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TABLE OF CONTENTS,

Learning Outcomes

2. Introduction
3. Barter exchange
4. Functions of money
 - 4.1 Medium of exchange
 - 4.2 Unit of account

ECONOMICS
PAPER No. : 11 MONEY & BANKING
MODULE No. : 1 DEFINITION OF MONEY

- 4.3 Standard of deferred payment
- 4.4 Store of value
- 5. Money and liquidity
- 6. Physical properties of money
- 7. Definition of money
 - 7.1 Functional definition
 - 7.2 Legal definition
 - 7.3 Narrow and Broad definition
 - 7.4 Theoretical and Empirical approach
- 8. Evolution of money and banking
- 9. Classification of money
- 10. Summary

1. Learning Outcomes

After studying this module, you shall be able to

- Know about the importance of money in an exchange economy.
- Learn about the various definitions of money
- Identify the functions of money, its characteristics and classifications
- Evaluate the theoretical and empirical approaches
- Analyse the evolution of money and banking

2. INTRODUCTION

Economists have considered various aspects of money, such as the reason for its existence, changes in its form, and its role in economic growth and development. Income and wealth are often considered synonymous to money but while they may be expressed in terms of money they are not the same thing. We therefore need to define money by its use in an exchange economy, in terms of its specific functions within the financial system. By specifying precisely what it does, we can distinguish money from all other assets in the financial system. We also need to know how money comes into existence and what causes it to change over time. This requires an analysis of its nature, role and origin.

3. BARTER EXCHANGE

DISADVANTAGES OF BARTER EXCHANGE

The first disadvantage would be a lack of double coincidence of wants. It would be extremely difficult to find someone who wishes to purchase right now, exactly what you would like to sell. Thus, exchange under a barter system is costly in terms of the search time and effort. Barter presents even more serious difficulties when the articles to be exchanged are not of the same value and cannot be divided without loss of value. This makes it an inefficient and cumbersome way to conduct transactions. It raises the transactions costs and holds down the volume of exchange in the economy.

The second disadvantage of pure barter is the lack of any common unit in terms of which to measure and state the values of goods and services. The value of each good would be expressed in terms of each of the other goods. If there are n goods in the barter economy, there would be $n(n - 1) / 2$ prices. No meaningful accounting system would be possible in such an economy.

The third disadvantage of pure barter is the lack of any satisfactory unit in terms of which to write contracts requiring future payments. These future payments would have to be stated in terms of specific goods and services. Though this would be possible, it would lead to three difficulties (1) regarding the quality of the good or service to be repaid (2) the parties would often be unable to agree on the specific commodity to be used for repayment (3) both parties would run the risk that the commodity to be repaid would increase or decrease in value over the duration of the contract.

The fourth disadvantage of pure barter, which results from its other shortcomings, is the lack of any method of storing generalized purchasing power. People could store purchasing power for future use only by holding specific commodities or claims against specific commodities. The stored commodity may deteriorate or appreciate in value, its storage may be costly, and it may be difficult to dispose off quickly without loss, if its holder wishes to buy something else.

All the disadvantages mentioned above make pure barter a highly inefficient means of trade and to overcome these difficulties every society invented some kind of money, early in its development. The development of money has passed through various stages in accordance with time, place and circumstances with the progress of civilization...

This can be summarized as : Transaction costs associated with barter → encourages → Development of Money → facilitates → Exchange Trading → facilitates → Specialization and division of labour → facilitates → Economic Development.

4. FUNCTIONS OF MONEY

Money performs four specific functions, each of which obviates one of the difficulties of pure barter. These functions are to serve as 1) a medium of exchange 2) a unit of value 3) a standard of deferred payments and 4) a store of value. The first two are called the primary functions of money. The last two are called the derivative or secondary functions because they are derived from the primary functions.

4.1 MONEY AS A MEDIUM OF EXCHANGE

One of the unique function and in fact an essential and primary distinguishing characteristic of money is that it is anything generally acceptable as a means of payment in the settlement of all transactions, including debt. It is a commonly used medium of exchange or means of transferring generalized purchasing power.

It is a device to permit people to exchange goods and services without need for conversion into anything before being spent. Hence, ATM cards, property, gold, FDRs are not money. However, faith or belief or confidence in its general acceptability is very important. The assets which are generally acceptable in exchange may vary from one country to another or from one period to another within the same country.

Money saves time and energy and allows people to buy what they want, how much, at the best bargain or terms, at the time they think best. By economizing on the use of scarce real resources, money promotes transactional or operational efficiency.

In addition, it promotes allocational efficiency by making it possible to exploit potential gains from specialization in trade and production. It also leads to emergence of specialized markets in all types of goods and services. By giving freedom of choice to individuals as a bearer of options, it thereby promotes economic welfare.

By separating the act of sale and purchase, it replaces bilateral trading with multilateral trading leading to specialization and division of labor. As one moves from a barter exchange economy to one of monetary exchange, the length of transaction period and the total trading cost decrease.

The use of money for similar transactions also enhances competition. A monetary economy eliminates the problem of double coincidence of wants.

4.2 MONEY AS A UNIT OF ACCOUNT / UNIT OF VALUE / STANDARD / MEASURE OF VALUE

This is the second primary function of money where the monetary unit is the unit in terms of which the value of all goods and services are measured and expressed. It therefore helps in determining the price or the number of monetary units each good or service would exchange for, making it possible to compare prices and have relative prices.

It simplifies the problem of measuring the exchange value of commodities and makes accounting of national income, costs, profits assets and liabilities possible. It permits rational economic calculations and transmits economic information about market preferences of consumers to producers and makes possible specialization and division of labor. Unlike physical units which are inter temporally and inter regionally constant, the value of money is inversely related to the price level and hence does not remain constant in terms of the goods and services you can buy with it, making money a poor unit of account.

4.3 MONEY AS A STANDARD OF DEFERRED PAYMENT OR UNIT OF CONTRACT

Money serves as the standard or unit in terms of which deferred or future payments like interest, rent, salaries, pensions etc. are stated. This is concomitant with the first two functions because the person who pays cash later quotes money price as a unit of account. These contracts are for the payment of principal and interest on debt where future payments are stated in terms of monetary units. Money is a satisfactory standard of deferred payment if and only if its purchasing power, that is, the value of money remains constant.

4.4 MONEY AS A STORE OF VALUE

This function is also concomitant with the other functions and since money as a medium of exchange, separates the act of sales and purchase, the two are made at different points of time, i.e. you can sell now, get money, store that money and purchase later. What you store is generalized power that can be used any time. This is particularly relevant in a money using economy where

income and expenditure are discontinuous i.e. wages, interest, salary etc. are got at one point of time and spent over the month till the next receipt. Therefore, money is stored in the form of generalizing purchasing power.

As a store of value, money scores over physical assets which may involve storage costs, deteriorate or become obsolescent or have transaction or brokerage costs since they are not acceptable in exchange for goods and services. Money is also a good store of value because it is perfectly liquid.

5. MONEY AND LIQUIDITY

Liquidity is a term used by economists to describe how cheaply and easily an asset may be converted into a medium of exchange. This has the following aspects:

A. **MARKETABILITY** ó money is readily acceptable in exchange for goods and services.

B. **PREDICTABILITY** - money value can be anticipated for making payments in the future. Unlike money, values of shares on stock exchanges are not predictable and hence considered illiquid.

C. **REVERSIBILITY** ó money value in payments and receipts are the same. Real assets as well as financial assets lack reversibility as their purchases / sales are subject to tax. A car loses its value once out of the showroom. Travelers' cheques and mutual funds also lack reversibility as commission charges and administrative charges are levied but not refunded.

D. **DIVISIBILITY** ó money can be denominated in the smallest unit in which exchange dealings can take place in an asset. This is an important determinant of the flexibility and divisibility of the asset in exchange

Marketability, reversibility, divisibility and predictability are all relevant attributes in the definition of a liquid asset

Since liquidity is a collection of characteristics which may be present in varying degrees in various assets, it is a multi dimensional and subjective concept . Different individuals may have different evaluations about marketability and predictability of assets. However, since the characteristics of liquidity, marketability, predictability and divisibility of assets are designated in terms of cash, money is liquidity par excellence, making the relationship between money and liquidity, bi directional.

6. PHYSICAL PROPERTIES OF MONEY

Here, we need to conceptualize what are the desirable physical properties that any commodity should have to be a good choice to serve as money. It needs to have the following characteristics

1. **PORTABILITY** ó i.e. it should have high enough value relative to its weight to make transportation easier, and. it should be valuable in small quantities. This was the reason why gold and silver coins as currencies were better compared to rice, horses, cows etc. in the evolution of money.

2. **DURABILITY** ó i.e. it should not deteriorate with time or wear down when handled.

3. **DIVISIBILITY** ó into fairly small units to facilitate transactions of various sizes. Here we may find that diamonds may be durable and portable, but they are not divisible as compared to gold and silver.

4. **INTRINSIC OR RECOGNIZABLE VALUE** ó to be accepted in transactions. This was possible with gold coins stamped by authority with respect to value or even paper currency

7. DEFINITION OF MONEY

Having considered the various functions performed by money, the question arises as to what things are included and what things are excluded in money. Money needs to be defined precisely

7.1 LEGAL DEFINITION

We could have a legal definition where money is defined in purely legal terms that is, money is what the law states it to be. Laws can help a thing to achieve general acceptability by proclaiming it to be money. It may grant legal tender powers by ensuring that refusal to accept it would be punishable by law. However, things that are not legally defined as money may still come to be generally acceptable in payment for example chequable deposits at banks are a part of money but they are not legal tender

Legal tender or fiat money serves as money on the fiat or order of the government. It has to be accepted or it cannot be refused in settlement of payments of all kinds. However, small coins are usually limited legal tender for a certain maximum amount beyond which they cease to be legal tender. Rupees two and above currency notes are unlimited legal tender. Demand deposits of banks are fiduciary money and are accepted as money on trust only and are non legal tender. A payee can legally refuse to accept payment from demand deposits made through a cheque because it may be dishonoured at the issuer's bank. Here there may be insistence on payment in cash.

7.2 FUNCTIONAL DEFINITION

The functional definition of money includes in it all those things that perform the functions of money and excludes all others. Since the derivative or secondary functions of money can be performed by a variety of assets, all economists agree that money supply should include all those things that are in fact generally acceptable in payment of debt and as payment for goods and services. A thing that is generally acceptable in payment and generally used as a medium of payments is MONEY whatever its legal status may be

7.3 NARROW AND BROAD DEFINITION OF MONEY

The narrow definition of money is based on the function of money as a medium of exchange and includes in it only currency and chequable deposits. There may be other assets which have a high degree of moneyness or liquidity, but are not generally acceptable in payment or there is a delay or cost involved in exchanging them for money. These assets which are widely used as a store of value like saving and fixed deposits at banks are called NEAR MONEYS and are frequently

included only in a broader definition of money. Since all assets possess the quality of moneyness to some degree, any broad definition is likely to have troublesome borderline cases.

7.4 THEORETICAL AND EMPIRICAL APPROACH TO DEFINITION OF MONEY

There are two approaches for defining money

- (1) A priori or theoretical approach
- (2) the empirical approach

In the theoretical approach, money is first conceptualized in the form of specific functional or institutional attributes and then the corresponding measure of money is obtained by aggregating relevant financial assets possessing those specific attributes like medium of exchange, unit of value, standard of deferred payments and store of value i.e. distinction should be made between the concept of money and the measure of money where conceptualization should be distinguished from and precede its measurement.

Second is the empirical approach which however does not rely on any pre conceived notion of money and instead it directly arrives at a measure of money as an aggregate of financial assets which when introduced in certain functions gives the best results in terms of specific criteria like the highest correlation with national income or having a stable and sturdy demand function.

Among the two approaches, the theoretical approach has a greater analytical appeal and as a sequence, you should empirically only test the adequacy of concepts and verify theoretical hypothesis. This implies that the empirical stage comes only after the relevant concepts have been defined and hypothesis derived from a suitable economic model.

The empirical approach confuses empirical verification with hypothesisation and therefore forecloses the possibility of generating a testable hypothesis capable of empirical verification as a theory, the Theoretical approach is more scientific because it first develops an appropriate concept of money as an analytical entity followed by suitable measurement of money.

We should start with a behavioral hypothesis and subject it to empirical testing. Given the analytical superiority of the theoretical approach the next logical step is to identify the specific attributes with which to conceptualize money. As a statistical construct, money should reflect assets with monetary characteristics and should be specific liquid liabilities of a particular set of financial intermediaries.

8. EVOLUTION OF MONEY

Having discussed the various functions and roles of money, one could discuss the evolution of, and changes in the monetary system. Such is the importance of money that the breakdown of one monetary system was immediately followed by the development of another system. Primitive economies overcame the inconvenience of barter by the use of uncounted metals like copper, gold and silver as means of exchange because they were generally acceptable in payment.

This could be, because they possessed the above mentioned properties of having high value relative to its weight, durability and portability etc. However these metals continued to be used for non monetary purposes also and hence metal flowed freely into and out of monetary uses. The use of bullion as money had serious disadvantages of short weighing and adulteration. Coinage solved the problem with an official certification as to the weight and purity of the metal by the issuer who could be the king. Though an important innovation, coinage still had the disadvantage of danger of theft and storage problems, costs of long distance transportation along with the absence of any interest or return.

To remove this problem, people started keeping these coins with a custodian who could be a goldsmith who kept them in a safe box and issued an I.O.U. Initially one would have to go to the goldsmith to get the coins to make payments. Later with faith in the goldsmith the, I.O.U was given as payments to others and passed several hands. The I.O.U as a written order authorized that the goldsmith would pay the specified amount of metal to whosoever presented it. This was the birth of the BANK and BANK NOTES. A debt or a promise to pay, evidenced by a piece of paper. These paper claims were acceptable because they were believed to be fully backed by the metal. These papers could be transferred and used as payments for goods and services. Initially the goldsmith/bank held gold to cover all possible redemptions of bank notes and deposits. This was 100% reserve banking because the reserves/gold was equal to the total value of outstanding bank notes and deposits. The only profit that the goldsmith/bank got was charging fee for deposits or trade gold for bank notes.

At another step in this evolution of money, the person leaving gold or silver with the banker would not receive a paper representing the debt of the banker but simply a deposit credit evidenced by an entry on the banks books. For making payments an order could be written on the banker to pay someone else. Thus these deposit claims came to be used as a means of payment

The emerging bankers soon realized that to meet their promises to pay in specie on demand they did not need to hold gold and silver equal to 100% of their outstanding debts in the form of deposits and bank notes. Instead they could hold specie equal to only a fraction of their liabilities. This was the birth of FRACTIONAL RESERVE BANKING. This principle gave banks the power to increase or decrease the total money supply which was not there when they issued bank notes and deposits only in exchange for an equal value of gold and silver. That was mere substitution of one type of money for another in the hands of the public. With fractional reserve banking, banks held some deposits as reserves in the vault but loaned out the remainder to people in need of funds. The bank could charge interest on this loan and hence had a second source of revenue in addition to the storage charges assessed on deposits. Here Banks are financial intermediaries because they are accepting deposits and lending those funds to borrowers

In the evolution of banking. Bank deposits emerged as the primary medium of payments. However the advances in computer technology and the rapid growth in credit and debit card usage, we may be moving to a chequeless or cashless society and ELECTRONIC MONEY or BITCOINS a virtual or electronic alternative currency that uses technology to facilitate instant payments.

The main development is the movement from commodity money such as gold coins to credit money, such as cheques deposits to electronic money.

9. BASIS OF CLASSIFICATION OF MONEY

1. Physical characteristics of the material of which money is made of i.e. whether money is in the form of gold, paper or any commodity.
2. Nature of the issuer i.e. whether money has been issued by the government, central bank or commercial bank.

3. Relationship between value of money as money and the value of money as a commodity, according to which we could have

(a) Full bodied money i.e. money whose value as a commodity for non monetary purposes is as great as its value as money e.g. rice, wool, cattle, gold coins.

(b) Representative full bodied money, which by itself may have no significant commodity value but it represents in circulation an amount of metal with a commodity value equal to the value of money.

(c) credit money / debt money ó this is any money except representative full bodied money that circulates at a face value which is greater than the commodity value of the material from which it is made. It is also called fiduciary money or money that circulates as money on the basis of trust commanded by its issuers.

This could take the form of

i) token coins like 50 paise or one rupee coins which are a small proportion of money supply

ii) representative token coins ó which represent the receipt of token coins or an equal weight of metal deposited with the government and is usually made of paper.

iii) Circulating promissory notes issued by the government. This is also called fiat money and is usually made of paper and at present is inconvertible into anything of value except small change.

iv) Circulating promissory notes issued by private banks. This was present initially in the evolution of money but this right was later taken away.

v) Circulating promissory notes issued by centralized banks. These are presently in the form of notes of Rupees two and above issued by RBI.

vi) Checking deposits with banks which form a major part of money supply and are bank deposits payable on demand and transferable by cheques and are acceptable in exchange for goods and service. They are mere entries in the ledgers of the bank to the credit of their holders.

10. SUMMARY

In this module we examined that in the history of mankind societies learnt that

1. Money was indispensable for the efficient functioning of the economic system as barter exchange had many problems.

2. Money served as a medium of exchange, a unit of account, a store of value and as a standard of deferred payments of which the first two were its primary functions and the latter two its secondary functions
3. To perform these functions, Money should have the properties of durability, divisibility, portability and being easily recognizable in value.
4. Money is perfectly liquid as it has the properties of Marketability, Reversibility, Predictability and Divisibility It can easily be converted into other assets or commodities with no transaction cost.
5. Functional definition of money includes in money all assets which perform the functions of money .There could be a narrow definition which incorporates only the primary functions while a broader definition could include near moneys too which perform the secondary or derivative functions.
6. Money is what the law states it to be in the Legal definition of money. Chequable bank deposits are a part of money but are not legal tender.
7. The Theoretical approach to the definition of money first conceptualizes the relevant attributes to be included in the definition of money and then aggregates all those assets possessing those attributes. The measurement follows later. The Empirical approach specifies a criteria like stability of the demand for money and then aggregates all assets which satisfy that criteria.
8. The types of Money evolved from Full bodied to Representative Full Bodied to Credit Money. Faith or general acceptability is an important feature for this. The emergence of money as a medium of exchange led to the need for banks as depositaries. Demand deposits and Bank notes developed to reduce transaction costs. Fractional Reserve banking provided a means by which banks could create money and function as intermediaries..

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