Module 4

Macro-Economic Concepts

Circular Flow of income

The circular flow model demonstrates how money moves through society. Money flows from producers to workers as wages and flows back to producers as payment for products. In short, an economy is an endless circular flow of money. An Economy, Economic transactions generate two types of flows: 1. Product flow_ 2. Money flow. An economy products and money flow in opposite directions in a circular manner. This is called **Circular flow of income**. Product flow includes flow of goods and services and factor services. When factors of production supply their factor services, they get factor incomes. This is the income flow.

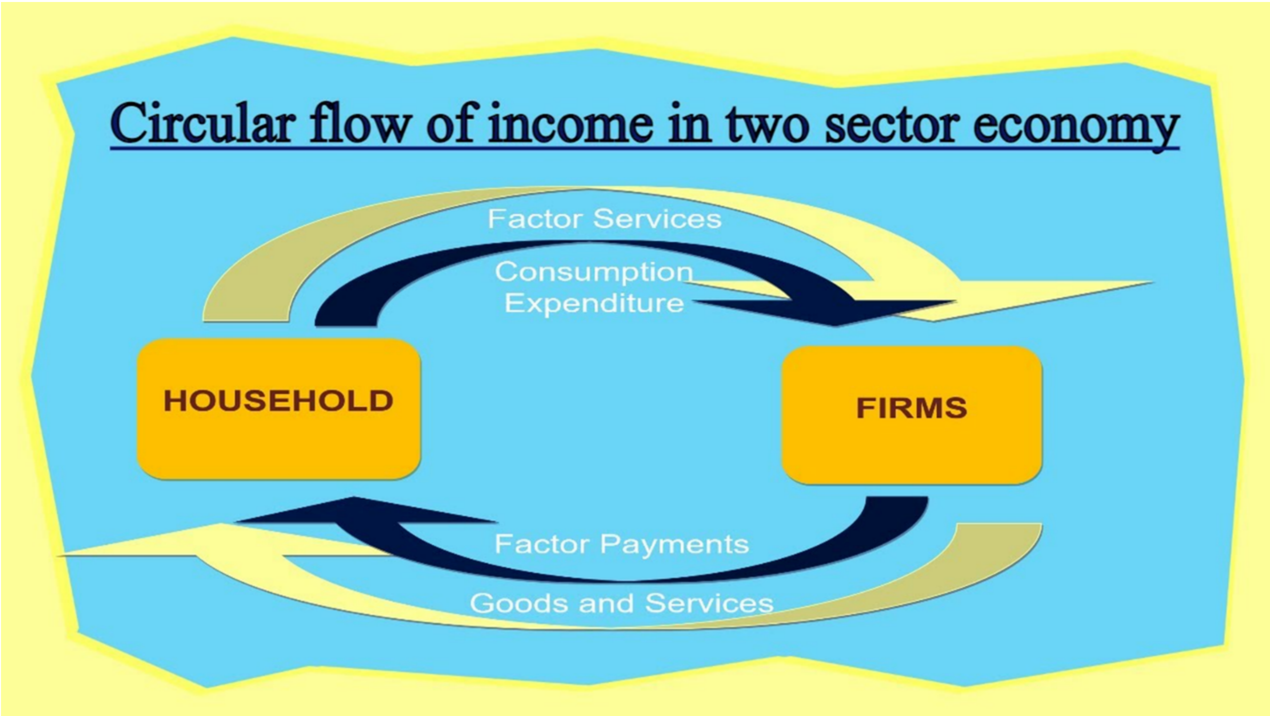
The circular flow of income or circular flow is a model of the economy in which the major exchanges are represented as flows of money, goods and services, etc. between economic agents. The flows of money and goods exchanged in a closed circuit correspond in value, but run in the opposite direction.

Flow of income and expenditure is divided into 4 sectors: **1. Household sector 2. Firms Sector 3. Government sector 4. Foreign sector.**

Circular Flow in a Two Sector Model (Simple two Sector model)

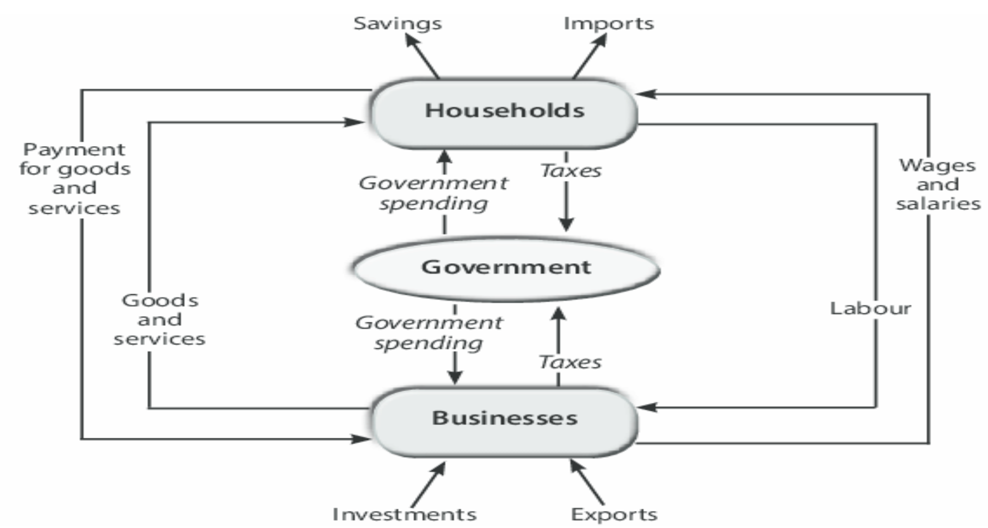
In a two sector model the two sectors are households and firms. Households possess all factors of production. They supply these factor services to firms and gets factor payments in the form of rent, interest, wages and profit. This income is spending for buying goods and services produced by firms.

Firm hire the factor services of households and produce various goods and services. They sell these goods and services to the households. These flows are depicted in the following chart. This model is built on the basis of the assumption that the entire income received by the households are spend on goods and services.



Circular Flow of income in a Three Sector Model

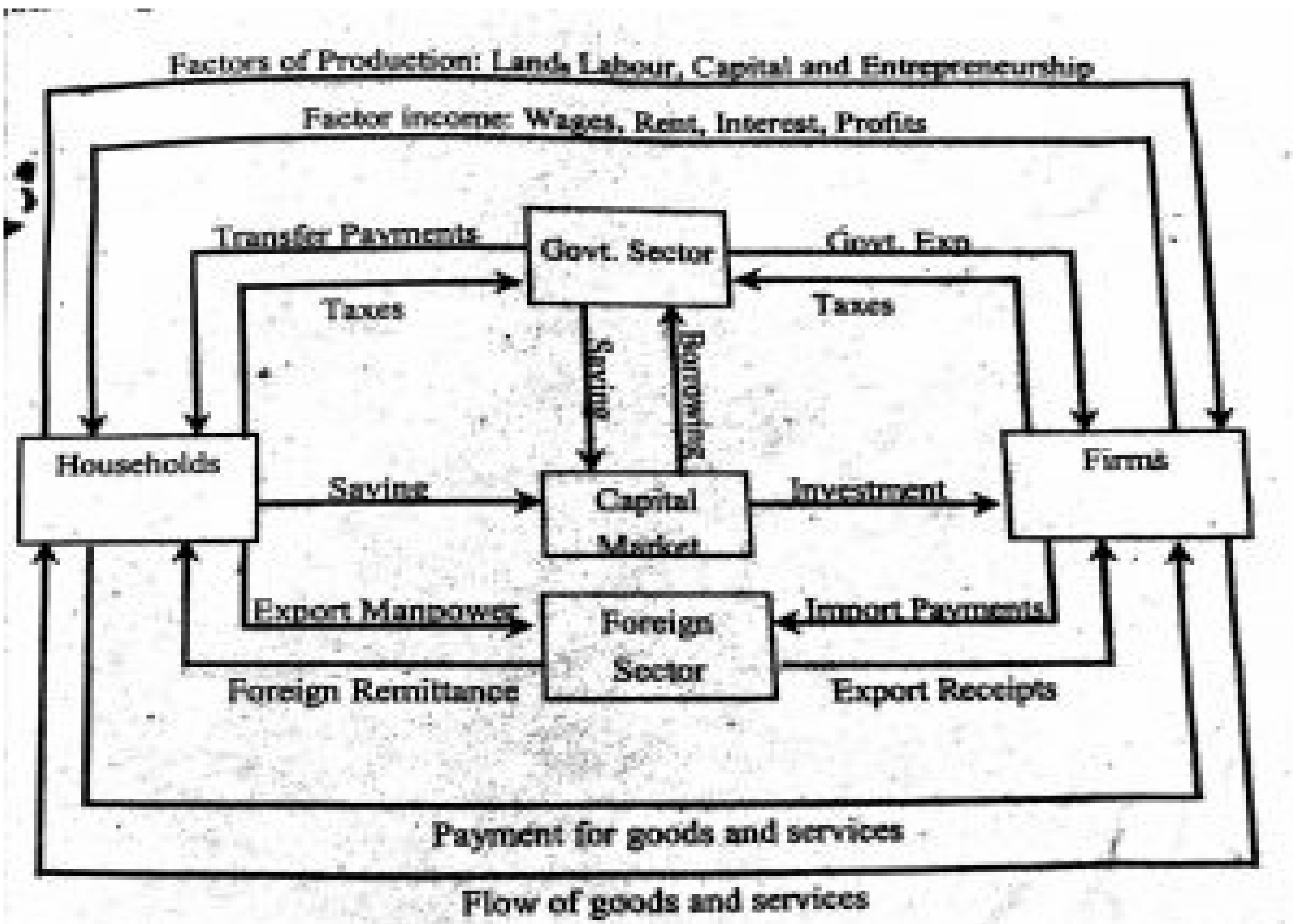
In a three sector model the Government sector is included. The household sector and the firms pay tax to the government. Tax is a leakage from the income stream. Like other two sectors government also spend money. Government expenditure is an injection. Government make payments to the firms for the purchase of goods and services. The following figure shows the three sector model.



If the government expenditure equals taxes, then there are no disturbances to the circular flow. This is the case of balanced sheet. On the other hand, if government expenditure is less than the taxes, then there is leakage and the size of the circular flow will be reduced. This is the phase of surplus budget.

Circular flow of Income in a Four Sector Model

In a four sector model the fourth sector is the Foreign sector. Households export their manpower to the foreign sector and in return they get foreign remittances. Firms export their goods and services to the foreign sector and they get receipts



Intermediate Goods and Final Goods

Goods which are used in the production of other goods and Services are called Intermediate goods. This types of goods are not taken into account for national income estimation.

Goods which are ready for consumption or investment are called Final goods. The value of final goods is added for the estimation of national income.

Stock and Flow

Stock is the quantity of variable measured at a point of time.

Ex: Wealth, debt, unemployment

Flow is the quantity of variable measured over a period of time.

Ex: Income, Expenditure

National Income

National income, in terms of total expenditure, is the aggregate expenditure of a country in a year's time. **National income is the total money value of all final goods and services produced in an economy during an accounting year**. In other words, it is the sum of all the factor income that is generated during a production year. National income serves as an indicator of the nation's economic activity. National Income defined in terms of– total output (as defined above), total factor income and total expenditure.

Concepts of National Income

1. **Gross Domestic Product (GDP)**

Gross Domestic Product (GDP) is the total market value of all final goods and services currently produced within the domestic territory of a country in a year.

2. **Gross National Product (GNP):** Gross National Product is the total market value of all final goods and services produced in a year.

GNP = GDP + Net factor income from abroad.

Net factor income from abroad = factor income received by Indian nationals from abroad – factor income paid to foreign nationals working in India.

3. Net Domestic Product at Market Price (NDPmp)

When depreciation is deducted from GDP we get NDP.

NDPmp =GDPmp – Depreciation

Depreciation is the loss in the value of capital.

4. Net National Product at Market Price (NNP mp)

NNP is the market value of all final goods and services after providing for depreciation. That is, when charges for depreciation are deducted from the GNP we get NNP at market price.

NNPmp = GNP – Depreciation

5.**Net National Product (NNP) at Factor Cost (National Income):**

NNP at factor cost or National Income is the sum of wages, rent, interest and profits paid to factors for their contribution to the production of goods and services in a year.

NNP at Factor Cost = NNP at Market Price – Indirect Taxes + Subsidies

6. Personal Income:

Personal income is the sum of all incomes actually received by all individuals or households during a given year.

Personal Income = National Income – Social Security contributions – corporate income taxes – undistributed corporate profits + transfer payments.

7**. Personal Disposable Income:**

It is defined as the part of personal income left for consumption and saving after the payment of taxes.

PDI = Personal Income – Direct taxes

8. Per capita Income:

It is the income per head. In other words, it is the average income of the people of a country in one year. **NI =National income/Total Population**

Three Sectors of an Economy

There are three sectors of the economy: Primary sector, Secondary sector and Tertiary sector.

1. Primary Sector (Agriculture):

Activities in the primary sector of the economy are carried out by utilizing natural resources directly. Agriculture, mining, fishing, forestry, dairy, and other industries fall into this category. It is thus named because it serves as the foundation for all other items. It is also known as the Agriculture and Allied Sector since agriculture, dairy, forestry, and fishing provide the majority of the natural items we consume.

2. Secondary Sector (Industry):

Secondary sector is the manufacturing sector. It includes registered and unregistered manufacturing. The secondary sector of the economy comprises businesses that produce a finished, useful product and depend on primary sector companies for raw materials. Mining, manufacturing, and construction are all part of this industry. The secondary sector contributes 24% of the share in the Indian economy.

3. Tertiary Sector (Service):

Tertiary sector provides services like health, education, banking, insurance, transport and communication etc. Also known as “Intangible products sector”. The tertiary sector covers a wide range of activities from commerce to administration, transport, financial and real estate activities, business and personal services, education, health and social work.

Measurement of National Income

There are 3 important methods of measuring national income. They are:

1. **Product or Value added Method**
2. **Expenditure Method**
3. **Income method**

1. Value Added / Product Method :

Under this method GDP is estimated as the sum of money value of all final goods and services produced in the domestic territory of a country during a financial year.

Steps:

The following are the important steps involved in the estimation of GDP:

1. Identifying the production unit and classifying them
2. Estimate the value of final output produced by each production unit

The sum of value of output produced by all the three sectors gives GDPmp. This method is also called the value-added method. This method approaches national income from the output side. Under this method, the economy is divided into different sectors such as agriculture, fishing, mining, construction, manufacturing, trade and commerce, transport, communication and other services.

The sum of value of output produced by all the three sectors gives GDPmp and add Net factor income from abroad. Finally get National income of a country.

2. Income Method:

When production takes place income is generated in the form of factor payments. Income method is the sum of the factor income in the economy. Factor incomes are Rent, Wage, Interest and Profit. Four factor incomes one more item is added. That is income of the self-employed.

Rent: it is the income earned by the people who supply land and building in production.

Wages: it is the reward of those who supply labour power. It is also called compensation of employees.

Interest: it is the reward of capital. When money is borrowed for investment interest is paid as the reward.

Profit: profit is the reward of organizer. Organizer who combines the all factors of production.

Rent +Wages +Interest +Profit +Mixed Income = GDPmp

NNP/NNI =GDPmp +Net factor income from abroad

The sum of Rent, Interest and profit is called Operating Surplus.

3. Expenditure Method:

This method estimates GDP by adding the final expenditures in the economy. There are four major components of final Expenditure:

1. **Private final consumption Expenditure (C)**
2. **Investment expenditure (I)**
3. **Government Expenditure (G)**
4. **Net Exports (X-M)**

1. **Private Consumption Expenditure: (C)**

This is mainly the household expenditure on final goods and services to satisfy their wants. It mainly depends on disposable income.

2. **Investment Expenditure: (I)**

This is the expenditure for acquiring capital assets. There are major components of investment expenditure:

1. Private investment by firms

2. Government Investment
3. Residential or construction Investment
4. Inventory investment

3. Government Expenditure (G):

Like households, government also spend money for purchase of consumer goods like petrol, stationary etc.

4. Net Exports (X-M):

This is foreign expenditure. Foreigners spend money for our goods (Export) and we purchase foreign goods (import).

When these four items are added we get GDPmp. That is

$$C+I+G+X-M = GDPmp$$

$$NNP = GDP\ mp + \text{Net factor income from abroad}$$

Items Excluded from National Income Estimation

The following transactions are not included in national income estimation:

1. Buying and selling of shares and securities
2. Value of intermediate goods used
3. Prize money from lottery
4. All transfer payments
5. Purchase and sale of second hand goods.
6. Income from illegal activities like smuggling, gambling etc.

Uses or Significance of National Income Estimation

- To evaluate the performance of the economy
- For economic planning and for the formulation of economic policies
- To understand the contribution of each sector
- To make comparison between the economic performance of two countries.
- To measure the inequalities in the distribution of income

Difficulties in the measurement of National income

There are two types of difficulties in the measurement of National income. They are

1. Conceptual difficulties

2. Statistical /Practical difficulties

1. **Conceptual Difficulties:**

1. Service without remuneration: certain services such as service rendered by house wife is not included in national income.

2. Classification of goods as intermediate goods and final goods :

3. Difficulty in estimating the value of output produced in the government sector.

2. Practical difficulties

1. Inadequacy of statistical data
2. Illiteracy of farmers
3. Lack of occupational distribution
4. Existence of a non-monetized sector
5. Production for self-consumption

Inflation

Inflation simply means a continuous increase in general price level. It can be described as a decline in the real value of money or a loss of purchasing power in the medium of exchange. Inflation is a situation in which **there *is a persistent rise in the general price level.***

In other words, it is a situation in which there is an upward movement in the average prices. Prof. Crowther defines inflation as a state in which the value of money is falling, i.e., prices are rising. Inflation means a state of general rise in prices. Inflation is commonly understood as a situation in which prices of goods and services rise, at a fast pace.

Features of Inflation

The characteristics or features of inflation are as follows:-

1. It is a long-term process.

2. It is a state of disequilibrium.

3. It is scarcity oriented.

4. It is dynamic in nature.

5. It is a post full employment phenomenon.

6. It is a purely monetary phenomenon.

7. Inflationary price rise is persistent and irreversible.

8. Inflation is caused by excess demand in relation to supply of all types of goods and services.

9. Inflation involves a process of the persistent rise in prices. It involves rising trend in price level.

Types of Inflation

There are several types of inflation which are classified on different basis. Based on rate, inflation can be classified as

1. **Creeping**
2. **Walking**
3. **Running**
4. **Galloping**

1.Creeping Inflation:

When the rise in prices is very slow, that is less than 3% per annum, it is called creeping inflation. It is mild inflation and is good for economic growth.

2. Walking Inflation:

When prices rise moderately and the annual inflation rate is 3 to 10%, it is called Walking inflation.

3. Running Inflation:

When prices rise rapidly and the rate of increase is 10% to 20% per annum. It is a dangerous situation.

4. Galloping or Hyper Inflation

When prices rise between 20% to 100% per annum or even more, it is called Galloping or Hyperinflation.

There are two primary types of inflation:

1. **Cost-push inflation**
2. **Demand-pull inflation.**

Cost-push inflation is when prices rise as a result of rising costs of production and raw materials. Cost-push inflation is usually more temporary than other sorts of inflation and therefore central banks are more likely to leave interest rates alone if the cause of a high inflation rate is deemed to be cost-push.

Demand-pull inflation is a type of inflation that occurs when aggregate demand grows rapidly, outpacing aggregate supply. Demand-pull inflation usually occurs when the economy is at almost full employment levels. Keynesian economics holds that when the economy reaches full employment during a period of economic growth, general price levels will skyrocket to maximize profits, which in turn will cause inflation.

Causes of Inflation

Causes of Inflation can be classified under

1. **Demand side**
2. **Supply side**

Demand Side Causes:

In an economy when aggregate demand increases without an equivalent increase in aggregate supply, there will be excess demand and the price level goes up. This leads to Demand pull inflation.

The following are the important causes of Demand pull inflation:

1. **Increase in Money supply:**

This is the most important reason for inflation. When the monetary authority increases the money supply. The AD rises.

2. **Increase in Disposable income:**

DPI increases due to an increases in per capita income or reduction in taxes.

3. **Increase in Government Expenditure:**

When government follow an expansionary fiscal policy govt expenditure will increases.

4. **Deficit Financing:**

It means governments spends more money than its revenue. The deficit may be met by printing more currency notes.

5. Cheap Money Policy:

6. Increase in Population:

SUPPLY SIDE causes

When AD increases and aggregate supply does not keep up with aggregate demand cost push inflation will be result.

The major causes are:

1. Shortage of capital and other complementary Factors
2. Increase in wages
3. Speculative hoarding
4. Natural calamities
5. Increase in exports
6. Industrial disputes

Effects of Inflation

Effects of inflation can be studied under:

1. **Effects on distribution of income and wealth**
2. **Effects on investment and production**
3. **Social and Political effects**

1. Effects of Distribution on Income and Wealth:

The effects of inflation on distribution of income and wealth can be viewed as the effects on fixed income group and flexible income group.

1. **Debtors and Creditors:**

During inflation, debtors gain and creditors lose. Because of inflation value of money decreases.

2. **Salaried classes and wage earners:**

Income of these groups will adjust to inflation very slowly they will lose when there is no inflation.

3. Investors

4. Businessmen: get more profit and gain from inflation.

2. Effects on Investment and Production:

When there is inflation people will have tendency to spend more and save less. Less savings and less investment in the economy which will adversely affect production. Inflation also discourages foreign investment.

3. Social and Political Impact:

Inflation makes the rich and poor. The people will be unhappy during the time of inflation. Rising the cost of living and workers resort to strikes which leads to loss in production.

Measures to Control Inflation

There are three important ways in which inflation can be controlled.

1. **Monetary Policy Measures**
2. **Fiscal Policy Measures**
3. **Other Measures**

1. **Monetary Policy Measures:**

Monetary policy is the policy adopted by the central bank of a country to control credit and money supply in an economy. Monetary policy can be classified as:

1. **Quantitative credit control measures**
2. **Qualitative credit control measures**

Quantitative Credit Control Measures:

The major measures are:

1. Bank rate policy
2. Cash Reserve Ratio
3. Statutory Liquidity Ratio
4. Open Market operations

1. **Bank rate:**

Bank rate is the rate at which the central bank rediscount the bill of commercial banks. Inflation –Central bank raises the bank rate, Commercial banks borrow less money from the central bank.

2. **Cash Reserve Ratio:**

Every commercial bank should keep a certain percentage of their total deposits in the central bank in the form cash reserve. This is called CRR.

3. **Open market Operations:**

OMO is the sale and purchase of government securities and bonds by the central bank.

2. Qualitative Credit control Measures:

1. Margin requirements
2. Regulation of consumer credit
3. Moral suasion (Informal Request)
4. Direct Action

2. Fiscal Policy Measures:

Fiscal policy is the policy of the government to control the aggregate demand in the economy. The main instruments are:

1. Public Revenue
2. Public Expenditure
3. Public Borrowing

1. **Public Revenue:**

The main source of revenue is tax. In a inflation, the government want to reduce the total spending in the economy and rise the tax.

2. **Public Expenditure:**

During inflation, the government cut down the expenditure on developmental activities and welfare programmes.

3. Public Borrowing:

In a period of inflation the government will delay the repayment of public debt. At the same time govt may borrow more money from public.

3. Other Measures:

1. Increasing the supply of goods and services
2. Price control
3. Wage control

Capital Market &Money Market

The financial market is a broad term describing any market place where buyers and sellers participate in the trade of assets such as equities, bonds, currencies and derivatives. A financial market deals with financial assets such as stocks, bonds, treasury bills, currencies etc. Two important components of a financial market are:

1. **Money market**
2. **Capital Market**

Money Market

The money market is a market for short-term funds, which deals in financial assets whose period of maturity is up to one year. It should be noted that money market does not deal in cash or money as such but simply provides a market for credit instruments such as bills of exchange, promissory notes, commercial paper, treasury bills, etc

These instruments help the business units, other organizations and the Government to borrow the funds to meet their short term requirement. The Indian money market consists of Reserve Bank of India, Commercial banks, Co-operative banks, and other specialized financial institutions. The Reserve Bank of India is the leader of the money market in India. Some Non-Banking Financial Companies (NBFCs) and financial institutions like LIC, GIC, UTI, etc. also operate in the Indian money market.

Functions of Money Market

1. Financing trade
2. Financing industry
3. Profitable investment
4. Financial mobility
5. Equilibrium between demand and supply of funds
6. Economic growth

2. Capital Market

The capital market is the market for long term capital or Funds. It refers to all the facilities and institutional arrangements for borrowing and lending "term funds" medium-term and long term funds. Capital market is a market where buyers and sellers engage in trade of long term financial securities like bonds, stocks, debentures etc. The capital market works under full control of SEBI.

Functions of Capital Market

1. Allocative function
2. Encourages savings
3. Encourages investment
4. Promotes Economic growth
5. Liquidity Function

DISTINGUISH BETWEEN

Points	Money Market	Capital Market
Meaning	It is a component of the financial market **where short-term borrowing takes place**	It is a component of financial market where **long-term borrowings takes place**
Time period	The instruments traded have **maturity period of one year or less than one year**	The instruments traded have **maturity period of more than one year**
Purpose of borrowing	Funds are borrowed to **meet working capital requirements**	Funds are required to **establish new business**, **expand or diversify business** or **purchase of fixed assets**
Return on Investment	**Return on investment is less** as they are highly liquid and safe	**Return on investment is comparatively high** as they are more risky
Risk	**Risk factor is very less** because maturity period of the instruments is less than one year	**Risk factor is more** because maturity period of the instrument is longer.

Business Financing