

# CH2404 Process Economics

## Unit – III

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# Inflation

பணவீக்கம், விலையுயர்வு

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- inflation and its impact

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# Introduction

- A sustained rise in the prices of commodities that leads to a fall in the purchasing power of a nation is called **inflation**.
- It is the increase in cost which is not reflected by increase in the quality
- Although inflation is part of the normal economic phenomena of any country, any increase in inflation above a predetermined level is a cause of concern.
- Several internal and external factors, such as the printing of more money by the government, a rise in production and labor costs, high lending levels, a drop in the exchange rate, increased taxes or wars, can cause inflation.
- Inflation has become a major concern worldwide in 2008, with global prices rises in oil, food, steel and other commodities being the culprit.



# Introduction

- Measures of Inflation:
  - The most common gauge of inflation is known as the **Consumer Price Index (CPI)**, which measure the price increases (decreases) of basic consumer goods and services.
  - The **GDP deflator** is another very important measure of inflation as it measures the price changes in goods that are produced domestically.
- In effect, inflation decreases the value of your money and makes it more expensive to buy goods and services.
- **Money supply** plays a large role in inflationary pressure. Low interest rates correspond with a high levels of money supply allow for unsustainable levels of inflation as cheap money is available.

# Reasons For Inflation

- Depending upon the reason of inflation, it can be divided in many types as (1.) Demand-Pull inflation, (2.) Cost-Push inflation, (3) Structural inflation.
- **Demand-Pull inflation:** this represents a situation where there is increase in Aggregate Demand for resources either from the government or the entrepreneurs or the households. Result of this is that the pressure of Demand can't be met by the Currently available Aggregate Supply which result in **Aggregate Demand > Aggregate Supply** which is bound to generate inflationary pressure in the economy.
- **Cost-Push inflation:** This represent the condition where even though there is no increase in Aggregate Demand, prices may still rise. This may happen if the costs of wages rise.
- **Structural inflation:** This type of inflation occurs because of change in structure of economies as happened in India from Agricultural Structure i.e. Green Revolution to Industrialization. Thus because of change in Economic Structure gives rise to increase in prices thus generate inflationary pressure.

# Cost Push Inflation

- reasons for increase of cost

- **Rising imported raw materials costs** – when the producing firm is a monopoly or oligopoly, exchange rate changes, and external factors, such as natural calamities
- **Rising labour costs** - This cause is important in those industries which are 'labour-intensive'
- **Higher indirect taxes imposed by the government** - for example a rise in the rate of excise duty on alcohol and cigarettes, an increase in fuel duties or perhaps a rise in the standard rate of Value Added Tax

# Demand Pull Inflation

- reasons for increase of demand

- increased confidence amongst consumers
- higher real incomes

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# Effects of Inflation

- The effects of inflation can be *brutal for the elderly* who are looking to retire on a fixed income. The money that they expect to retire with will be worth less and less as time goes on and inflation goes higher.
- When the balance between supply and demand spirals out of control, buyers will change their spending habits as they meet their purchasing thresholds and producers will suffer and be forced to cut output. This can be readily tied to *higher unemployment rates*.
- Price inflation has immense effect on the Time Value of Money (TVM). This acts as a principal component of the rates of interest, which forms the basis of all TVM calculations. The real or estimated changes occurring in the rates of inflation lead to *changes in the rates of interest* as well.



# Effects of Inflation (contd.)

- The major effect of inflation on firms is to *discourage investment*. High inflation brings with it less predictable returns on capital purchased and the also the expectation that demand will fall in the future.

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# Example Problem

- For the next 4 years, a family anticipates buying \$1000 worth of groceries each year. If inflation is expected to be 3%/yr, what are the then current cash flows required to purchase the groceries?

To buy the groceries, the family will need to take the following face amount of dollars to the store. We will somewhat artificially assume that the family only shops once per year, buys the same set of items each year, and that the first trip to the store will be one year from today.

Year 1: dollars required  $\$1000.00 \times (1.03) = \$1030.00$

Year 2: dollars required  $\$1030.00 \times (1.03) = \$1060.90$

Year 3: dollars required  $\$1060.90 \times (1.03) = \$1092.73$

Year 4: dollars required  $\$1092.73 \times (1.03) = \$1125.51$