompanied. It is really difficult to assess the real change in the price of that commodity.

Fourthly, new material and new products are entered frequently, which causes a significant shift in consumers demand. Hence a continuous change in basket of goods requires, which is not brought and as a result there is no accurate calculations

Fifthly, selection of the base year, a base year should be a normal year i.e. no extraordinary economic activity should take place, which is difficult.

Lastly, time lags are very important. Due to time lags accurate rate cannot be measured.

However, there are many flaws in RPI, but still it is the better mechanism for calculation of rate of inflation.

Some important terms

Fiscal drag It is the effect of inflation upon effective tax rates. Under progressive taxation, increases in earning may push tax payers into the higher tax brackets. In a tax system that is not indexed with inflation, this has the result that simply increasing earning to keep pace with inflation will generate higher tax revenue. Fiscal drag could result an unintended shift in fiscal policy with a depressing effect upon the growth of demand and output.

Wage drift **It** is the difference between wage rates set by national agreement and total earning received by workers, which includes overtime pay, commissions and bonuses.

Deflation A sustained reduction in general price level over a period of time. Deflation is often accompanied, not inevitably, by declines in output and employment.

Hyperinflation A very rapid growth in the rate of inflation in which money loses its value to the point where alternative medium of exchange such as barter or foreign currency are commonly used. It is also called as galloping inflation.

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Reflation A macroeconomic policy which is used to increase aggregate demand to raise level of employment in an economy. However, it causes demand pull inflation. It is used when there is a deflationary gap as well as unemployment exist. It indicates that there is a spare capacity in the economy.

Disinflation It is the reduction in the rate of inflation.

Is deflation advantageous?

Deflation is opposite to inflation. During deflation general prices fall, hence, apparently it looks better because there is a fall in cost of living or increase in real income as their purchasing power is increased. Similarly exports prices will fall which make exports more competitive and as a result, exports will rise and balance of payments will be improved. During deflation lenders gain and borrower will suffer because now borrowers will have to pay relatively more repayments in real terms.

However, since deflation is an outcome of recession or slump, where aggregate demand falls which leads to fall in general price level as well as profits of firms. Since profits fall, therefore, economic activities are slowed down and as a result there is a fall in production along with employment, which further reduces buying power of consumers.

Hence, consumers may not be better off. Similarly, as production falls then there is no point of increase in exports due to competitiveness, hence, there is a least possibility of improvement in balance of trade. So it can be concluded that deflation never be advantageous, however, low rate of inflation is inevitable for sustainable and desirable economic growth.

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