

12th Economics Lesson 5 Notes in English

5. Monetary Economics

Inflation is taxation without legislation. -Milton Friedman

Introduction

- **Monetary Economics** is a **branch of economics** that provides a framework for analyzing money and its functions as a medium of exchange, store of value and unit of account.
- It examines the **effects of monetary systems** including regulation of money and associated financial institutions.

Money

Meaning

- **Money** is anything that is generally **accepted as payment** for goods and services and repayment of debts and that serves as a medium of exchange.
- A **medium of exchange** is anything that is widely accepted as a means of payments. In recent years, the importance of credit has increased in all the countries of the world.
- **Credit instruments** are used on an extensive scale.
- The use of cheques, bills of exchange, etc. has gone up. It should however, be remembered that **money is the basis of credit**.



Definitions

- Many economists developed definition for money.
- Among these, definitions of **Walker** and **Crowther** are given below:
- "Money is, what money does" - **Walker**.
- "Money can be anything that is generally acceptable as a means of exchange and at the same time acts as a measure and a store of value". -**Crowther**

Evolution of Money

Barter System

- The introduction of money as a medium of exchange was one of the greatest inventions of mankind.
- Before money was invented, exchange took place by **Barter**, that is, commodities and services were directly exchanged for other commodities and services.
- Under the **barter system**, buyers and sellers of commodities had to face a number of difficulties.
- **Surplus goods were exchanged for money** which in turn was exchanged for other needed goods.
- Goods like furs, skins, salt, rice, wheat, utensils, weapons, etc. were commonly used as money.
- Such exchange of **goods for goods** was known as "**Barter Exchange**" or "**Barter System**".



Metallic Standard

- After the **barter system** and **commodity money system**, **modern money systems** evolved.
- Among these, **metallic standard** is the premier one.
- Under metallic standard, some kind of metal either **gold or silver** is used to determine the **standard value of the money and currency**.
- Standard coins made out of the metal are **the principal coins** used under the **metallic standard**.
- These standard coins are full bodied or full weighted legal tender.
- Their **face value** is equal to their **intrinsic metal value**.



Gold Standard

- Gold Standard is a system in which the **value of the monetary unit** or **the standard currency** is directly linked with gold.
- The monetary unit is defined in terms of a certain weight of gold.
- The purchasing power of a unit of money is maintained equal to the value of a fixed weight of gold.



Silver Standard

- The silver standard is a monetary system in which the **standard economic unit of account** is a fixed weight of silver.
- The silver standard is a monetary arrangement in which a country's Government allows conversion of its currency into fixed amount of silver.



Paper Currency Standard

- The paper currency standard refers to the monetary system in which **the paper currency notes** issued by **the Treasury or the Central Bank** or both circulate as unlimited legal tender.
- Paper currency is **not convertible** into any metal.
- Its value is **determined independent** of the value of gold or any other commodity.
- The paper standard is also known as **managed currency standard**.
- The quantity of money in circulation is controlled by the monetary authority to maintain price stability.



Plastic Money

- The latest type of money is **plastic money**.
- Plastic money is one of the most evolved forms of **financial products**.
- Plastic money is an **alternative to the cash or the standard "money"**.
- Plastic money is a term that is used predominantly in reference to the **hard plastic cards** used every day in place of actual bank notes.
- Plastic money can come in many different forms such as **Cash cards**, Credit cards, Debit cards, Pre-paid Cash cards, Store cards, Forex cards and Smart cards.
- They **aim at removing the need for carrying cash** to make transactions.

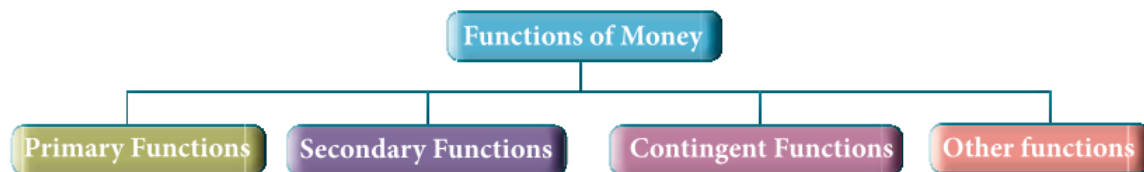


Crypto Currency

- A **digital currency** in which encryption techniques are used to regulate the generation of units of currency and verify the transfer of funds, operating independently of a Central Bank.
- **Decentralised crypto currencies** such as **Bitcoin** now provide an outlet for Personal Wealth that is beyond restriction and confiscation.



Functions of Money



The main functions of money can be classified into four categories:

1. Primary Functions:

i) Money as a medium of exchange:

- This is considered as the **basic function of money**.
- Money has the **quality of general acceptability**, and all exchanges take place in terms of money.

	
Medium of exchange	Store of Value
	
Measure of value	Standard of deferred payments

- On account of the use of money, the transaction has now come to be divided into two parts.
- First, money is obtained through **sale of goods or services**.

- This is known as **sale**. Later, money is obtained to **buy goods and services**.
- This is known as **purchase**. Thus, in the modern **exchange system** **money** acts as the intermediary in sales and purchases.

ii) Money as a measure of value:

- The second important function of money is that it measures the value of goods and services.
- In other words, the prices of all goods and services are expressed in terms of money.
- Money is thus looked upon as a collective measure of value.
- Since all the values are expressed in terms of money, it is easier to determine the rate of exchange between various types of goods in the community.

2. Secondary Functions

i) Money as a Store of value:

- **Savings done** in terms of **commodities** were not permanent.
- But, with the **invention of money**, this difficulty has now disappeared and savings are now done in terms of money.
- Money also serves as an **excellent store of wealth**, as it can be easily converted into other marketable assets, such as, land, machinery, plant etc.

ii) Money as a Standard of Deferred Payments:

- **Borrowing and lending** were difficult problems under the **barter system**.
- In the **absence of money**, the borrowed amount could be returned only in terms of goods and services.
- But the modern money-economy has greatly facilitated the borrowing and lending processes.
- In other words, money now acts as **the standard of deferred payments**.

iii) Money as a Means of Transferring Purchasing Power:

- The field of exchange also went on extending with **growing economic development**.
- The exchange of goods is now extended to distant lands.
- It is therefore, felt necessary to transfer purchasing power from one place to another.

3. Contingent Functions

i) Basis of the Credit System:

- Money is the **basis of the Credit System**.
- **Business transactions** are either in cash or on credit.

- For example, a depositor can make use of cheques only when there are sufficient funds in his account.
- **The commercial banks** create credit on the basis of adequate cash reserves.
- But, money is at the back of all credit.

ii) Money facilitates distribution of National Income:

- **The task of distribution of national income** was exceedingly complex under the barter system.
- But the invention of money has now facilitated the distribution of income as rent, wage, interest and profit.

iii) Money helps to Equalize Marginal Utilities and Marginal Productivities:

- **Consumer** can obtain **maximum utility** only if he incurs expenditure on various commodities in such a manner as to equalize marginal utilities accruing from them.
- Now in equalizing these marginal utilities, money plays an important role, because **the prices of all commodities are expressed in money**.
- Money also helps to **equalize marginal productivities** of various factors of production.

iv) Money Increases Productivity of Capital:

- Money is the most **liquid form of capital**. In other words, capital in the form of money can be put to any use.
- It is on account of this **liquidity of money** that capital can be transferred from the less productive to the more productive uses.

4. Other Functions

i) Money helps to maintain Repayment Capacity:

- Money possesses **the quality of general acceptability**.
- To maintain its repayment capacity, every firm has to keep assets in the form of liquid cash.
- The firm ensures its **repayment capacity with money**.
- Likewise, banks, insurance companies and even governments have to keep some liquid money (i.e., cash) to maintain their repayment capacity.

ii) Money represents Generalized Purchasing Power:

- **Purchasing power** kept in **terms of money** can be put to any use.
- It is not necessary that money should be used only for the purpose for which it has been served.

iii) Money gives liquidity to Capital:

- Money is the **most liquid form of capital**.
- It can be **put to any use**.

Supply of Money

- Money supply means the **total amount of money in an economy**.
- It refers to the amount of money which is in circulation in an economy at any given time.
- Money supply plays a crucial role in the **determination of price level and interest rates**.
- Money supply viewed at a given **point of time is a stock** and **over a period of time** it is a flow.

Meaning of Money Supply



- In India, currency notes are issued by the **Reserve Bank of India (RBI)** and coins are issued by the **Ministry of Finance, Government of India (GOI)**.
- Besides these, the balance is savings, or current account deposits, held by the public in commercial banks is also considered money.
- The currency notes are also called **fiat money** and **legal tenders**.
- Money supply is a **stock variable**.
- RBI publishes information for four alternative measures of Money supply, namely M1, M2, M3 and M4.
- **M1 = Currency, coins and demand deposits**
- **M2 = M1 + Savings deposits with post office savings banks**
- **M3 = M2 + Time deposits of all commercial and cooperative banks**
- **M4 = M3 + Total deposits with Post offices.**
- M1 and M2 are known as **narrow money** M3 and M4 are known as **broad money**
- The gradations are in decreasing order of liquidity.

Determinants of Money Supply

1. Currency Deposit Ratio (CDR);

- It is the ratio of money held by the **public in currency** to that they hold in bank deposits.

2. Reserve deposit Ratio (RDR);

- Reserve Money consists of two things
(A) vault cash in banks and
(B) deposits of commercial banks with RBI.

3. Cash Reserve Ratio (CRR);

- It is the fraction of the deposits the banks must keep with RBI.

4. Statutory Liquidity Ratio (SLR);

- It is the fraction of the total demand and time deposits of the commercial banks in the form of specified liquid assets.

Quantity Theories of Money

- Quantity theories of money explain the relationship between **quantity of money** and **value of money**.
- Here, we are given two approaches of **Quantity Theory of Money**, viz. **Fisher's Transaction Approach** and **Cambridge Cash Balance Approach**.

(a) Fisher's Quantity Theory of Money:

- The quantity theory of money is a **very old theory**.
- It was first propounded in **1588** by an Italian economist, **Davanzatti**.
- But, the credit for popularizing this theory in recent years rightly belongs to the well-known American economist, **Irving Fisher** who published his book, **"The Purchasing Power of Money"** in 1911.
- He gave it a quantitative form in terms of his famous **"Equation of Exchange"**.
- The general form of equation given by **Fisher** is **$MV = PT$**

$$MV = PT$$

- Where **M** = Money Supply/quantity of Money **V** = Velocity of Money **P** = Price level **T** = Volume of Transaction.
- Fisher points out that in a country during any given period of time, the total quantity of money (MV) will be equal to the total value of all goods and services bought and sold (PT).
- $MV = PT$, **Supply of Money = Demand for Money**

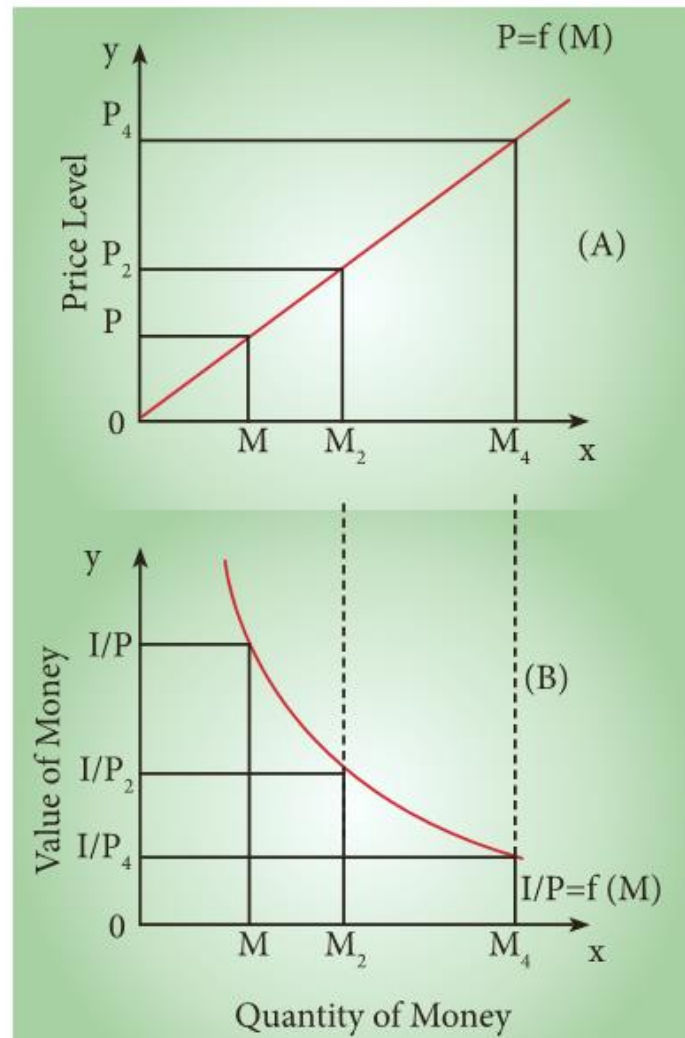
$$\text{Supply of Money} = \text{Demand for Money}$$

- This equation is referred to as "**Cash Transaction Equation**".
- It is expressed as $P = MV / T$ which implies that the quantity of money determines the price level and the price level in its turn varies directly with the quantity of money, provided '**V**' and '**T**' remain constant.
- The above equation considers only currency money.
- But, in a modern economy, bank's demand deposits or credit money and its velocity play a vital part in business.
- Therefore, Fisher extended his original equation of exchange to include bank deposits M_1 and its velocity V_1 .
- **The revised equation** was: From the revised equation, it is evident, that the price level is determined by
 - (A) the quantity of money in circulation '**M**'
 - (B) the velocity of circulation of money '**V**'
 - (C) the volume of bank credit money M_1
 - (D) the velocity of circulation of credit money V_1 and the volume of trade (T)

$$PT = MV + M_1V_1$$

$$P = \frac{MV + M_1V_1}{T}$$

Diagrammatic Illustration



- Figure shows the **effect of changes in the quantity of money** on the price level.
- When the quantity of money is OM, the price level is OP.
- When the quantity of money is doubled to OM₂, the price level is also doubled to OP₂.
- Further, when the quantity of money is increased four-fold to OM₄, the price level also increases by four times to OP₄.
- This relationship is expressed by the curve $OP = f(M)$ from the origin at 450.
- Figure (B), shows the inverse relation between the quantity of money and the value of money, where the value of money is taken on the vertical axis.
- When the quantity of money is OM, the value of money is OI/P .
- But with the doubling of the quantity of money to OM₂, the value of money becomes one-half of what it was before, (OI/P_2).
- But, with the quantity of money increasing by four-fold to OM₄, the value of money is reduced by OI/P_4 .
- This inverse relationship between the quantity of money and the value of money is shown by downward sloping curve $OI/P = f(M)$.

b) Cambridge Approach (Cash Balances Approach)**i) Marshall's Equation**

- The Marshall equation is expressed as: $M = KPY$, Where M is the quantity of money
- Y is the aggregate real income of the community P is Purchasing Power of money K represents the fraction of the real income which the public desires to hold in the form of money.

$$M = KPY$$

- Thus, the price level $P = M/KY$ or the value of money (The reciprocal of price level) is $1/P = KY/M$
- The value of money in terms of this equation can be found out by dividing the total quantity of goods which the public desires to hold out of the total income by the total supply of money.
- According to **Marshall's equation**, the value of money is influenced not only by changes in M, but also by changes in K.

ii) Keynes' Equation

- Keynes equation is expressed as: $n = pk$ (or) $p = n / k$

$$n = pk \text{ (or) } p = n / k$$

- Where n is the total supply of money p is the general price level of consumption goods k is the total quantity of consumption units the people decide to keep in the form of cash, Keynes indicates that K is a real balance, because it is measured in terms of consumer goods.
- According to Keynes, peoples' desire to hold money is unaltered by monetary authority.
- So, price level and value of money can be stabilized through regulating quantity of money (n) by the monetary authority.
- Later, Keynes extended his equation in the following form: $n = p(k + rk')$ or $p = n/(k + rk')$

$$n = p(k + rk') \text{ or } p = n/(k + rk')$$

- Where, n = total money supply p = price level of consumer goods k = peoples' desire to hold money in hand (in terms of consumer goods) in the total income of them r = cash reserve ratio
- k' = community's total money deposit in banks, in terms of consumers goods.
- In this extended equation also, Keynes assumes that, k, k' and r are constant.
- In this situation, price level (P) is changed directly and proportionately changing in money volume (n).

Inflation

- Both **inflation** and **deflations** are **evils of economy**.
- So, understanding of these is essential.

Meaning of Inflation

- Inflation is a **consistent** and **appreciable** rise in the **general price level**.
- In other words, inflation is the rate at which the general level of prices for goods and services is rising and consequently the purchasing power of currency is falling.



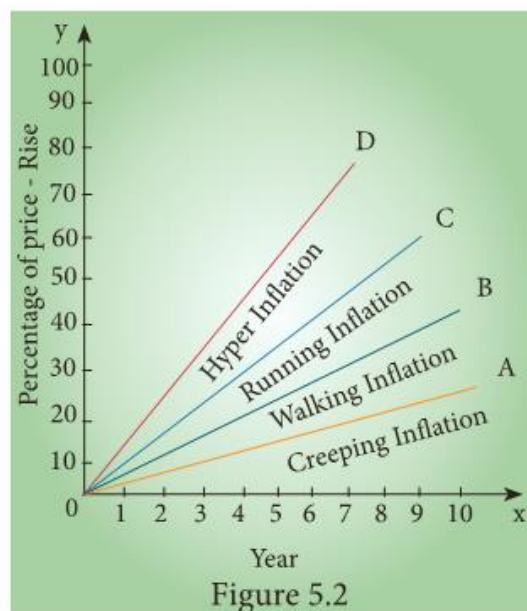
Definitions

- “Too much of Money chasing too few goods” - **Coulbourn**
- “A state of abnormal decrease in the quantity of purchasing power” - **Gregorye**

Types of Inflation

On the basis of speed

On the basis of speed



1) Creeping inflation

- 2) Walking inflation
- 3) Running inflation and
- 4) Galloping inflation or Hyper inflation.

The four types of inflation are indicated in Figure-5.2.

i) Creeping Inflation:

- Creeping inflation is **slow-moving** and **very mild**.
- The rise in prices will **not be perceptible** but spread over a long period.
- This type of inflation is in no way dangerous to the economy.
- This is also known as **mild inflation** or **moderate inflation**.

ii) Walking Inflation:

- When prices rise moderately and the annual inflation rate is a single digit (3% - 9%), it is called **walking** or **trolling inflation**.

iii) Running Inflation:

- When prices rise rapidly like the running of a horse at a rate of speed of 10% - 20% per annum, it is called **running inflation**.

iv) Galloping inflation:

- Galloping inflation or hyper inflation points out to **unmanageably high inflation rates** that run into two or three digits.
- By high inflation the percentage of the same is almost 20% to 100% from an overall perspective.

Demand-Pull Vs Cost-Push inflation

i) Demand-Pull Inflation:

- Demand and supply play a crucial role in **deciding the inflation levels** in the society at all points of time.
- For instance, if the **demand is high** for a product and **supply is low**, the price of the products increases.



ii) Cost-Push Inflation:

- When the **cost of raw materials** and other **inputs rises** inflation results.
- Increase in **wages paid to labour** also leads to **inflation**.

Wage-Price Spiral

- Wage-price spiral is used to **explain the cause and effect** relationship between rising wages and rising prices or inflation.

Other types of inflation (on the basis of inducement)

i) Currency inflation:

- The excess supply of money in circulation causes rise in price level.

ii) Credit inflation:

- When banks are liberal in lending credit, the money supply increases and thereby rising prices.

iii) Deficit induced inflation:

- The deficit budget is generally financed through printing of currency by the Central Bank. As a result, prices rise.

iv) Profit induced inflation:

- When the firms aim at higher profit, they fix the price with higher margin. So prices go up.

v) Scarcity induced inflation:

- Scarcity of goods happens either due to fall in production (eg. farm goods) or due to hoarding and black marketing.
- This also pushes up the price. (This has happened in Venezuela in the year 2018)

vi) Tax induced inflation:

- Increase in indirect taxes like excise duty, custom duty and sales tax may lead to rise in price (eg. petrol and diesel).
- This is also called taxflation.

Causes of Inflation

The main causes of inflation in India are as follows:

i) Increase in Money Supply:

- Inflation is caused by an increase in the supply of money which **leads to increase in aggregate demand**.
- The **higher the growth rate** of the **nominal money** supply, the higher is the rate of inflation.

ii) Increase in Disposable Income:

- When the disposable income of the people increases, it raises their **demand for goods and services**.
- Disposable income may increase with the rise in national income or reduction in taxes or reduction in the saving of the people.

iii) Increase in Public Expenditure:

- Government activities have been expanding due to developmental activities and social welfare programmes.
- This is also a cause for **price rise**.

iv) Increase in Consumer Spending:

- The demand for goods and services increases when they are given credit to buy goods on **hire-purchase** and **installment** basis.

v) Cheap Money Policy:

- Cheap money policy or **the policy of credit expansion** also leads to increase in the money supply which raises the demand for goods and services in the economy.

vi) Deficit Financing:

- In order to meet its **mounting expenses**, the government resorts to deficit financing by borrowing from the public and even by printing more notes.
- This **raises aggregate demand** in relation to aggregate supply, thereby leading to inflationary rise in prices.

vii) Black Assests, Activities and Money:

- The existence of **black money and black assets** due to **corruption, tax evasion** etc., **increase** the **aggregate demand**.
- People spend such money, lavishly.
- **Black marketing** and **hoarding** reduces the supply of goods.
- These trends tend to raise the price level further.

viii) Repayment of Public Debt:

- Whenever the government repays its **past internal debt to the public**, it leads to increase in the **money supply with the public**.
- This tends to raise the aggregate demand for goods and services.

ix) Increase in Exports:

- When **exports** are **encouraged**, **domestic supply of goods decline**. So prices rise.

Effects of Inflation

- The effects of inflation can be classified into two heads:

(1) Effects on Production and

(2) Effects on Distribution.

1. Effects on Production:

- When the inflation is very moderate, it acts as an incentive to **traders and producers**.
- This is particularly prior to **full employment** when resources are not fully utilized.
- The profit due to rising prices encourages and induces business class to increase their investments in production, leading to generation of employment and income.
 - 1) However, **hyper-inflation** results in a serious depreciation of the value of money and it discourages savings on the part of the public.
 - 2) When the value of money undergoes considerable depreciation, this may even drain out the **foreign capital** already invested in the country.
 - 3) With **reduced capital accumulation**, the investment will suffer a serious set-back which may have an adverse effect on the volume of production in the country. This may discourage entrepreneurs and business men from taking business risk.
 - 4) **Inflation also leads to hoarding of essential goods** both by the traders as well as the consumers and thus leading to still higher inflation rate.
 - 5) **Inflation encourages investment** in speculative activities rather than productive purposes.

2. Effects on Distribution

i) Debtors and Creditors:

- During inflation, **debtors are the gainers** while the creditors are losers.
- The reason is that the **debtors had borrowed** when the purchasing power of money was high and now repay the loans when the purchasing power of money is low due to rising prices.

ii) Fixed-income Groups:

- The fixed income groups are the worst hit during inflation because their **incomes being fixed** do not bear any relationship with the rising cost of living.
- Examples are wage, salary, pension, interest, rent etc.

iii) Entrepreneurs:

- Inflation is the boon to **the entrepreneurs** whether they are manufacturers, traders, merchants or businessmen, because it serves as a tonic for business enterprise.
- They **experience windfall gains** as the prices of their inventories (stocks) suddenly go up.

iv. Investors:

- The investors, who generally invest in **fixed interest yielding bonds** and **securities** have much to lose during inflation.
- On the contrary those who invest in shares stand to gain by rich dividends and appreciation in value of shares.

Measures to Control Inflation

- **Keynes** and **Milton Friedman** together suggested three measures to prevent and control of inflation.

(1) Monetary measures,

(2) Fiscal measures (J.M. Keynes) and

(3) Other measures.

1. Monetary Measures:

- These measures are adopted by **the Central Bank** of the country. They are
 - (i) Increase in Bankrate
 - (ii) Sale of Government Securities in the Open Market
 - (iii) Higher Cash Reserve Ratio (CRR) and Statutory Liquidity Ratio (SLR)
 - (iv) Consumer Credit Control and

(v) Higher margin requirements

(vi) Higher Repo Rate and Reverse Repo Rate.

2. Fiscal Measures:

- Fiscal policy is now **recognized as an important instrument** to tackle an inflationary situation.
- The major **anti-inflationary fiscal measures** are the following: Reduction of Government Expenditure, Public Borrowing and Enhancing taxation.

3. Other Measures:

- These measures can be divided broadly into short-term and long-term measures.
 - 1) **Short-term measures** can be in regard to **public distribution** of scarce essential commodities through fair price shops (Rationing). In India whenever shortage of basic goods has been felt, the government has resorted to import so that inflation may not get triggered.
 - 2) **Long-term measures** will require accelerating **economic growth especially of the wage goods** which have a direct bearing on the general price and the cost of living.
- Some restrictions on present consumption may help in improving saving and investment which may be necessary for accelerating the rate of economic growth in the long run.

Meaning of Deflation, Disinflation and Stagflation

- **Deflation:** The essential feature of deflation is falling prices, reduced money supply and unemployment.
- Though falling prices are desirable at the time of inflation, such a fall should not lead to the fall in the level of production and employment.
- But if prices fall from the level of full employment both income and employment will be adversely affected.
- **Disinflation:** Disinflation is the slowing down the rate of inflation by controlling the amount of credit (bank loan, hire purchase) available to consumers without causing more unemployment.
- Disinflation may be defined as the process of reversing inflation without creating unemployment or reducing output in the economy.
- **Stagflation:** Stagflation is a combination of stagnant economic growth, high unemployment and high inflation.

Trade Cycle

- The economic activity in a capitalist economy will have its periodic ups and downs.
- The study of these ups and downs is called the study of **Business cycle** or **Trade cycle** or **Industrial Fluctuation**.

Meaning of Trade Cycle

- A Trade cycle refers to **oscillations in aggregate** economic activity particularly in employment, output, income, etc.
- It is due to the inherent **contraction and expansion of the elements** which energize the economic activities of the nation.
- **The fluctuations** are periodical, differing in intensity and changing in its coverage.

Definition

- "A trade cycle is composed of periods of good trade characterised by rising prices and low unemployment percentages altering with periods of bad trade characterised by falling prices and high unemployment percentages". - **J.M. Keynes**

Phases of Trade Cycle

- The four different phases of trade cycle is referred to as

(i) Boom

(ii) Recession

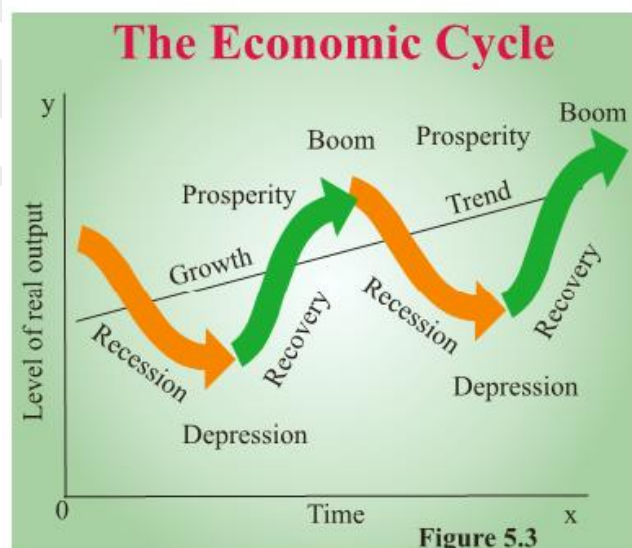
(iii) Depression and

(iv) Recovery.

- These are illustrated in the Figure 5.3.

Phases of Trade Cycle

Phases of Trade Cycle



i) Boom or Prosperity Phase:

- The **full employment** and the **movement of the economy** beyond full employment is characterized as boom period.
- During this period, there is **hectic activity in economy**.
- **Money wages rise**, profits increase and interest rates go up.
- The **demand for bank credit increases** and there is all-round optimism.

ii) Recession:

- The turning point from boom condition is called **recession**.
- This happens at higher rate, than what was earlier.
- Generally, **the failure of a company or bank** bursts the boom and brings a phase of recession.
- **Investments are drastically reduced**, production comes down and income and profits decline.
- There is **panic in the stock market** and business activities show signs of dullness.
- **Liquidity** preference of the people rises and money market becomes tight.

iii) Depression:

- During depression the **level of economic activity** becomes extremely low.
- Firms incur **losses and closure of business** becomes a common feature and the ultimate result is unemployment.
- Interest prices, profits and wages are low.
- **The agricultural class and wage earners** would be worst hit.
- Banking institutions will be reluctant to advance loans to businessmen.
- Depression is the worst phase of the business cycle. Extreme point of depression is called as "**trough**", because it is a deep point in business cycle.
- Any person fell down in deeps could not come out from that without other's help.
- Similarly, an economy fell down in trough could not come out from this without external help.
- Keynes advocated that autonomous investment of the government alone can help the economy to come out from the depression.

iv. Recovery:

- After a **period of depression**, recovery sets in.
- This is the **turning point from depression to revival** towards upswing.
- It begins with the revival of demand for capital goods.
- **Autonomous investments** boost the activity.
- The demand slowly picks up and in due course the activity is directed towards the upswing with more production, profit, income, wages and employment.
- Recovery may be initiated by **innovation or investment** or by **government expenditure** (autonomous investment).

MORE TO KNOW:

The history of Barter system starts way back in 6000 BC

- **Barter system** was introduced by **Mesopotamia tribes**.
- **Phoenicians adopted bartering of goods** with various other cities across oceans.
- **Babylonian's** also developed an improved barter system, where goods were exchanged for goods.

Currency Symbol

- The new symbol designed by **D.Udaya Kumar**, a post graduate of IIT Bombay was finally selected by the **Union cabinet** on 15th July, 2010.
- The new symbol, is an amalgamation of **Devanagari 'Ra'** and the Roman **'R'** without the stem.
- **The symbol of India rupee** came into use on **15th July, 2010**.
- After **America, Britain, Japan, Europe Union**.
- India is the **5th country** to **accept a unique currency symbol**.

Zimbabwe's annual inflation rate

- **The first hyper inflation** of the **21st century Zimbabwe's annual inflation** rate surged to an **unprecedented 3714 percent** at the end of **April 2007**.

Currency

- Currency is created by the **RBI and Union Government**.
- Bank deposits are created by **Commercial Banks and Co-operative Banks**.
- **The demand for money** is determined by a number of factors such as income, price level, interest rate etc.