

# Inflation

## Inflation and CPI, WPI

### **Inflation**

Inflation is a rise in the general level of prices of goods and services in an economy over a period of time.

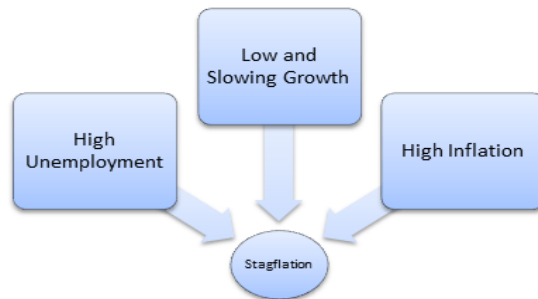
When the general price level rises, each unit of currency buys fewer goods and services. Therefore, inflation also reflects an erosion of purchasing power of money.

According to Crowther, “Inflation is State in which the Value of Money is Falling and the Prices are rising.”

In Economics, the word ‘inflation’ refers to General rise in Prices Measured against a Standard Level of Purchasing Power.

Here are several variations on inflation used popularly to indicate specific meanings.

- **Deflation** is when the general level of prices is falling. It is the opposite of inflation. Also referred to as Disinflation. The lack of inflation may be an indication that the economy is weakening.
- **Hyperinflation** is unusually rapid inflation in very short span of time. In extreme cases, this can lead to the breakdown of a nation’s monetary system with complete loss of confidence in the domestic currency. One of the earlier examples of hyperinflation occurred in Germany in early 1920s after the First World War, when prices rose 2,500% in one month.
- **Stagflation** is the combination of high unemployment with high inflation. This happened in industrialized countries during the 1970s, when a bad economy was combined with OPEC raising oil prices led to low growth.



Inflation is all about prices going up, but for healthy economy wages should be rising as well. The question shouldn't be whether inflation is rising, but whether it's rising at a quicker pace than your wages, if the answer is a Yes only then inflation is problematic. Finally, inflation is a sign that an economy is growing. The RBI considers the range of 4-5 % as comfort zone of inflation in India.

### Causes of Inflation:

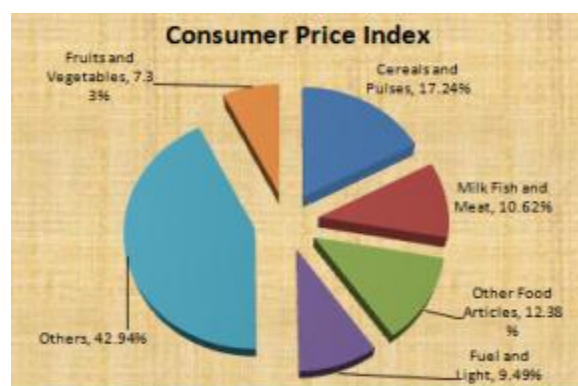
There is no one cause that's universally agreed upon, but at least two theories are generally accepted while the debate still goes on:

1. **Demand-Pull Inflation** – This theory can be summarized as “too much money chasing too few goods”. It is a mismatch between demand and supply, if demand is growing faster than supply, prices will increase. This usually occurs in growing economies as more people gain purchasing power while the supply is not able to catch up to growing demand. When the government of a country prints money in excess, prices increase to keep up with the increase in currency, leading to inflation.
2. **Cost-Push Inflation** – When production costs go up, there is an increase in prices to maintain profit margins. Increased costs can include things such as wages, taxes, or increased costs of imports.
3. **Demand pull vs Cost Push Inflation** • If demand pull inflation is present in the economy, the government must bear the cost of excessive spending and monetary authorities are to be blamed for “cheap money policy” • On the contrary, if cost push is the real cause for inflation then the trade union are to be blamed for excessive wage claim, industries for acceding them and business firms for marking- up profits aggressively.

### Measurement of Inflation

Inflation is measured by calculating the percentage rate of change of a price index, which is called the inflation rate.

Inflation is often measured either in terms of Wholesale Price Index or in terms of Consumer Price Index.



- **Wholesale Price Index(WPI)** : The Wholesale Price Index is an indicator designed to measure the changes in the price levels of commodities that flow into the wholesale trade intermediaries. The index is a vital guide in economic analysis and policy formulation. It is a basis for price adjustments in business contracts and projects. It is also intended to serve as an additional source of information for comparisons on the international front.

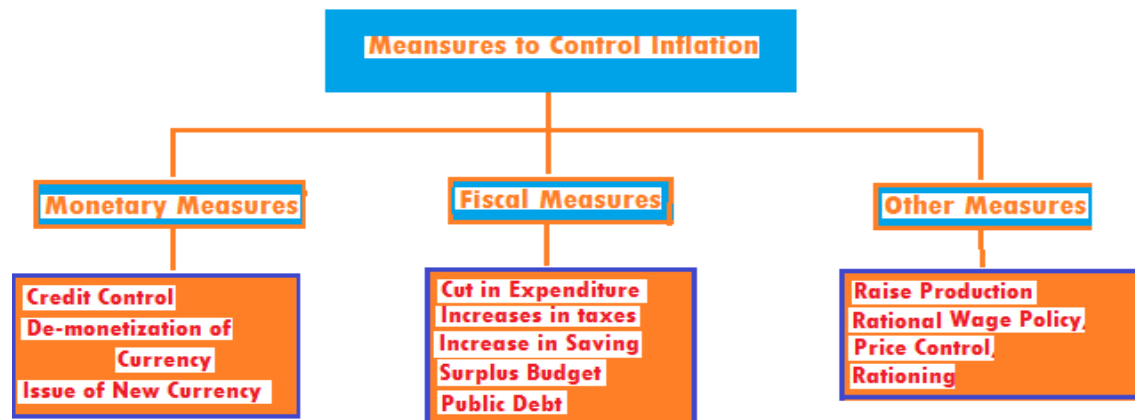
- **Consumer Price Index (CPI)** : Consumer price index is specific to particular group in the population. It shows the cost of living of the group. It is based on the changes in the retail prices of goods or services. Based on their incomes, consumer spends money on these particular set of goods and services. There are different consumer price indices. Each index tracks the changes in the retail prices for different set of consumers.

### Measures to control inflation:

Effective policies to control inflation need to focus on the underlying causes of inflation in the economy. There are two broad ways in which governments try to control inflation. These are-

#### 1. Fiscal measures.

#### 2. Monetary measures



- **Monetary Policy:** Monetary policy can control the growth of demand through an increase in interest rates and a contraction in the real money supply. For example, in the late 1980s, interest rates went up to 15% because of the excessive growth in the economy and contributed to the recession of the early 1990s.
- Monetary measures of controlling the inflation can be either quantitative or qualitative. Bank rate policy, open market operations and variable reserve ratio are the quantitative measures of credit control, by which inflation can be brought down. Qualitative control measures involve selective credit control measures.
- **Bank rate policy** is used as the main instrument of monetary control during the period of inflation. When the central bank raises the bank rate, it is said to have adopted a *dear money policy*. The increase in bank rate increases the cost of borrowing which reduces commercial banks borrowing from the central bank. Consequently, the flow of money from the commercial banks to the public gets reduced. Therefore, inflation is controlled to the extent it is caused by the bank credit.
- **Cash Reserve Ratio (CRR)** : To control inflation, the central bank raises the CRR which reduces the lending capacity of the commercial banks. Consequently, flow of money from commercial banks to public decreases. In the process, it halts the rise in prices to the extent it is caused by banks credits to the public.

- **Open Market Operations:** Open market operations refer to sale and purchase of government securities and bonds by the central bank. To control inflation, central bank sells the government securities to the public through the banks. This results in transfer of a part of bank deposits to central bank account and reduces credit creation capacity of the commercial banks.

### **Fiscal Policy:**

- Higher direct taxes (causing a fall in disposable income).
- Lower Government spending.
- A reduction in the amount the government sector borrows each year .
- Direct wage controls – incomes policies Incomes policies (or direct wage controls) set limits on the rate of growth of wages and have the potential to reduce cost inflation.
- Government can curb its expenditure to bring the inflation in control.
- The government can also take some protectionist measures (such as banning the export of essential items such as pulses, cereals and oils to support the domestic consumption, encourage imports by lowering duties on import items etc.).

### **Types of Inflation**

#### **Recession**

- A recession is a period of decline in general economic activity, typically defined when an economy experiences a decrease in its gross domestic product for two consecutive quarters.
- Other recession indicators include rising unemployment, falling retail sales, slowed manufacturing growth, and a decline in real personal income.
- While unpleasant and alarming, it's important to understand that recessions are a natural occurrence in the modern economy.
- A recession is a significant economic downturn spread across the economy that lasts more than a few quarters.
- More specifically, the term is typically defined as a period when gross domestic product (GDP) declines for two consecutive quarters. This prevailing line of thought was popularized by economist Julius Shiskin in 1974.

#### **Causes of a Recession**

There are many theories as to what may cause an economy to go into an economic slowdown. Some factors have been identified that may cause an economic slowdown in a country that ultimately results in a recession. Let us take a look at some such factors.

**1] High Bank Rates:** When the rate of interest is very high, there is not much liquidity in the market. So the levels of investment will fall, causing an economic slowdown. We saw this in 1980 in the USA, when the rates were raised to battle stagflation. But instead, this resulted in a recession.

**2] Stock Market:** In a bear market, investors will pull money out of the stock market. This will drain capital out of the businesses and cause an economic slowdown. Crashes in the stock market are very harmful to the economy.

**3] Housing Crisis:** When the prices of houses fall the owners start losing equity. They can not pay their mortgages or take second mortgages on their homes. This may lead to foreclosure. This was the cause of the Great Recession of 2007.

**4] Economic Scandals and Frauds:** Sometimes banks, large corporations, and even government institutions employ questionable practices and illegal activities to boost profitability. When such schemes and scandals are exposed, the entire economy suffers. Take for example the current financial scandal of Sahara.

**5] Effects of War:** We generally see an economic slowdown after a war. It is the general after-effect of the stress a war causes on an economy.

**6] Deflation:** Deflation is the opposite of inflation. Here we will see a general decrease in the prices of commodities and services. This encourages the consumer to wait until the prices to reduce further. This can cause a recession in the economy.

**7] Falling Wages:** When the wages and salaries of workers do not increase with the same level as the inflation in the economy, the purchasing power of the public will reduce. He will not be able to afford the same goods and services that he use to. This can cause an economic slowdown.

## **Stagflation**

The stagflation meaning combines two concepts: **Stagnation** and **Inflation**. This economic phenomenon takes place when economic growth rates stall (or stagnate) and both unemployment and inflation rates are high.

We can gain a greater understanding of the stagflation meaning in economics by looking at when the term was first used. The stagflation definition was first hinted at in the 1960s by British politician Iain Macleod when describing the economy as a 'stagnation situation'.

However, stagflation is most associated with the 1970s recession, when the U.S. experienced five quarters of negative GDP growth after the oil crisis. During this time, inflation doubled in 1973 before heading into the double-digit figures in 1974, coinciding with a 9% unemployment rate in 1975.

## **Skew Inflation**

The concept of a relative price rise of one or a group of commodities is referred to as skewflation. Skewflation may also mean the skewness of inflation among different sectors of the economy — some sectors are facing huge inflation, some none and some deflation.

‘Inflation’ refers to a sustained, across-the-board price increase, whereas ‘a relative price increase’ is a reference to an episodic price rise pertaining to one or a small group of commodities. This leaves a third phenomenon, namely one in which there is a price rise of one or a small group of commodities over a sustained period of time, without a traditional designation.

Skewflation was last witnessed in India in 2009 and 2010 when the food prices showed inflation and the prices of the non-food items were majorly stable.

## **Types of inflation or rate of inflation**

### **1. Creeping Inflation:**

When prices are gently rising, it is referred as Creeping Inflation. It is the mildest form of inflation and also known as a Mild Inflation or Low Inflation. When prices rise by not more than (upto) 3% per annum (year), it is called Creeping Inflation.

### **2. Chronic Inflation:**

If creeping inflation persist (continues to increase) for a longer period of time then it is often called as Chronic or Secular Inflation. Chronic Creeping Inflation can be either Continuous (which remains consistent without any downward movement) or Intermittent (which occurs at regular intervals). It is called chronic because if an inflation rate continues to grow for a longer period without any downturn, then it possibly leads to Hyperinflation.

### **3. Walking Inflation:**

When the rate of rising prices is more than the Creeping Inflation, it is known as Walking Inflation. When prices rise by more than 3% but less than 10% per annum (i.e between 3% and 10% per annum), it is called as Walking Inflation. According to some economists, walking inflation must be taken seriously as it gives a cautionary signal for the occurrence of running inflation. Furthermore, if walking inflation is not checked in due time it can eventually result in Galloping inflation.

#### **4. Moderate Inflation:**

Concept of Creeping and Walking inflation clubbed together are called Moderate Inflation. When prices rise by less than 10% per annum (single digit inflation rate), it is known as Moderate Inflation. It is a stable inflation and not a serious economic problem.

#### **5. Running Inflation:**

A rapid acceleration in the rate of rising prices is referred as Running Inflation. When prices rise by more than 10% per annum, running inflation occurs. Though economists have not suggested a fixed range for measuring running inflation, we may consider price rise between 10% to 20% per annum (double digit inflation rate) as a running inflation.

#### **6. Galloping Inflation:**

If prices rise by double or triple digit inflation rates like 30% or 400% or 999% per annum, then the situation can be termed as Galloping Inflation. When prices rise by more than 20% but less than 1000% per annum (i.e. between 20% to 1000% per annum), galloping inflation occurs. It is also referred as jumping inflation. India has been witnessing galloping inflation since the second five year plan period.

#### **7. Hyperinflation:**

Hyperinflation refers to a situation where the prices rise at an alarming high rate. The prices rise so fast that it becomes very difficult to measure its magnitude. However, in quantitative terms, when prices rise above 1000% per annum (quadruple or four digit inflation rate), it is termed as Hyperinflation.

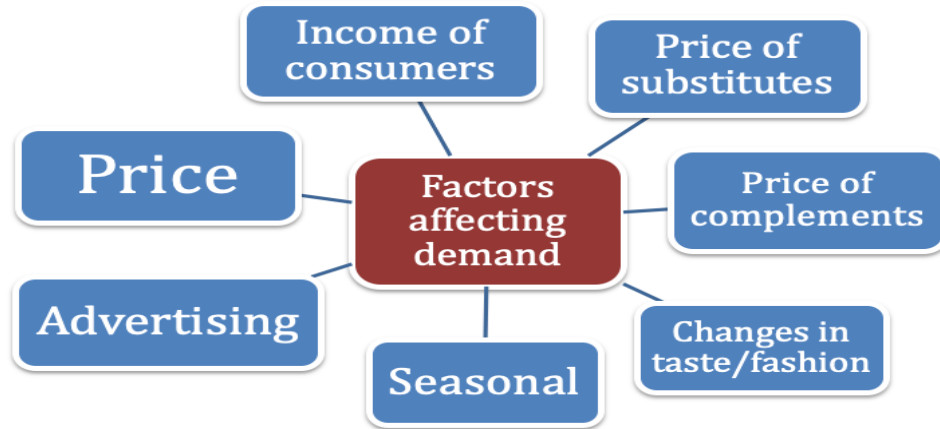
During a worst case scenario of hyperinflation, value of national currency (money) of an affected country reduces almost to zero. Paper money becomes worthless and people start trading either in gold and silver or sometimes even use the old barter system of commerce. Two worst examples of hyperinflation recorded in world history are of those experienced by Hungary in year 1946 and Zimbabwe during 2004-2009 under Robert Mugabe's regime.

### **Deflation and Effect of Inflation**

Demand is an economic principle referring to a consumer's desire to purchase goods and services and willingness to pay a price for a specific good or service. Holding all other factors constant, an increase in the price of a good or service will decrease the quantity demanded, and vice versa.

## Factors affecting demand

The demand for a good depends on several factors, such as price of the good, perceived quality, advertising, income, confidence of consumers and changes in taste and fashion.



- **Income.** An increase in disposable income enabling consumers to be able to afford more goods. Higher income could occur for a variety of reasons, such as higher wages and lower taxes.
- **Credit facilities.** If it is easier and cheaper to borrow, this may encourage consumers to buy expensive items on credit, for example, cars and foreign holidays.
- **Quality.** An increase in the quality of the good e.g. better quality digital cameras encourages people to buy one.
- **Advertising** can increase brand loyalty to goods and increase demand. For example, higher spending on advertising by Coca Cola has increased global sales.
- **Substitutes.** An increase in the price of substitutes, e.g. if the price of Samsung mobile phones increases, this will increase the demand for Apple iPhones – a major substitute for the Samsung.
- **Complements.** A fall in the price of complements will increase demand. E.g. a lower price of Play Station 2 will increase the demand for compatible Play Station games.
- **Weather:** In cold weather, there will be increased demand for fuel and warm weather clothes.
- **Expectations of future price increases.** A commodity like gold may be bought due to speculative reasons; if you think it might go up in the future, you will buy now.



## Factors affecting Supply

Supply refers to the quantity of a good that the producer plans to sell in the market. Supply will be determined by factors such as price, the number of suppliers, the state of technology, government subsidies, weather conditions and the availability of workers to produce the good.

- **A decrease in costs of production.** This means business can supply more at each price. Lower costs could be due to lower wages, lower raw material costs
- **More firms.** An increase in the number of producers will cause an increase in supply.
- **Investment in capacity.** Expansion in the capacity of existing firms, e.g. building a new factory
- **The profitability of alternative products.** If a farmer sees the price of biofuels increase, he may switch to growing crops for biofuels on all his fields and this will lead to a fall in the supply of food, such as wheat.
- **Related supply.** If there is an increase in the supply of beef (from cows) then there will also be an increase in the supply of leather.
- **Weather.** Climatic conditions are very important for agricultural products
- **Productivity of workers.** If workers become more motivated and work hard, then there will be significant increase in output and supply.
- **Technological improvements.** Improvements in technology, e.g. computers or automation, reducing firms costs.
- **Lower taxes.** Lower direct taxes (e.g. tobacco tax, VAT) reduce the cost of goods.
- **Government subsidies.** Increase in government subsidies will also reduce the cost of goods, e.g. train subsidies reduce the price of train tickets.
- **Objectives of firms.** If firms are profit maximisers and collude with other firms, we may see a fall in supply as they try to maximise profits. However, if they switch to targetting sales or revenue maximisation, then we will see an increase in supply.

## Impact or Effect of Inflation :

- Inflation affects the pattern of production, a shift in production pattern takes place from consumer goods to luxury goods.

- On Investment: Inflation discourages entrepreneurs in investing as the risk involved in the future production would be very high with less hope for returns. Uncertainty about the future purchasing power of money discourages investment and savings.
- Inflation also results in black marketing. Sellers may stock up the goods to be sold in the future, anticipating further price rise.
- The effect of inflation is felt on distribution of income and wealth and on production.
- People with fixed income group are the worst sufferers of inflation. Those living off a fixed-income, such as retirees, see a decline in their purchasing power and, consequently, their standard of living.
- The entire economy must absorb repricing costs (“menu costs”) as price lists, labels, menus and more have to be updated.
- If the inflation rate is greater than that of other countries, domestic products become less competitive.
- They add inefficiencies in the market, and make it difficult for companies to budget or plan long-term.
- On Exchange rate and trade: There can also be negative impacts to trade from an increased instability in currency exchange prices caused by unpredictable inflation.
- On Taxes: Higher income tax rates on taxpayers. Government incurs high fiscal deficit due to decreased value of tax collections.
- On Export and balance of trade: Inflation rate in the economy is higher than rates in other countries; this will increase imports and reduce exports, leading to a deficit in the balance of trade.

### **Measures to Control Inflation**

There are broadly two ways of controlling inflation in an economy:

- 1). **Monetary measures and**
- 2). **Fiscal measures**

#### ➤ **Monetary Measures**

The most important and commonly used method to control inflation is monetary policy of the Central Bank. Most central banks use high interest rates as the traditional way to fight or prevent inflation.

### **Monetary measures used to control inflation include:**

- (i) Bank rate policy
- (ii) Cash reserve ratio and
- (iii) Open market operations.

- **Bank rate policy** : It is used as the main instrument of monetary control during the period of inflation. When the central bank raises the bank rate, it is said to have adopted a dear money policy. The increase in bank rate increases the cost of borrowing which reduces commercial banks borrowing from the central bank. Consequently, the flow of money from the commercial banks to the public gets reduced. Therefore, inflation is controlled to the extent it is caused by the bank credit.
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### ➤ **Fiscal Measures**

Fiscal measures to control inflation include taxation, government expenditure and public borrowings. The government can also take some protectionist measures (such as banning the export of essential items such as pulses, cereals and oils to support the domestic consumption, encourage imports by lowering duties on import items etc.).

### **Deflation**

Deflation is a general decline in prices for goods and services, typically associated with a contraction in the supply of money and credit in the economy. During deflation, the purchasing power of currency rises over time.

- Deflation is the general decline of the price level of goods and services.
- Deflation is usually associated with a contraction in the supply of money and credit, but prices can also fall due to increased productivity and technological improvements.
- Whether the economy, price level, and money supply are deflating or inflating changes the appeal of different investment options.