Industrial Economics and Foreign Trade

Module 4 – Part 1 National Income – Circular Flow

By

Dr. Johnson T T

Assistant Professor in Economics

CET

Mob. 9447450408

The Circular flow of Income

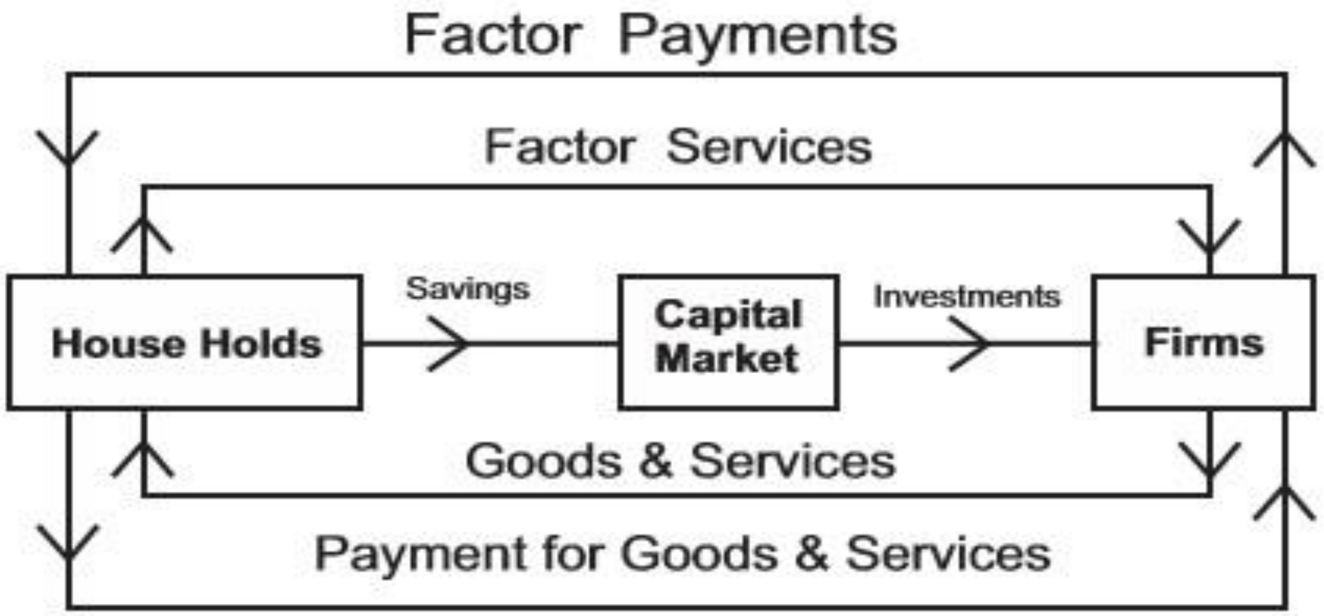
Economic transactions generate two types of flows i) Product flow or real flow and ii) money flow. In the economy products and money flow in opposite directions in a circular manner. This is called circular flow of income.

To illustrate the flows of income and expenditure, an economy is divided into four sectors- i) Household sector ii) Business sector or firms iii) government sector iv) Foreign sector.

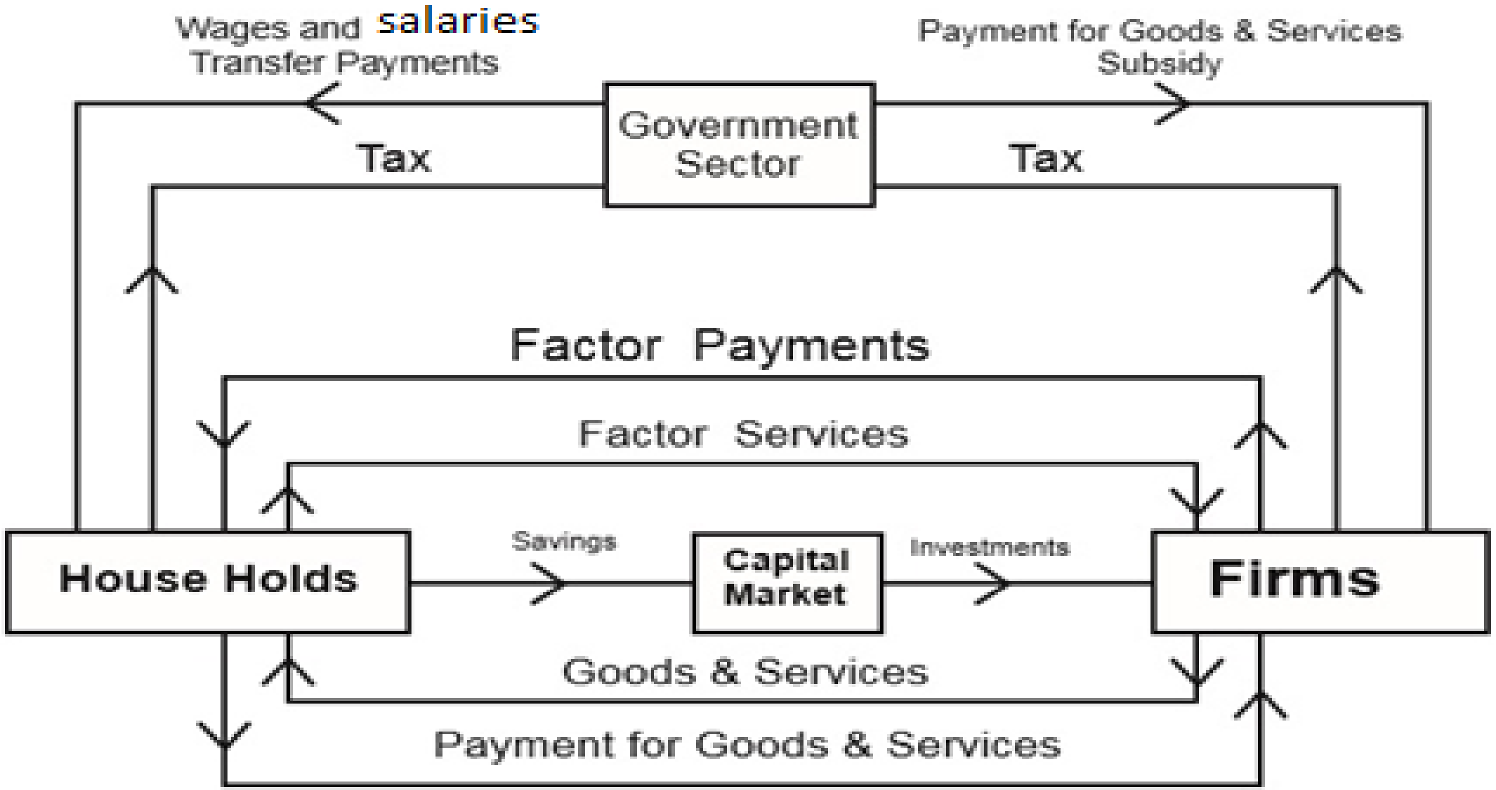
Circular flow in a two sector model

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

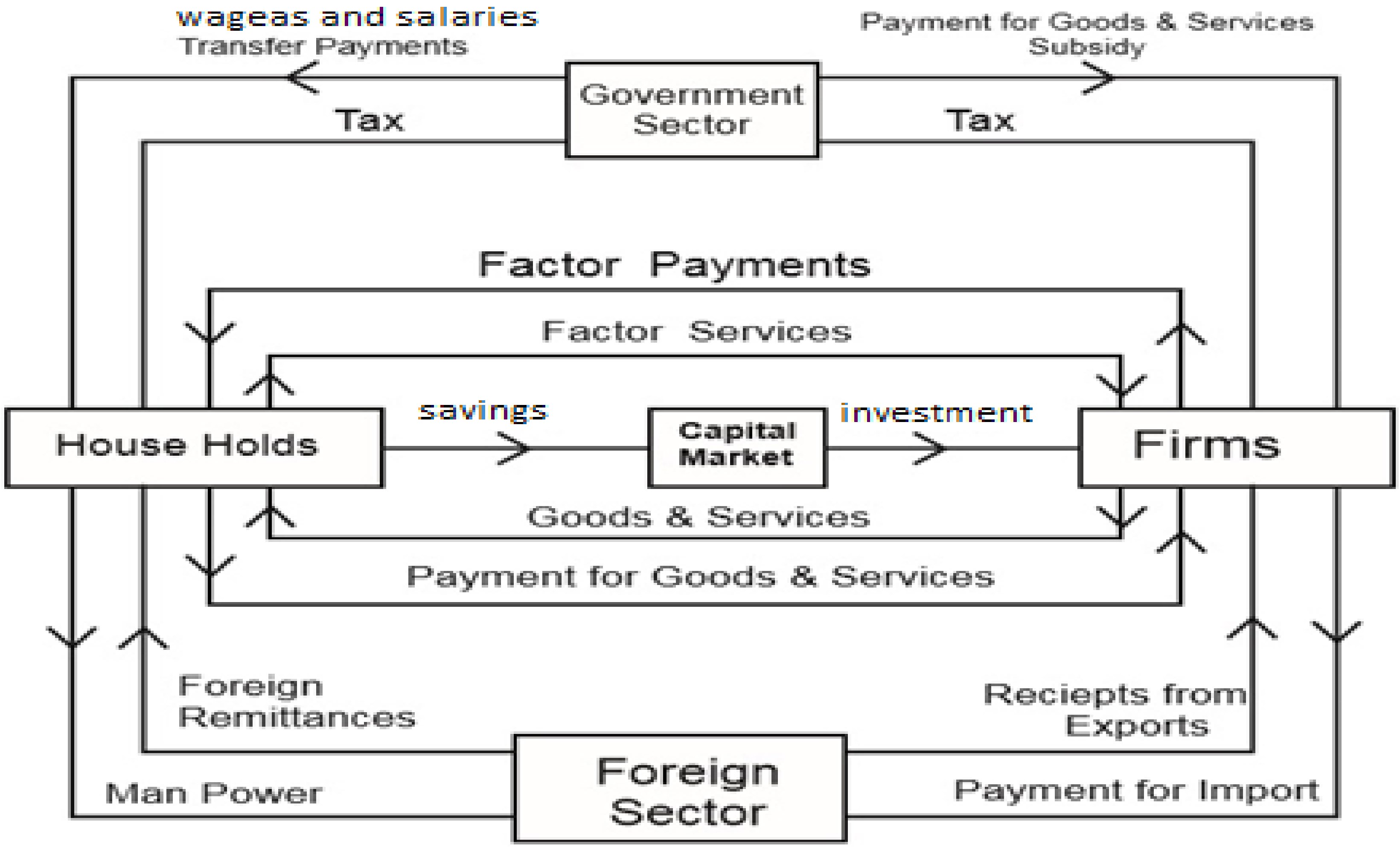
Two sector model with capital market



Three sector model



Circular flow in a four sector model



Industrial Economics and Foreign Trade

Module 4 – Part 2 National Income - Concepts

By

Dr. Johnson T T

Assistant Professor in Economics

CET

Mob. 9447450408

Factor income and Transfer income

Factor income is the income received for supplying a factor service.
Transfer payments are unilateral or one sided payments

Intermediate goods and final goods

Goods which are used in the production of other goods and services are called intermediate goods.
Goods which are ready for consumption or investment are called final goods.

Consumer goods and capital goods

Goods which are used for consumption purpose are called consumer goods
Goods which are used to produce other goods and services are called capital goods.

Stock and Flow

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

National Income

National income can be defined differently. From the income side ***it is the sum total of the factor incomes received by the residents of a country in the form of rent, interest, wages and profit over a period of one year.***

Gross Domestic Product at Market Price(GDP_{mp})

It is the money value of all final goods and services produced within the domestic territory of a country during a financial year

Net Domestic product at market price(NDP_{mp})

NDPmp = GDPmp – Depreciation.

Depreciation is the loss in the value of capital assets due to wear and tear during production.

Net National Product at market price (NNPmp)

NNPmp = NDPmp + NFIA

A country get factor income in the form of rent, interest, wages and profit from other countries. At the same time factor payments are made to other countries for making use of their factor services. The difference between these two is called NFIA.

Net National Product at factor cost (NNPfc)

NNPfc = NNPmp – Net Indirect Tax(NIT)

NIT = Indirect Tax – Subsidy

NNPfc is the national income of a country

Gross National Product (GNP)

GNP is the money value of all final goods and services produced in a country including net factor income from abroad.

GNP = GDP + NFIA

Private Income

Private Income refers to income of non-governmental entities from all sources over a period of one accounting year

Private Income = NNP_{FC} – domestic product accruing to the government sector + transfer payments + Interest on public debt

Personal Income

It is the income of the household sector from all sources before paying direct taxes in a financial year.

Personal income (PI) ≡ National Income – (Corporate tax + Undistributed corporate profits + social security contributions) + Transfer payments + interest on public debt

Personal Disposable Income

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

Personal Disposable Income = Personal Income – Direct taxes

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. It is obtained by dividing national income by population.

$$\text{Per capita income} = \frac{\text{National Income}}{\text{Population}}$$

Industrial Economics and Foreign Trade

Module 4 – Part 3 National Income – Measurement of National Income

By

Dr. Johnson T T

Assistant Professor in Economics

CET

Mob. 9447450408

Measurement of National Income

There are three important methods of measuring national income. They are

1. Product method or output method
2. Final Expenditure method
3. Income method

Product method or output method

Under this method GDP is estimated as the sum of the money value of all final goods and services produced in the domestic territory of a country during a financial year. The following are the important steps involved in the estimation of GDP

i) Identifying the production units and classifying them under respective industries and each industry under the corresponding sector.

ii) Estimate the value of final output produced by each production unit, each industry and each sector.(Gross value of output of a production unit = P*Q where P is the price per unit and Q is the number of units of output produced in a year)

The sum of value of output produced by all the three sectors gives GDPmp. That is

ΣGVOmp = GDPmp Once GDPmp is estimated we have to derive NNPfc (NI)

However this method has the problem of double counting. Double counting means counting the value of a product more than once. This difficulty arise because final product of one firm becomes the intermediate product of another producer. Double counting leads to overestimation of national income.

This problem can be solved by using the value added method.

Under the value added method instead of taking the value of output the gross valued added by each production unit is estimated. Gross value added is the difference between the Gross value of output and intermediate consumption.

Gross Value Added at market price(GVAmp)= GVOmp - Intermediate Consumption

ΣGVAmp = GDPmp

Final Expenditure Method

This method estimate GDP by adding the final expenditures in the economy. There are four major components of final expenditure

i)Private final consumption expenditure(C)
ii) Investment Expenditure (I)
iii) Government consumption expenditure (G)
iv) Net exports (X-M)

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

C+I+G+X-M = GDPmp Once GDPmp is estimated we find NNPfc or national income.

Income Method

Income method take the sum of the factor incomes in the economy. Factor incomes are

i) Rent(R) –

ii) ii) Interest(I) –

iii) iii) Wages (W)–

iv) Profit (P)–.

v) Mixed income of the self employed.

When these five items are added we get NDPfc.

R+I+W+P+ Mixed income = NDPfc

NNPfc = NDPfc + NFIA

Items excluded from 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

6. Income from illegal activities like smuggling, gambling etc

Uses or significance of national income estimation

- To evaluate the performance of the economy over the years
- For economic planning and for the formulation of economic policies
- To understand the contribution of each sector towards national income
- 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

Conceptual difficulties

1. Service without remuneration. 2.Classification of goods as intermediate goods and final goods
3. Difficulty in estimating the value of output produced in the government sector.

Practical difficulties

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

Industrial Economics and Foreign Trade

Module 4 – Part 4 Inflation

By

Dr. Johnson T T

Assistant Professor in Economics

CET

Mob. 9447450408

Inflation- Meaning and Types

Inflation is a situation in which there is a persistent rise in the general price level.
According to Coulborn it is a situation in which “too much money chasing too few goods.
When there is inflation value of money decreases persistently.

. Based on the rate, inflation can be classified as Creeping, Walking, Running and Galloping Inflation.

Demand Pull Inflation and Cost Push Inflation

Demand pull inflation is the result of an increase in aggregate demand in the absence of an increase in aggregate supply or a relatively less increase in aggregate supply.
Once the economy reaches in full employment level any further increase in aggregate demand will lead to price rise without any increase in output.

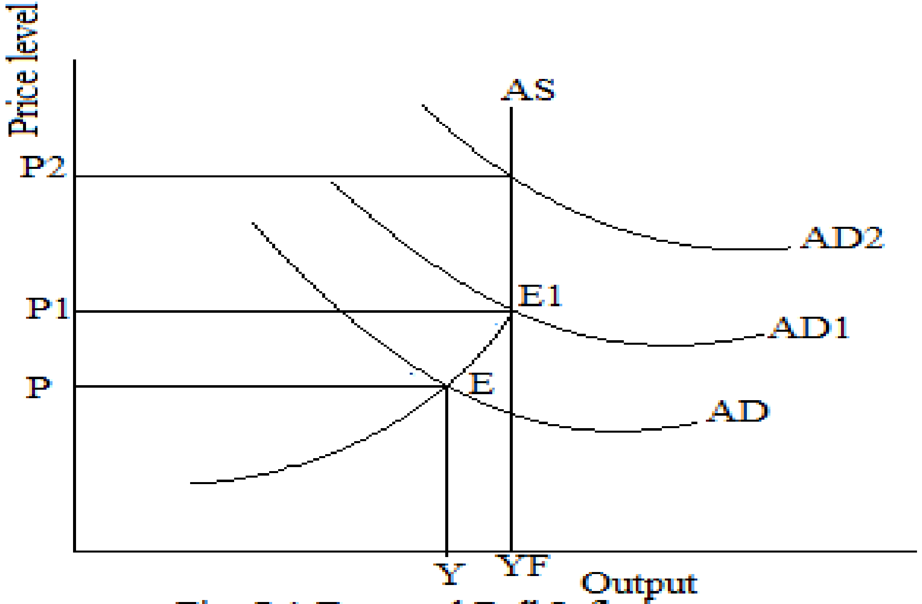
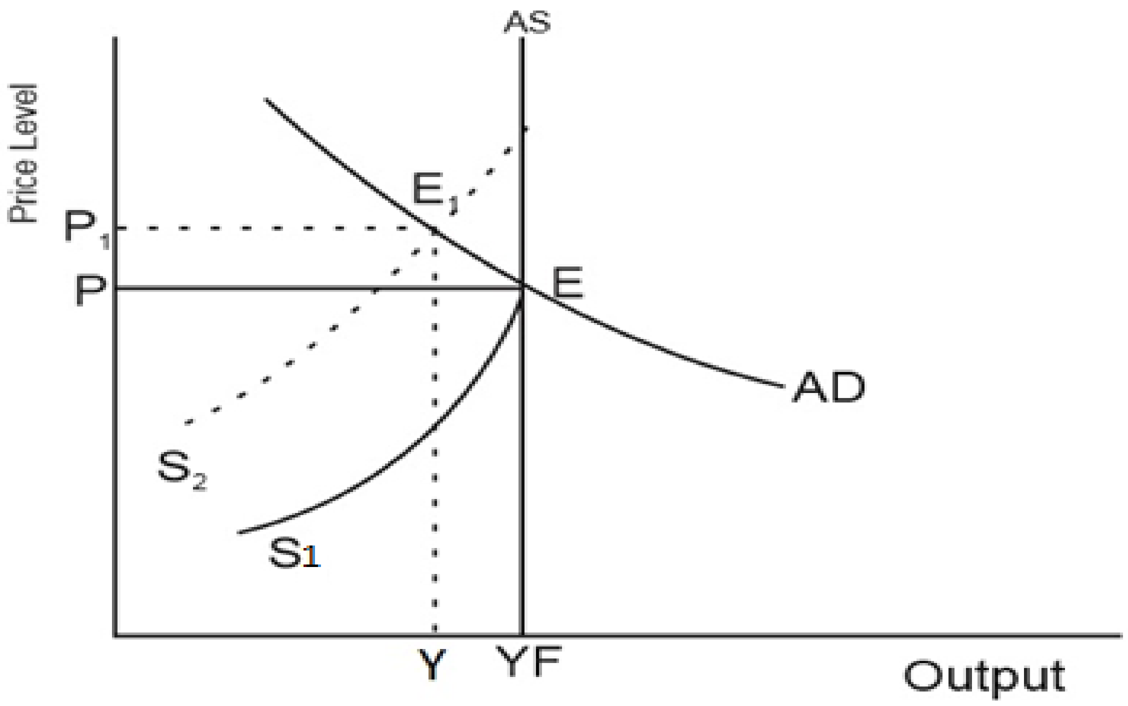


Fig. 7.1 Demand Pull Inflation

Cost push inflation is the result of increase in cost of production.



Causes of Inflation

Causes of inflation can be classified under demand side causes and supply side causes.

Demand side causes

i) Increase in money supply–

ii) **Increase in disposable income-**

iii) **Increase in government expenditure –**

iv)Deficit financing –

v. Cheap money Policy –

vi) Increase in population

Supply side causes

i) Shortage of capital and other complementary factors

ii) Increase in wages – iii) Speculative hoarding – iv)Natural calamities –. **v) Increase in exports –**.

vi) Industrial disputes

Effects of Inflation

Effects of inflation can be studied under

1. Effects on distribution of income 2. Effects on investment and production   3. Social and political effects.

1. Effects on distribution of income and wealth

a) Debtors and Creditors-   b) Salaried classes and wage earners   c) Investors   d) Businessmen

2. Effects on investment and production

3. Social and Political impact

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

These are the measures adopted by the central bank of a country to control credit and money supply in an economy. Price stability and economic growth are the two main objectives of monetary policy. Monetary policy measures can be classifies as

a) Quantitative credit control measures b) Selective or qualitative credit control measures

Quantitative credit control measures

Quantitative controls aim at regulating the overall volume of bank credit, without considering purpose for which credit is used .

i) **Bank Rate Policy** – ***The Bank rate is the rate at which the central Bank rediscount approved bills of exchange.***

ii) Reserve Ratio There are two types of reserve ratios:

Cash Reserve Ratio(CRR)-*Every commercial bank should keep a certain percentage of their total deposits(net demand and time deposits) in the central bank in the form of cash reserve. This is mandatory and this percentage is called CRR*.

Statutory liquidity ratio (SLR) – *A commercial bank should keep a certain percentage of their total deposits in the form of safe and liquid assets such as unencumbered government securities, cash and gold*

While reserves under CRR is kept in the Central Bank, under SLR it is kept in the commercial bank itself. Further, while CRR is cash reserves, SLR can be in the form of cash, gold or securities.

iii) Open Market Operations -*Open market operations means the sale and purchase of government securities and bonds by the central bank*.

Selective or Qualitative credit control measures

Under this method, extension of credit to essential purposes is encouraged and to non-essential purposes is discouraged.

i) Margin Requirements – **ii)Regulation of Consumer Credit** – **iii) Moral suasion –iv) Direct action**

2. Fiscal Policy measures

These are the measures taken by the government to control the aggregate demand in the economy. The main instruments of fiscal policy are i) public revenue ii) Public expenditure iii) Public borrowing

i) Public revenue – **ii) Public expenditure –** **iii) Public borrowing –**

3. Other measures

Other measures include the measures taken by the government to

a. increase the supply of goods and services

b. price control

c. wage control etc.

Repo rate and Reverse repo rate

Repo rate is the rate at which RBI provides overnight liquidity to banks against the collateral of government and other approved securities.

Reverse repo is the rate at which the RBI absorbs liquidity on an overnight basis from commercial banks. In other words, when a commercial bank has excess funds, they can deposit the same in central bank and earn interest in the form of reverse repo rate.

Industrial Economics and Foreign Trade

Module 4 – Part 5 Business Financing

By

Dr. Johnson T T

Assistant Professor in Economics

CET

Mob. 9447450408

Sources of Capital

i) Internal Self-Finance **ii) Equity, Debentures and Bonds**: iii) Public Deposits:

iv) Loans from Banks: **v) Indigenous Bankers:** **vi) Development Finance Institutions:**

Shares and Bonds

When companies want to raise capital, they can issue Shares or bonds.

A share is a stake in the ownership of a company. Bonds are a loan agreement that a company enters into with the investor

Bonds	Shares.
The investor lends money to the company	**The investor owns part of the company**
The Issuers of bonds are Govt. institutions, financial institutions, companies, etc.	Shares are issued by corporate enterprises
Risk is relatively low	Risk is very high
Bond holders get Interest, as a fixed payment	Shareholders get dividend, which is not guaranteed
Return is certain	Return is uncertain
As bondholders have a higher claim on assets, investors may still recover some of their initial capital	When a company is declared bankrupt Stocks will become worthless and investors may lose 100% of their capital
The capital is paid back in full to the investor at maturity	The amount of capital the investor gets back depends on the share price when the stocks are sold.
Maturity period is fixed	No maturity period for shares

Money market and Capital market

A financial market deals with financial assets such as stocks, bonds, treasury bills, currencies etc.

Money market

Money market deals with short term financial assets, that is, assets up to a maturity period of one year.

Functions of money market

The following are the important functions performed by the money market.

1. **Financing trade** –

2. **Financing Industry –**

3. **Profitable Investment -**

4.Financial Mobility

5. **Economic growth**

Capital Market

A capital market deals with long term financial assets. In other words a ***capital market is a financial market in which long-term financial assets are bought and sold***. A capital market is broadly divided into two major categories: Primary Market and Secondary Market. A market where fresh securities are offered to the public for subscription is known as Primary Market where as a market where already issued securities are traded among investors is known as Secondary Market.

Functions of capital market

1. Allocative function- 2. Encourages Saving- 3. Encourages Investment – 4. Promotes Economic growth.

5 Indicative Function– **6. Liquidity function** –

Major differences between Money Market and Capital Market

The following are the important difference between money market and capital market

1. The place where short-term marketable securities are traded . Capital Market, long-term securities are created and traded.
2. Capital Market is well organised which Money Market lacks.

3. The instruments traded in money market carry low risk, but capital market instruments carry high risk.

4. Capital Market Instruments give higher returns as compared to money market instruments.

5. Maturity of Money Market instruments is one year or less, but Capital Market instruments have a life of more than a year as well as some of them are irredeemable in nature.

6. Money market is unsystematic in nature where as a capital market is systematic in nature.

Stock market

The stock market refers to the collection of markets and exchanges where regular activities of buying, selling, and issuance of shares of publicly held companies take place. Stock market is an institution which provides a platform for buying and selling of existing securities.

A stock market is a similar designated market for trading various kinds of securities in a controlled, secure and managed environment. Since the stock market brings together hundreds of thousands of market participants who wish to buy and sell shares, it ensures fair pricing practices and transparency in transactions.
The following are some of the important functions of stock market.

- **Providing Liquidity and Marketability to Existing Securities**:
- **Pricing of Securities**:
- **Safety of Transaction**:
- **Contributes to Economic Growth**:
- **Spreading of Equity Cult**:
- **Providing Scope for Speculation**:

NSE

The National Stock Exchange of India Limited (NSE) is the leading stock exchange of India, located in Mumbai. NSE was established in 1992 as the first dematerialized electronic exchange in the country. It is the world's 10th-largest stock exchange according to May 2021 data. It was recognised as a stock exchange by SEBI in April 1993 and commenced operations in **1994.** In February 2000, the NSE started an Internet trading system.

BSE

BSE (formerly known as Bombay Stock Exchange) was started in 1875. However, in 1850s, five stock brokers gathered together under a Banyan tree in front of Mumbai Town Hall. The brokers group became an official organization known as "The Native Share & Stock Brokers Association" in 1875. BSE is Asia's first & the Fastest Stock Exchange in world with the speed of 6 micro seconds and one of India's leading exchange groups.

STOCK EXCHANGE INDICES

Stock market indices are the barometers of the stock market. They mirror the stock market behaviour. With some 7,000 companies listed on the Bombay stock exchange; it is not possible to look at the prices of every stock to find out whether the market movement is upward or downward.

NIFTY

NIFTY is a market index introduced by the National Stock Exchange. It is a blended word – National Stock Exchange and Fifty coined by NSE on 21st April 1996. NIFTY 50 is a benchmark based index and also the flagship of NSE, which showcases the top 50 equity stocks traded in the stock exchange out of a total of 1600 stocks.

SENSEX

The BSE SENSEX (also known as the S&P Bombay Stock Exchange or Sensitive Index or simply the SENSEX) is a free-float market-weighted stock market index of 30 well-established and financially sound companies listed on Bombay Stock Exchange. These 30 companies are known as Blue chip companies.

Demat Account

Demat account is used to hold the shares purchased in digital or electronic form. During online trading, shares are bought and held in a Demat account. A Demat account holds all the investments an individual makes in shares, government securities, bonds and mutual funds in one place. In other words, it is a storage space to hold the shares and securities purchased.

Trading Account

A trading account is used to buy and sell shares and securities in the stock market. A trading account provide an interface to buy and sell shares from the stock market. Previously, the stock exchange functioned on the open outcry system.