INDUSTRIAL ECONOMICS & FOREIGN TRADE

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SYLLABUS
Module 4 (Macroeconomic concepts)

- Circular flow of economic activities – Stock and flow – Final goods and intermediate goods -
- Gross Domestic Product - National Income – Three sectors of an economy- Methods of measuring national income.
- Inflation- causes and effects – Measures to control inflation- Monetary and fiscal policies
- Business financing- Bonds and shares -Money market and Capital market
- Stock market – Demat account and Trading account - SENSEX and NIFTY.

Module 4 – *(Macroeconomic concepts)*

NATIONAL INCOME

- National income is the income of the nation. Just as a person's income reflects his economic status, national income reflects the economic status of the nation. The performance of an economy can be assessed from the rate of growth of its national income and per capita income.
- **National income is the sum total of the money value of all final goods and services produced in a country during a year.**
- According to **Shapiro "National income is the sum of wages, rent, interest and profit or the sum of all goods and services produced by the economy during one income period**".

Significance or Uses of National Income

i) Basis of economic Welfare: NI analysis enables us to compare the standard of living of the people in different countries or the people living in the same country at different times. The higher the per capita income, higher will be the standard of living, the higher will be the economic welfare.

ii) Basis of economic structure: National income statistics enable us to have a detailed knowledge of the economic structure of the country. They help us to know the contribution made to national income by the different sectors of the economy as mining, fisheries. transport ,trade etc.

iii) Basis of economic policy: In the era of planning, national income statistics are regarded as comprehensive tool of economic policy.

Significance or Uses of National Income

iv. National Expenditure: National income statistics are useful to know how the national expenditure should be divided between consumption and investment expenditure.

v) Distribution of Grants-in-aid: In the federal setup, national income estimates enable the central govt to distribute the share of grant-in-aid among the state govts.

vi) Special importance for UDCs: National income statistics are of great importance to analyse the economic problems of under developed countries. These figures give as an idea of the backwardness of the various sectors of the economy.

Measurement of National Income

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

1. Product Method or Value Added Method
2. Income Method, and
3. Expenditure Method

1. Product method or Output method

Product method is also known as output method or value added method. The value added method , the value of all final goods and services produced in the economy is to be calculated.

Steps in Product Method

The value added method of calculating national income involves the following three steps.

i) Classifying the Production Units in to Sectors

All the production units in the economy are broadly classified in to the following three sectors.

a. Primary Sector : This includes agriculture and allied activities, fishing, mining, quarrying etc.

b. Secondary Sector (Manufacturing Sector): This sector includes all the units engaged in manufacturing goods. (manufacturing involves transforming one type of commodity in to another type). .

c. Tertiary Sector(Service Sector) : The tertiary sector includes all the units engaged in the production of services. The Important services are transport and communication, trade and commerce, banking, insurance, education, health etc..

Steps in Product Method

ii) Estimating the Gross Value-Added

Estimating the gross value added by each unit and each sector and finally summing it up to get the value of the domestic product or GDP(GDP= $\sum_{i=1}^{n}$ GVAi).

iii) Calculating the net factor income from abroad

Calculating the net factor income from abroad and adding it to the value of the domestic product to get gross national product (GNP).

GNP = GVA + Net factor income from abroad

or

GNP = GDP + Net Factor Income from Abroad

By subtracting the total amount of depreciation from the figure of gross national product, we get the net national product, or national income.

N I or NNP = GNP - Depreciation

The great advantage of this method is that it reveals the relative importance of different sector of the economy by showing their respective contribution to the National Income.

2. Income Method

Income method measures the national Income from the distribution side. According to this method, national income Is obtained by summing up of the incomes of all individuals in the country. It means it is the total of incomes received by all the factors of production in a country during a given period.

Steps in Income Method

The income method of calculating national income involves the following four steps.

i) Classifying production units in to sectors:

All the production units in the economy are broadly classified in to the following three sectors.

a. Primary Sector : This includes agriculture and allied activities, fishing, mining, quarrying etc.

b. Secondary Sector (Manufacturing Sector): This sector includes all the units engaged in manufacturing goods. (manufacturing involves transforming one type of commodity in to another type). .

c. Tertiary Sector(Service Sector) : The tertiary sector includes all the units engaged in the production of services. The Important services are transport and communication, trade and commerce, banking, insurance, education, health etc..

Steps in Income Method

ii) Classifying factor incomes:

Using the income method, factor incomes are classified in to three broad categories. They are;

a) Compensation to Employees : Compensation to employees consists of wages and salaries paid to labour in cash or in kind. (eg. Employer's contribution to P.F, free ration, free housing, medical benefits etc.)

b) Operating Surplus : Operating surplus consists of rent, interest, and profit.

c) Mixed Income : Mixed income is the income of self-employed persons.(The income earned by self-employed persons will have the elements of wage, rent, interest and profit. Hence it is known as mixed income).

iii) Estimating factor incomes : When the factor incomes received by the factors of production in all production units in a sector are added up, we get the total income generated in that sector. Similarly, the factor incomes received by all the three sectors can be estimated. The sum of this will give us the domestic factor income or GDP (GDP = R+I+W+P).

Steps in Income Method

iv) Calculating the net factor income from abroad

Calculating the net factor income from abroad and adding it to the value of the domestic product to get gross national product (GNP).

GNP = GDP + Net factor income from abroad

By subtracting the total amount of depreciation from the figure of gross national product, we get the net national product, or national income.

N I or NNP = GNP - Depreciation

This method of estimating national income has the great advantage of indicating the distribution of national income among different income groups such as landlords, capitalists, workers etc. Therefore, this is called national income by distributive shares.

3. Expenditure Method

Expenditure method measures national income from the expenditure side. Here, the total expenditure of the economy on the final goods and services produced is calculated. Income can be spent either on consumer goods or investment goods. Thus, we can get national income by summing up all consumption expenditure and investment expenditure made by all individuals as well as the govt of a country during a year.

Steps in Expenditure Method

The expenditure method of calculating national income involves the following steps;

i) Identifying the components of final expenditure

There are four major components of final expenditure. They are;

a) Private final consumption expenditure **b) *Govt. final consumption expendi*ture**

c) *Investment Expenditure:* *This is the expenditure for acquiring capital assets.*

d) *Net exports:* Exports minus imports gives us the value of net exports.

Steps in Expenditure Method

ii) Estimating the Total Expenditure Incurred

- The next step is to estimate the value of expenditure . Final consumption expenditure of the households can be calculated by multiplying the quantity of goods and services consumed by their market price and adding up everything
- Similarly, the final consumption expenditure of the govt. can be calculated by adding up the value of goods and services consumed by the government and the compensation of employees.
- Investment expenditure incurred on gross fixed capital formation can be estimated by calculating the actual expenditure on the creation of capital assets like buildings, machinery, equipment etc.
- The value of net exports is calculated by deducting the value of imports from the value of exports.

Steps in Expenditure Method

The aggregate value of the four components of final expenditure gives us the value of the GDP (GDP = C+I+G+(X-M)).

iii) Calculating the net factor income from abroad

Calculating the net factor income from abroad and adding it to the value of the domestic product to get gross national product (GNP).

GNP = GDP + Net factor income from abroad

By subtracting the total amount of depreciation from the figure of gross national product, we get the net national product, or national income.

N I or NNP = GNP - Depreciation

Various Concepts Relating to National Income

i) Gross National Product (GNP)

Gross National Product is the total money value of all final goods and services produced by a country in a year. GNP includes GDP and net factor income from abroad

GNP = GDP + NET Factor Income from Abroad

National income concepts can be calculated both at market price and at factor cost.

GNP_{MP} = GDP_{MP} + Net Factor Income from Abroad

Or

GNP_{MP} = GNP_{FC} + Net Indirect Tax

GNP_{FC} = GNP_{MP} - Net Indirect Tax

Net Indirect Tax = Indirect Tax - Subsidies

Various Concepts Relating to National Income

ii) Net National Product (NNP)

Net National Product is the total money value of all final goods and services produced by a country in a year less depreciation.

NNP = GNP -Depreciation

(Depreciation is also known as capital consumption expenditure or wear and tear expenditure.)

or

$NNP_{MP} = GNP_{MP}$ - Depreciation

or

$NNP_{MP} = NNP_{FC}$ + Net Indirect Taxes

or

$NNP_{MP} = NDP_{MP}$ + Net Factor Income from Abroad

Various Concepts Relating to National Income

3) Net National Product at Factor Cost or National Income (NI or NNP_{FC})

Net National Product at Factor Cost or National income is the total earnings of all factors of production in the form of wages, profits, rent, interest etc. plus net factor income from abroad.

$$NNP_{FC} = NDP_{FC} + \text{Net Factor Income from Abroad}$$

Or

$$NNP_{FC} = NNP_{MP} - \text{Net Indirect Tax}$$

4) GDP (Gross Domestic Product)

Gross Domestic Product is the total money value of all final goods and services produced in the domestic territory of a country during a year.

$$GDP = GNP - \text{Net Factor Income from Abroad}$$

$$GDP_{MP} = GDP_{FC} + \text{Net Indirect Taxes}$$

$$GDP_{FC} = GDP_{MP} - \text{Net Indirect Taxes}$$

Various Concepts Relating to National Income

5. Personal Income

Personal Income is the total income received by the households of a country from all possible sources before direct taxes.

6. Disposable Personal Income(DPI)

Disposable Personal Income is the income of Individuals and households that can be disposed of as they like.

DPI = PI – Direct Taxes

7. Per capita income

Per capita income is the income per head of the population.

PCI = National Income/Population

Difficulties in the measurement of National Income

There are two types of difficulties in the measurement of national income. They are conceptual difficulties and statistical or practical difficulties. Conceptual difficulties are common to developed as well as developing countries. But practical difficulties are mainly applicable to developing countries.

Conceptual difficulties

1. Service without remuneration- Certain services such as service rendered by a house wife is not included in national income because payments are not made. But, when the same services are supplied by a house-maid remuneration is paid and it is included in national income estimation.

2.Classification of goods as intermediate goods and final goods – It is very difficult to classify certain goods as final goods and intermediate goods because the

Difficulties in the measurement of National Income

same product is used as an intermediate good and final good. When milk is purchased by a household it is a final good but in a hotel it is an intermediate good.

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

Since the government provide public goods either at free of cost or at nominal prices it is very difficult to estimate their value.

Practical difficulties

1. Inadequacy of statistical data. – In developing countries accurate and adequate statistical data is not maintained.

2. Illiteracy of farmers- Farming is the main activity in developing countries but majority of the farmers are illiterate. Hence they do not keep proper accounts of their production.

Difficulties in the measurement of National Income

3. Lack of occupational specialisation – In developing countries people are mostly unskilled and they earn their income from more than one occupation. Hence it is difficult to compute their income.

4. Production for self consumption- In developing countries a major part of the agricultural output is consumed by the farmers themselves. Hence its value cannot be estimated.

5. **Existence of a non monetised sector** – In developing countries, in villages people still make certain barter transactions.

Besides, black money, price changes etc. also pose problems to national income estimation.

Numerical Example

Q. No.1

From the data given below estimate national income according to value added method, expenditure method and income method.

	(Rs. Crores)
Gross Value of Output at market price	8000
Intermediate consumption	2000
Private consumption expenditure	3000
Investment expenditure	2000
Government expenditure	700
Exports	600

Imports	300
Wages and salaries	2000
Rent	500
Interest	500
Profit	1500
Depreciation	1000
Indirect tax	800
Subsidy	300
Net factor income from abroad	-500

Answer

Value Added Method

GVAmp = GVOmp-Intermediate consumption

= 8000-2000 = 6000

Therefore GDPmp = 6000

NDPmp = GDPmp – Depreciation

= 6000-1000 = 5000

NNPmp = NDPmp+NFIA

= 5000+(-500) = 4500

NNPfc = NNPmp – NIT

= 4500-(800-300) = 4000

National Income = Rs. 4000 Crores

Expenditure Method

GDPmp = C+I+G+X-M

= 3000+2000+700+(600-300) = 6000

NDPmp = GDPmp – Depreciation

= 6000-1000 = 5000

NNPmp = NDPmp+NFIA

= 5000+(-500) = 4500

NNPfc = NNPmp – NIT

= 4500-(800-300) = 4000

National Income = Rs. 4000 Crores

Income method

NDPfc = W+R+I+P

= 2000+500+500+1500 = 4500

NNPfc = NDPfc+NFIA

= 4500+(-500) = 4000

National income = Rs. 4000 crores

Q. No 2

2) A bicycle manufacturing company in India produced and sold 100 bicycles at a price of Rs.2500 per unit in the market. Out of this Rs.300 has gone to the government as tax per unit. The owner of this company is a foreigner and he got a profit of Rs.500 per bicycle and the entire profit has gone to the country to which he belongs. Because of the production of 100 bicycles there was a depreciation of Rs.20,000 to the company. How much is the contribution of this company to GDPmp as well as national income of India?

Answer

Gross value of output at market price = Price * Quantity = 2500*100 = 2,50,000

Therefore contribution to GDPmp = Rs.2,50,000/-

Contribution to national income= Contribution to GDPmp - Depreciation + NFIA-NIT

(As Profit is going out of the country contribution to NFIA is negative)

= 250000 - 20000 +(-500*100) - 300*100

= Rs.1,50,000/-

Q. No 3

From the following, calculate GNP at FC and GNP at MP.

(Rs. in crores)

(i)	Consumption of fixed capital	: 38540
(ii)	Compensation of employees	: 42720
(iii)	Operating surplus	: 8540
(iv)	Mixed income of self employed	: 40720
(v)	Indirect Taxes	: 9540
(vi)	Subsidies	: 2330

Answer

GNP at FC = Consumption of fixed capital + Compensation of employees + operating surplus + Mixed income of self employed.

= 38540 + 42720 + 8540 + 40720

= Rs. 130520 crores.

GNP at MP = GNP at FC + (Indirect Tax − Subsidy)

= 130520 + (9540 − 2330)

= Rs. 137730 crores.

Q. No 4

Calculate NDPat factor cost from the following:

	(Rs. in crores)
(i) GNP at market price	75200
(ii) Consumption of capital stock	3700
(iii) Indirect Taxes	8200
(iv) Subsidies	700
(v) Net factor income from abroad	850

Answer

GNP at FC = GNPmp − Net. Indirect Taxes

= 75200 − (8200 − 700)

= 75200 − 7,500

= Rs. 67,700 crores

NNP at FC = GNP at FC − Depreciation

= 67,700 − 3700

= Rs. 64000 crores.

NDP at FC = NNP at FC − Net Factor Income from abroad.

= 64000 − 850

= Rs. 63150 crores.

Inflation

Inflation – Meaning and Types

- **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 level of prices.
- According to **Coulborn** it is a situation in which **"too much money chasing too few goods".** That is the availability of goods is less when compared to the supply of money.
- **Crowther** defines inflation as **"a state in which the value of money is continuously falling and prices are rising."** Value of money is the purchasing power of money or the quantity of goods and services that a unit of money can purchase.

Types of Inflation

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

i. 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 it is considered as good for economic growth.

ii. Walking or Trotting Inflation: When prices rise moderately and the annual inflation rate is 3% to 10%, it is called walking inflation. Inflation at this rate is a warning signal for the Government.

iii. Running Inflation *:* When prices rise rapidly at a rate or speed of 10% to 20% per annum, it is called running inflation. Its control requires strong monetary and fiscal measures, and it is a dangerous situation.

Types of Inflation

iv. Hyper Inflation or Galloping Inflation : When prices rise very fast at double or triple digit rates from more than 20 to 100 percent per annum or more, it is called run away or galloping inflation.

v. Stagflation : stagflation is a paradoxical phenomenon where the economy experiences stagnation as well as inflation. The word stagflation is the combination of 'stag' plus 'flation' taking 'stag' from stagnation and 'flation' from inflation. Stagflation is a situation when recession is accompanied by a high rate of inflation. It is therefore also called, inflationary recession.

vi. Reflation : Reflation is a situation when prices are raised deliberately in order to encourage economic activity. When there is depression and prices fall abnormally low, the monetary authority adopts measures to put more money in circulation. So that prices rise. This is called reflation.

Types of Inflation

vii. Deflation : Continuous decline in the general price level is known as deflation. In other words, deflation refers to a situation of general depression and wide spread unemployment caused by insufficiency of effective demand.

Features of Inflation

Following are the main features of inflation;

1. ***It is a process of uninterrupted increase in prices.***
2. ***Inflation is a monetary phenomenon*** *and it is generally caused by excessive money supply.*
3. ***Inflation is essentially an economic phenomenon*** *as it originates in the result of action and interaction of economic forces.*
4. ***Inflation may be demand-pull or cost-push.***
5. ***Excess demand in relation to the supply of everything is the essence of inflation.***

THEORIES OF INFLATION

Theories of inflation can be classified as

A. **Demand- Pull Inflation or Traditional theory of inflation and,**

B. **Cost-Push Inflation or Modern Theory of Inflation.**

Demand Pull Inflation :

According to the theory of demand- pull inflation, the general price level rises because the demand for goods and services exceeds the supply available at current prices. Demand–pull inflation or excess demand inflation occurs when aggregate demand for goods and services is greater than the available supply of these goods and services at the existing price level. This type of inflation is generally characterized by a situation in which there is "too much money chasing too few goods".

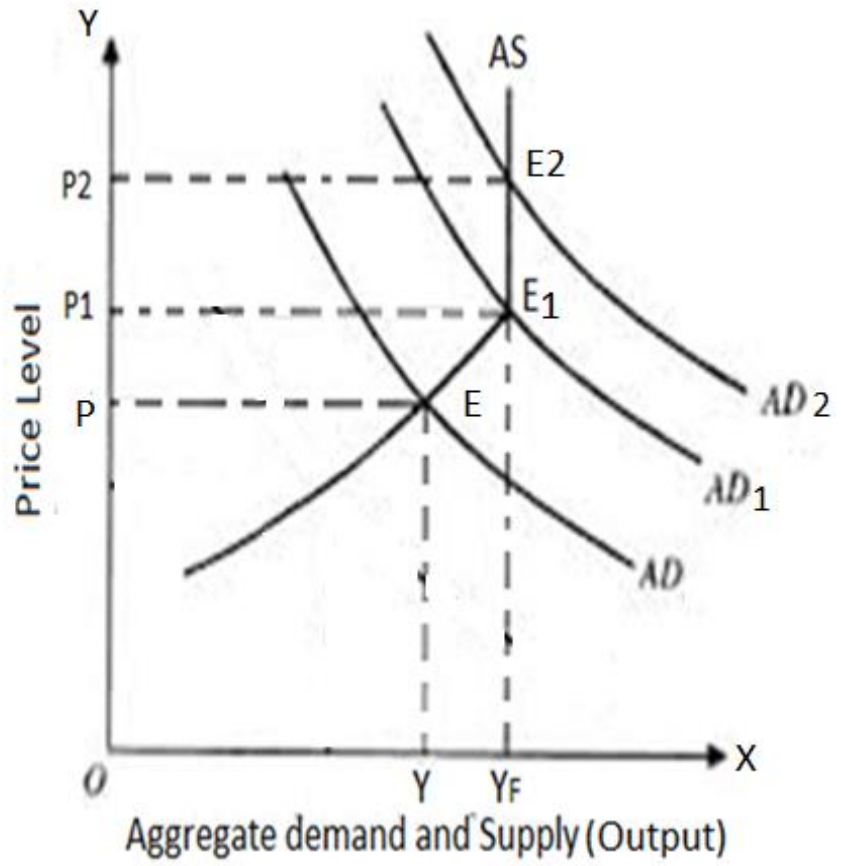
The Keynesian theory of demand – pull inflation is explained with the help of the following diagram.

Demand- Pull Inflation

In the diagram, real output has been measured on X axis and price level on Y axis. AD is the aggregate demand curve and AS is the aggregate supply curve.

Initially the economy is in equilibrium at point E. Y is the equilibrium level of output and P is the price level.

When aggregate demand increases AD curve shifts upwards and the new aggregate demand curve is AD1 which intersects the AS curve at point E1. Here price level increases to P1 and there is an increase in output from Y to YF. Beyond the YF level of output AS curve becomes perfectly inelastic. That is the output cannot be increased beyond this level of output. Hence YF is the full employment level of output. Any increase in aggregate demand beyond this level will push the price up without any change in output.



Cost – Push Inflation

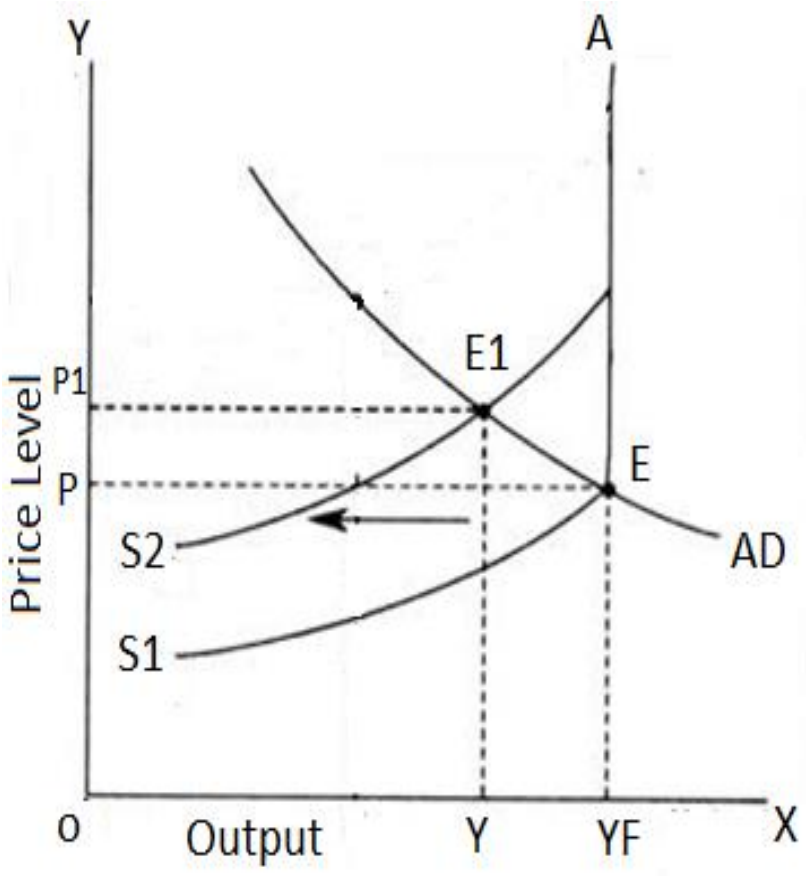
- Cost push inflation is the result of increase in cost of production. Cost of production increases mainly due to increase in wages, increase in profit margin, or due to a supply shock which means a sudden fall in supply.
- Increase in cost of production decreases the supply and when supply decreases, supply curve shifts leftwards. Therefore the price level goes up.

Cost push inflation theory can be explained with the help of the following diagram;

Cost – Push Inflation

In the diagram initially the economy is in equilibrium at point ‘E’ where the aggregate supply curve AS1 intersects the aggregate demand curve AD. This is full employment equilibrium where output is YF and P is the price level.

When aggregate supply decreases the AS curve shifts leftwards and the new supply curve is AS2 which intersects the AD curve at E1. Therefore the price level goes up to P1 and output decreases to Y.



Causes of Cost – Push Inflation

There are essentially three causes of cost-push inflation;

1) Wage – push due to union monopoly power
2) Profit – push due to business monopoly power ; and
3) Increasing raw material prices.

Accordingly, cost-push inflation can take the forms of wage-push or profit-push or material-push inflation.

Causes of Inflation

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

1. 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.

i) Increase in money supply: When the monetary authority increases the money supply, cash in hand with the people increases and hence they spend more money. Thus aggregate demand increases.

Causes of Inflation

ii) Increase in disposable income: Disposable income increases due to an increase in per capita income or reduction in taxes. Increase in disposable income also increases cash in hand with the people and aggregate spending

iii) Increase in government expenditure: When the government follow an expansionary fiscal policy government expenditure will increase and as a result demand for goods and services also increase.

iv) Deficit financing: It means government spends more money than its revenue. The deficit may be met by printing more currency notes. This also increases money supply as well as total spending in the economy.

v) Increase in population: When population increases the number of buyers also increases and thus aggregate demand increases.

Causes of Inflation

2. Supply side causes: When aggregate demand increases and aggregate supply does not keep up with aggregate demand, cost push inflation will be the result. There are different reasons for inadequate aggregate supply.

i) Scarcity of factors of production:

On the supply side, inflation may occur due to the scarcity of factors of production, such as, labour, capital equipment, raw materials etc.

ii) Increase in wages: When wage rate increases cost of production also increases. As a result supply falls and price level goes up.

iii) Increase in exports: An increase in exports reduces the stock of goods available for domestic consumption. This creates a situation of shortages in the economy giving rise to inflationary pressures.

Causes of Inflation

iv) Natural calamities: Natural calamities like drought, flood, earthquake etc. reduces production and aggregate supply.

v) Trade Union Activities: Trade unions activities (i.e., strikes) often lead to stoppage of work, decline in production, and rise in prices.

vi) War: During war period, economic resources are diverted to the production of war materials. This reduces the normal supply of goods and services, and this leads to the rise in the price level.

vii) Industrial disputes: Industrial disputes will affect industrial production and aggregate supply.

Effects of inflation (Consequences)

Inflation affects different people differently. This is because of the fall in the value of money. When prices rise or the value of money falls, some groups of the society gain, some lose and some stand in between;

Various effects of inflation are discussed below.

1) Effects on investment and production:

The adverse effects of inflation on production are discussed below;

a) Misallocation of Resources: Inflation causes misallocation of resources when producers divert resources from the production of essential to non-essential goods from which they expect higher profits.

b) Reduction in production: Inflation adversely affects the volume of production because the expectation of rising prices along with rising cost of inputs bring uncertainty. This reduces production.

c) Encourages Hoarding: The traders hoard stocks of essential commodities with an idea to earn more profits in the near future. Consequently, an artificial scarcity of commodities is created in the market.

The adverse effects of inflation on production

d) Encouragement to Speculation: Another effect of inflation is that it promotes speculative activities in an economy. Instead of earning profits through genuine productive activity, the businessmen find it easier to make quick profits through speculative activities.

e) Reduction in saving: Inflation adversely affects saving and capital accumulation. When prices increase, the purchasing power of money falls which means more money is required to buy the same quantity of goods. This reduces saving.

f) Discourages Foreign Capital: Inflation hinders the inflow of foreign capital because the rising costs of materials and other inputs make foreign investments less profitable.

2. Effects on distribution of income and wealth

Inflation has a deep impact on the distribution of income and wealth in a country. Effects of inflation on different groups of the society are discussed below;

a) Debtors and Creditors: During inflation, debtors gain and creditors lose. Because of inflation value of money decreases and therefore people who lend their money, when they get it back its value will be less and they can purchase only less amount of goods and services.

b) Wage and salary earners: Wage and salary earners usually suffer during inflation because a) wages and salaries do not rise in the same proportion in which the prices or the cost of living rises and (b) there is a lag between a rise in the price level and a rise in wage and salary.

Effects on distribution of income and wealth

c) Businessmen: Since price goes up business people get more profit and they gain from inflation.

d) Investors: Those who invest in shares will gain because companies will make more profit when there is inflation. On the other hand those who invest in bonds and debentures which carry fixed returns will lose.

e) Government: Public sector in a mixed economy is affected by the fluctuations in the price level. As prices rise, the government has to incur more expenditure on goods and services for carrying through their projects.

3 Non-Economic Consequences

Inflation has far reaching, Social, moral, and political consequences,

a) Social Effects: Inflation is socially unjust and unequitable because it leads to redistribution of income and wealth in favour of the rich. This widens the gap between haves and have-nots and creates conflict and tension in the society.

b) Moral Effects: Inflation adversely affects business morality and ethics. It encourages black marketing and enables the businessmen to reap wind-fall gain by undesirable means. In order to increase the profit margin, the producers reduce the quality by introduction of adulteration in their products.

c) Political Effects : Inflation also disrupts the political life of a country. It corrupts the politicians and weakens the political discipline.

In short, inflation is undesirable because of its all-round harmful consequences.it is “economically unsound, politically dangerous and morally indefensible. It should be avoidable if possible, and if it occurs, should be checked before it is too late.

CONTROL OF INFLATION (Measures to control Inflation)

Inflation can be controlled by the following policy measures;

A) Monetary policy B)Fiscal policy, and C) Direct measures.

A) Monetary Policy: Monetary policy is adopted, by the monetary authority or the central bank of a country to influence the supply of money and credit by changing interest rate structure and availability of credit. Price stability and economic growth are the two main objectives of monetary policy.

Various monetary measures to control inflation are explained below;

i) Increasing Bank Rate: Bank rate is the rate at which the central bank lends money to the commercial banks. An increase in the bank rate leads to an increase in the interest rate charged by commercial banks which, in turn, discourages borrowing by businessmen and consumers. This will reduce money supply with public and thus control the inflationary pressure.

Measures to control Inflation

ii) Open Market Operations: Open market operations are another method of quantitative credit control used by a central bank. The purchase or sale of government securities by the central bank of the country is known as open market operations. If the central bank wants to reduce the credit-creating capacity of commercial banks, it will sell govt. securities to the public or to the banks themselves. As a result the amount of cash with the banks will diminish and this will force them to reduce the supply of credit.

iii) Varying Reserve Ratio(CRR): Every commercial bank should keep a certain percentage of their total deposits in the central bank in the form of cash reserve. This is mandatory and this percentage is called CRR.

Another monetary measure to check inflation is to increase the minimum reserve ratio. An increase in the minimum reserve ratio means that the member banks are required to keep larger reserves with the central banks. This reduces the deposits of the banks and thus limits their power to create credit.

Measures to control Inflation

iv) Statutory Liquidity Requirements (SLR) : According to SLR, the commercial banks have to keep a certain percentage of their assets in liquid forms compulsorily. This is known as SLR. It also curtails the power of the commercial banks to create credit.

The Difference between CRR & SLR is that cash reserves are kept with the central bank where as, SLR is maintained by the commercial banks concerned.

When there is inflation SLR is increased and it helps to decrease bank credit and to ensure solvency of commercial banks.

Measures to control Inflation

B) Fiscal Policy: Fiscal policy is the budgetary policy of the govt. relating to taxes, public expenditure, public borrowing and deficit financing. These are the measures taken by the govt. to control the aggregate demand in the economy. The main fiscal measures to curb inflation are as follows;

i) Reduction in public expenditure: During inflation the government cut down its expenditure on developmental activities and welfare programmes. This reduces government demand for goods and services as well as private income. When the government spend less money, income of the individuals decreases. Hence aggregate demand decreases.

ii) Increase in taxes: Taxation plays a significant role in curbing inflation. Increase in direct taxes decreases the disposable income of the people and hence they spend less money.

Measures to control Inflation

iii) Public borrowings: Public borrowing is another method of controlling inflation. Through public borrowing, the government takes away from public excess purchasing power. This will reduce aggregate demand and hence the price level.

iv) Control of deficit financing: Deficit financing means financing the deficit budget through printing of new currency, borrowing from central bank etc. In order to control inflation, the government should minimize deficit financing.

Measures to control Inflation

C) Direct measures: Direct controls refer to the regulatory measures undertaken with an objectives of converting an open inflation in to a suppressed one.

i) Increasing the supply of goods and services: When there is price rise government take various measures to increase the supply of goods and services. This can be done by importing essential products, banning the export of such items and by encouraging the production of essential commodities.

ii) Price Control: Price control means fixing an upper limit for the prices of essential consumer goods. They are the maximum prices fixed by law and anybody charging more than these prices is punished by law.

Measures to control Inflation

iii) Rationing: When the govt. fixes the quota of certain goods so that each person gets only a limited quantity of the goods, it is called rationing. Rationing becomes necessary when the essential consumer goods are relatively scarce.

iv) Wage control: Wage control helps to prevent the escalation of cost of production during inflation and thus cost push inflation can be controlled.

From the various monetary, fiscal and other measures discussed above, it becomes clear that to control inflation, the govt. should adopt all measures simultaneously.

Stock and flow concept

Capital income, money, savings, investment, interest etc. are the widely used terms in economics. Some of these are stock concepts while others are flow concepts.

1. **Stock – A stock is a quantity measured at a particular point of time. It has no time dimension.** The weight of an automobile, Capital, quantity of money the amount of wealth stored etc. are examples of stock variables.
2. **Flow – A flow is a quantity measured over a specified period of time. That is, a flow variable has a particular time dimension.** Income, expenditure, production, consumption, interest etc. are examples of flow variables.

Relation between stock and flow

SL. No.	Stock	Flow
1.	Stock relates to a point of time.	Flow relates to period of time.
2.	Stock has no time dimension.	Flow has time dimension as per hour, per day, per month and per year.
3.	Stock is a static concept.	Flow is a dynamic concept.
4.	Stock influences the flow. Greater the stock of capital, greater is the flow of goods and services.	Flow influences the stock. For example, monthly increase in the supply of money leads to an increase in the quantity of money.

Four Sectors of the Economy

From the macro point of view, economy is often divided into four sectors.

1. Household sector – It includes consumers of goods and services. Households are also the owners of the factors of production.

2. Producer sector – It includes all producing units (firms) in the economy. For the production of goods and services, the firms hire/purchase factors of production (land, labour, capital and entrepreneurial skill) from the households.

3. Government sector – It includes (i) Government as a welfare agency, and (ii) Government as a producer. Government as a welfare agency performs such welfare functions as of law and order and defense.

4. External sector (Foreign sector) – It includes all such activities which are related to export and import of goods, and the flow of capital between the domestic economy and rest of the world.

Circular flow of income

The circular flow of income and expenditure is the pictorial illustration of the inter-relationship and inter-dependence between different sectors of the economy.

The circular flow of Income is used as the basis for studying macroeconomic relationships. The national income accounts also have the concept of the circular flow as their basis.

In any economy, there are following two kinds of flows.

1. **Real flows,** which include the flows of the factors of production and the goods and services between the different sectors.
2. **Money flows,** which include the monetary flows between the different sectors. Our discussion on the circular flow includes both the real flows and the money flows.

Circular flow of income in a two sector economy

In a two sector economy, only two sectors are considered viz., households and firms. There is no government sector and no foreign sector.

There exists a flow of factor services from the households to the firms and a corresponding flow of factor incomes from the firms to the households. Firm produces goods and services with the help of factor services from households and pay rewards to household sectors for their factor services in the form of rent, wage, interest, etc.

Household sector spends its earned money to buy goods and services from firm and thus, firm, in return gets money in this exchange.

Briefly, circular flow model shows that production during the year is converted into factor income during the year, and factor income during the year is converted into expenditure (on goods and services) during the year.

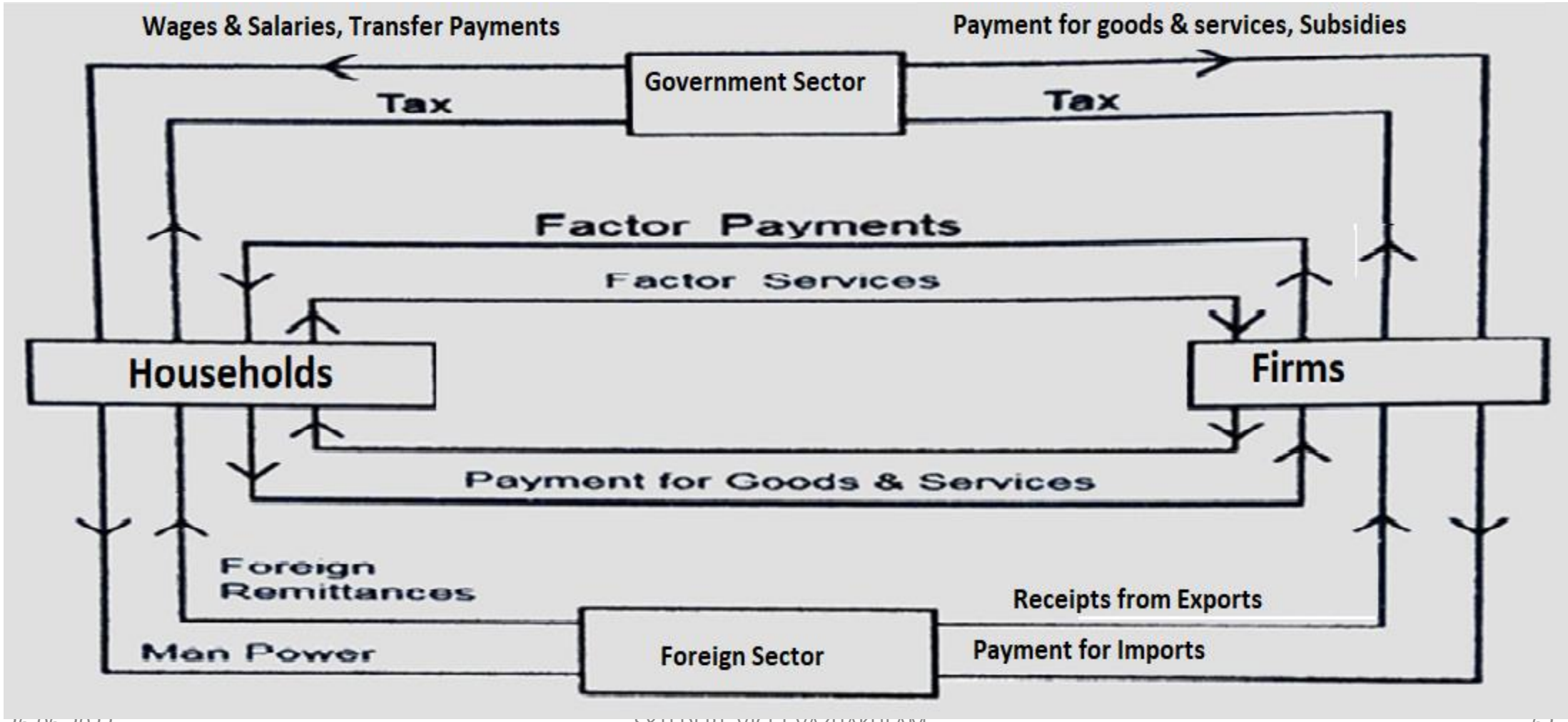
Thus, factor payments = income of households = consumption expenditure of households.

Circular flow of income in a two sector economy

In the above diagram, upper part represents the factor market and the lower part represents commodity market. In the factor market there is a flow of factor services from the household sector to the firms. In return there is a flow of factor payments from firms to households. In the commodity market there is a flow of goods and services from the firms to household sector. In return there is a flow of payment for goods and services from household sector to the firms. Thus the money flows and real flows are completed.

Circular Flow in a Four Sector Model

The circular flow of income in a four sector economy is shown in the following figure.



Circular Flow in a Four Sector Model

Circular flow of income in a four-sector economy consists of households, firms, government and foreign sector. From the point of view of circular flow of income, each sector plays a dual role; it receives certain payments from other sectors as well as makes certain payments to other sectors of the economy. Circular flow of income in different sectors can be expressed in the following manner.

1. **Household sector** – Households provide factor services to firms, government and foreign sector. In return, it receives factor payments. Households also receive transfer payments from the government and the foreign sector. Households spend their income on payment for goods and services purchased from firms, tax payments to government and payments for imports.
2. **Firms –** Firms receive revenue from households, government and the foreign sector for sale of their goods and services. Firms also receive subsidies from the government. Firm makes payments for factor services to households, taxes to the government and imports to the foreign sector

Circular Flow in a Four Sector Model

3. Government – Government receives revenue from firms, households and the foreign sector for sale of goods and services, taxes, etc. Government makes factor payments to households and also spends money on transfer payments and subsidies.

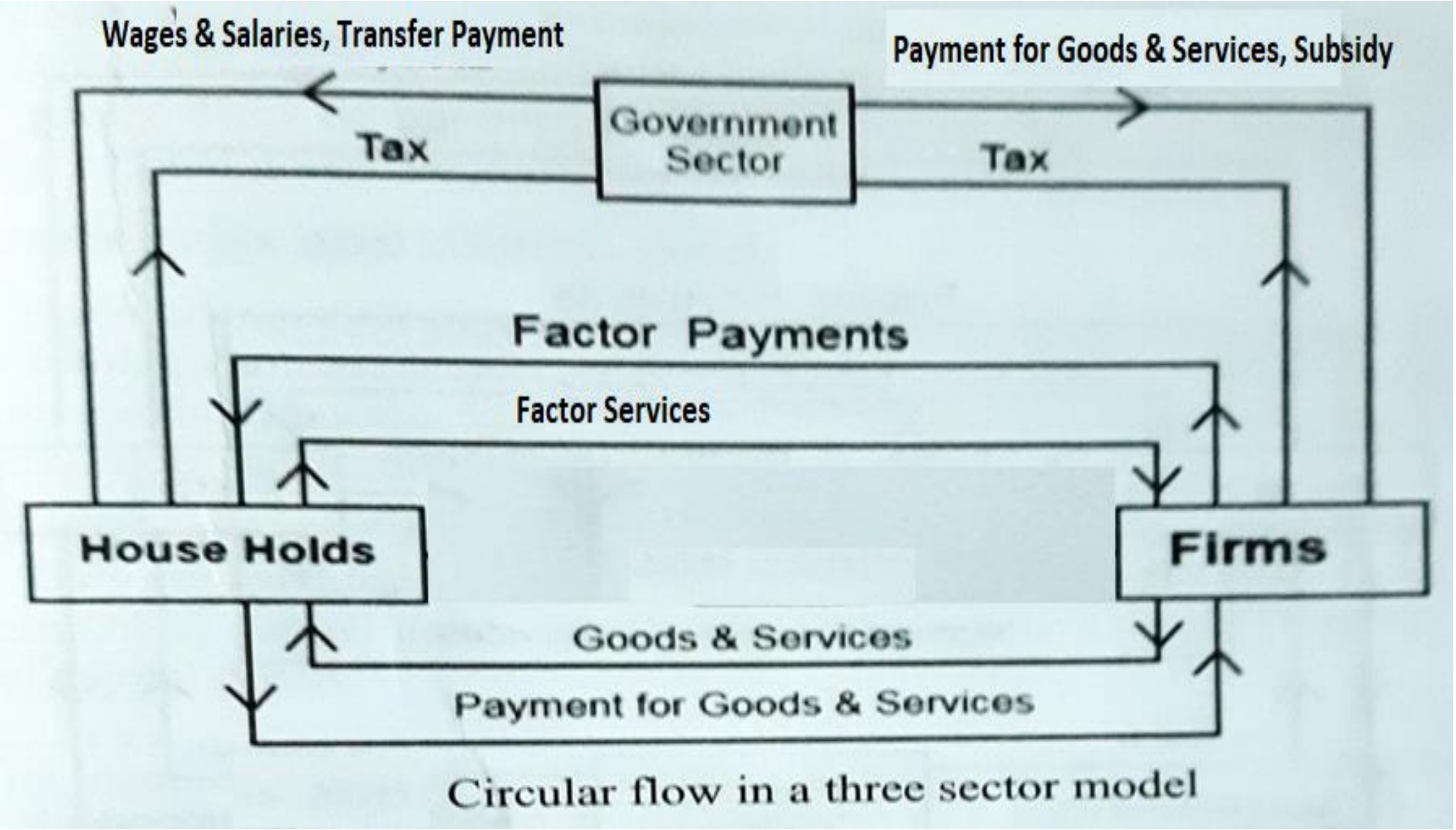
4. Foreign sector – Foreign sector receives revenue from firms, households and government for export of goods and services. It makes payments for import of goods and services from firms and the government. It also makes payment for the factor services to the households.

Significance of circular flow model

Study of the circular flow of income is important due to the following reasons.

- 1. Knowledge of inter-sectoral interdependence – Circular flow models help to understand interdependence among different sectors of the economy.
- 2. Estimation of National Income – Circular flow models facilitate the estimation of national income.

Circular Flow in a Three Sector Model



Final goods and intermediate goods

Goods can be classified on the basis of usage as intermediate goods and final goods.

1. **Intermediate goods** – Intermediate goods are referred to as those goods that are used by businesses in producing goods or services. These goods are also known as producer goods. Eg. wood used for production of chairs.
2. **Final goods** –Final goods are referred to as those goods which do not require further processing. These goods are also known as consumer goods and are produced for the purpose of direct consumption by the end consumer. Eg. shoes, tractors, etc.

Comparing final goods and intermediate goods

Basis	Final goods	Intermediate goods
Meaning	Final goods refer to those goods which are used either for consumption or for investment.	Intermediate goods refer to those goods which are used either for resale or for further production in year.
Nature	They are included in both national and domestic income.	They are neither included in NI nor in domestic income.
Production boundary	They have crossed the production boundary.	They are still within the production boundary.

STOCK MARKET

Financial Markets- introduction

Financial markets are the centers or arrangements that provides facilities for buying and selling of financial assets, claims and services. In other words, a financial market deals with financial assets such as stocks, bonds, treasury bills etc. The participants on the demand and supply sides of these markets are financial institutions, agents, brokers, dealers, borrowers, lenders, savers etc.

Financial Markets are generally classifieds into two sub-markets

a) Money Market , and

b) Capital Market

Money Market

Money market is a short term credit market which deals with the relatively liquid and quickly marketable assets like short-term government securities, treasury bills etc.

According to Crowther, “the money market is the collective name given to the various firms and institutions that deal in the various grades of near money”. Near money refers to bank deposits, bills of exchange, money at call and short notice etc..

Functions of Money Market

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

1. **Financing Trade:** Money market finance internal and international trade. Finance is made available to the traders through bills of exchange, which are discounted by the bill market.
2. **Financing Industry:** Money market contributes to the growth of industries. Money market helps the industries in securing short-term loans to meet their working capital requirements through the system of finance bills, commercial papers etc.
3. **Profitable Investment:** Money market enables the commercial banks and other financial institutions to invest their excess reserves in profitable way.

Functions of Money Market

4. Financial Mobility: By facilitating the transfer for funds from one sector to another, the money market helps in financial mobility. Mobility in the flow of funds is essential for the development of commerce and industry in an economy.

6. Economic Growth: Since money market helps in the development of trade, industry and agriculture, it promote overall economic growth.

Capital Market

Money market and capital market are the major sections of financial market in any country. Money market is the market for short – term funds and capital market is the market for long – term funds. In other words, the capital market refers to the institutional arrangements which facilitate the lending and borrowing of long – term funds. The instruments which are traded in a capital market includes stocks, bonds, debentures etc.

Functions of capital market

1. Allocative function- The capital market functions as a link between savers and investors. It plays an important role in mobilising the savings and diverting them in productive investment. In this way, capital market plays a vital role in transferring the financial resources from surplus and wasteful areas to deficit and productive areas, thus increasing the productivity and prosperity of the country.

2. Encourages Saving- With the development of capital, market, the banking and non-banking institutions provide facilities, which encourage people to save more.

3. Encourages Investment - The capital market facilitates lending to the businessmen and the government and thus encourages investment. It provides facilities through banks and nonbank financial institutions. Various financial assets, *e.g.*, shares, securities, bonds, etc., induce savers to lend to the government or invest in industry. With the development of financial institutions, capital becomes more mobile, interest rate falls and investment increases.

Functions of capital market

4. Promotes Economic Growth-Various institutions of the capital market, like nonbank financial intermediaries, allocate the resources rationally in accordance with the development needs of the country. The proper allocation of resources results in the expansion of trade and industry in both public and private sectors, thus promoting balanced economic growth in the country.

5 Indicative Function– A Capital Market acts as a barometer showing not only the progress of a company but also of the economy as a whole through share price movements.

Capital market is divided in to two parts

i. The new issue market or primary market

It is the market for new securities or new issues. The stocks available for the first time are offered through new issue market. The new issue market deals with the sale of new securities and shares.

i. Secondary Market or Stock Exchange

The nucleus of capital market is called stock exchange. Stock exchanges are organized market places in which stocks, shares and other securities are traded by members of the exchange.

In other words, the market were existing securities are traded is referred to as the secondary market or stock exchange.

Difference between New Issue market and Stock Exchange

1. Functional Difference

New issue market deals with new securities which are issued for the first time for public Subscription.

On the other hand, the stock exchange provide a ready market for buying and selling of old securities.

2. Organizational Difference

The new issue market does not have any tangible form or administrative organizational set up. It is not subject to any centralized control and administration for the execution of its business.

The stock exchange have physical existence and are located in particular geographical areas. It has regular members and managing board or committee. It is a well-established organization with rules and regulation for the conduct of business.

Difference between New Issue market and Stock Exchange

3. Nature of contribution to Industrial finance.

The new issue market provides the issuing companies with fresh capital for starting a new enterprise or for either expansion or diversification of an existing one by making direct link between companies which require funds and the investing public. So the contribution of new issue market is direct.

As stock exchange deal with old securities it can never provide funds directly to the companies. So the role of stock exchange in the supply of capital is indirect.

4. In the new issue market the sale of security is made only once at the time of issue.

On the other hand, stock exchange provides a regular and continuous market for buying and selling of securities.

Difference between New Issue market and Stock Exchange

5. In the new issue market the transactions are between companies coming out with new issues and the investing public.

On the other hand the secondary market the transactions are between investors themselves.

Functions or Services of Stock Exchange

The stock exchange play an important role in the economic development of a country .It performs several economic functions and provide valuable services to the investors, companies and to the economy as a whole. The important functions of a stock exchange are summarized below;

1. Ensure Liquidity to Securities

Stock exchange provides liquidity to the securities since security can be converted in to cash at any time according to the discretion of the investor by selling them at the listed prices.

Functions or Services of Stock Exchange

2. Continuous Market for Securities

Stock exchange provides a market for raising long term funds which are very essential for rapid economic development.

3. Safety in Dealings

The dealings at stock exchanges are governed by well – defined rules and regulations of Securities Contract Act – 1956. The safety in dealings bring confidence in the minds of all concerned parties and helps in increasing various dealings.

4. Supply of long term funds

The securities traded in the stock market are negotiable and transferable in character and as such they can be transferred from one hand to another. When a security is transacted, one investor is substituted by another. But the company is assured of long term availability of funds.

Functions or Services of Stock Exchange

5. Promote investment

Stock exchange mobilize the savings of the public and promote investment through capital formation. The surplus funds available with individuals and institutions are attracted towards these stock exchanges.

6. Flow of Capital to Profitability

The profitability and popularity of companies are reflected in stock prices. The prices quoted indicate the relative profitability and performance of companies. Funds are attracted towards securities of profitable companies and this facilitates flow of capital into profitable channels.

Functions or Services of Stock Exchange

7. Motivation for Improve its Performance

The performance of a company is reflected on the prices quoted in the stock market. These prices are more visible in the eyes of the public. The public exposure makes a company conscious of its status in the market and it acts as a motivation to improve its performance.

8. Reflection of Business Cycles

The changing business conditions in the economy are immediately reflected on the stock exchanges. Booms and depressions can be identified through the dealings on the stock exchanges and suitable monetary and fiscal policies can be taken by the government.

Problems Faced by the Stock market in India

There are certain serious defects in the working of our stock exchanges;

i) Lack of Integration

Large number of Stock Exchanges are there in our country, But there is no integration between all the Stock Exchanges. In the different markets, there is very much fluctuation in the prices of shares.

ii) Investors' interests are not protected

The trading activity in Indian Stock Exchanges is designed for the benefit of brokers only. The interest of investors are completely ignored.

Problems Faced by the Stock market in India

iii) Weakness of stock Exchange Management

The management organization and structure of Indian Stock exchanges are very weak. It is managed exclusively for the benefit of its members/brokers.

iv) Lack of Uniform Settlement System

There is lack of Uniform Settlement System for completing the transaction in shares in all the Stock Exchanges. The settlement system varies from one stock exchange to another. The variation in settlement period is responsible for high price fluctuations and high risk exposure to market participants.

v) Margins

The margins levied by Indian Stock Exchanges on speculative transactions are wholly of discretionary character, varying from share to share and from day to day.

Business Transactions in a Stock Exchange

A typical investment transaction consist of four stages;

1. Placing an order with a broker

In a stock exchange only members are entitled to transact business and outsiders must get the transaction carried out through a member/broker.

The client will place his order with broker either to buy or to sell or both. There are many types of order such as;

- **Fixed Price Order**

When the client specifies the price at which the shares are to be purchased it is known as fixed price order.

- **Immediate or Cancel Order**

In the case of immediate or cancel order the order is to be executed immediately .If it is not possible for the order to be executed the broker should cancel the order and report the same to the customer.

- **Limit Order**

A limit order specifies the maximum or minimum price at which the investor is will to buy or sell the shares.

- **Discretionary Order**

In this type of order the broker is given power to use his discretion to execute order at a price which he considers as the best.

2. Execution of the Order: As soon as an order is received from a client the broker or his authorized clerk approaches that part of stock exchange in which the particular share is traded.

3. Reporting the deal to the Client: As soon as the deal is transacted, the details of the transactions are recorded in the book of broker , after which a 'contract note' is prepared and send to the client . The 'contract note' contains details of securities bought or sold, the price, the broker's commission , the cost of revenue stamp and the date of settlement .

4. Settlement of Transaction : There are two types of settlement of transaction depending upon the nature of transaction.

a. Ready Delivery

b. Forward Delivery

Ready Delivery: In the case of ready delivery the payment has to be made immediately on the transfer of securities or within a period of one to seven days.

Forward Delivery : In this case settlement is made on a fixed future day.

Speculation and Stock Exchange

The essential idea of speculation is the purchase or sale of a commodity or security at one time with the object of making profit by its sale or purchase at another time.

In other words, speculation may be defined as buying things in the hope of selling them later at a higher price or selling things which the speculator does not possess hopping to buy them at a lower price.

Types of Speculative Transaction

Speculative transactions are of different types depending upon whether a transaction is settle in spot or ready and forward market.

Types of Speculative Transaction

- ✓ **Spot Transaction**

  It implies that the delivery of and payment of the securities will take place on the same day.

- ✓ **Ready Transaction**

  It implies that the delivery of and payment of securities will be completed within a specified period of 1-7 days.

- ✓ **Forward Transaction**

  It implies that the delivery of and payment of securities will be made on certain fixed settlement days on 15^{th} or 30^{th} days.

Repo rate and Reverse repo rate

Repo (repurchase) rate is the rate at which the RBI lends short-term money to the banks against securities. When the repo rate increases borrowing from RBI becomes more expensive. (**Bank rate** is the rate at which Central bank lends money to the commercial banks for meeting shortfall for a long period without selling or buying any security.)

Reverse repo rate is exactly opposite to a repo rate, it is an interest rate at which the commercial bank grants the loan to the RBI. The reverse repo rate is always lower than a repo rate.

Difference between Repo rate and Reverse repo rate

1. The repo rate is the interest rate at which the commercial banks borrow loans from RBI, while reverse repo rate is the rate at which the RBI borrows loan from the commercial banks.
2. The repo rate is always higher than the reverse repo rate.
3. The repo rate is a monetary tool used by the central bank for controlling the inflation whereas, a central bank uses reverse repo rate for controlling the supply of money in the economy.

Business Financing

12.1 Sources of Capital

Companies raise funds from domestic sources and foreign sources. The important domestic sources are

i) Internal Self-Finance:

An important source is the saving of the unit itself. It may be the household, the business or the government.

The households save as well as invest and lends its surplus to other units via, financial institutions like banks, capital market etc. The savings of the business includes depreciation and the retained earnings. When it is not adequate it borrows from financial institutions. Government also finances a part of their investment from internally generated funds.

An advantage of investment through internally generated funds is that it combines the acts of saving and investment. It helps to reduce the cost of borrowing.

ii) Equity, Debentures and Bonds:

A large part of finance for fixed investments [building, machines, etc.] comes from different types of equity or shares. These shares bear risks of different degrees and cater to the needs of different investors. The latest trend is to issue shares in small denominations of ten rupees so as to enable the largest number of people to participate in providing long-term finance.

Companies also get long-term finance through the issues of debentures and bonds. These are debt (loans) instruments. The buyers of those debentures and bonds are the creditors of companies. They get a fixed rate of interest on the money invested in these securities.

iii) Public Deposits:

Another source is public deposits. It is also a debt-instrument, mostly for short-term finance. Under this system, people keep their money as deposit with these companies or managing authorities for a period of six months, a year, two years, three years or so. Depositors receive a fixed interest. This money is used by companies to meet their needs of working capital. However, this source of finance is unreliable because depositors can seek refund at any time.

iv) Loans from Banks:

Commercial banks also provide funds for meeting short-term needs or for working capital. Loans are given against the guarantee of government securities and stocks with companies. Loans are advanced in the form of overdraft and credit limit. Also commercial banks purchase debentures issued by the companies. They can earn fixed interest on such investment and at the time of need they can sell these debentures in the market and recover their money.

v) Indigenous Bankers:

Indigenous bankers also advance financial help to a few large-scale industries, particularly during the time of stress, both for fixed capital and working capital. But mainly they have provided finance to small scale industries. These banks charge a very heavy rate of interest, thus making finance a costly affair.

vi) Development Finance Institutions:

Development finance institutions cater to the needs of large and small industries. The new institutions supplying industrial finance are Industrial Development Bank of India, Industrial Finance Corporation of India, Industrial Reconstruction Bank of India, State Financial Corporations, and State Industrial Development Corporations. These institutions provide huge quantity of finances for setting up of new industries, for meeting their several needs and in several forms.

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. It is a security that is also sometimes referred to as an equity. When a company issue shares, they are selling a certain amount of ownership in their company. An investor who buys the shares has a claim to the company's earnings and assets.

Some companies pay out a percentage of profits to investors in the form of dividends. However, companies are not obliged to pay dividends and they are not certain. Over time dividends can be increased, decreased or not declared at all.

Bonds are a loan agreement that a company enters into with the investor. By buying a bond, an investor is lending money to a company for a pre-agreed period of time. For its part, the company agrees to pay back the money lent by the investor on a fixed date and to make regular interest payments during the period of the loan or in bulk at the time of maturity. When the bond reaches its maturity date, the company repays the investor.

Unlike shares, bonds are temporary investments which have fixed lifecycles. Although elements of the lifecycle may vary from bond to bond, the stages are the same from issue to maturity. Bond financing is often less expensive than equity.

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