



## **SYLLABUS**

### **B.Com I YEAR (Hons.)**

#### **Subject – MACRO ECONOMICS**

	Macroeconomics Inflation GDP
<b>UNIT – II</b>	National Income – Meaning, definition, concept, Methods for measuring national income in India and its problem, GDP, GNP and factor cost.
	Wages, Unemployment
<b>UNIT – IV</b>	Monetary Theories – Quantity theory of Money, Modern theory of Money, Keynes’s Theory of Money and Price.
	Recent Monetary Policy, Fiscal Policy, Foreign Exchange Reserves, Foreign Trade, Balance of Payments, Monetary and Fiscal Policy, Budget



**UNIT-II**  
**DEFINITIONS OF NATIONAL INCOME**

National income is the aggregate money value of all incomes earned by individuals and enterprises. National income may also be defined as the money measure of the net aggregates of all commodities and services accruing to the inhabitants of an economy during a year.

Thus, the concept national income has different meanings. It may be described as the '**national product**' or '**national income**' or '**national dividend**'.

**Marshall's Definition**

"The labor and capital of a country acting on its natural resources produce annually a certain net aggregate of commodities, material and immaterial, including services of all kinds. This is the true net annual income or revenue of the country or national dividend."

The main defects of Marshall's definition are as under

1. A country produces a number of commodities and services whose correct evolution becomes difficult. Thus, we cannot get an accurate estimate of the national income of a country.
2. There are some commodities which are used more than once. Thus, there is a possibility that the product of such commodities may be counted twice. This will give a wrong estimate of the national income.
3. There are some commodities which do not appear in the market and they are consumed directly by the producers. This normally happens in the case of agricultural commodities. Marshall's definition fails to provide a measure for such items.

**Pigou's Definition**

"National income is that part of the objective income of the community, including of course income derived from abroad, which can be measured in money."

The limitations of this definition are as following:

1. While calculating national income, Pigou includes only those goods and services which are exchanged for money. Thus, the services which a person renders to himself, and those which he performs for the sake of his family or friends should not be regarded as part of national dividend. Thus, the definition does not provide a correct picture of the national income of a country.
2. This definition is applicable only to developed countries of the world where barter system is not found. It cannot be used to calculate of the national income of the backward and less developed countries where the barter system still occupies an important place in the economy.

**Modern Definition:**

National income is a money measure of the value of all goods and services produced in a year by a nation. The National Sample Survey defines national income as "money measures of the net aggregates of all commodities and services accruing to the inhabitants of a community during a specific period." According to the National Income Committee of India "A national income estimate measures the volume of commodities and services turned out- during a given period, counted with duplication."

Profs Lipsey and Chrystal say that national income, in general, is "the value of the nation's total output and the value of the income generated by the production of that output."

According to Froyen; "National income is the sum of all factor earnings from current production of goods and services. Factor earnings are incomes of factors of production." In the same vein, Gardner Ackley



defines “National income is the sum of all (a) wages, salaries, commissions, bonuses and other form of incomes, (b) net income from rentals and royalties, (c) interest, (d) profit.”

**The concept ‘national income’ has been interpreted by economists usually in three ways. These are:**

- (i) National product,
- (ii) National expenditure, and
- (iii) National dividend. It is to be kept in mind that these are not different concepts.

As these three imply the same thing, these will be used interchangeably in the following pages. Using these three concepts we will show that national income is “the total flow of wealth produced, distributed and consumed.”

## **II. National Income Accounts:**

Economic growth of any country is measured by its growth of national and per capita incomes. In other words, national income is the yardstick of measuring the growth performance of any economy. Increase in national income is tantamount to economic growth. In view of this, every country prepares statistics on national income as well as its various facets.

The method through which national income statistics is prepared and compiled is called national income accounting. Thus, national income accounts can be defined as a set of systematic statements which reflect the aggregate money value of all goods and services produced in different sectors of an economy (primary, secondary and tertiary sectors) together with the records of distribution of factor incomes among different groups and final expenditures (either gross or net) of the economy.

In national income accounts, all types of transactions conducted, say, in a year, are recorded. These are systematically classified and entered into national income accounts by the statisticians. Thus, national income accounts reflect how millions of transactions that are conducted are interrelated. Above all, by reading these accounts one gains clear knowledge about the working of the economy

Economists, planners, government, businessmen, international agencies (IMF, World Bank, etc.,) use national income data and analyse them for variety of purposes. Firstly, while formulating national economic plans and policies, national income statistics are taken into account. Secondly, national income data help in measuring changes in the standard of living over time. Level of development is also measured by using national income figures. Such figures are also of importance for making international comparisons. There are other uses too. Above all, national income figures enable us to compare standards of living of different countries.

## **III. Circular Flow of Income:**

The national income and national product accounts of a country describe the economic performance or production performance of a country. Various measures of the nation’s income and product exist the most frequently cited summary measures of an economy’s performance is the gross national product (GNP) or gross domestic product (GDP). However, there is a subtle distinction between GNP and GDP since both move closely together. Anyway, the distinction between the two will be presented in due time.

The national product is the value of final goods and services produced in a country. Since all the value produced must belong to someone in the form of a claim on the value, national product is equal to national income. Each transaction in an economy involves a buyer and a seller. Households spend money for buying goods and services produced.

Thus, from the buyers’ side comes the flow of money demand. In other words, we have expenditure- side transaction. On the sellers’ side, money payments go to factor owners in the form of rent, wages, etc. Firms spend money for buying input services. Thus, we have income-side transaction from the seller’s side. These two are obverse and reverse of the same coin. This is called circular flow of income and expenditure.

Graphically, we can present the circular flow of income. We are assuming that we are living in a market-oriented economy or a capitalistic economy where there are two decision-makers: firms and households.



Firms make production decision. Households are consuming units which absorb output produced in the business firms. Again, firms coordinate and employ different factor units which are owned by households. In Fig. 2.1, goods and services flow from firms to households via the product market in return for the money payment for these goods and services by firms. Arrowhead indicates such goods flow and money flow between firms and households. It is clear that the flow of monetary payment on goods and services by buyers must be identical to the money value of all goods and services that firms produce and sell to households.

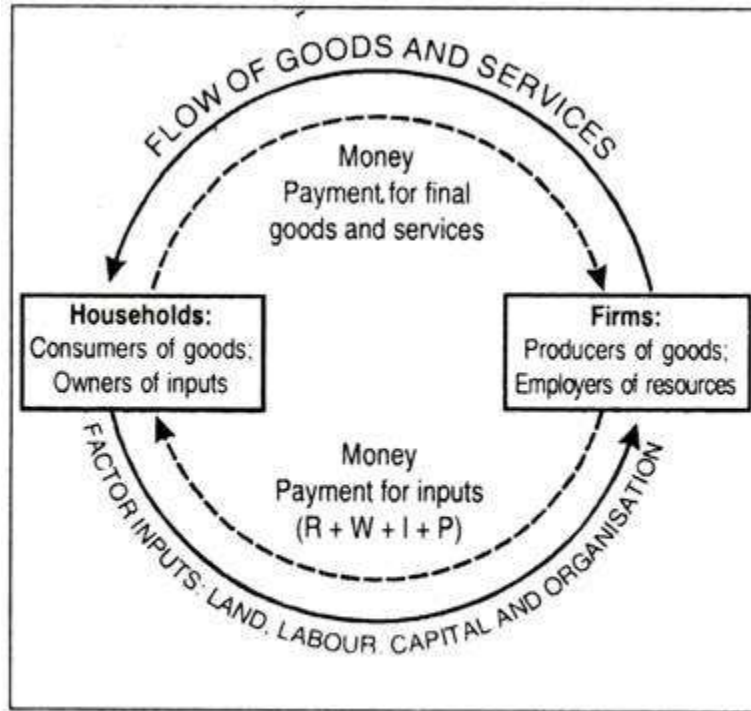


Fig. 2.1: Circular Flow of Income and Expenditure in a Two-sector Economy

But wherefrom do the households get money? The diagram answers this question. Households supply factor inputs to firms via the factor markets. In return, households receive money from firms in the form of rent, wages, etc. These income payments to households on hiring input services must be identical to the firms' income. This is the essence of the circular flow of income in a two-sector economy where there is no governmental activity and the economy is a closed one. Adding these, we have

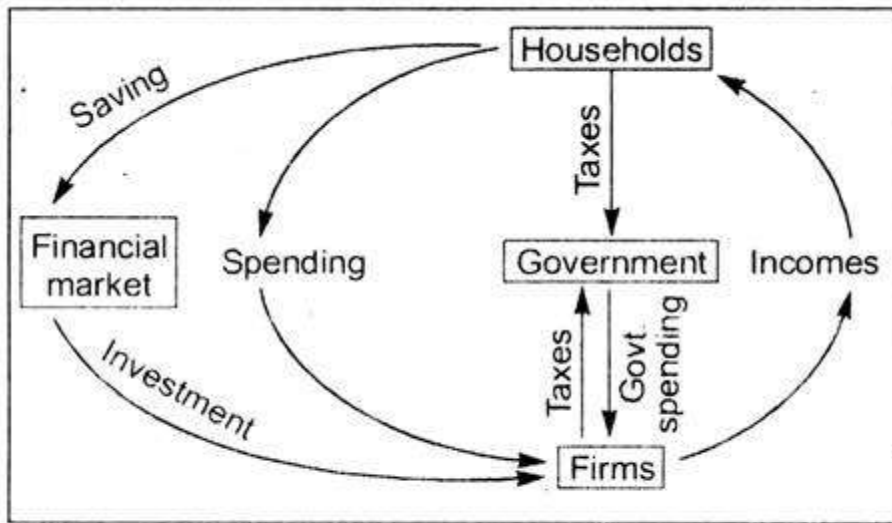
$$Y = C + I$$

where Y stands for national income, C for private consumption spending, and I for private investment spending.

In a three-sector (closed) economy, the government intervenes. It spends not only for the benefits of the general people and firms but also imposes taxes on them to finance its spending. If we add government activities (levying of taxes, T and incurring expenditures, G), we have

$$Y = C + I + G$$

The relationships between households, firms and government have been presented in a circular flow diagram (Fig. 2.2).



**Fig. 2.2:** Circular Flow of Income and Expenditure in a Three-sector Economy (Closed Economy)

Households receive money income from firms and government by selling input services. Part of this income is used to pay taxes to the government. Government receives taxes from both households and firms. Government spends by utilising its tax revenues. Households save in the financial market. These two—saving and taxes—constitute leakages in the circular flow. It is, thus, clear from Fig. 2.2 that the circular flow of money income depends upon consumption spending of households, investment spending of business firm and government's plans to tax and spend.

A four-sector economy is called an open economy in the sense that the country gets money by sending its goods outside i.e., exports (X), and spends money by buying foreign-made goods and services i.e., imports (M). In other words, in an open economy, there occurs a trading relationship between nations. Adding (X-M) in the above equation, we get

$$Y = C + I + G + (X - M)$$

The circular flow model in a four-sector open economy has been shown in Fig. 2.3.

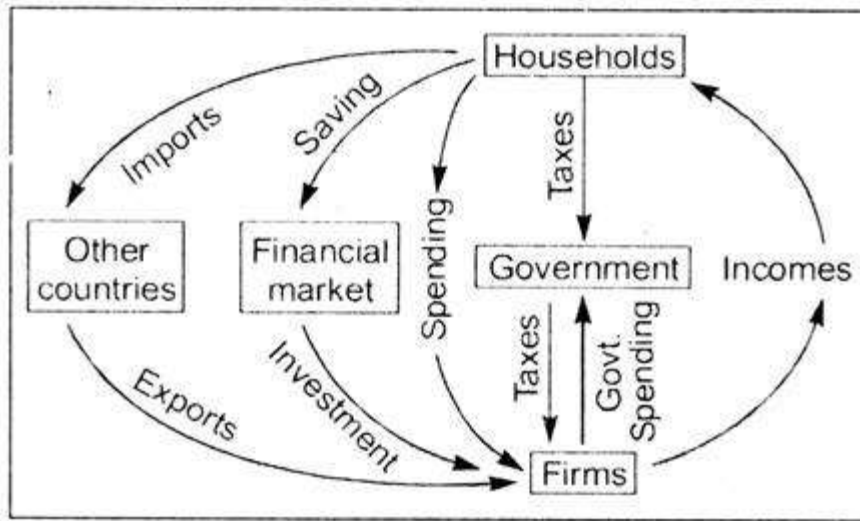


Fig. 2.3: Circular Flow of Income and Spending in an Open Economy

The only difference in the circular flow of income between a closed economy and an open economy is that, in a four-sector economy, households purchase foreign-made goods and services (i.e., imports). Likewise, people of other countries purchase goods and services not produced domestically (i.e., exports). Imports constitute leakage from the circular flow while exports constitute injection in the circular flow. For simplicity's sake, we have not shown in the diagram that firms and governments also sell export goods and purchase import goods.

Note that  $(I + G + X)$  constitute 'injections' into the circular flow and  $(S + T + M)$  constitute 'leakages' from circular flow. Injections increase national income while withdrawal or leakages reduce national income.

The national product or national income measures the overall economic performance of a nation. To measure the national product, we add up the value of all final goods and services produced in a country in a year. Thus, we focus on firms or sellers which receive payment for the production. This is the product method of calculating national income.

#### Characteristics of National Income –

- 1) National income is estimated in monetary terms. This may be expressed at current prices or some base year prices.
- 2) Only the value of final goods and services are taken into account for measuring national income.
- 3) National income is always expressed with respect to a given time period. Hence, it is a 'flow' concept.
- 4) All types of 'pure exchange transactions' are excluded from national income accounting. In case of pure exchange transactions, nothing new is produced in the current year. For instance, second-hand sales, purchase and sale of securities (shares and debentures), transfer payments (such as unemployment dole, pension payments) etc. are regarded as pure exchange transactions. All such transactions are not concerned with current year production. So, they are excluded from national income estimates.
- 5) National income is not simply the sum of all personal incomes in a country.



**Difference between Domestic Income and National Income –**

S.No.	National Income	Domestic Income
1	It includes income earned by the residents only.	It includes income earned by the residents as well as non-residents.
2	It consists of income earned both within and outside the domestic territory of a country.	It consists of income earned only within the domestic territory.
3	It is an economic concept.	It is a geographic concept.
4	It includes net factor income from abroad.	It does not include net factor income from abroad.
5	National income = Domestic income + Net factor income from abroad.	Domestic income = National income – Net factor income from abroad.

**Net factor income from abroad** is the difference between the income received by the residents from abroad for rendering factorservices (e.g., banking and insurance services, other financial services, engineering services, etc.) and the income paid for the factor services rendered by the non-residents in the domestic territory of a country.

**CONCEPTS OF NATIONAL INCOME**

**1) Gross Domestic Product (at market prices):**

The gross domestic product at market price (GDPmp) indicates the value of all final goods and services produced within the domestic territory of a country during any particular year. These goods and services are valued at the prevailing market prices of those goods and services.

**2) Net domestic product (at market prices):**

The Net domestic product at market prices (NDPmp) refers to the value of all final goods and services at the prevailing market prices within the domestic territory of a country during any particular year after making allowance for the consumption of fixed capital or depreciation allowance.

$$NDPmp = GDPmp - \text{Depreciation allowance}$$

**3) Gross National Product (at market price) :**

The Gross National Product at market prices (GNPmp) refers to the aggregate market value of all final goods and services produced by the residents of a country during any particular year.

**4) Net National Product (at market prices):**

The net national product at market prices (NNPmp) refers to the market value of all final goods and services produced by the residents of a country after allowing for the depreciation of fixed capital during any particular year. Thus, if we deduct the consumption of fixed capital or the depreciation allowance from the GNPmp, we get NNPmp.

$$NNPmp = GNPmp - \text{Depreciation allowance}$$

**5) Gross Domestic Product (at factor cost):**

The Gross Domestic Product at factor cost (GDPfc) refers to the estimation of GDP in terms of the aggregate earnings of factors of production.

**6) Gross National Product (af factor cost):**



The Gross National Product at factor cost (GNP<sub>fc</sub>) refers to the GNP in terms of factor incomes. It is the aggregate earnings received by different factors of production (i.e., wages, rent, interest and profits) supplied by the residents of a country during any particular year.

### **7) Net Domestic Product (at factor cost):**

The net domestic product at factor cost (NDP<sub>fc</sub>) estimates the NDP in terms of the aggregate factor incomes of the residents and non-residents within the domestic territory of a country during any particular year.

### **8) Net National Product (at factor cost):**

The net national product at factor cost (NNP<sub>fc</sub>) is the value of the final goods and services produced by the residents of a country, whether operating within the domestic territory or outside it, at their factor costs. It is also termed as the National Income of a country.

### **9) Private Income**

Central Statistical Organization defines Private Income as “the total of factor income from all sources and current transfers from the government and rest of the world accruing to private sector” or in other words the private income refers to the income from socially accepted source including retained income of corporation.

<b>NI+ Transfer payment + Interest on public debt +Social security + Profit and Surplus of public enterprises = Private Income</b>
--

### **10) Personal Income**

Prof. Peterson defines Personal Income as “the income actually received by persons from all sources in the form of current transfer payments and factor income. In other words, Personal Income is the Total income received by the citizens of a country from all sources before direct taxes in a year.

<b>PI = Private Income - Undistributed Corporate Profits – Corporate Taxes</b>
--

### **11) Disposable Income**

Prof. Peterson defined Disposable Income as “the income remaining with individuals after deduction of all taxes levied against their income and their property by the government.”

Disposable Income refers to the income actually received by the households from all sources. The individual can dispose this income according to his wish, as it is derived after deducting direct taxes.

<b>DI = Personal Income - Direct taxes – Miscellaneous receipt of the government.</b>
---

### **Methods of calculating National Income**

#### **A) Value added or production or output approach**

1) The output approach focuses on finding the total output of a nation by directly finding the total value of all goods and services a nation produces.

2) Problem of Double counting: Because of the complication of the multiple stages in the production of a good or service, only the final value of a good or service is included in the total output. This avoids an issue often called 'double counting', wherein the total value of a good is included several times in national output, by counting it repeatedly in several stages of production. In the example of meat production, the value of the good from the farm may be Rs10, then Rs 30 from the butchers, and then Rs 60 from the supermarket. The value that should be included in final national output should be Rs 60, not the sum of all those numbers, Rs 90. The values added at each stage of production over the previous stage are respectively Rs 10, Rs 20, and Rs 30. Their sum gives an alternative way of calculating the value of final output.





## B) Income method

The income approach equates the total output of a nation to the total factor income received by residents or citizens of the nation. The main types of factor income are:

- Employee compensation/ salaries & wages (cost of fringe benefits, including unemployment, health, and retirement benefits);
- Interest received net of interest paid;
- Rental income (mainly for the use of real estate) net of expenses of landlords;
- Royalties paid for the use of intellectual property and extractable natural resources.
- Corporate Profits

## C) Expenditure or Consumption method

The expenditure approach is basically an output accounting method. It focuses on finding the total output of a nation by finding the total amount of money spent. This is acceptable, because like income, the total value of all goods is equal to the total amount of money spent on goods

$$\text{GDP} = C + I + G + (X - M)$$

Where:

**C** = household consumption expenditures / personal consumption expenditures

**I** = gross private domestic investment

**G** = government consumption and gross investment expenditures

**X** = gross exports of goods and services

**M** = gross imports of goods and services

Note:  $(X - M)$  is often written as  $X_N$ , which stands for "net exports"

### PROBLEMS OF CALCULATING NATIONAL INCOME IN INDIA

- 1) **Difficulty in defining the nation** – As the world has become a global village, it is very difficult to identify the national boundaries has become difficult.
- 2) **Non-marketed service** – Services like love, kindness, and mercy has economic value but have no money value.
- 3) **Possibility of double counting** – The possibility of double counting which arises from the failure to distinguish properly between a final and intermediate product.
- 4) **Transfer payment** – Individual get pension, unemployment allowance and interest on public loans, but whether these should be included in national income is a difficult problem. The best way to solve the difficulty is to consider only the disposable income of individual or personal income minus all transfer payments.
- 5) **Capital gains or losses** – Commodity product this year is sold next year if at higher price is capital gain & at loss then capital losses e.g. other example could be selling of shares.
- 6) **Income earned through illegal activities** –Such as gambling or illicit extortion cannot be included in national income.
- 7) **Self-consumed production** – In many backward countries, substantial part of the output is not exchanged for money in market it is being either consumed directly by producer or bartered for other goods & services in the unorganized sector.
- 8) **Paucity of statistics** – According to the national income committee of India, the available statistics, especially for agriculture & small scale industry are extremely unreliable & incomplete.
- 9) **Inflation may give a false impression of growth in national income** – In a country when price rise, inflation rises even though the production falls & vice versa. It leads to mis-measurement of national income. ,



- 10) **Difficulties in classifying the commodities** – Coal is both household use & industrial use as well ,so is the expenditure on coal consumption , expenditure or an investment.
- 11) **Multiple occupations** – The production in agri-industrial, in all sectors is highly scattered and unorganized making the calculation of national income very difficult.
- 12) **Capital depreciation** – Depreciation is charged on profit which lowers national income. But the problem of estimating the current depreciated value of a piece of capital whose expected life is forty year is very difficult.
- 13) **Data problems** – There are problems of collecting reliable statistical data about all the productive activities in the underdeveloped countries.
- 14) **Illiteracy** – The majority of people in the country like India are illiterate & they do not keep any accounts about the production & sale of their products.



**UNIT IV**  
**DEFINITION OF MONEY**

- 1) **Meaning of Money** refers to the definition of money. Money is a token or item which acts as a medium of exchange that has both legal and social acceptance with regards to making payment for buying commodities or receiving services, as well as repayment of loans
- 2) Money refers both to currency, specifically a large number of currencies that circulate under the legal tender status, and different types of financial deposit accounts, for example savings accounts, demand deposits, as well as certificates of deposit.

**Functions of Money**

1) **Money as a Medium of Exchange:**

The function of money as a medium of exchange solves all the difficulties of barter system. There is no necessity for a double coincidence of wants in the money economy. The man with cow who wants to purchase cloth need not seek a cloth seller who wants a cow. He can sell his cow in the market for money and then purchase cloth with the money obtained.

2) **Money as a Measure of Value:**

In money economy values of all commodities are expressed in terms of money. Money is like the yard stick of cloth merchant, as yard-stick measures all varieties of cloth, money measures the value of all varieties goods. This function of money makes transactions easy and also fair

3) **Standard of Deferred Payment:**

In a money economy the contracts are made for future payments terms of money instead of goods and promise to repay the loan in money. In this way money is the standard of deferred payments. This function stimulates all kinds of economic activities which depend on borrowed money.

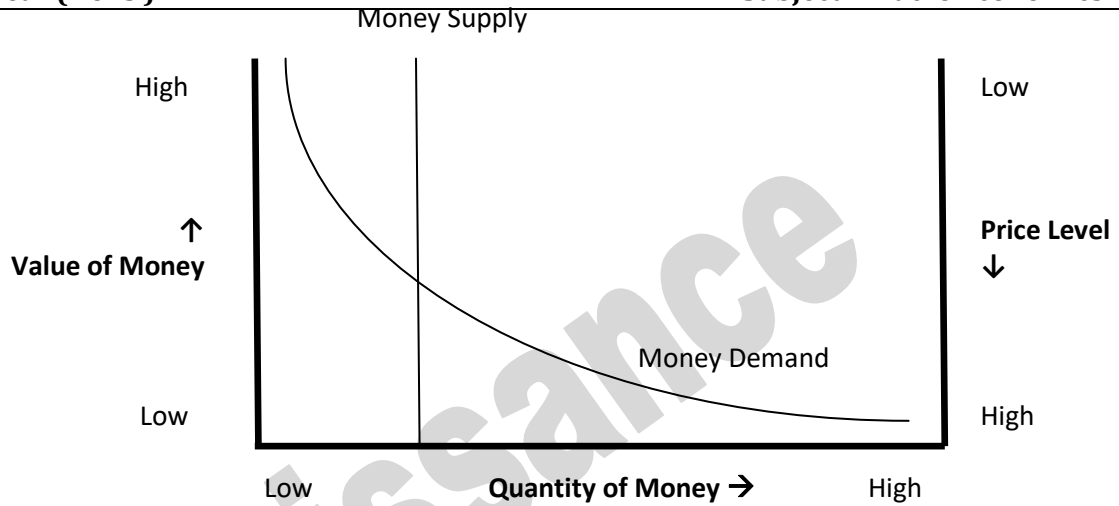
4) **Money as a Store of Value:**

Goods cannot be stored because they are perishable. People receive their incomes in money form and keep their savings in money form in banks. In this way, money is used to store value of commodities.

**Supply-Demand theory of money or Quantity theory of money**

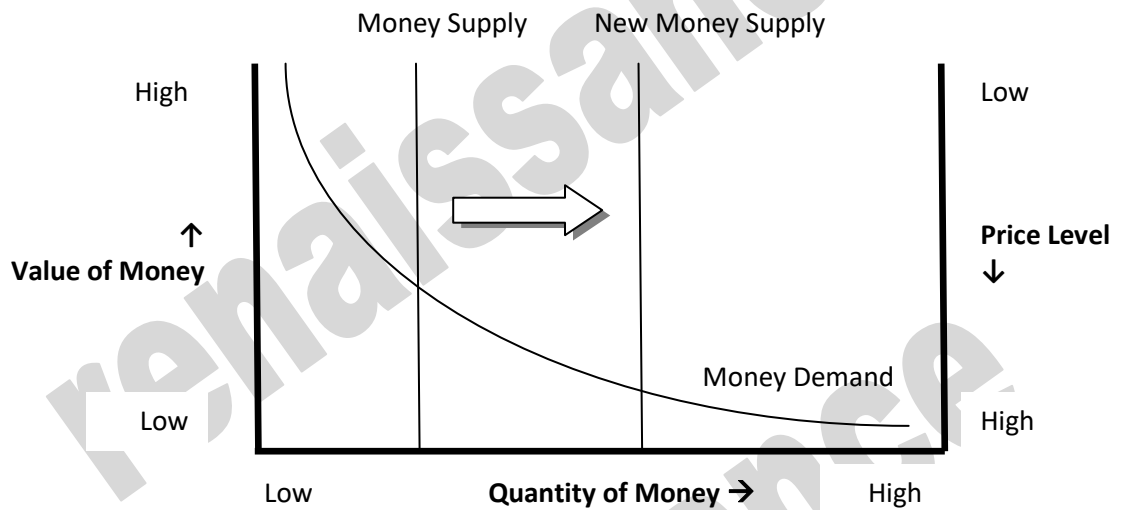
In monetary economics, the quantity theory of money states that money supply has a direct, proportional relationship with the price level.

The determinants of money demand are infinite. In general, consumers need money to purchase goods and services. The most important variable in determining money demand is the average price level within the economy. If the average price level is high and goods and services tend to cost a significant amount of money, consumers will demand more money. If, on the other hand, the average price level is low and goods and services tend to cost little money, consumers will demand less money.



**Figure: Determination of value of money**

The value of money is ultimately determined by the intersection of the money supply, as controlled by the central bank, and money demand, as created by consumers. The above figure depicts the money market in a sample economy. The money demand curve slopes downward because as the value of money decreases, consumers are forced to carry more money to make purchases because goods and services cost more money.



**Figure: shift in the money market**

The value of money, as revealed by the money market, is variable. A change in money demand or a change in the money supply will yield a change in the value of money and in the price level. An increase in the money supply is depicted in the Figure above.

**Fisher’s Quantity Theory of Money or Price theory of money**

The Quantity Theory was first developed by Irving Fisher in the inter-war years as is a basic theoretical explanation for the link between money and the general price level. The quantity theory rests on what is



sometimes known as the **Fisher identity** or the **equation of exchange**. This is an identity which relates total aggregate demand to the total value of output (GDP).

### **MV = PT**

1. M is the money supply
2. V is the velocity of circulation of money
3. P is the general price level
4. Y is the real value of national output (i.e. real GDP)

The **velocity of circulation** represents the number of times that a unit of currency (for example a Rs.10 note) is used in a given period of time when used as a medium of exchange to buy goods and services. The velocity of circulation can be calculated by dividing the money value of national output by the money supply.

### **Assumptions in Fisher's Quantity theory of money**

Quantity Theory of Money by Fisher proceeds with the idea that price level is determined by the demand for and supply of money. It is based upon the following assumptions.

1. Price level is to be measured over a period of time, it being the average of prices of all sale transactions that take place during the said time period.
2. There are no credit sales in the market. All sales/purchase transactions are cash transactions..
3. Money is only a medium of exchange. Therefore, its demand is determined only because it is needed for making current payments. It is not considered one of the alternative forms of assets for holding wealth. Money is accepted by sellers so as to pay for their own purchases.
4. Each unit of money can change hands several times during the said time interval. The average number of time money changes hands is termed its average velocity of circulation (V). Accordingly, total cash payments during the year are always equal to the average quantity of money in circulation (M) multiplied by its velocity (V), that is equal to MV.
5. Similarly, because there are no credit sales, all cash payments received during the year must be equal to the volume of goods and services sold multiplied by their respective prices. If, therefore, 'T' denotes the aggregate volume of all items sold and 'P' stands for their average price, then total sales proceeds received are equal to 'P'.

### **Criticism of Fisher's Quantity Theory of money**

1. **The price level (P) is wrongly assumed to be a passive factor:** The price level P is not passive as assumed by Fisher. In reality P may be active. P does influence T, because rising prices give profit incentives to business expansion, T would increase. Thus, a rise in P may increase the volume of trade which may cause an increase in the quantity of money and V.
2. **The velocity of circulation of money (V) may not be a constant factor:** Fisher regards V as independent and constant. But, in practice V may vary with the volume of trade and price level, i.e., with P and T. V is also affected by the actual and expected changes in M or money supply. Then, the effect of changes in M may be neutralized by an opposite change in V. Sometimes, M being constant, V may increase, causing the price level to rise. For instance, the hyperinflation in Germany in 1923 was more as a result of the increase in the velocity of circulation rather than the increase in the money supply.
3. **The assumption of full employment is unrealistic:** A fundamental objection raised by Keynes against the cash transactions approach is that it is based on the assumption of full employment, which is a rare possibility in a modern society.



4. **The theory neglects the role of interest rate:** It is argued by critics like Mrs. Robinson that the quantity theory cannot be regarded as an adequate theory of money because it does not take into account the rate of interest.

#### Cambridge cash Balance Approach

The **Cambridge equation** formally represents the **Cambridge cash-balance theory**, an alternative approach to the classical quantity theory of money. Both quantity theories, Cambridge and classical, attempt to express a relationship among the amount of goods produced, the price level, amounts of money, and how money moves. The Cambridge equation focuses on money demand instead of money supply. The theories also differ in explaining the movement of money: In the classical version, associated with Irving Fisher, money moves at a fixed rate and serves only as a medium of exchange while in the Cambridge approach money acts as a store of value and its movement depends on the desirability of holding cash.

The Cambridge equation is :  $M^d = k.P.Y$

#### Keynes liquidity preference theory of money

**Liquidity preference** in macroeconomic theory refers to the demand for money, considered as liquidity. The concept was first developed by John Maynard Keynes in his book *The General Theory of Employment, Interest and Money* (1936) to explain determination of the interest rate by the supply and demand for money. The demand for money as an asset was theorized to depend on the interest foregone by not holding bonds. Instead of a reward for saving, interest in the Keynesian analysis is a reward for parting with liquidity.

According to Keynes, demand for liquidity is determined by three motives:

1. **The transactions motive:** people prefer to have liquidity to assure basic transactions, for their income is not constantly available. The amount of liquidity demanded is determined by the level of income: the higher the income, the more money demanded for carrying out increased spending.
2. **The precautionary motive:** people prefer to have liquidity in the case of social unexpected problems that need unusual costs. The amount of money demanded for this purpose increases as income increases.
3. **Speculative motive:** people retain liquidity to speculate that bond prices will fall. When the interest rate decreases people demand more money to hold until the interest rate increases, which would drive down the price of an existing bond to keep its yield in line with the interest rate. Thus, the lower the interest rate, the more money demanded (and vice versa).

The liquidity-preference relation can be represented graphically as a schedule of the money demanded at each different interest rate. The supply of money together with the liquidity-preference curve in theory interact to determine the interest rate at which the quantity of money demanded equals the quantity of money supplied