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MONEY AND BANKING

Units 1 to 26

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Unit-01

MONEY: MEANING AND FUNCTIONS

STRUCTURE

1.1 INTRODUCTION

As barter system was an inconvenient method of exchange, people were compelled to select some commodity which was most commonly accepted in that area as a medium of exchange. Thus, a large variety of goods came to be used as money; gradually the most attractive metals, like gold, silver, etc., were adopted as money almost everywhere. Money has now taken the place of all these commodities. Later coins were replaced or supplemented by paper currency for the reasons of economy and convenience. The bank cheques, drafts and promissory notes came into use in addition of currency to serve as the most important type of money. However, today each country has its own monetary system and the money of one is not usually acceptable outside its borders.

In fact, this is one of the reasons which makes international trade different from internal trade. Money was not invented overnight. The development of money was rather slow. It is the result of a process of evolution through several hundred years. The different types of money indicate the different stages of the development of money. Wheat, corn,

tobacco, skins, beads, gold, etc. even live animals served as a medium of exchange at different times in different parts of the world. Rulers in all lands found that making coins is a profitable business and took it into their own hands.

1.2 LEARNING OBJECTIVES

After going through this Unit you will be able to

- understand the concept of money
- explain the various stages in the evolution of money
- identify the functions of money
- explain the role of money
- discuss the different types of money

1.3 MEANING AND DEFINITIONS OF MONEY

The term "money" is thought to have originated from a temple dedicated to the goddess Juno, situated on Capitoline Hill, one of the seven hills of Rome. In ancient times, Juno was closely linked to wealth and finance. The Temple of Juno Moneta in Rome housed the city's mint, where coins were produced. The name "Juno" is believed to have been derived from the Etruscan goddess Uni, signifying "one," "unique," "unit," "union," or "united." Meanwhile, "Moneta" may have its roots in the Latin word monere, meaning "to remind, warn, or instruct," or the Greek word moneres, meaning "alone" or "unique."

Money is one such concept which is very difficult to be restricted to some well-defined set of words. It is very easy to understand but difficult to define. Still, a large number of economists have given variety of definitions, some definitions are too extensive while others are too narrow. Various economists like Prof. Walker, Crowther, Robertson, Seligman, etc., have used different characteristics for defining it. According to Prof. Walker, “Money is what money does”. It is associated with the functions performed/roles played by money. However, a suitable definition must be comprehensive and must emphasise not only on the important functions of money but also on its basic characteristics, namely general acceptability. Looking from this criterion, we find the definitions given by Prof. Crowther and Prof. Robertson to be the most suitable.

Crowther defines, “Money can be defined as anything that is generally acceptable as a means of exchange and that at the same time acts as a measure and a store of value”.

According to Professor D.H. Robertson “money as anything which is widely accepted in payment for goods or in discharge of other kinds of business obligations”.

These definitions cover the main functions of money and also stress its basic characteristic, namely general acceptability.

SELF-CHECK EXERCISE-1.1

Q1. Define Money.

Q2. What do you mean by term ‘money’?

1.4 STAGES IN THE EVOLUTION OF MONEY

a) **Animal Money :**In ancient India, Go-Dhan (cow wealth) was accepted as form f money. Similarly, in the fourth century B.C., the Roman State had officially recognized cow and sheep as money to collect fine and taxes.

b) **Commodity Money:** The second stage in the evolution of money is the introduction of commodity money. Commodity money is that money whose value comes from a

commodity, out of which it is made. The commodities that were used as medium of exchange included cowrie shells, bows and arrows, gold, silver, food grains, large stones, decorated belts, cigarettes, copper, etc. However, the commodity money had various drawbacks such as there could be no standardization of value for money, lacks the property of portability and indivisibility. Therefore this form of money became an unsuitable medium of exchange.

c) **Coinage:** The next step is coinage. This is just like a commodity money but the commodity is the metal that the money is made of. Thus, it can be seen that commodity money is of two types i.e., metallic and non-metallic. When the use of money was not so very extensive, copper could do the job but when the number of transactions increased gradually, silver and then gold was used as a main metal for money and coins of small denominations were prepared either of copper or of silver. Metallic money at one stage were used as full bodied money, i.e., the full value was equal to the intrinsic value of the metal. Non-metallic commodity money was used on a large scale in our early days of civilization.

d) **Paper Money:** The next important stage in the evolution of money is the paper money which replaced the metallic money. The transfer of sum of money in terms of metallic money was both inconvenient and risky. Therefore, written documents were used as temporary substitutes for money. Any person could deposit money with a wealthy merchant or a goldsmith and get a receipt for the deposit. These receipts and documents were not actual money but temporary substitutes of money. This marked the development of paper money. These paper notes gradually took the form of currency notes.

e) **Bank Money:** As the volume of transactions increased, paper money started becoming inconvenient because of time involved in its counting and space required for its safe-keeping. This led to the introduction of bank money (or credit money).Bank money implies demand deposits with banks which are withdraw able through cheques, drafts, etc. Cheques are widely accepted these days particularly for business transactions. Debit and credit cards also fall under this category.

SELF-CHECK EXERCISE-1.2

Q1. What is Commodity Money?

Q2. What is Bank Money?

1.5. FUNCTIONS OF MONEY

The major functions of money can be classified into following three parts:

1.5.1 Primary functions,

1.5.2 Secondary functions, and

1.5.3 Contingent functions.

1.5.1 Primary functions of money

The primary functions of money are:

a) **Medium of Exchange:** One of the primary roles of money is to function as a medium of exchange. In a barter system, goods were exchanged directly for other goods, which often led to challenges, especially the need for a "double coincidence of wants"—both parties had to desire what the other offered. Money eliminates this issue by providing a universally accepted means of transaction. Now, an individual can sell their goods for money and later use that money to purchase the desired items from another seller. This facilitates seamless trade

and supports specialization and division of labor in modern economies.

b) **Measure of Value:** Another crucial function of money is serving as a standard unit for measuring and comparing the value of goods and services. In a barter economy, there was no uniform way to determine the worth of different items, making transactions complex. Money acts as a common denominator, allowing all goods and services to be assigned a specific value, making price comparisons more straightforward and efficient.

1.5.2 Secondary functions

The secondary functions of money are:

a) Standard of Deferred Payments: One of the key roles of money is serving as a standard for deferred payments, which are payments scheduled for the future. When a loan is borrowed today, it is repaid over time in monetary terms. Since financial transactions often involve large-scale credit exchanges, money facilitates this process by providing a stable measure of value. However, its effectiveness in this role depends on the stability of its value. If prices decline, the purchasing power of money increases, benefiting creditors while disadvantaging debtors. Conversely, during inflation, when the value of money declines, creditors incur losses. Therefore, for money to function efficiently as a standard for deferred payments, its value should remain stable. In cases of extreme inflation or deflation, money may lose its reliability in fulfilling this function.

b) Store of Value: Money also functions as a store of value, allowing individuals and businesses to preserve wealth without depreciation or spoilage. Due to its high liquidity, money can be readily used for transactions at any time. Historically, gold was a preferred medium for storing wealth because it could be safeguarded without losing value. While other assets, such as real estate, bonds, and stocks, can also store wealth, they lack the immediate liquidity of money. Unlike money, these assets must be sold and converted into cash before they can be used for purchases. The store of value function is most effective when the value of money remains stable over time.

1.5.3 Contingent functions

The important contingent functions of money are:

a) Distribution of national income: Money helps in optimum distribution of national income among different factors of production (land, labor, capital and enterprise). Total output of the country is jointly produced by these factors. So, the output should be distributed among them. Money helps in distribution of the national product in the form of rent, wage, interest and profit, which are expressed in money terms.

b) Basis of credit creation: Credit creation by commercial banks was not possible until money was introduced. Money as a store of value has encouraged savings by people in the form of demand deposits in banks. Such demand deposits are used by the commercial banks to create credit.

c) Maximization of satisfaction: Money helps the consumers and producers in maximizing their satisfaction. A consumer derives maximum satisfaction by equating the price (expressed in terms of money) of each commodity with its marginal utility (satisfaction). Similarly, a producer maximises his satisfaction (profit) by equating the marginal productivity of a factor with price of such factor.

d) Productivity of capital: Money increases the productivity of capital as it is the most liquid asset and can be put to any use. Due to liquidity of money, capital can be easily transferred from less productive uses to more productive uses.

e) **Bearer of options**: Money provides purchasing power in the hands of the person (bearer) holding it and he has numerous options for its use. The bearer can change his decision regarding use of money from time-to-time and place-to-place depending upon urgency, intensity and his priority.

f) **Guarantee of solvency**: Money serves as a guarantee of solvency for an individual or institution. If an individual has enough money (more than his liabilities), then he cannot be declared insolvent or bankrupt. Due to this reason, individuals and firms keep large amount of money to meet unexpected needs.

g) **Transfer of value**: Money also acts as a means to transfer of value. This function of money has derived from the general acceptability of money as a medium of exchange. Value can be transferred from one person to another with the help of money. When we pay the price of any commodity to its owner, we transfer the value to the owner.

h) **Medium of compensations**: Accidents and carelessness cause damage to the property and life. Compensation can be paid to such damages in terms of money.

SELF-CHECK EXERCISE-1.3

Q1. What are the primary function of money.

Q2. What are the contingent functions of money.

1.6 TYPES/FORMS OF MONEY

Money assumes so many forms in real life that it is difficult to identify what constitutes money and what not. Different economists have classified money in different forms. The more important classifications of money are as follows:

a) **Actual Money and Money of Account :** Actual money is that which actually circulates in the economy. It is used as a medium of exchange for goods and services in a country. For example, paper notes of different denominations and coins in actual circulation in India constitute the actual money. Money of account is that form of money in terms of which the accounts of a country are maintained and transactions made. For example, rupee is the money of account in India. Generally, actual money and money of account are the same for a country; however, sometimes actual money may be different from the money of account. For example, rupee and paise is the money of account in India. In real practice, however, one paisa coin is nowhere visible.

b) **Inside and Outside Money**: Inside money refers to money that is created through debt and represents a liability for the issuer. In a financial system, the total net amount of inside money is always zero because one party's asset is another party's liability. However, the majority of money circulating in modern economies falls under this category. In contrast, outside money consists of assets that are not liabilities within the domestic economy. It exists in net positive amounts and includes commodities like gold, foreign currency, or financial assets backed by foreign debt, such as foreign cash, stocks, or bonds. Generally, the private sector is considered the "inside," meaning that government-issued money is classified as outside money.

c) **Commodity Money and Representative Money:** Commodity money is made up of a certain metal and its face value is equal to its intrinsic value. It is also referred to as full-bodied money. Representative money, on the other hand, is generally made either of cheap metals or paper notes. The intrinsic value of the representative money is less than its face value. Currency notes and coins are good examples of representative money in India. Representative money may or

may not be converted into full-bodied money.

d) Money and Near-Money : Money is anything that possesses 100 per cent liquidity. Liquidity is the quality of being immediately and always exchangeable in full value for money. Near-money refers to those objects which can be held with little loss of liquidity. For example, National Savings Deposits, Building Society Deposits and other similar deposits are not money because they are not generally acceptable in paying debt; these, however, could be easily and quickly exchanged for money without any loss or with minimum loss.

e) Metallic Money and Paper Money: This classification is based upon the content of a unit of money. Money made of some metal like gold and silver is called metallic money. On the other hand, money made of paper, such as currency notes, is called paper money. Metallic money is sub-classified into:

(a) Standard Money, and

(b) Token Money.

Standard money is one whose intrinsic value is equal to its face value. It is made up of some precious metal and has free coinage**. Token money** is that form of money whose face value is higher than its intrinsic value. Indian rupee coin is an example of token money. Paper money comprises bank notes and government notes which circulate without difficulty. Paper money is classified into following parts:

i) Representative paper money, which is 100 per cent backed and is fully redeemable in some precious metal.

ii) Convertible paper money, which can be converted into standard coins at the option of the holder. It is not fully backed by precious metals.

iii) Inconvertible paper money, which cannot be converted into full-bodied money. Indian one rupee note is a good example of inconvertible paper money.

iv) Fiat money, which is issued by the government of the country under emergency conditions. It does not have any backing of reserve.

f) Credit Money : It is also known as bank money. This consists of deposits of the people held with the banks, which are payable on demand by the depositors. Cheques, drafts, bills of exchange, etc., are examples of credit money.

g) Modern Forms of Money:

i) Currency: The currency is a country's unit of exchange issued by their government or central bank whose value is the basis for trade. Currency includes both metallic money (coins) and paper money that is in public circulation.

(a) Metallic Money : Metallic money refers to the coins which are used for small transactions. Coins are most often issued by the government. Examples of coins are 50 paise coins, and 1, 2, 5 and 10 rupee coins.

(b) Paper Money : It refers to paper notes and used for large transactions. Each currency note carries the legend, 'I promise to pay the bearer the sum of 50/100 rupees' depending on the value of note. The currency notes are duly signed by the Governor of RBI. Simply, the meaning of legend is that it can be converted into other notes or coins of equal value. Examples of currency notes are 1, 2, 5, 10, 20, 50, 100, 500 and 2000 rupee notes.

ii) Deposit Money or Bank Money: It refers to money deposited by people in the bank on the basis of which cheques can be drawn. Customers of the bank deposit coins and currency notes in the bank for safe-keeping, money

transferring and also to get interest on the deposited money. This money is recorded as credit to the account of the bank's customer which can be withdrawn by him on his/her wish by cheques. Cheques are widely accepted these days because transfer of money through cheques is convenient.

iii) **Legal Tender Money (Force Tender):**Legal tender money is the currency which has got legal sanction or approval by the government. It means that the individual is bound to accept it in exchange for goods and services; it cannot be refused in settlement of payments of any kind. Both coins and currency notes are legal tender. They have the backing of government. They serve as money on the fiat (order) of the government. But a person can legally refuse to accept payment through cheques because there is no guarantee that a cheque will be honored by the bank in case of insufficient deposits with it. Currency is the most common form of legal tender. It is anything which when offered in payment extinguishes the debt. Thus, personal cheques, credit cards, debit cards and similar non-cash methods of payment are not usually legal tenders. Coins and notes are usually defined as a legal tender. The Indian Rupee is also legal tender in Bhutan but Bhutanese Ngultrum is not legal tender in India.

iv) **Near Money:** It is a term used for those which are not cash but highly liquid assets and can easily be converted into cash on short notice such as bank deposits and treasury bills. It does not function as a medium of exchange in everyday purchases of goods and services.

v) **Electronic Money:** Electronic money (also known as e-money, electronic cash, electronic currency, digital money, digital cash or digital currency) involves computer networks to perform financial transactions electronically. Electronic Funds Transfer (EFT) and direct deposit are examples of electronic money. The financial institutions transfer the money from one bank account to another by means of computers and communication links. A country wide computer network would monitor the credits and debits of all individuals, firms, and government as transactions take place in the economy. It exchange funds every day without the physical movement of any paper money. This would eliminate the use of cheques and reduce the need for currency.

vi) **Fiat Money:** Fiat money is any money whose value is determined by legal means. The term fiat currency and fiat money relate to types of currency or money whose usefulness results not from any intrinsic value or guarantee that it can be converted into gold or another currency but from a government's order (fiat) that it must be accepted as a means of payment. A distinction between money and currency may be made here. The term 'currency' includes only metallic coins and paper notes which are legal tender and are in actual circulation in the country. The term 'money' however includes not only currency in circulation but also credit instruments. In other words, we may say that all currency is money but all money is not currency.

SELF-CHECK EXERCISE-1.4

Q1. Distinguish between inside and outside money.

Q2. What is near money

Q3. What is meant by fait money.

1.7 ROLE OF MONEY

Money is one of the fundamental inventions of mankind. It has become so important that the modern economy is described as money economy. Modern economy cannot work without money. Even in the early stages of economic development, the need for exchange

arose. At first, the family or village was a self-sufficient unit. But later on, with development of agriculture and application of the division of labour, i.e., the division of the society into agriculturists, carpenters, merchants and so on, the need for exchange arose. Exchange took place first in the form of barter. Barter is the direct exchange of goods for goods. Barter is a system of trading without the use of money. At first when wants of men were few and simple, the barter system worked well. But as days passed by, it was found to be unsuitable. It has many difficulties.

a) Role of Money in Capitalistic Economy

Today money is considered one of the outstanding inventions of the entire history of mankind. The introduction of money has eliminated all the difficulties of barter system in which goods have to be exchanged for goods. Money facilities trade by acting as a medium of exchange and standard of value. It has made easy to save wealth for future. It has played a significant role for the specialization in business through division of labour. Although money itself creates nothing, but it is very helpful in the process of production, consumption and exchange. Capitalism is the dominant economic system in the modern global economy. Its defining feature is the private ownership of most means of production and property by individuals and corporations. In a capitalist economy, the government's role is minimal, primarily focused on regulation and oversight rather than direct control. As a result, capitalism operates as a liberal economic system where the free market dictates supply, demand, and pricing. Government intervention is generally limited to preventing monopolistic practices and ensuring fair competition.

Therefore, Capitalism is an economic system in which capital goods are owned by private individuals or businesses. The production of goods and services is based on supply and demand in the general market (market economy), rather than through central planning (planned economy or command economy). As mentioned earlier, capitalism is the dominant economic system in the modern global economy. Countries such as the United States, the United Kingdom, Germany, Japan, and Singapore serve as prime examples of capitalist economies.

i) **Importance for Producer:** The use of money enables entrepreneur to concentrate attention upon the technical problems of his business. Without money it is not easy for the producer to distribute product which is not divisible like ‘Bus’ or ‘motor car’ among the four factors of production. The price mechanism controls the capitalistic economy. In a free enterprise economy many decisions like ‘what to produce’, ‘how to produce’, ‘where to produce’ and ‘for whom to produce’ are guided by the profit motives. Money prices reflect the aggregates of individual demands and supplies.

ii) **Importance for Consumer:** People can sell and buy the goods and services which they need by parting with money. In the absence of money a great variety of things would never have entered in our consumption list and our satisfaction would have been at the lowest level.

iii) **Exchange Transaction**: The use of money has successfully removed the disadvantage of barter. Money has greatly stimulated the exchange of goods.

iv) **Distribution of National Income:** Every year we produce the certain amount of goods and services by combining the four factors of production. The reward of each factor like rent, wages, profit and interest is paid in terms of money.

v) **Importance in the Field Of Public Finance:** Money performs valuable services in the field of public finance. The government can easily increase the revenue through the medium of money and can spend it for the betterment of the society**.**

vi) **Attainment of High Level of Production and Employment**: If the money is properly managed, it ensures rising level of production, income and employment in the country**.**

b) Role of Money in Socialistic Economy

A socialistic economy also cannot operate smoothly and with maximum efficiency without money. After the revolution of 1917 in Russia, the Government experimented for a short period with a moneyless system but it was found that the system could not work at all and it was given up soon after. The basic feature of socialistic economy is that all means of production are owned and managed by state. The individuals can not possess profit earning properties. The operation of the economy is controlled by the state and not by the price mechanism. As a matter of fact- socialistic economy will remain a monetary economy. In a socialistic society persons would be paid money wages for their services. These wages would be used for the purchase of Government produced goods. Prices would be fixed by the Government which would ensure that total demand would be equal to the total supply. In order to determine the order of priority and for the selection of the most efficient and economical method for the production, the importance of various projects and costs of various methods of production must be determined. The calculations of such costs can only be made in monetary terms.

Lenin has rightly stated, "The entire structure of capitalistic economy would collapse if you withdraw money. If all the money suddenly disappears from the economy the wheels of economy would halt." Marshall says, "That money is pivot around which economic science clusters." Various functions of money in a socialist economy are given below.

i) Measure of Value: The value of all products and services is expressed in terms of money. Thus, money acts as the measure of socially necessary labour embodied in commodities.

ii) **Medium of Circulation:** In a socialist society, money performs the function of circulation. All buying and selling is done through money. As distinct from capitalism, under socialism, money in its function as a medium of circulation does not create crisis of over- production because of the planned nature of commodity and money circulation. The process of circulation, in a socialist economy, serves as an important form of checking how far planned production corresponds to the needs of society.

iii) **Means of Payments:** All payments, which do not involve buying and selling of commodities, are made through money. For example, money provides the means of payment when wages are paid to the workers, when enterprises receive or pay back loans, when cash income is distributed among collective farm workers.

iv) **Means of Accumulation:** Under socialism, money functions as the medium of saving and of the formation of cash reserves. Working people keep their saving in the form of deposits in the banks. These savings are used by the state to expand production, lay up reserves and provide credit for other enterprises and organisations.

v) **Instrument of Distribution:** Money, under socialism, serves as the instrument of distribution. The working people receive a share of the national product in terms of money according to their quantity and quality of labour they expended.

vi) **Monetary Incentives:** In addition to basic wage rate, bonuses are paid to the workers in terms of money in order to induce them to work more. These bonuses help in motivating people to put in extra effort for extra gain.

vii) **Freedom of Choice:** The individuals have the freedom to spend their money earning on any consumption goods of their choice. The freedom of choice is, however, restricted to the range of goods produced under the plan.

viii) **Evaluating Economic Activity:** Money helps the state to evaluate the economic activity of an enterprise. Although the pricing system does not influence the basic economic decisions, it helps in the rational allocation of resources by determining

opportunity cost and all opportunity cost calculations are made in terms of money. "Control of the operation of socialist enterprises through money is the most flexible method of controlling the economy"

ix) **Influence on Output:** Pricing system and hence money can also to some extent influence output in a socialist economy. Prices, which are set by the central planners, cannot be changed by plant managers.

c) Role of Money in Mixed Economy

Mixed economy, which has been regarded as a golden mean between capitalism and socialism, is a compromise between these two opposite economic systems. The rational for such a compromise is to integrate the good features of capitalism and socialism, i.e., to take advantage of the market forces while keeping its bad effects under check. In a mixed economy, private and public sectors co-exist. The private sector operates on capitalist lines, guided by the market mechanism and the principle of maximum profit. But its activities are subject to government controls and regulation to ensure that this sector grows in a manner that would be beneficial to the economy. In this way, the economy is not left entirely to the market forces, but is regulated by fiscal, monetary and direct controls to achieve the national goals.

In a mixed economy of the type prevailing in developed countries, like England, the public sector plays a regulatory role of compensatory spending and pump priming in order to remove the imperfections of the economy and to achieve its stability. On the other hand, in a mixed economy of a developing nation, like India, the public sector has to play a dynamic role to achieve the objective of planned economic development.

i) **Money as a mobilising agent:** Apart from performing the conventional functions, i.e., as a medium of exchange, as a measure of value, as a standard of deferred payment and as a store of value, money, through the expansion of monetary economy and the development of money market, plays an active and developmental role in a developing and mixed economy. Money acts as a great mobilising agent in these economies in a number of ways by increasing resources, generating new resources and channelizing resources into productive uses.

ii) **Mobilisation of saving:** In the developing economies, saving and investment habits of the people are very poor. Expansion of money market promotes liquidity and safety of financial assets and thus encourages saving and investment.

iii) **Allocation of resources:** Money market allocates savings into productive investment channels and thus helps in achieving equilibrium between the demand for and supply of loanable funds. In this way, it leads to rational allocation of resources.

iv) **Resource mobility**: Expansion of money economy increases the mobility of financial resources by enabling the transfer of funds from one sector to another. Such f low of funds is essential for the growth of the economy and commerce.

v) Increase in investible profits: Expansion of money, through its inflationary effect, redistributes income and wealth in favour of the entrepreneurial classes who have high propensity to save. With this redistribution, the profits and savings in the economy increase. The increase in savings is used for investment purpose.

vi) **Resource Generation through Deficit Financing:** Deficit financing or inflation tax (i.e., covering the budget deficit through printing new money) can provide adequate funds to the government for financing development programmes in underdeveloped countries. In an underdeveloped country, where there is little scope for additional taxation due to low income of the people and public borrowing is limited due to own

levels of saving, the government can resort to deficit financing to cover the deficit in the budget.

vii) Mobilisation of Human Resources: Monetisation of the economy by facilitating system of payments encourages the mobilisation of human resources. Money, through its inflationary role, increases the aggregate demand and thus permits fuller utilisation of manpower. This leads to quicker achievement of the objective of full employment.

viii) **Implementation of Monetary Policy**: A well-developed money market is a pre-condition for the effective and successful implementation of the monetary policy of the central bank aiming at mobilisation and channelization of essential resources for economic development.

ix) **Role in Private Sector**: Money, through market mechanism, influences the decisions regarding production and resource allocation in the private sector of the developing mixed economies because these decisions are solely guided by profit motive.

x) Monetisation of the Economy: An important feature of a less-developed economy is the prevalence of a vast non-monetised sector. As the economy develops, more and more money and monetary institutions are needed for the monetisation of the economy**.**

SELF-CHECK EXERCISE-1.5

Q1. Explain the role of money in mixed economy.

Q2. Explain the role of money in capitalistic economy

1.8 GRESHAM'S LAW OF THE MONETARY SYSTEMS

Gresham's law states that if two coins are in circulation whose relative face values differ from their relative bullion content, the 'dearer' coin will be extracted from circulation for melting down. ('Bad Money Drives out Good'.) The law is named after Sir Thomas Gresham (1519-79), a leading English business pay on and financial adviser to Queen Elizabeth I. Thus, in India, we have one-rupee notes and one-rupee coins. Both are forms of legally good money. Yet, the public sometimes prefer one form of a particular denomination to another, e.g., they may prefer the rupee coin to the paper note. If there is such a preference for one form of money rather than another, it is an example of Gresham's Law in operation.

In short, the principle suggests that "bad money tends to drive good money out of circulation when both are full legal tender". This principle is known as Gresham's Law, although it was noted by other writers earlier. The term "bad money" does not mean counterfeit coins. It means worn out, clipped or underweight coins. When "bad money" and "good money" are both in circulation people will use the "bad money" when making purchases and the "good money" will be hoarded. The natural human tendency is to retain the better coins and pass on into circulation the comparatively old and worn out coins.

SELF-CHECK EXERCISE-1.6

Q1. What is Gresham's law of monetary system?

1.9 SUMMARY

In this unit, we explored the concept of money in detail. Money is generally defined as any item or medium that is widely accepted for the exchange of goods and services while also serving as a standard measure of value and a store of wealth. Additionally, we examined the historical development of money, tracing its evolution through different stages over time. The discussion also covered the various functions that money performs in an

economy, which are broadly classified into three categories: primary, secondary, and contingent functions. Furthermore, we delved into the different types of money, analyzing their characteristics and roles in financial transactions.

1.10 GLOSSARY

- **Money:** Money refers to anything that is widely accepted as a medium of exchange while also serving as a unit of measurement and a store of value.
- **Unlimited Legal Tender:** A currency is considered unlimited legal tender if it can be used to settle debts of any amount. In contrast, limited legal tender can only be used for transactions up to a specific limit. For instance, in India, rupee coins and rupee notes serve as unlimited legal tender, meaning they can be used for transactions of any size.
- **Legal Tender Money**: This refers to money that has legal backing, making its acceptance mandatory. Refusing to accept payment in legal tender is considered an offence. It is the official currency through which debts can be legally settled.
- **Standard Money**: Standard money is the currency used as a benchmark for measuring the value of goods and other forms of money. In India, for example, prices of all goods are expressed in rupees.
- **Token Money**: Token money refers to currency where the intrinsic value of the material used to produce it is significantly lower than its face value. In India, rupee coins and other small denominations fall under this category.
- **Bank Money**: The demand deposits held by banks are commonly known as bank money. These deposits are created when individuals place money in their bank accounts or when banks issue loans to businesses and traders.
- **Inside Money**: This term describes money that originates from debt and is considered a liability for the issuer. In an economy, the net amount of inside money equals zero.
- **Outside Money**: Outside money refers to funds that do not constitute a liability for any entity within the economy. It exists in net positive amounts and includes assets like gold, foreign currency, and government-issued money. Since private entities are usually considered "inside" the economy, money issued by the government is categorized as outside money.

1.11 ANSWERS TO SELF-CHECK EXERCISES

Self-Check Exercise-1.1

Ans. Q1. Refer to Section 1.3

Ans. Q2. Refer to Section 1.3

Self-Check Exercise-1.2

Ans. Q1. Refer to Section 1.4 (b)

Ans. Q2. Refer to Section 1.4 (e)

Self-Check Exercise-1.3

Ans. Q1. Refer to Section 1.5.1

Ans. Q2. Refer to Section 1.5.3

Self-Check Exercise-1.4

Ans. Q1. Refer to Section 1.6 (b)

Ans. Q2. Refer to Section 1.6 (g) part (iv)

Ans. Q3. Refer to Section 1.6 (g) part (vi)

Self-Check Exercise-1.5

Ans. Q1. Refer to Section 1.7 (c)

Ans. Q2. Refer to Section 1.7(a)

Self-Check Exercise-1.6

Ans. Q1. Refer to Section 1.8

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1.13 TERMINAL QUESTIONS

Q1. Define money? Explain the different stages in the evolution of money?

Q2. What are the different functions of money?

Q3. Explain the role of money in the development of economy.

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MEASURES OF MONEY SUPPLY

STRUCTURE

2.1 INTRODUCTION

Money supply is an important factor not only for acceleration of the process of economic development but also for the achievement of price stability in the economy. There must be controlled expansion of money supply if the objective of development with stability is to be achieved. Thus, management of money supply is essential in the interest of steady economic growth. Money supply refers to the amount or stock of money held by people in spendable form. This definition includes money held by the public and in circulation but it does not include money held by the Central Bank, Commercial Banks and the state treasury because they are money-creating agencies. Money held by them is not in actual circulation in the country. So the stock of money held by the public in a spendable form alone constitutes the money supply at a given point of time.

2.2 LEARNING OBJECTIVES

After going through this Unit, you will be able to:

- Define money supply.
- Identify the constituents of money supply
- Explain the measures of money supply in India.
- Elucidate the determinants of money supply.

2.3 DEFINITIONS OF MONEY SUPPLY

The money supply refers to the total amount of money available in an economy at a specific point in time, although it also implies a flow over time. It is often referred to as 'money stock,' 'stock of money,' 'money supply,' or 'quantity of money.' There are three main perspectives on defining or measuring the money supply. The most widely accepted definition aligns with traditional and Keynesian economic thought, emphasizing money's role as a medium of exchange. According to this view, the money supply consists of currency held by the public and demand deposits in commercial banks. Demand deposits include savings and current accounts, which are considered liquid assets since depositors can withdraw funds through cheques at any time, and banks are required to fulfill these payments immediately. The combination of demand deposits and currency with the public is referred to as M1, representing a narrow definition of the money supply.

A broader perspective is associated with modern quantity theorists, notably Prof. Milton Friedman. He defines the money supply as the total amount of currency held by individuals, along with demand deposits and time deposits in commercial banks. Time deposits are fixed deposits that earn interest based on the duration for which the funds are held. Although withdrawals before maturity incur a penalty, these deposits still maintain a degree of liquidity, leading Friedman to include them in the money supply. This expanded definition includes M1 plus time deposits, referred to as M2 in the United States and M3 in the UK and India. It emphasizes the function of money as a store of value, or what Friedman describes as a "temporary abode of purchasing power."

The third definition is the widest and associated with Gurley and Shaw. They include in the supply of money, M_2 plus deposits of savings banks, building societies, loan associations, and deposits of other credit and financial institutions. The choice among these alternative definitions of the money supply depends on two considerations: One "a particular choice of definition may facilitate or blur the analysis of the various motives for holding cash; and two "from the point of view of monetary policy, an appropriate definition should include the area over which the monetary authorities can have direct influence. If these two criteria are applied, none of the three definitions is wholly satisfactory.

The first definition of money supply may be analytically better because M_1 is a sure medium of exchange. But $M_1$is an inferior store of value because it earns no rate of interest, as is earned by time deposits. Further, the central bank can have control over a narrower area if only demand deposits are included in the money supply.

The second definition that includes time deposits (M_2) in the supply of money is less satisfactory analytically because "in a highly developed financial structure, it is important to consider separately the motives for holding means of payment and time deposits." Unlike demand deposits, time deposits are not a perfect liquid form of money.

This is because the amount lying in them can be withdrawn immediately by cheques. Normally it cannot be withdrawn before the due date of expiry of the deposit. In case a depositor wants his money earlier, he has to give a notice to the bank which allows the withdrawal after charging a penal interest rate from the depositor. Thus, time deposits lack perfect liquidity and cannot be included in the money supply. But this definition is more appropriate from the point of view of monetary policy because the central bank can exercise control over a wider area that includes both demand and time deposits held by commercial banks.

The third definition of money supply that includes M_2 plus deposits of non-bank financial institutions is unsatisfactory on both the criteria. Firstly, they do not serve the medium of exchange function of money. Secondly, they almost remain outside the area of control of the central bank. The only advantage they possess is that they are highly liquid store of value. Despite this merit, deposits of non-bank financial institutions are not included in the definition of money supply.

SELF-CHECK EXERCISE-2.1

Q1. What is meant by money supply.

2.4 THE CONSTITUENTS OF MONEY SUPPLY

Money supply refers to the amount or stock of money held by people in spendable form. Money supply plays an important role in the formulation of economic policy. It refers to the total stock of domestic means of payment owned by the public in a country. This definition includes money held by the public and in circulation but it does not include money held by the central Bank, Commercial Banks and the state treasury because they are money-creating agencies. Money held by them is not in actual circulation in the country. So the stock of money held by the public in a spendable form alone constitutes the money supply at a given point of time.

The main constituents of money supply are as follows:

Economists are not unanimous about the constituents of money supply. There are different views about it. Yet, they can be broadly classified into the following two parts:

2.4.1 Traditional measure (Narrow money)

2.4.2 Modern measure (Broad money)

2.4.1 Traditional Measure or Narrow Money: Money is basically a medium of exchange or means of payment. Hence, according to the traditional approach, the stock of money should include such items that can be spent immediately. On this basis, the components of money supply can comprise only of those things which are readily accepted as a medium of exchange. Currency (coins and notes) and demand deposits with the bank are the liquid form of money which are accepted by everyone as a medium of exchange. Demand deposits only in the banks are treated as money because payments can be done by drawing cheques against them. Time deposits are not included in the traditional measure of money supply because cheques cannot be drawn against them.

The traditional money is also called as ' narrow money.' It is called narrow money because components of money supply are confined to currency and demand deposits only. Some economists call it 'transaction money' because it is used for transaction.

The traditional measure of money supply is expressed as follows:

M_1 = C+ DD

Where M_1 = Traditional measure or Narrow Money.

C = Currency (Coins & Notes)

DD = Demand Deposits (Cheque able deposits)

2.4.2 Modern Measure or Broad Money: The broad money concept includes all the very close substitutes of money in the measure of money supply. Economists like Milton Friedman, John G. Gurley, Edwards S. Shaw; and Radcliff committee are closely associated with the modern approach.

a) **Milton Friedman:** According to him, “The money supply concept is wider and includes savings and time deposits with Commercial Banks, because, time deposits can be made available for spending purposes with limited cost”

b) **Gurley-Shaw:** According to them, “Money supply is measured as weighted average of currency, demand deposits and near-money assets”.

c) **Central Bank**: According to the Central Bank approach, “All the funds lent by a number of financial institutions are included in the total money supply”.

The modern measure of money consists of M_1 and other liquid assets or near money. It consists of saving deposits with restriction on the amount and number of withdrawals. In India they are in the form of the following:

a) Post Office Saving Bank Deposits,

b) Time deposits with banks which can be withdrawn with prior notice and penalty interest,

c) Government securities, bonds and other financial assets,

d) Credit, representing all debt of domestic non-financial sectors in the form of mortgages, bonds and similar instruments since the broad money concept includes all the aspects mentioned above, it can be expressed as;

$M_2 = M_1 + a + b + c$

Where M_2 = modern measure or broad money. The items included in M_2 differ in liquidity as the liquidity declines from a to d. Accordingly, the broad money can be sub-divided into M_2, M_3 and M_4.

$M_2 = M_1 + a + b$

$M_3 = M_2 + c$

$M_4 = M_3 + d$

It is important to acknowledge that there is no universal agreement regarding the precise components that constitute the modern measurement of money. The specific elements included in this measurement can vary from one country to another. This variation arises because monetary authorities in each nation have the autonomy to determine which financial instruments and assets should be considered as part of the money supply. Their decisions are influenced by the potential impact these components have on economic activities, ensuring that the chosen definition aligns with the financial system and economic policies of the respective country.

SELF-CHECK EXERCISE-2.2

Q1. What are the traditional measures of money supply?

Q2. What are the modern measures of money supply?

2.5 RESERVE BANK OF INDIA'S MEASURES OF MONEY SUPPLY

Since 1977, the Reserve Bank of India, India's Central Bank adopted a new measure of money supply. Before that, till 1967-68 its measure of money supply included only currency and demand deposits. From 1967- 68 to 1977, it adopted a broader measure of money supply which was called as Aggregate Monetary Resources (AMR).

The new measure of money supply is stated as follows:

a) $\mathbf{M_1} = C + DD + OD$

Where C = Currency held by the public (Currency in circulation and cash in hand of all banks)

DD = Demand deposits with all commercial and institutions, foreign central banks, foreign government and the World Bank.

OD = other deposits with the RBI.The part of OD in total money supply is very small.

M_1has the highest liquidity.M_1 is useful in formulation of monetary and fiscal policies.

b) $\mathbf{M_2} = M_1 + SD$

SD = Savings deposits with post offices. SDs are more liquid than time deposits.

c) $\mathbf{M_3}= M_1 + TD$

TD = Time deposits with all Commercial Banks and Co-operative banks (Excluding inter banking deposits). M_3 is a broad money concept.

d) $\mathbf{M_4} = M_3 + TDP$

TDP = Total deposits with the post offices (excluding National Saving Certificates)

The RBI has taken a broad measure of money supply by bringing in total deposits from post offices, but Post Office deposits are less liquid than the deposits of Commercial banks. RBI's M_1 measure is conceptually the same as the traditional concept of money supply. For all policy decisions M_3 is a more relevant measure of money supply.

RBI's measure of money supply - 1998: The working group of RBI since 1998 has redefined the parameters for measuring money supply. Achange is introduced in M_2 and M_4 is totally abolished. Accordingly, now there are only three monetary aggregates, i.e., M_1, M_2 and M_3.

$M_1= C + DD + OD$

$M_2 = M_1$ + time liability portion of savings deposits with banks + CDs issued by bank + term deposit maturing within one year.

$M_3 = M_2$ + Term deposits over one year maturity + call/term borrowings of banks.

RBI introduced a new concept of liquid resources on the line of broad money. They are as follows:

Liquidity Aggregate:

Liquidity aggregates consist of $L_1 + L_2 + L_3$,i.e., $L_A = L_1 + L_2 + L_3$

where L_A = Liquidity Aggregates.

L_1 =New M_3+ All deposits with Post offices savings banks (excluding NSCs).

$L_2 = L_1$ + term deposits with term lending institutions + term barrowings of Financial Institutions + CDs issued by Financial Institutions

$L_3 = L_2$ + public deposits of NBFCs.

The concept of L_A is wider than the revised money supply measure.

2.5.1 High-powered money (H) and the Money Multiplier

High-powered money comprises the currency (notes and coins) issued by the Government and the Reserve Bank of India (RBI). A portion of this issued currency is held by the public, denoted as Cp, while the remainder is retained by banks as reserves, denoted as R. These bank reserves are partly kept in their own cash vaults and partly deposited in the Reserve Bank of India in reserve accounts maintained by the banks with the RBI.

High-powered money is derived by summing the currency held by the public and the reserves maintained by banks. Mathematically,

H = Cp + R ……..(1)

Where:

H = High-powered money

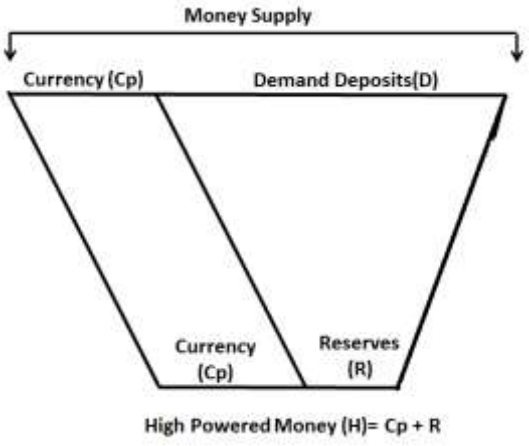
Cp = Currency held by the public

R = Cash reserves held by banks

It is important to note that the Reserve Bank of India (RBI) and the government are the sole producers of high-powered money, while commercial banks do not play a role in its creation. However, commercial banks generate demand deposits, which function as money alongside currency. To issue demand deposits or credit, banks must maintain cash reserves,

represented as **R** in equation (1). These reserves serve as the foundation for the multiple creation of demand deposits, which form a significant component of the total money supply in the economy. This amplifies the impact of the currency issued by the RBI and the government, giving it a high-powered effect.

The determination of money supply is based on the demand for and supply of high-powered money. Some economists refer to this as the 'H Theory of Money Supply,' though it is more commonly known as the 'Money Multiplier Theory of Money Supply' because it describes money supply as a multiple of high-powered money. The relationship between high-powered money and total money supply is illustrated in the following figure.



The base of the figure represents the supply of high-powered money (H), while the top illustrates the total money supply. The total stock of money supply is determined as a multiple of high-powered money. Notably, the currency held by the public (Cp) maintains a one-to-one relationship with high-powered money, meaning the amount of currency in circulation directly corresponds to the money supply.

In contrast, bank deposits are a multiple of the banks' cash reserves (R), which are part of the high-powered money supply. This implies that a single unit of high-powered money held as bank reserves leads to a significantly larger amount of demand deposits. Consequently, the relationship between the money supply and high-powered money is governed by the money multiplier.

The money multiplier, denoted as 'm,' is the ratio of total money supply (M) to high-powered money (H), expressed as:

$$m = \frac{M}{H}$$

The size of the money multiplier depends on two factors: the public's preference for holding currency relative to deposits (denoted as K, the currency-to-deposit ratio) and the banks' desired cash reserve ratio to deposits (denoted as r). If the public increases its currency holdings while demand deposits remain unchanged, the money supply will rise directly. Conversely, if banks increase their cash reserves, the immediate money supply remains unchanged, but this initiates a process of multiple deposit creation through lending.

Although banks use these reserves—part of the high-powered money—to issue loans and generate demand deposits, they do not alter the amount of currency held by the public or the overall composition of high-powered money. The total supply of high-powered money is determined by the Reserve Bank of India (RBI) based on its past monetary policy actions.

Money Multiplier

As we stated above, money multiplier is the degree to which money supply is expanded as a result of the increase in high powered money. Thus,

$$\mathbf{m} = \frac{M}{H}$$

Rearranging this, we have M = H. m

Thus money supply is determined by the size of money multiplier (m) and the amount

of high powered money (H).

Size of Money Multiplier:

The size of money multiplier is determined by the cash or currency reserve ratio (r) of the banks (which determines deposit multiplier) and currency-deposit ratio of the public (which we denote by k). We derive below the expression for the size of multiplier.

From equation (1) above, we know that total money supply (M) consists of currency with the public (C_p) and demand deposits with the banks. Thus

$M = C_p + D$ ……..(1)

The public hold the amount of currency in a certain ratio of demand deposits with the banks. Let this currency –deposit ratio be devoted by K,

$C_p = kD$

Substituting kD for Cp in equation (1) we have

$M = kD + D = (k+1) D$……..(2)

Now take equation which define high-powered money (H) as

$H = C_p + R$……..(3)

Where R represents cash or currency reserves which banks keep as a certain ratio of their deposits and is called cash-reserve ratio and is denoted by r. thus

$R = rD$

Now substituting rD for R and kD for Cp in equation (3) we have

$H = kD + rD$

$H = (k + r) D$……..(4)

Now money multiplier is ratio of total money supply to the high-powered money, therefore we divide (1) by equation (4), to get the value of multiplier, which we denote by m. Thus,

$m = \frac{M}{H} = \frac{(k+1)D}{(k+r)D} = \frac{k+1}{k+r}$

or, Money multiplier = $\frac{M}{H} = \frac{1+k}{r+k}$

or $M = H = \frac{1+k}{r+k}$ ……(5)

where, r = Cash-reserve ratio of the banks

k = Currency-deposit ratio of the public

H = High-powered money, and

$\frac{1+k}{r+k}$ =Money multiplier

SELF-CHECK EXERCISE-2.3

Q1. How does RBI measure the supply of money?

Q2. What is meant by High Powered Money?

Q3. What is Money Multiplier?

2.6 DETERMINANTS OF MONEY SUPPLY

There are two primary theories regarding the determination of the money supply. The first perspective suggests that the central bank controls the money supply exogenously. In contrast, the second theory argues that the money supply is endogenously influenced by economic activities, which impact factors such as individuals' preference for holding cash

versus deposits and the interest rate.

Therefore, the money supply is shaped by both external and internal factors, broadly categorized as the minimum cash reserve ratio, the level of bank reserves, and the public's preference for holding currency relative to deposits. The latter two factors together form what is known as the monetary base or high-powered money.

i) Required Reserve Ratio

The required reserve ratio (also referred to as the minimum cash reserve ratio or reserve deposit ratio) is a crucial factor influencing the money supply. When the required reserve ratio increases, commercial banks have less money available for lending, thereby reducing the overall money supply. Conversely, a decrease in this ratio results in an increase in the money supply. This ratio, which represents the proportion of cash reserves to total deposits (both current and time deposits), is mandated by law. Commercial banks are required to maintain a specific percentage of their deposit liabilities as reserves with the central bank. However, cash held by banks in their own vaults is not included in this mandatory reserve.

In addition to cash, commercial banks also hold short-term assets, which contribute to their overall liquidity. In India, an additional statutory requirement, known as the Statutory Liquidity Ratio (SLR), has been legally established to regulate the money supply. In other countries, the SLR is often referred to as the 'secondary reserve ratio,' while the required reserve ratio is known as the 'primary ratio.' An increase in the SLR restricts the funds available to banks for lending, thereby reducing the money supply. Conversely, a reduction in the SLR allows banks to allocate more funds for lending, thereby expanding the money supply.

ii) The Level of Bank Reserves

The level of bank reserves plays a crucial role in influencing the money supply. These reserves include funds held by commercial banks in their vaults as well as deposits maintained with the central bank. The central bank regulates these reserves to control the overall supply of money in the economy. Commercial banks are required to maintain a certain percentage of their time and demand deposits as reserves, known as the required reserves. These reserves are determined by the Required Reserve Ratio (RRr) and the total deposits (D) of a bank, expressed as:

Required Reserves (RR) = RRr × D

For instance, if a bank holds deposits worth Rs. 80 lakhs and the Required Reserve Ratio is 20%, the required reserves would be:

20% × 80 lakhs = Rs. 16 lakhs

If the reserve ratio is lowered to 10%, the required reserves decrease to Rs. 8 lakhs. A higher reserve ratio results in greater required reserves, while a lower ratio reduces the amount banks need to hold. However, it is the excess reserves that directly impact the money supply. Excess reserves (ER) are the difference between total reserves (TR) and required reserves (RR):

Excess Reserves (ER) = TR - RR

For example, if total reserves amount to Rs. 80 lakhs and required reserves are Rs. 16 lakhs, the excess reserves would be Rs. 64 lakhs. If the required reserves drop to Rs. 8 lakhs, the excess reserves increase to Rs. 72 lakhs. These excess reserves enable banks to extend loans, which significantly contribute to the money supply. The central bank regulates these reserves through open market operations and discount rate policies.

Open Market Operations: This refers to the buying and selling of government securities and financial instruments such as bonds and treasury bills in the open market. When the central bank purchases securities, it pays the sellers via cheques, which are

deposited in commercial banks, increasing their reserves. Conversely, when the central bank sells securities, banks and individuals pay for them using cash or cheques, leading to a reduction in bank reserves.

Discount Rate Policy: The discount rate, also referred to as the bank rate in India, is the interest rate at which commercial banks borrow from the central bank. A higher discount rate discourages borrowing from the central bank, leading to reduced reserves and a contraction in credit availability. In response, commercial banks raise their lending rates, making loans more expensive for borrowers. Conversely, a lower bank rate encourages borrowing, increasing reserves and expanding credit.

It is important to note that the effectiveness of these tools in regulating bank reserves and, consequently, the money supply, is enhanced when open market operations and discount rate policies work in tandem. Otherwise, their individual impact on reserves and the money supply remains limited.

iii) Public's Preference for Cash and Bank Deposits: The proportion of money individuals choose to keep as cash versus deposits in commercial banks significantly impacts the overall money supply. When people prefer holding more money in deposits rather than in cash, banks have a greater capacity to generate credit, leading to an increase in the money supply. Conversely, if individuals opt to retain more money in cash rather than depositing it in banks, the ability of banks to create credit diminishes, resulting in a lower money supply.

iv) High-Powered Money and the Money Multiplier: The money supply is often explained using the concept of high-powered money, which consists of commercial bank reserves and the currency (notes and coins) held by the public. High-powered money serves as the foundation for the expansion of bank deposits and, consequently, the overall money supply. The money supply tends to increase when there is a rise in the monetary base, while it decreases when currency and reserve ratios rise.

v) Additional Influencing Factors: Apart from high-powered money, several other factors affect the money supply, including interest rates, income levels, and overall economic conditions. These elements influence the proportion of money the public chooses to hold as cash. Changes in economic activity can alter the behavior of both banks and individuals, thereby impacting the money supply. Consequently, the money supply is influenced not only by external regulatory controls but also by internal economic dynamics.

SELF-CHECK EXERCISE-2.4

Q1. What are the determinants of money supply?

2.7 SUMMARY

In this unit, we studied about the money supply. Money supply refers to the amount or stock of money held by people in spendable form. The constituents of money are broadly classified into traditional measure and modern measure. The traditional measure is also called as narrow money and the modern measure is termed as broad money. The RBI's measure of money supply consists of three monetary aggregates namely M_1, M_2 and M_3. RBI also introduced a new concept of liquid resources on the line of broad money that is $L_A = L_1 + L_2 + L_3$.Hence in summary, we can state Walker's definition of money- "Money is what money does."

2.8 GLOSSARY

- **Supply of money:** The total stock of domestic means of payment owned by the public in a country.
- **Narrow Money:** It includes components of money supply which comprise only of those things which are readily accepted as a medium of exchange.

- **Broad Money:** It includes all very close substitutes of money in the measure of money supply.
- **High-powered money:** High-powered money includes the currency, such as notes and coins, issued by both the government and the Reserve Bank of India (RBI). It is calculated as the total of the currency in circulation with the public and the reserves maintained by banks.

2.9 ANSWERS TO SELF-CHECK EXERCISES

Self-Check Exercise-2.1

Ans. Q1. Refer to Section 2.3

Self-Check Exercise-2.2

Ans. Q1. Refer to Section 2.4.1

Ans. Q2. Refer to Section 2.4.2

Self-Check Exercise-2.3

Ans. Q1. Refer to Section 2.5

Ans. Q2. Refer to Section 2.5.1

Ans. Q3. Refer to Section 2.5.1

Self-Check Exercise-2.4

Ans. Q1. Refer to Section 2.6

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2.11 TERMINAL QUESTIONS

Q1. Explain the various components of the money supply.

Q2. Discuss the determinants of the money supply.

Q3. In how many ways is the broad money divided?

Q4. In which year did RBI redefine the parameter of measuring M money supply?

Q5. Write short note on high powered money and money multiplier?

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THEORIES OF MONEY SUPPLY-I

STRUCTURE

3.1 INTRODUCTION

Value of money is a term that is necessary to be understood to get acquainted with the theories of money. In economics, different economists have defined the term value of money differently. Some of the economists explained value of money as the value of gold and silver in terms of their weight and fineness. Other has defined the value of money as the value of Indian currency against foreign currencies. On the other hand, few economists have associated the term value of money with the internal purchasing power of a nation. However, logically, value of money is associated with its purchasing power, which refers to the quantity of goods and services that can be purchased with a unit of money. The values of money and price levels in a country are inversely proportional to each other. For example, when the price level in a country is high, the value of money is low and vice-versa. There are following two main approaches which are used for the monetary analysis of a country:

a) Cash Transaction Approach or Fisher's Quantity Theory of Money

b) Cash Balance Approach or Cambridge Approach

3.2 Learning objectives

After going through this Unit, you will be able to:

- explain the Cash Transaction Approach
- elucidate the Cash Balances Approach
- make the comparison between these two approaches
- discuss the Superiority of Cambridge Approach over Fisher's Approach

3.3 CASH TRANSACTION APPROACH OR FISHER'S QUANTITY THEORY OF MONEY

Irving Fisher an American economist put forward the Cash Transaction Approach to the quantity theory of money. He in his book The Purchasing Power of Money (1911) has stated that the value of money in a given period of time depends upon the quantity of money in circulation in the economy. It is the quantity of money which determines the general price level and the value of money. Any change in the money supply directly affects the general price level and the value of money inversely in the same proportion. In Fisher‘s words, Other things remaining unchanged, as the quantity of money in circulation increases, the price level also increases in direct proportion and the value of money decreases and vice-versa. For example, if other things remain equal, the quantity of money in circulation is doubled, the general price level will be doubled and the value of money is halved. Similarly, if the quantity of money is halved, the price level will be halved and the value of money doubled. In Fisher‘s Cash Transactions Version of Money, the general price level in a country, like the prices of commodities, is determined by the supply of and demand for money.

Supply of Money

The supply of money consists of the quantity of money in circulation (M) and the velocity of its circulation (V), i.e., the number of times the money changes hands. Thus, MV refers to the total volume of money in circulation during a period of time. For example, if the total money supply in India Rs. 5,000 billion and its velocity per unit of time is 10 times, then the total money supply would be Rs. 5,000 x 10 = Rs.50000 billion.

Demand for Money

People demand money not for its own sake. They demand money because it serves a medium of exchange. It is used to carry every day transactions. In short, the demand for money is for the exchange of goods.

Assumptions of the theory

i) P is a passive factor in the equation of exchange which is affected by the other factors.

ii) The proportion of M and M_1 remains constant.

iii) T, V, and V_1 are assumed to be constant and are independent of changes in M and M_1.

iv) It is assumed that the demand for money is proportional to the value of transactions.

v) The theory is applicable in the long run.

vi) It is based on the assumption of full employment in the economy.

Equation of Exchange:

The cash transaction version of the quantity theory of money was presented by lrving fisher in the form of an equation. Thus, Fisher‘s transaction approach to the Quantity Theory of Money may be explained with the following equation of exchange.

$$MV = PT$$

Where,

M = the total supply of money

V = the velocity of circulation of money

P = the general price level

T = the total transactions in physical goods.

This equation is an identity, meaning it holds true by definition. It implies that the total value of goods exchanged in an economy (PT) over a given period must be equivalent to the total expenditure of money (MV) within that same period. It is based on two key assumptions: (1) At full employment, the total volume of physical transactions (T) remains constant, and (2) the velocity of money circulation (V) stays stable in the short term since it primarily depends on people's spending patterns. Given these assumptions, the Equation of Exchange transforms into the Quantity Theory of Money, which asserts a direct and proportional relationship between the money supply and the price level. Simply put, if the total money supply doubles, the overall price level will also double.

It is important to note that Fisher's original equation only considered primary money or currency money. However, in modern economies, demand deposits and credit money play a crucial role in financial transactions. Recognizing this, Fisher later revised and extended his equation of exchange to incorporate credit money, making it more relevant to contemporary economic systems.

$$PT = MV + M_1V_1$$

Here, P =Price level

T =Total volume of goods and trade

M =Quantity of money

V =Velocity of circulation of M

M_1 =Volume of credit money

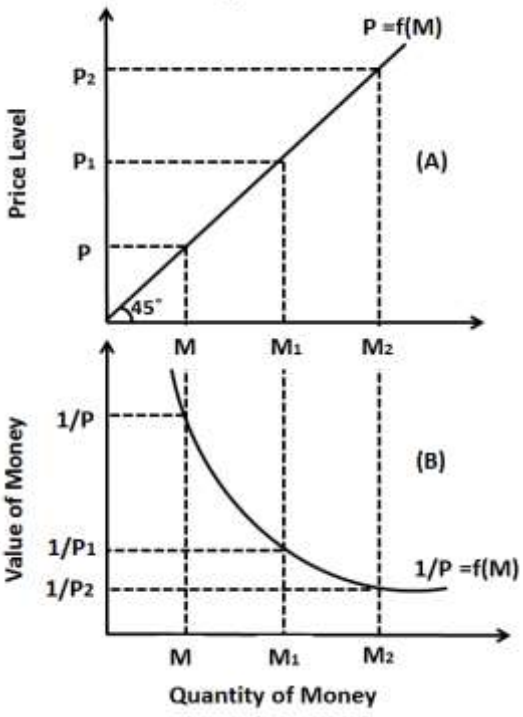
V_1=Velocity of circulation of M_1

This equation equates the demand for money (PT) to supply of money ($MV + M_1V_1$). The total volume of transaction multiplied by the price level (PT) represents the demand for money. This equals the total supply of money in the community consisting of the quantity of actual money (M) and its velocity of circulation (V) plus the total quantity of credit money (M_1) and its velocity of circulation (V_1). In order to find out the effect of the quantity of money on the price level or the value of money, we can write the equation as

$$P = \frac{MV + M1V1}{T}$$

Fisher asserted that the price level (P) is directly and proportionally influenced by the quantity of money (M+M1), assuming that the volume of trade (T) and the velocity of circulation (V, V1) remain constant. This means that if M and M1 are doubled while V, V1, and T remain unchanged, the price level (P) also doubles,

Figure 3.1



whereas the value of money (1/P) is reduced by half. Fisher's quantity theory of money is illustrated in Figure 3.1 (A) and (B). Panel (A) demonstrates the impact of changes in the money supply on the price level. Initially, when the money supply is M, the price level is P. If the money supply doubles to M1, the price level also doubles to P1. Similarly, if the money supply quadruples to M2, the price level increases fourfold to P4. This proportional relationship between money supply and price level is represented by a straight line, P = f(M), originating at a 45° angle.

Panel (B) of the figure illustrates the inverse relationship between the money supply and the value of money. When the money supply is M, the value of money is 1/P. As the money supply doubles to M1, the value of money decreases to 1/P1. Furthermore, if the money supply increases fourfold to M4, the value of money reduces to 1/P4. This inverse relationship is depicted by a downward-sloping curve, 1/P = f(M).

Criticism of the theory

The quantity theory is subjected to the following criticisms by the economists.

i. **Simple Truism:** The quantity MV = PT is more truism, an obvious fact. It indicates that the total quantity of money given in exchange for goods and services (MV) is equal to the money value of goods and services given in exchange for money (PT). In other words, the total amount of money expenditures of buyers is equal to the total amount of money receipts of sellers. The equation does not tell us anything new or precise about money and prices; it merely restates in a simple form that is evidently true. It does not show which the cause; which is the effect is, it simply shows what has happened.

ii. **Unreal Assumptions:** The quantity theory of money as stated by Prof. Fisher is based on unreal assumptions like the existence of full employment of resources and stability of expenditure. The theory assumes that other things like V, V', M' and T remain constant. But in actual practice a change in M is bound to affect V, M', V' and T. In a dynamic world, change in one factor induces changes in other factors. Experience has shown that the velocity of money instead of remaining constant varies in direct proportion to the volume of production (T).

iii. **It Fails to Explain Trade Cycle:** The transactions approach to the quantity theory of money does not help in explaining the trade cycle though it may be taken as a satisfactory- explanation of the long-term trends of prices. It is true that shortage of money (M) and credit (M') has brought a boom to a sudden end but sometimes it collapses due to lack of the supply of money and credit. Moreover, quantity theory of money is not sufficient to explain the reversal of trend at the bottom of the slump. If it is a decline in the quantity of money that causes a depression, an increase in it should be sufficient to cause an upturn but there are many examples, which go to prove its fallacy, as an increase in the supply of money at the bottom of a slump 'did not raise the prices.

iv. **The Theory is Useful in the Long Period:** The quantity theory of money is also criticized on the ground that it explains only long-run phenomenon; it does not help to study the short-run phenomenon. Prof. Coulborn criticized the theory on the ground that "the theory is a concept of long- run phenomena". Fisher agrees that in the short-run of transition V and T do change but over a long- run, as the economy attains equilibrium they become constant. But in a continuously changing world, there is hardly anything like long period equilibrium; "equilibrium is like tomorrow it never comes".

v. **Interdependence of the Variable:** The various constituents of the transaction equation like M, V, M', V' P and T are not interdependent variables as assumed by

the quantity theorists. They are independent. Therefore, it is difficult to know what affects what, and what the consequence of what is. If there is an increase in the physical volume of transactions (T), there is bound to be an increase in the velocity of circulation of money (V). Therefore, T and V are interdependent and rise or fall together. Similarly, M may increase without any rise in P on account of the fact that T may have increased. The prosperity of the 1920s in the USA shows that a rise in T can lead to a rise in M without causing any change in P. The fact of the matter is that these variables are not independent of one another as Fisher has assumed. In, advanced economies, where the bulk of the quantity of money consists of bank credit, it is a consequence rather than a cause of the price level. The quantity theory of money unnecessarily overlooks the mutual interdependence of the factors involved and stresses the quantity of money as the cause and price level as the consequence.

vi. **It does not explain the Causal Relationship:** The theory fails to establish the causal relationship between P and M. The theory does explain why the price level is what it is at any particular time, it does not explain the causes which bring about changes in the price level. In other words, it provides no tools for the correct analysis of the hidden forces which produce variations in the value of money. Prof. Hayek and Prof. Chandler also expressed the view that theory tries to establish an unrealistic direct causal relationship between M and P without realizing the importance of other monetary factors and relative prices.

vii. **No Integration of Monetary Theory with Price Theory:** In the classical and neo-classical version of the theory, price formation is isolated from monetary phenomena. Money was considered a veil and played passive role, only as a translator of the values of commodities in terms of money. Thus, there could be no integration of monetary theory with the theory of relative prices (value). There was a false division of economics between theory of value and distribution on the one hand and the theory of money on the other. It is, however, to be realized that under dynamic conditions money has an active role to play, and therefore, the theory of prices must form an integral part of the theory of output, employment and money (monetary theory) and should not remain isolated as in the classical version.

viii. **It Ignores Money as a Store of Value:** The cash transactions equation upholds money because it is a good medium of exchange. Its great fault is that it completely ignores the significant role of money which it plays as a store of value. Keynes upheld the store of value function of money and laid great stress on the speculative motive for holding money as against the classical emphasis on the transaction and precautionary motives for holding money.

ix. **Mutually Inconsistent:** The theory is criticized on the ground that some of the elements used in the equation are mutually inconsistent for, example, P includes all sorts of prices, wholesale as well as retail, wages and profits. Some prices move fast, while others are rigid. It is very difficult to say whether P represents highly fluctuating wholesale prices of rigid retail prices. Similarly, T includes goods as well as services. Further, whereas M refers to a point of time, V refers to the velocity of money over period, MV involves the error of multiplying mutually inconsistent and non-comparable factors. Thus, the quantity theory of money is said to consist of mutually inconsistent elements.

x. **Undue Emphasis on Quantity of Money:** Quantity theorists wrongly stress the role of the quantity of money as the main determinant of price level. Keynes, however, points out that the change in economic activity or the price level is caused not a change in the quantity of money alone but also by other fundamental factors like income, expenditure, saving and investment. Thus, price level is not the function of money supply alone in turn, it is influenced by a large number of monetary and non-monetary factors.

xi. **Static:** Quantity theory of money has been criticized on the ground that it is highly static. It applies under conditions where things remain constant but ours is a dynamic world, where things are fast changing. The validity of the theory depends upon the existence of full employment, which is very difficult to attain in actual practice. For analyzing the problems of dynamic economy and fluctuations therein, the quantity theory proves to be utterly inadequate.

xii. **Inconsistent with Actual Facts:** The theory has been found to be inconsistent with actual facts. For example, a small increase in M may lead to a considerable increase in T. In Germany in 1923, hyper-inflation was caused not on account of an increase in M but in V, as everybody was spending the depreciating mark as quickly as possible. To overcome this, a decrease in V and not M was needed as this theory would like us to believe. Similarly, there are circumstances when M has increased without an increase in P or the increase in P is not in direct proportion to an increase in M. Thus, the quantity theory has been found, at times, to be inconsistent with actual facts.

SELF-CHECK EXERCISE-3.1

Q1. Explain the Quantity Theory of Money.

Q2. What are the main assumptions of Quantity Theory of Money?

3.4 CASH BALANCE APPROACH OR CAMBRIDGE APPROACH

As an alternative to Fisher's quantity theory of money, economists such as Marshall, Pigou, Robertson, and Keynes at Cambridge University developed the Cambridge cash-balance approach. While Fisher's transaction approach focused on money's role as a medium of exchange, the Cambridge approach emphasized its function as a store of value. According to this perspective, the value of money is determined by the interaction between the demand for and supply of money. Since the money supply is fixed at any given moment, fluctuations in the price level are primarily influenced by changes in the demand for money. For this reason, the Cambridge approach is also known as the demand theory of money.

Unlike the transaction approach, the Cambridge cash-balance theory views the demand for money as a desire to hold cash balances rather than as a means of exchange. People hold money either for transactional purposes or as a store of value. Under this framework, for a given money supply at a specific point in time, the value of money is determined by the demand for cash balances. Cash balance refers to the portion of real income that individuals prefer to hold in monetary form. When people increase their demand for money, they reduce their expenditures on goods and services, leading to a decline in demand. This results in lower price levels, thereby increasing the value of money. Conversely, when the demand for money decreases, spending on goods and services rises, pushing up the price level and reducing the value of money.

The Cambridge cash-balances equations of Marshal, Pigou, Robertson and Keynes are stated as under:

3.4.1 Marshall's Equation

Marshall did not put his theory in equation form and it was for his followers to explain it algebraically. Friedman has explained Marshall's views thus: "As a first approximation, we may suppose that the amount one wants to hold bears some relation to one's income, since that determines the volume of purchases and sales in which one is engaged. We then add up the cash balances held by all holders of money in the community and express the total as a fraction of their total income." Thus we can write:

$M = kPY$

Where,

M is the supply of money (currency plus demand deposits)

P is the price level

Y is aggregate real income; and

K represents the fraction of real income that individuals prefer to keep in monetary form. The value of money ($\frac{1}{P}$), also known as its purchasing power, can be determined by dividing the total quantity of goods that people wish to retain from their total income (KY) by the total money supply (M). This relationship is expressed as:

Value of Money ($\frac{1}{P}$) = $\frac{kY}{M}$

Likewise, the price level (P) can be calculated by dividing the total money supply (M) by the quantity of goods that individuals choose to hold from their total income (KY), as shown below:

Price Level (P) = $\frac{M}{kY}$

Thus, for example, if M is Rs. 1000, Y is 10,000 units, K is 0.5, then the value of money ($\frac{1}{P}$) will be

Value of Money ($\frac{1}{P}$) = $\frac{kY}{M}$

=$\frac{0.5\times10{,}000\ units}{Rs.1000}$ = 5 units of goods per rupee

and the price level (P) will be

$\frac{M}{kY}$= $\frac{Rs.1000}{0.5\times10{,}000\ units}$= Rs. 1/5 per unit.

This approach states that:

a. The price level (P) has a direct relationship with the money supply (M).
b. The price level (P) is inversely related to both the total real income (Y) and the fraction of real income that individuals prefer to hold as money (K).
c. When M and Y remain constant, an increase in K leads to a decrease in the price level (P), whereas a decrease in K results in a rise in the price level (P).
d. If K and Y remain unchanged, an increase in the money supply (M) causes the price level (P) to rise, while a decrease in M leads to a decline in the price level (P).

3.4.2 Pigou's Equation

Pigou was the first Cambridge economist to express the cash balances approach in the form of an equation:

Value of Money ($\frac{1}{P}$) = $\frac{kR}{M}$

Where,

P = the price level

1/p = the purchasing power of money;

R = the total real income or the real resources;

k = the proportion of real income held by the people in the form of money; and

M = the total money supply.

According to Pigou, the amount of money held by the community, both as cash and bank deposits, plays a crucial role in determining the purchasing power of money. He emphasized that the demand for holding money (k) is more important than the total money supply (M) in influencing its value. In other words, the value of money is primarily determined by people's preference for holding cash and deposits.

The demand for money, according to Pigou, consists not only of legal money or cash but also bank notes and bank balances. In order to include bank notes and bank balances in the demand for money, Pigou modifies his equation as

$P=\frac{kR}{M}\{c+h(1-c)\}$

Where,

c = the proportion of total real income actually held by people in legal tender including token coins,

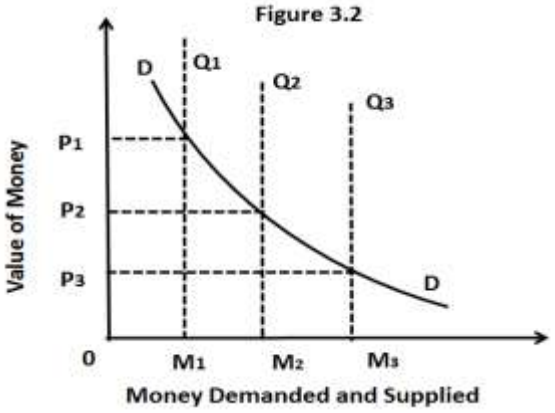
(1-c) = the proportion kept in bank notes and bank balances, and

h = the proportion of actual legal tender that bankers keep against the notes and balances held by their customers.

Pigou pointed out that when k and R in the equation $P=\frac{kR}{M}$ and k, R, c and h are taken as constants then the two equations give the demand curve for legal tender as a rectangular hyperbola. This implies that the demand curve for money has a uniform unitary elasticity. This is shown in Figure 3.2 where DD, is the demand curve for money and Q_1M_1, Q_2M_2, and Q_3M_3 are the supply curves of money drawn on the assumption that the supply of money is fixed at a point of time.

The figure shows that when the supply of money increases from OM_1 to OM_2, the value of money is reduced from OP_1 to OP_2. The fall in the value of money by P_1P_2 exactly equals the increase in the supply of money by M_1M_2. If the supply of money increases three times from OM_1 to OM_2 the value of money is reduced by exactly one-third from OP_1 to OP_3. Thus the demand curve for money DD_1 is a rectangular hyperbola because it shows changes in the value of money exactly in reverse proportion to the supply of money.

Figure 3.2



3.4.3 Robertson's Equation:

To determine the value of money or its reciprocal the price level, Robertson formulated an equation similar to that of Pigou. The only difference between the two being that instead of Pigou's total real resources R, Robertson gave the volume of total transactions T. The Robertsonian equation is:

M = PkT

Or, Price Level (P) = $\frac{M}{kT}$

Where, P= the price level,

M= the total quantity of money,

k = the proportion of the total amount of goods and services (T) which people wish to hold in the form of cash balances, and

T = the total volume of goods and services purchased during a year by the community.

According to Robertson's cash balance equation, P changes directly with M and inversely with K and T.

Criticism of cash-balance approach:

The cash-balance approach has been criticized on the following grounds:

i) Similar to Fisher's transactions equation, MV = PT, the Cambridge equation, M = kPY, is considered a mere tautology rather than a substantive theory.

ii) The approach assumes that the demand for money exhibits uniform unitary elasticity, implying that any increase in the desire to hold cash balances (k) leads to a proportional decline in the price level. However, this assumption is unrealistic.

iii) It does not adequately account for the different motives for holding money. In particular, it overlooks the speculative motive, which can lead to significant fluctuations in money demand.

iv) A major shortcoming of the Cambridge equations, as formulated by Pigou and Keynes, is their exclusive focus on consumption goods while ignoring investment goods. This results in an overly narrow conception of the purchasing power of money.

v) The role of interest rates in influencing price levels is neglected. Interest rates significantly impact money demand and, consequently, the overall price level.

vi) The approach fails to consider real economic factors such as income, savings, and investment, all of which play a crucial role in determining price levels.

vii) The real-balance effect is ignored, which refers to: (a) The impact of changes in money balances and price levels on an individual's wealth (b) The subsequent effect of wealth changes on consumption and spending.

viii) It assumes that 'k' (the proportion of income held as cash balances) is determined solely by real income, overlooking other factors like price levels, banking habits, business practices, and economic integration.

ix) The theory asserts that the price level (P) is determined by 'k', yet 'k' is also influenced by 'P', making this relationship more complex than the approach suggests.

x) The cash-balance approach lacks a precise quantitative framework, making it difficult to predict how prices and output will respond to changes in the money supply.

xi) Similar to Fisher's transactions approach, it assumes 'k' and 'T' (total transactions) remain constant. However, this assumption holds only in a static economy, not in a dynamic one.

xii) The approach fails to explain business cycles, just as Fisher's transactions approach does.

In spite of the various shortcomings, the Cambridge cash balance approach is not entirely useless. The great merit of the Cambridge approach is the analysis of demand for money as an important determinant of value of money.

SELF-CHECK EXERCISE-3.2

Q1. Explain briefly the Cambridge cash-balance approach.

Q2. Write the Marshallian equation of cash-balance approach.

Q3. State the Pigou's equation of cash-balance approach.

Q4. Explain the Robertson's equation of cash-balance approach.

3.5 SIMILARITIES BETWEEN FISHER'S TRANSACTION APPROACH AND THE CAMBRIDGE CASH BALANCES APPROACH

There are certain points of similarities between Fisher's transaction approach and the Cambridge cash balances approach. These are discussed as under:

i. **Same Conclusion:** The Fisherian and Cambridge versions lead to the same conclusion that there is a direct and proportional relationship between the quantity of money and the price level and an inverse proportionate relationship between the quantity of money and the value of money.

ii. **Similar Equations:** The two approaches use almost similar equations. Fisher's equation P= $\frac{MV}{T}$ is similar to Robertson's equation P=$\frac{M}{kT}$. However, the only difference is between the two symbols V and k which are reciprocal to each other. Whereas V = (1/k) k = (1/V) Here V refers to the rate of spending and k the amount of money which people wish to hold in the form of cash balances of do not want to spend. As these two symbols are reciprocal to each other, the differences in the two equations can be reconciled by substituting 1/V for k in Robertson's equation and 1/k for V in Fisher's equation.

iii. **Money as the Same Phenomenon:** The different symbols given to the total quantity of money in the two approaches refer to the same phenomenon. As such MV+M'V of Fisher's equation, M of the equations of Pigou and Robertson, and n of Keynes' equation refer to the total quantity of money.

SELF-CHECK EXERCISE-3.3

Q1. What are the similarities between Cash transaction and Cash balance approach to demand for money?

3.6 DISSIMILARITIES BETWEEN FISHER'S TRANSACTION APPROACH AND THE CAMBRIDGE CASH BALANCES APPROACH

Despite these similarities the two approaches have many dissimilarities:

i. **Functions of Money:** The two versions emphasize on different functions of money. The Fisherian approach lays emphasis on the medium of exchange function while the Cambridge approach emphasises the store of value of function of money.

ii. **Flow and Stock:** In Fisher's approach money is a flow concept while in the Cambridge approach it is a stock concept. The former relates to a period of time and the latter to a point of time.

iii. **V and k Different:** The meaning given to the two symbols V and κ in the two versions is different. In Fisher's equation V refers to the rate of spending and in Robertson's equation κ refers to the cash balances which people wish to

hold. The former emphasises the transactions velocity of circulation and the latter the income velocity.

iv. **Nature of Price Level:** In Fisher's equation, P refers to the average price level of all goods and services. But in the Cambridge equation P refers to the prices of final or consumer goods.

v. **Nature of T:** In Fisher's version, T refers to the total amount of goods and services exchanged for money, whereas in the Cambridge version, it refers to the final or consumer goods exchanged for money.

vi. **Emphasis on Supply and Demand for Money:** Fisher's approach emphasises the supply of money, whereas the Cambridge approach emphasises both the demand for money and the supply of money.

vii. **Different in Nature:** The two approaches are different in nature. The Fisherian version is mechanistic because it does not explain how changes in V bring about changes in P. On the other hand, the Cambridge version is realistic because it studies the psychological factors which influence k.

SELF-CHECK EXERCISE-3.4

Q1. Distinguish between Cash transaction and Cash balance approach to demand for money?

3.7 SUPERIORITY OF CAMBRIDGE APPROACH OVER FISHER'S APPROACH

The cash-balances approach presents several advantages over the cash-transactions approach:

i. **Human-Centered Perspective:** The Cambridge equation focuses on cash balances (K) and acknowledges human motivations as key influences on the price level. Unlike Fisher's mechanistic cash-transactions equation, which does not explain how changes in money supply impact prices, the Cambridge approach considers the underlying causes. It suggests that variations in the desire to hold money can alter the price level, even if the total money supply remains constant.

ii. **Enhanced Economic Thinking:** Unlike Fisher's model, which emphasizes the total number of transactions, the Cambridge approach links money demand to income levels. This perspective has significantly influenced modern economic thought.

iii. **Integration with Value Theory:** Fisher's model primarily considers the supply of money as the sole determinant of its value. In contrast, the Cambridge approach incorporates both supply and demand, aligning with the broader general theory of value.

iv. **Greater Realism:** The cash-balances theory highlights psychological and subjective factors as key determinants of money demand, whereas Fisher's approach focuses on institutional, objective, and technological aspects. Since money is always held by someone, the Cambridge approach provides a more realistic representation of monetary behavior.

v. **Foundation for Modern Monetary Theories**: The cash-balances theory laid the groundwork for Keynes' Liquidity Preference Theory of Interest and the contemporary understanding of money demand. It introduces two key liquidity motives—the transaction and precautionary motives.

vi. **More Practical Equation**: According to Kurihara, the Cambridge equation $P = KT/M$ is far better than the cash-transactions equation $P = MV/T$ in explaining money value. This is because it is easier to assess the cash balances individuals hold relative to total expenditure than to track numerous financial transactions.

SELF-CHECK EXERCISE-3.5

Q1. Write down the superiority of Cambridge approach over Fisher's approach?

3.8 SUMMARY

This unit covers two interpretations of the Quantity Theory of Money: (1) The Cash Transaction Approach and (2) The Cash Balance Approach. According to the classical perspective, particularly Fisher's version, money is primarily demanded for transaction purposes. Fisher represents this transaction demand through the equation MV = PTor M= $\frac{PT}{V}$, where the demand for money is determined by the total volume of transactions (T) over a specific period, multiplied by the average price level (P) and divided by the velocity of money (V). Fisher assumes that V and T remain constant in the short run, making the demand for money directly proportional to changes in the price level (P).

On the other hand, Cambridge economists emphasize money's role as a store of value. In the neo-classical or Cambridge approach, the demand for money refers to the amount individuals wish to hold. This can be represented as M = KPY, where the demand for money is a fixed proportion (K) of the national income (Y). Consequently, any variation in the price level or real national income leads to a corresponding change in the demand for money.

3.9 GLOSSARY

- **Money:** refers to any widely accepted medium of exchange that simultaneously serves as a unit of measurement and a store of value.
- **Quantity Theory of Money:** asserts that the amount of money in circulation primarily influences the price level or the purchasing power of money. Any variation in the money supply leads to a directly proportional change in the price level.
- **Value of Money** refers to what a unit of money can buy.
- **Price level** refers to the average of all of the prices of goods and services in a given economy.
- **Velocity of money** is defined simply as the rate at which money changes hands.

3.10 ANSWERS TO SELF-CHECK EXERCISES

Self-Check Exercise-3.1

Ans. Q1. Refer to Section 3.3

Ans. Q2. Refer to Section 3.3

Self-Check Exercise-3.2

Ans. Q1. Refer to Section 3.4

Ans. Q2. Refer to Section 3.4.1

Ans. Q3. Refer to Section 3.4.2

Ans. Q4. Refer to Section 3.4.3

Self-Check Exercise-3.3

Ans. Q1. Refer to Section 3.5

Self-Check Exercise-3.4

Ans. Q1. Refer to Section 3.6

Self-Check Exercise-3.5

Ans. Q1. Refer to Section 3.7

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3.12 TERMINAL QUESTIONS

Q1. Critically examine Fisher's Quantity Theory of Money.

Q2. Describe the neo-classical theory, also known as the Cash Balances Approach, in relation to the demand for money.

Q3. Compare and contrast the Cash Transactions Approach and the Cash Balances Approach in the context of demand for money.

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THEORIES OF MONEY SUPPLY-II

STRUCTURE

4.1 INTRODUCTION

In his 1936 book *The General Theory of Employment, Interest, and Money*, J.M. Keynes challenged the classical quantity theory of money. He disagreed with the traditional view that changes in the money supply have a direct and proportional impact on prices. Instead, Keynes argued that the relationship is indirect and non-proportional. However, at the University of Chicago, Professor Milton Friedman refined the quantity theory of money, presenting a more nuanced and applicable version that links money supply with the overall price level. This unit explores these theories in detail.

4.2 LEARNING OBJECTIVES

After studying this Unit, you will be able to:

- explain Keynes's Reformulated Quantity Theory of Money
- elucidate Friedman's Restatement of Quantity Theory of Money
- make the comparison between Friedman and Keynesian views

4.3 KEYNES'S REFORMULATED QUANTITY THEORY OF MONEY

Keynes' great merit lies in removing the old fallacy that prices are directly determined by the quantity of money. His theory of money and prices brings forth the truth that prices are determined primarily by the cost of production. Keynes does not agree with the old analysis which establishes a direct causal relationship between the quantity of money and the level of prices. He believes that changes in the quantity of money do not affect the price level (value of money) directly but indirectly through other elements like the rate of interest, the level of investment, income, output and employment. The initial impact of the changes in the total quantity of money falls on the rate of interest rather than on prices.

As the quantity of money is increased (other things remaining the same), the rate of interest is lowered because the quantity of money available to satisfy speculative motive increases. A lowering of the rate of interest (marginal efficiency of capital remaining the

same) will raise investment, which in turn, will result in an increase of income, output, employment and prices. The prices rise on account of various factors like the rise in labour costs, bottlenecks in production, etc. Thus, in Keynes' version the level of prices is affected indirectly as a result of the effects of the changes in the quantity of money on the rate of interest and hence investment.

Keynes's Reformulated Quantity Theory of Money is based on the following assumptions:

1) All factors of production are in perfectly elastic supply so long as there is any unemployment.

2) All unemployed factors are homogeneous, perfectly divisible and interchangeable.

3) There are constant returns to scale so that prices do not rise or fall as output increases.

4) Effective demand and quantity of money change in the same proportion so long as there are any unemployed resources.

Based on these assumptions, the revised quantity theory of money is depicted in Figure 4.1 (A) and (B). Here, OTC represents the output curve corresponding to the money supply, while PRC denotes the price curve in relation to the money supply. In Panel (A), as the quantity of money increases from O to M, output also rises along the OT segment of the OTC curve. Once the money supply reaches the OM level, the economy attains full employment output, denoted as OQ_F. Beyond point T, the output curve becomes vertical, indicating that any further increase in the money supply will not lead to additional output beyond the full employment level OQ_F.

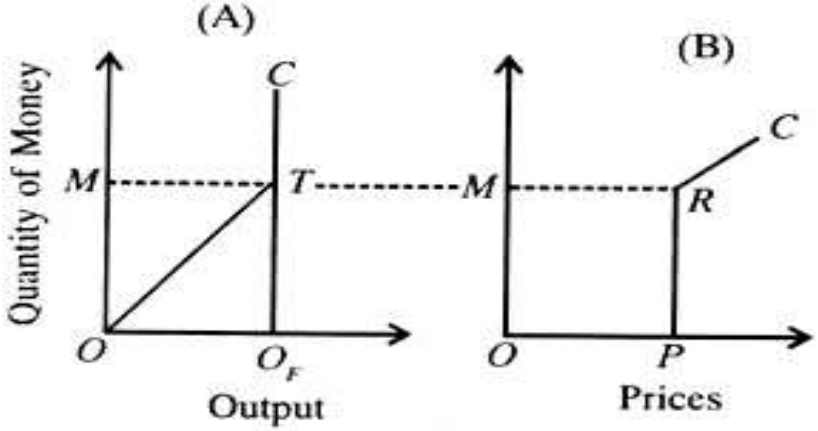

Fig. 4.1

Panel (B) of the figure illustrates the correlation between the money supply and price levels. As long as unemployment persists, prices remain unchanged regardless of an increase in the money supply. Prices begin to rise only after the economy reaches full employment. In the figure, the price level, represented as OP, stays constant at the OM money supply level, which corresponds to full employment output OQF. However, when the money supply exceeds OM, prices increase in direct proportion to the additional money supply. This relationship is depicted in the RC section of the price curve PRC.

Keynes himself pointed out that the real world is so complicated that the simplifying assumptions, upon which the reformulated quantity theory of money is based, will not hold. According to him, the following possible complications would qualify the statement that so long as there is unemployment, employment will change in the same proportion as the

quantity of money, and when there is full employment, prices will change in the same proportion as the quantity of money.

(1) Effective demand does not increase precisely in proportion to the money supply.

(2) Due to resource heterogeneity, increasing employment leads to diminishing, rather than constant, returns.

(3) Because resources are not perfectly interchangeable, some goods may experience supply constraints while resources for other goods remain underutilized.

(4) Wage levels tend to rise even before full employment is reached.

(5) Factor payments contributing to marginal costs do not all increase at the same rate.

Given these complexities, the reformulated quantity theory of money does not hold universally. A rise in effective demand does not lead to a proportional increase in the money supply. Instead, it partially contributes to increased output and partially to rising prices. When there are still unemployed resources, price levels remain relatively stable as output expands. However, a sharp rise in aggregate demand can lead to bottlenecks, even when resources remain underutilized. Some factors may become scarce or inelastic in supply, and since they are not always substitutable, constraints emerge.

These constraints can lead to rising marginal costs and, consequently, price increases. As a result, prices may rise above the average unit cost, leading to higher profits, which in turn may prompt trade unions to push for higher wages. Additionally, diminishing returns may set in. Once full employment is reached, the elasticity of output supply becomes zero, and prices rise in direct proportion to the increase in the money supply.

Keynes' complex model of money and prices is visually represented in Figure 4.2 using aggregate supply (S) and aggregate demand (D) curves. The price level is shown on the vertical axis, while output is plotted on the horizontal axis. According to Keynes, an increase in the money supply stimulates aggregate demand for investment due to a decline in interest rates. Initially, this leads to higher output and employment without affecting prices. In the figure, the shift in aggregate demand from D_1 to D_2 results in an output increase from OQ_1 to OQ_2 while maintaining the price level at OP.

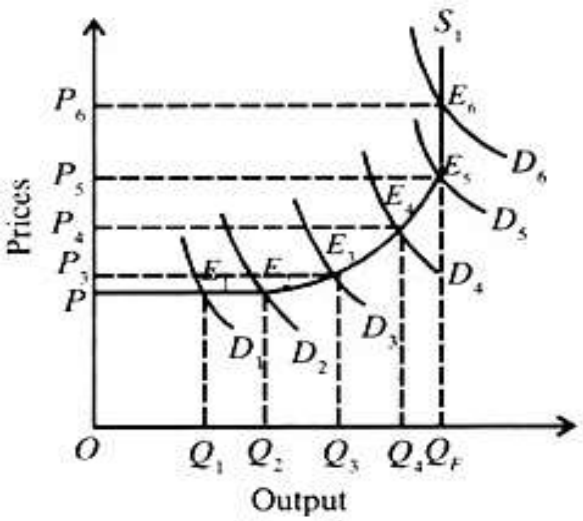

Fig. 4.2

As aggregate money demand rises from D_2 to D_3, output expands from OQ_2 to OQ_3, accompanied by an increase in the price level to OP_3. This occurs due to rising costs as resource immobility leads to production bottlenecks. As diminishing returns set in, less efficient labor and capital are utilized, causing output to grow at a slower pace relative to the increase in aggregate money demand, thereby driving prices higher. As the economy nears full employment, these bottlenecks become more pronounced. Additionally, rising prices fuel greater demand, particularly for stockpiling, leading to an accelerated increase in price levels. This trend is illustrated in the range E_3E_5 in the figure. However, once the economy

attains full employment, any further rise in aggregate money demand results in a proportional increase in the price level without affecting output, which remains fixed at OQ_F. This is depicted in the figure where the demand curve shifts from D_5 to D_6, causing the price level to rise from OP_5 to OP_6 while output remains unchanged.

Criticisms of Keynes' Theory of Money and Prices

Keynes' views on money and prices have been criticized by the monetarists on the following grounds:

1. **Direct Impact of Money**: Keynes mistakenly assumed that prices remained constant, leading him to analyze the effects of money in terms of the quantity of goods traded rather than their average prices. As a result, he proposed an indirect mechanism where monetary changes influenced economic activity through bond prices, interest rates, and investment. However, the actual impact of monetary changes is direct rather than indirect.
2. **Stability of Money Demand**: Keynes believed that monetary changes were primarily absorbed by fluctuations in the demand for money. In contrast, Friedman, based on empirical studies, demonstrated that the demand for money remains highly stable.
3. **Understanding the Nature of Money**: Keynes had a limited perspective on money, considering it exchangeable only for bonds. In reality, money can be traded for various assets, including bonds, securities, physical assets, and even human capital.
4. **Monetary Influence on Income**: Writing during the Great Depression, Keynes concluded that money had minimal influence on income. However, Friedman argued that the economic downturn resulted from a contraction in the money supply. Thus, Keynes' assertion that money had little impact on income was incorrect, as monetary factors do influence national income.

SELF-CHECK EXERCISE-4.1

Q1. Explain Keynesian Reformulated Quantity Theory of Money briefly.

Q2. Write main assumptions of Keynesian reformulated Quantity Theory of Money.

4.4 FRIEDMAN'S RESTATEMENT OF QUANTITY THEORY OF MONEY

Milton Friedman, in his 1956 essay 'The Quantity Theory of Money—A Restatement', effectively reformulated the classical quantity theory of money. He emphasized the significance of money by asserting that "money does matter." To fully grasp Friedman's modern interpretation, it is essential to outline his key assumptions and perspectives.

Firstly, Friedman clarifies that his quantity theory primarily focuses on the **demand for money** rather than output, income, or prices.

Secondly, he differentiates between two types of demand for money. The first type aligns with the traditional view, where money is held for **transaction purposes**, functioning as a medium of exchange. The second type, however, considers money as an **asset**, serving as a temporary store of purchasing power and forming part of an individual's wealth. Friedman integrates the demand for money within a broader **wealth theory**.

Thirdly, he associates the demand for money to that of a durable consumer good, which depends on three main factors:

(a) The total wealth available for allocation across different forms

(b) The returns or costs associated with these assets

(c) The preferences and choices of asset holders

Friedman categorizes wealth into five forms: money (M), bonds (B), equities (E), physical non-human assets (G), and human capital (H). He broadly defines total wealth as encompassing all types of 'income', specifically 'aggregate nominal permanent income, which represents the expected average return from wealth over its lifetime. Individuals allocate their wealth across these different forms to maximize utility, ensuring that the rate at which they trade one asset for another aligns with their willingness to do so.

Accordingly the cost of holding various assets except human capital can be measured by the rate of interest on various assets and the expected change in their prices. Thus, Friedman says there are four factors which determine the demand for money. They are price level, real income, rate of interest, and rate of increase in the price level.

The demand for money is unitarily elastic. The relationship between the demand for money and real income (output of goods and services) is also direct. But it is not proportional as in the case of price. Thus while changes in the price level cause direct and proportional changes in the demand for money, changes in real income create direct but more than proportional changes in the demand for money.

The rate of interest and the rate of increase in the price level constitute the cost of holding cash balances. If money is kept in the form of cash, it does not earn any income. But if the same money is lent out, it could earn some income in the form of interest to the owner. The interest is the cost of holding cash. At higher interest rate the demand for money would be less. On the other hand, a lower rate of interest creates an increase in the demand for money. Thus there is an inverse relationship between the rate of interest and the demand for money. The rate of increase in the price level also influences the demand for money. There is an inverse relationship between the rate of increase in the price level and the demand for money. When the price level increases at a high rate, the cost of holding money will increase. The people would like to hold smaller cash balances. The demand for money will decline. On the other hand when the price level increases at a low rate, the cost of holding money will decline and the demand for money increases.

Fourthly, Friedman believes that each form of wealth has its own characteristics and a different yield or return. In a broad sense money includes currency, demand deposits and time deposits which yield interest. Money also yields real return in the form of convenience, security etc., to the holder which is measured in terms of price (P). When the price level falls, the rate of return on money is positive because the value of money increases. When the price level rises, the value of money falls and the rate of return is negative. Thus P is an important variable in the demand function of Friedman.

The rate of return on bonds, equities and physical assets consists of currently paid interest rate and changes in their prices. As far as human wealth is concerned it is very difficult to measure the conversion of human into non-human wealth due to institutional constraints. But there is some possibility of substituting human wealth for non-human wealth. Freidman calls the ratio of non-human wealth to human wealth or ratio of wealth to income as W. According to Friedman, income elasticity of demand for money is greater than unity. Besides, there are certain variables like the tastes and preferences of the wealth holders which also affect the demand functions. These variables are represented by m.

Friedman's Demand Function:

On the basis of the above assumptions and formulations, Friedman has derived a demand function for an individual wealth holder.

It may be symbolically expressed as

$$M = f\left[p, r_b - \frac{1}{r_b}.\frac{dr_b}{dt}; r_e + \frac{1}{p}.\frac{dp}{dt} - \frac{1}{r_e}\frac{dr_e}{dt}; \frac{1}{p}.\frac{dp}{dt}; w; y; m\right] \ldots(1)$$

Where M is the total demand for money, P is the general price level,

r_b is the market interest rate on bonds,

r_e is the market interest rate on equities,

1/p. dp/dt is the nominal return from physical goods,

W is the ratio of non-human to human wealth,

Y is the money income available to the wealth holder,

m is the variables affecting tastes and preferences on the wealth holders.

By assuming r_b and r_e to be stable, Friedman replaces the variables representing the return on bonds and equities

$$\left[r_b, \frac{1}{r_b}.\frac{dr_b}{dt}\right]+\left[r_e+\frac{1}{p}.\frac{dp}{dt}\frac{1}{r_b}.\frac{dr_e}{dt}\right]$$

in equation I by simply r_b and r_e. As a result of this replacement, the demand function can be written as

$$M = f\left(P, r_b; r_e; \frac{1}{P}.\frac{dp}{dt} w; y; \mu\right) \qquad ...(2)$$

Further Friedman says that when there are changes in price and money income, there will be a proportionate change in the demand for money. This means that equation 2 must be regarded as homogenous of the first degree in P and Y, so that equation 2 becomes as

$$IM = f\left(\lambda P, r_b; r_e; \frac{1}{P}.\frac{dp}{dt} w; \lambda y; \mu\right) \qquad ...(3)$$

putting $\lambda = \frac{1}{P}$

equation 3 can be written as

$$\frac{M}{P} = f\left(r_b; r_e \frac{1}{P}.\frac{dp}{dt}; w\frac{\gamma}{P}; \mu\right) \qquad ...(4)$$

In this form, the equation 4 expresses the demand for real cash balances as a function of “real” variable.

Putting $\lambda = \frac{1}{Y}$ equation 3 can be written as

$$\frac{M}{Y} = f\left(r_b; r_e \frac{1}{P}.\frac{dp}{dt}; w; \frac{P}{y}; \mu\right) \qquad ...(5)$$

or

$$M = f\left(r_b; r_e \frac{1}{P}.\frac{dp}{dt}; w; \frac{P}{y}; \mu\right) Y \qquad ...(6)$$

According to Friedman’s modern quantity theory of money, the supply of money operates independently of its demand. Monetary authorities influence changes in the money supply, while the demand for money remains relatively stable. This suggests that individuals’

preference for holding cash or bank deposits is largely determined by their permanent income.

When the central bank purchases securities, the sellers receive money, leading to an increase in their cash holdings. This surplus cash is then spent partly on consumer goods and partly on acquiring assets, thereby reducing cash balances while simultaneously boosting national income. Conversely, when the central bank sells securities, individuals experience a decline in their money holdings relative to their permanent income. To restore their cash balances, they may cut down on consumption and sell assets, which in turn lowers national income. In both scenarios, the demand for money remains stable. Given this stability, the effects of changes in the money supply on expenditure and income can be predicted. If the economy operates below full employment, an increase in the money supply stimulates spending, output, and employment. However, this impact is only temporary and holds in the short run. Friedman's quantity theory of money can be explained diagrammatically in the following Figure 4.3.

In the figure while the X-axis shows the demand and supply of money, Y-axis measures the income level. MD is the demand curve for money which changes along with income. MS is the supply curve for money. These two curves intersect at point E and the equilibrium income level OY is determined. If there is an increase in money supply, the supply curve shifts to M_1S_1. At this level the supply is greater than demand and a new equilibrium is established at E_1. At the new equilibrium level the income increases to OY_1.

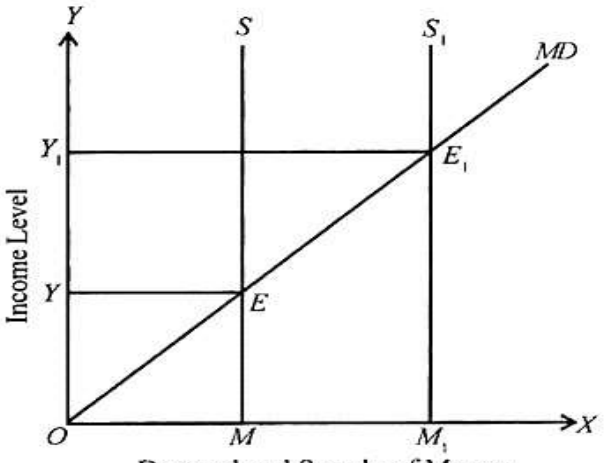

Figure 4.3

Criticisms of Friedman's Reformulation of the Quantity Theory of Money

Friedman's reformulation of the quantity theory of money has evoked much controversy and has led to empirical verification on the part of the Keynesians and the Monetarists. Some of the criticisms leveled against the theory are discussed as under.

i. **Very Broad Definition of Money:** Friedman has been criticised for using the broad definition of money which not only includes currency and demand deposits (M_1) but also time deposits with commercial banks (M_2). This broad definition leads to the obvious conclusion that the interest elasticity of the demand for money is negligible. If the rate of interest increases on time deposits, the demand for them (M_2) rises. But the demand for currency and demand deposits (M_1) falls. So the overall effect of the rate of interest will be negligible on the demand for money. But Friedman's analysis is weak in that he does not make a choice between long-term and short-term interest rates. In fact, if demand deposits (M_1) are used a short-term rate is preferable, while a long-term rate is better with time deposits (M_2). Such an interest rate structure is bound to influence the demand for money.

ii. **Money not a Luxury Good:** Friedman regards money as a luxury good because of the inclusion of time deposits in money. This is based on his finding that there is higher trend rate of the money supply than income in the United States. But no such 'luxury effect' has been found in the case of England.

iii. **More Importance to Wealth Variables:** In Friedman's demand for money function, wealth variables are preferable to income and the operation of wealth and income

variables simultaneously does not seem to be justified. As pointed out by Johnson, income is the return on wealth, and wealth is the present value of income. The presence of the rate of interest and one of these variables in the demand for money function would appear to make the other superfluous.

iv. **Money Supply not Exogenous:** Friedman takes the supply of money to be unstable. The supply of money is varied by the monetary authorities in an exogenous manner in Friedman's system. But the fact is that in the United States the money supply consists of bank deposits created by changes in bank lending. Bank lending, in turn, is based upon bank reserves which expand and contract with (a) deposits and withdrawals of currency by non-bank financial intermediaries; (b) borrowings by commercial banks from the Federal Reserve System; (c) inflows and outflows of money from and to abroad: and (d) purchase and sale of securities by the Federal Reserve System. The first three items definitely impart an endogenous element to the money supply. Thus the money supply is not exclusively exogenous, as assumed by Friedman. It is mostly endogenous.

v. **Ignores the Effect of Other Variables on Money Supply:** Friedman also ignores the effect of prices, output or interest rates on the money supply. But there is considerable empirical evidence that the money supply can be expressed as a function of the above variables.

vi. **Does not consider Time Factor:** Friedman does not tell about the timing and speed of adjustment or the length of time to which his theory applies.

vii. **No Positive Correlation between Money Supply and Money GNP:** Money supply and money GNP have been found to be positively correlated in Friedman's findings. But, according to Kaldor, in Britain the best correlation is to be found between the quarterly variations in the amount of cash held in the form of notes and coins by the public and corresponding variations in personal consumption at market prices, and not between money supply and the GNP.

Self-Check Exercise-2

Q1. Explain briefly Friedman's Restatement of Quantity Theory of Money.

Q2. Write down Friedman's Demand Function

4.5 FRIEDMAN Vs KEYNES

Friedman's theory of money demand differs significantly from Keynes's in several ways, as outlined below:

i. **Definition of Money**: Friedman adopts a broader concept of money compared to Keynes. He views money as an asset or capital good that temporarily holds purchasing power and provides a stream of income or consumable services. In contrast, Keynes defines money more narrowly, including demand deposits and non-interest-bearing government debt.

ii. **Determinants of Money Demand**: Friedman's money demand function incorporates multiple variables, including the yield on money (Rm), the yield on bonds (Rb), the yield on securities (Re), and the yield on physical assets (gp), along with other influencing factors (u). In contrast, Keynesian theory limits the demand for money as an asset to bonds, with interest rates serving as the primary cost of holding money.

iii. **Impact of Monetary Changes**: Keynes and Friedman differ in their perspectives on how changes in the money supply influence economic activity. According to Keynes, monetary expansion affects the economy indirectly by altering bond prices and interest rates. An increase in money supply leads to higher bond prices and lower yields, encouraging investment in productive capital and boosting income. Conversely, Friedman argues that monetary changes directly impact the prices and

production of all goods, as individuals adjust their holdings of various assets. He downplays the role of market interest rates in this process.

iv. **Motives for Holding Money**: Keynes categorizes money balances into "active" (for transactions and precautionary purposes) and "idle" (for speculative motives). Friedman, however, does not classify money holdings in this manner. Instead, he believes that money is held for multiple reasons, influenced by factors such as total wealth, human capital, physical assets, personal preferences, and future expectations.

v. **Role of Income**: Friedman introduces the concepts of permanent income and nominal income to explain money demand. Permanent income represents the amount an individual can spend while preserving their wealth, whereas nominal income is measured in current currency units and depends on prices and traded goods. Keynes does not distinguish between these income measures in his analysis.

Overall, Friedman's approach to money demand is more comprehensive, incorporating a wider range of factors and emphasizing direct monetary effects, whereas Keynes's framework primarily focuses on interest rates and bond markets.

SELF-CHECK EXERCISE-4.3

Q1. How does Friedman's Quantity Theory of Money differ from Keynesian Theory?

4.6 SUMMARY

Keynes's revised Quantity Theory of Money challenges the traditional view that money supply and price levels share a direct and proportional relationship. Instead, Keynes argued that changes in money supply influence prices in an indirect and non-proportional manner. However, at the University of Chicago, Milton Friedman refined the quantity theory of money, offering a more nuanced and practical interpretation. His approach integrates monetary theory with the general price level. A key aspect of Friedman's contribution is his application of capital theory principles—specifically, the relationship between capital yields and the present value of income. This integration of wealth and income as determinants of economic behavior marks one of the most significant advancements in monetary theory since Keynes's *General Theory*.

4.7 GLOSSARY

- **Money:** includes currency, demand deposits, and time deposits which yield interest on deposits.
- **The Quantity Theory of Money**: states that the quantity of money is the main determinant of the price level or the value of money. Any change in the quantity of money produces an exactly proportionate change in the price level.
- **Value of Money**: refers to the purchasing power of a unit of money.
- **Price level**: refers to the average of all of the prices of goods and services in a given economy.
- **Bond**: is a long-term debt obligation of a corporation that can generally be traded on the market.
- **Equities:** are defined as a claim to a time stream of payments that are fixed in real units.

4.8 ANSWERS TO SELF-CHECK EXERCISES

Self-Check Exercise-1

Ans. Q1. Refer to Section 4.3

Ans. Q2. Refer to Section 4.3

Self-Check Exercise-2

Ans. Q1. Refer to Section 4.4

Ans. Q2. Refer to Section 4.4

Self-Check Exercise-3

Ans. Q1. Refer to Section 4.5

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4.10 TERMINAL QUESTIONS

Q1. Critically explain Keynes's reformulated Quantity Theory of Money.

Q2. Explain the contribution of Milton Friedman to the Quantity Theory of Money.

Q3. Explain the Friedman's reformulation of the Quantity Theory of Money. How does it differ from that of Keynes?

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Unit-05

MONEY MARKET

STRUCTURE

5.1 INTRODUCTION

Financial markets are broadly categorized into two types: the money market and the capital market. The money market is a segment of the financial system that facilitates the borrowing and lending of short-term funds, typically for a duration of up to one year. It serves as a platform for executing short-term financial transactions within an economy. As an integral component of the financial system, the money market deals with highly liquid monetary assets of short-term nature. It enables the exchange of short-term funds and financial instruments that closely resemble cash.

Key characteristics of money market instruments include high liquidity, minimal transaction costs, and stability in value. Surplus funds are often allocated to the money market, which, in turn, provides liquidity to meet temporary cash shortages and short-term financial obligations. The money market connects lenders and borrowers of short-term funds, allowing them to meet their respective investment and borrowing needs efficiently at an equilibrium price. It plays a vital role in balancing short-term liquidity surpluses and deficits while facilitating the implementation of monetary policy.

The money market is one of the primary channels through which the central bank regulates liquidity and influences interest rates in the economy. The central bank's interventions in this market serve as signals to other financial sectors. Operating as a wholesale debt market, it deals in low-risk, highly liquid financial instruments with maturities ranging from one day to a maximum of one year. Government entities, banks, and financial institutions primarily dominate this market.

Despite the presence of various participants, their roles and levels of engagement differ significantly. Governments play a major role in the money market, often being the largest borrowers in many economies. Instruments such as Government Securities (G-Secs) and Treasury Bills (T-Bills) are issued by the Reserve Bank of India (RBI) on behalf of the Government of India to manage fiscal deficits.

In addition to acting as the government's banker, the central bank (RBI) also regulates and supervises money market activities by setting guidelines and policies. Another key participant in this market is the banking sector. Banks mobilize savings and extend credit to investors, a process known as credit creation. However, they cannot lend out all their deposits; they must comply with statutory requirements such as the Statutory Liquidity Ratio (SLR) and Cash Reserve Ratio (CRR), which are mandated by the central bank to ensure financial stability.

Banks must meet these reserve requirements before allocating funds for credit purposes. If they fall short of these reserves, they can use the money market to bridge the gap. Other institutional players, including financial institutions, corporations, mutual funds (MFs), and foreign institutional investors (FIIs), also engage in money market transactions to address their short-term financial needs. However, their level of participation is often governed by regulatory policies. For instance, in India, FIIs are permitted to invest in the money market only through government securities.

5.2 LEARNING OBJECTIVES

After going through this Unit, you will be able to:

- Explain the meaning of money market, its features and various instruments.
- Understand the functions of money market in India.
- Main constituents of Indian money market,
- Features and drawback of Indian money market.

5.3 DEFINITION AND MEANING OF MONEY MARKET

Following definitions will help us to understand the concept of money market.

Crowther defines, "The money market is a name given to the various firms and institutions that deal in the various grades of near money."

According to the RBI, "The money market is the centre for dealing mainly of short character, in monetary assets; it meets the short term requirements of borrowers and provides liquidity or cash to the lenders. It is a place where short term surplus investible funds at the disposal of financial and other institutions and individuals are bid by borrowers, again comprising institutions and individuals and also by the government."

According to Nadler and Shipman, "A money market is a mechanical device through which short term funds are loaned and borrowed through which a large part of the financial transactions of a particular country or world are degraded. A money market is distinct from but supplementary to the commercial banking system."

The definitions of a money market help in recognizing its fundamental characteristics. It consists of a well-structured banking system where various financial instruments are utilized for transactions. The movement of funds in a money market is seamless, ensuring high liquidity. Additionally, the transactions conducted in this market are typically short-term in nature.

SELF-CHECK EXERCISE-5.1

` Q1. Define money market?

5.4 FUNCTIONS OF MONEY MARKET

The money market plays a crucial role in the financial system, primarily facilitating short-term monetary transactions. It serves as a platform for banks, business entities, non-banking financial institutions (NBFIs), and investors to manage liquidity efficiently. The key functions of the money market are as follows:

i. **Maintaining Monetary Equilibrium:** This involves ensuring a balance between the short-term demand for and supply of money.

ii. **Promoting Economic Growth:** By providing financial resources to different sectors of the economy, such as agriculture and small-scale industries, the money market supports overall economic development.

iii. **Facilitating Trade and Industry:** The money market ensures adequate financial support for trade and industrial activities. It also offers the facility of discounting bills of exchange, which helps businesses manage cash flow efficiently.

iv. **Supporting the Implementation of Monetary Policy:** It acts as a mechanism for executing monetary policies effectively, helping maintain economic stability.

v. **Encouraging Capital Formation:** The money market provides short-term investment opportunities, promoting savings and investments within the economy.

Additionally, the money market serves as a non-inflationary source of finance for the government. This is achieved through the issuance of treasury bills to secure short-term loans without causing inflationary pressures. Overall, the money market functions as a structured system where banks and financial institutions engage in short-term financial activities, ensuring a smooth flow of money within the economy.

SELF-CHECK EXERCISE-5.2

Q1. What are the functions of money market.

5.5 CONSTITUENTS OF INDIAN MONEY MARKET

Main constituents of money market are the lenders who supply funds and borrowers who demand short term credit. Suppliers of funds may belong to either

I. Unorganised sector whose activities are not controlled or coordinated by RBI (comprising of indigenous bankers and village money lenders) or

II. Organised sector (comprising of RBI, commercial banks, Development Financial Institutions, co-operative banks and other financial institutions such as LIC).

5.5.1 Unorganised Sector of Money Market

The economy operates through both the organized and unorganized sectors. While the organized sector plays a dominant role, particularly in urban areas, the rural economy continues to rely on informal and indigenous financial systems. The unorganized money

market primarily caters to the short-term financial needs of farmers and small business owners. Its key components include:

1. **Indigenous Bankers (IBs):** These are individuals or private firms that function similarly to banks by accepting deposits and providing loans. Predominantly found in urban areas, especially in western and southern India, their financial transactions remain largely undocumented and operate without regulation. However, their influence has diminished over time due to the expansion of the formal banking sector.
2. **Money Lenders (MLs):** Money lenders engage in lending as their primary business. They are prevalent in both rural and urban areas, often charging high-interest rates. A significant portion of their loans is used for non-productive purposes. Their lending methods are quick, flexible, and informal, serving farmers, artisans, small traders, and laborers. However, their significance has declined with the expansion of formal banking institutions.
3. **Non-Banking Financial Companies (NBFCs):** These entities provide financial services outside the purview of traditional banks and include:
    - **Chit Funds:** These are savings institutions where members contribute periodically, and the beneficiary is chosen through a lottery system. They are especially popular in Kerala and Tamil Nadu. The Reserve Bank of India (RBI) does not regulate their lending practices.
    - **Nidhis:** Functioning as mutual benefit societies, Nidhis provide loans exclusively to their members at reasonable interest rates. They are particularly active in South India.
    - **Loan or Finance Companies:** These firms operate across the country and generate capital through borrowings, deposits, and owned funds. They provide loans to small traders, artisans, and self-employed individuals while offering attractive interest rates to attract deposits. However, they charge borrowers high-interest rates, often ranging from 36% to 48% per annum.
    - **Finance Brokers:** Commonly found in major urban markets, especially in sectors such as textiles, grain, and commodities, finance brokers act as intermediaries between lenders and borrowers, earning a commission for their services.

This unorganized financial sector continues to support various economic activities, although its role has diminished with the growth of regulated banking institutions.

5.5.2 Organised Sector of Money Market

The main borrowers of short term funds are central government, state governments, local authorities (such as municipal corporations), traders and industrialists, farmers, exporters, importers and general public. Sub-markets of organised money market

1. Call/Notice/Term money market:

Call/Notice money market is a market in which an amount is borrowed or lent on demand for a very short period say, a few hours to 14 days. If the period is less than 24 hours, then it is‘ Call money'. They can be recalled on demand and that is why it is known as call money. If the period of loan is more than one day and up to 14 days, then it is called 'Notice money'.

Term money refers to borrowing/lending of funds for a period exceeding 14 days. No collateral security is required to cover these transactions. Banks are the major borrower and lender of call money. Banks with temporary deficit of funds, to meet their CRR requirements, form the demand side and banks with temporary excess of funds from the supply side of call

money market. In India major suppliers of call money are Non-Banking Financial Institutions like LIC, GIC etc. It is a completely inter- bank market hence non- bank entities are not allowed access to this market. Interest rates in the call and notice money market are 'market determined'. In view of the short tenure of such transactions, both the borrowers and the lenders are required to have current accounts with the RBI.

2. Commercial bill market

A bill of exchange is a written, unconditional order by one party (the seller of goods/the drawer) to another (the buyer/the drawee) to pay a certain sum, either immediately (a sight bill) or ona fixed date (a term bill), for payment of goods and/ or services received. These bills are called trade bills. These trade bills are called commercial bills when they are accepted by commercial banks. Maturity of the bill is generally three months. If the bill is payable at a future date and the seller needs money during the currency of the bill then he may approach his bank for discounting the bill. The maturity proceeds (face value of discounted bill), from the drawee, will be received by the bank. If the bank needs fund during the currency of the bill then it can rediscount the bill already discounted by it in the commercial bill rediscount market at the market related discount rate. The bill discounting market is not so popular in India. It barely constitutes 10% of total bank credit. The establishment of Discount and Finance House of India (DFHI) in 1988 has been an important step towards the development of an active discount market in India.

In India, the major reason cited for the non-development of bill financing is the hesitation of the industry and trade to subject themselves to the rigours of bill discipline.

3. Banker's acceptance

Bankers' acceptances date back to the 12th century when they emerged as a means to finance uncertain trade, as banks bought bills of exchange at a discount. A short-term debt instrument issued by a firm, is guaranteed by a commercial bank. Banker's acceptances are issued by firms as part of a commercial transaction. It is a promised future payment which is accepted and guaranteed by a bank and drawn on a deposit at the bank. The banker's acceptance specifies the amount of money, the date, and the person to which the payment is due. After acceptance, the draft becomes an unconditional liability of the bank. The party that holds the banker's acceptance may keep the acceptance until it matures, and thereby allow the bank to make the promised payment, or i t may sell the acceptance at a discount today to any party willing to wait for the face value payment of the deposit on the maturity date. Banker's acceptances make a transaction between two parties who do not know each other safer because they allow the parties to substitute the bank's credit worthiness for that who owes the payment.

4. Treasury bill (T bill) market

Treasury Bill Market refers to the market where treasury bills are bought and sold. T Bill is a promissory note issued by RBI on behalf of central/ state government. It is issued to meet short term requirements of the govt. TBs are highly secured and liquid as repayment is guaranteed by RBI. Treasury bills are available for a minimum amount of Rs. 25000and in multiples of Rs. 25000.

Treasury bills are issued at a discount and are redeemed at par.

Types of T-bills

In India, there are 2 types of treasury bills, viz.

1. Ordinary or regular
2. ' Ad- hoc' known as ' ad hocs'.

Ordinary are issued to the public and other financial institutions for meeting the short-term financial requirements of the Central Government. These are freely marketable and they can be bought and sold at any time and they have a secondary market also.

On the other hand, ' ad-hocs' are always issued in favour of the RBI only. They are not sold through tender or auction. They are purchased by the RBI and the RBI is authorised to issue currency notes against them. They aren't marketable in India. Holders of these bills can always sell them back to the RBI.

On the basis of periodicity, Treasury bills may be classified into three:

a) 91-day (3 months) T bill- maturity is in 91 days. Its auction is on every Wednesdays of every week.

b) 182-day (6 months) T bill- maturity is in 182 days. Its auction is on every alternate Wednesdays preceding non-reporting Fridays. (Banks are required to furnish various data to RBI on every alternate Friday, called reporting Fridays).

c) 364-Day (1 year) T bill- maturity is in 364 days. Its auction is on every alternate Wednesdays preceding reporting Fridays. A considerable part of the Government's borrowings happen through T Bills of various maturities. Based on the bids received at the auctions, RBI decides the cutoff yield and accepts all bids below this yield.

All entities registered in India, including banks, financial institutions, Primary Dealers, companies, corporate bodies, partnership firms, mutual funds, Foreign Institutional Investors, State Governments, Provident Funds, trusts, research organizations, Nepal Rashtra Bank, and even individuals, are eligible to bid for and purchase Treasury bills. These T-bills, issued at a discount, can be traded in the market. They are available either as physical promissory notes or in a dematerialized form through credit to a Subsidiary General Ledger (SGL) account or Gilt account.

Advantages of investment in T Bills

1) No tax deducted at source
2) Zero default risk being sovereign paper
3) Highly liquid money market instrument
4) Better returns especially in the short term
5) Transparency
6) Simplified settlement
7) High degree of tradability and active secondary market facilitates meeting unplanned fund requirements.

5. Certificates of Deposits

Certificate of Deposit (CD) is a negotiable money market instrument issued against funds deposited at a bank or other eligible financial institution for a specified time period. After treasury bills, this is the next lowest risk category investment option. Allowed in 1989, CD is a negotiable promissory note, secure and short term in nature. The maturity period of CDs issued by banks should not be less than 7 days and not more than one year, from the date of issue. The maturity most quoted in the market is for 90 days. The FIs can issue CDs for a period not lessthan1yearandnotexceeding3years from the date of issue. A CD is issued at a discount to the face value, the discount rate being negotiated between the issuer and the investor.

CDs in physical form are freely transferable by endorsement and delivery. CDs in demat form can be transferred as per the procedure applicable to other demat securities. There is no lock in period for the CDs. It can be issued to individuals, corporations, companies, trusts, funds, associations, etc. Non-Resident Indians (NRIs) may also subscribe to CDs. The minimum issue of CD to single investor is Rs. 1 lakh and additional amount in multiples of Rs. 1 lakh each.

CDs are issued by banks and FIs mainly to augment funds by attracting deposits from corporates, high net worth individuals, trusts, etc. Those foreign and private banks which do not have large branch networks and hence lower deposit base, use this instrument to raise funds.

6. Commercial Paper Market: Introduced in 1990, Commercial papers (CPs) are negotiable, short-term, unsecured promissory notes with fixed maturities, issued by well rated companies. Subsequently, primary dealers and all-India financial institutions were also permitted to issue CP to enable them to meet their short-term funding requirements for their operations. Companies having a net worth of Rs. 4crores and whose shares are listed in a stock exchange can issue CPs either directly to the investors or through merchant banks. All eligible participants shall obtain the creditrating for issuance of Commercial Paper from a credit rating agency as notified by RBI such as CRISIL. These are basically instruments evidencing the liability of the issuer to pay the holder in due course a fixed amount (face value of the instrument) on the specified due date. These are issued for a fixed period of time at a discount to the face value and mature at par.

CP can be issued for maturities between a minimum of 7 days and a maximum of up to one year from the date of issue. These instruments are normally issued in the multiples of five lakhs for 30/ 45/ 60/ 90/ 120/ 180/270/ 364 days. CP can be issued either in the form of a promissory note or in a dematerialised form through any of the depositories approved by and registered with SEBI. Banks, FIs and PDs can hold CP only in dematerialised form.

Funds raised through CPs do not represent fresh borrowings for the corporate issuer but merely substitute a part of the banking limits available to it. Hence a company issues CPs mostly to save on interest costs, i.e., it will issue CPs only when the CP rate is lower than the bank's lending rate.

Individuals, banking companies, other corporate bodies (registered or incorporated in India) and unincorporated bodies, Non-Resident Indians (NRIs) and Foreign Institutional Investors (FIIs) etc. can invest in CPs. However, investment by FIIs would be within the limits set for them by Securities and Exchange Board of India (SEBI) from time-to-time. The maximum amount a company can raise through CPisupto75 per cent of its total working capital limit. Fixed Income Money Market and Derivatives Association of India (FIMMDA), may prescribe, in consultation with the RBI, any standardised procedure and documentation for operational flexibility and smooth functioning of CP market.

On 15th October 1997, total outstanding amount on Commercial paper transaction in Indian money market was Rs. 3377 crore. This outstanding amount increased substantially to Rs. 1,28,347 crore onJuly15,2011 and further increased to Rs. 5,84,720crore on November 15, 2018. This growth of Commercial paper market may be attributed to the rapid expansion of corporate manufacturing and financial companies in liberalized and Globalized Indian economy.

7. Repo Market

A repurchase agreement, commonly referred to as a repo, involves the sale of securities accompanied by an agreement that the seller will repurchase the securities at a specified later date. Repos are primarily executed on an overnight basis, meaning they typically have a one-day maturity period. The repurchase price is higher than the original sale price, with the difference constituting interest, often called the repo rate. In this arrangement, the initial buyer of the securities effectively acts as a lender, while the original seller assumes the role of a borrower.

Various instruments can serve as collateral for these agreements, including government securities, Treasury Bills, corporate bonds, money market instruments, and equities. During the repo period, the buyer gains legal ownership of the collateral. Consequently, if the seller defaults, the buyer does not need to establish any additional rights to the collateral.

Repo and reverse repo transactions are conducted exclusively in Mumbai, between entities approved by the Reserve Bank of India (RBI) and in securities sanctioned by the RBI. The repo rate refers to the interest rate at which banks borrow funds from the RBI, while the reverse repo rate is the rate at which the RBI borrows funds from banks.

A reverse repo functions as the opposite of a repo. In a reverse repo, securities are purchased with a simultaneous agreement to sell them back. Whether a transaction is considered a repo or a reverse repo depends on which party initiated the initial leg of the transaction. To foster the development of the corporate debt market, the RBI has allowed specific entities—such as scheduled commercial banks (excluding Regional Rural Banks and Local Area Banks), Primary Dealers, financial institutions, non-banking financial companies (NBFCs), mutual funds, housing finance companies, and insurance companies—to conduct repos in corporate debt securities. This operates similarly to repos involving government securities, except that corporate debt securities are used as collateral. Only listed corporate debt securities rated 'AA' or higher by credit rating agencies are eligible for this purpose. Instruments like commercial papers, certificates of deposit, and non-convertible debentures with an original maturity of less than one year are not permitted.

8. Collateralized Borrowing and Lending Obligation:

Collateralized Borrowing and Lending Obligation (CBLO) is a money market instrument managed by the Clearing Corporation of India Ltd. (CCIL) designed for entities that either lack access to the interbank call money market or have restricted access due to borrowing and lending ceilings. CBLO is a discounted instrument available in electronic book-entry form with maturities ranging from one day to 90 days (or up to one year, per RBI guidelines). To facilitate borrowing and lending, CCIL provides a Dealing System through the Indian Financial Network (INFINET) for Negotiated Dealing System (NDS) members with current accounts at the RBI, and through the internet for other entities without such accounts.

Membership in the CBLO segment is available to RBI-NDS members, including nationalized, private, and foreign banks, cooperative banks, financial institutions, insurance companies, mutual funds, and Primary Dealers. Associate membership is offered to entities not part of the RBI-NDS, such as cooperative banks, mutual funds, insurance companies, NBFCs, corporations, and provident or pension funds. Members can borrow or lend funds in the CBLO market by pledging eligible securities as collateral. Eligible securities include Central Government securities (such as Treasury Bills) and other securities specified by CCIL. Borrowers must deposit the required amount of collateral with CCIL, which then determines the borrowing limits accordingly.

SELF-CHECK EXERCISE-5.3

Q1. What is unorganised sector of money market?

Q2. Write a note on organised sector of money market?

5.6 DEFECTS /FEATURES OF INDIAN MONEY MARKET

A well-functioning money market is essential for the efficient execution of monetary policy. The Reserve Bank of India (RBI) manages and regulates the country's money supply through this market. Unfortunately, the Indian money market remains underdeveloped, poorly structured, and faces several challenges. The key shortcomings are outlined below:

1) **Existence of unorganized money market:** unorganised money market comprises of indigenous bankers and money lenders. Substantially higher rate of interest prevails in unorganised sector. They follow their own rules of banking and finance. RBI’s attempt to bring them under control has failed many times.

2) **Absence of integration:** Different sections of money market are loosely connected

with one another. Organised and unorganised sector of money market do not have any contact between them. With the setting up of RBI and passing of BRA 1949, the conditions have improved.

3) **Multiplicity in rates of interest:** The immobility of funds from one section to another creates diversity in interest rates. Immobility arises due to difficulty of making cheap and quick remittance of funds from one centre to another. At present wide divergence does not exist.

4) **Seasonal stringency of funds:** The demand for money in Indian money market is seasonal in nature. During busy season from October to April money is needed for financing and marketing of agricultural products and seasonal industries such as sugar. RBI attempt to lessen the fluctuations in money rates by increasing money supply during busy season and withdrawing the same in lean season.

5) **Absence of bill market:** a well organised bill market is essential for smooth functioning of a credit system. An important shortcoming of Indian Money Market is the absence of a well-developed bill market. Though both inland and foreign bills are traded in Indian Money Market yet its scope is very limited. In spite of the efforts of Reserve Bank in1952 andin1970,only a limited bill market exists in India. Thus, an organised bill market in the real sense of the term has not yet been fully developed in India. The establishment of DFHI has improved the situation now. The main obstacles in the development of bill market appear to be the following:

- The lack of uniformity in drawing bills indifferent parts of the country,
- The large use of cash credit as the main form of borrowing from commercial banks,
- Presence of Inter- call money market, and
- The pressure of cash transactions. Thus, Bill Market is relatively underdeveloped.

6) **Absence of Acceptance and Discount Houses;** There is almost complete absence of acceptance and discount houses in the Indian money market. This is due to the underdeveloped bill market in India.

7) **No contact with foreign money market:** Indian money market is an insular one with little contact with money market in other countries. Indian money market does not attract any foreign fund as western money markets do.

8) **Limited instruments:** Supply of money market instruments like bills, TBs etc. is very limited and inadequate in nature considering the varied requirements of short term funds.

9) **Limited secondary market:** Secondary market is very limited in the case of money market instruments. Practically it is restricted to rediscounting of commercial and treasury bills. In India banks have the tendency to hold these bills till maturity, thus preventing an active trade in these bills.

10) **Limited participants:** participants in Indian money market are also limited. Entry into the market is strictly regulated. In fact there are a large number of borrowers but a few lenders. Hence, the market is not very active.

11) **Absence of specialized financial institutions:** Specialised institutions are lacking to carry out specialised jobs in certain fields like bank for tourism, bank for financing SSIs. etc.

12) **Underdeveloped Banking Habits:** In spite of rapid branches expansion of banks and spread of banking to unbanked and rural centres, the banking habits in India are still underdeveloped. There are several reasons for it.

- Whereas in U.S.A. for every 1400 persons there is a branch of a commercial bank, in India there is a branch for every 13, 000 people,
- The use of cheques is restricted,
- The majority of transactions are settled in cash,
- The hoarding habit is widespread.

SELF-CHECK EXERCISE-5.4

Q1. What are the weaknesses from which Indian Money Market suffers?

5.7 IMPORTANCE OF MONEY MARKET

A well-developed and broad-based money market plays a crucial role in the economic development of a country. It enables the central bank to effectively implement monetary policies, facilitating industrial and commercial growth. The key advantages of a well-functioning money market are outlined below:

i. **Industrial Financing**: A robust money market assists industries in securing short-term loans to meet their working capital needs, preventing many industrial units from financial distress.

ii. **Trade Financing**: A well-structured money market is essential for financing both domestic and international trade. Traders can obtain short-term credit by discounting bills of exchange with banks. Additionally, acceptance houses and discount markets contribute to financing foreign trade.

iii. **Profitable Investment** : Commercial banks can generate profits by investing their surplus funds in Treasury bills and bills of exchange. These financial instruments offer high liquidity and security, allowing banks to convert them into cash when needed.

iv. **Bank Liquidity and Stability**: The money market also benefits commercial banks by ensuring their financial self-sufficiency. If banks require funds, they can recall their short-term loans from the market to meet their needs.

v. **Promotes Economic Growth**: A well-organized money market ensures the liquidity and security of financial assets. This, in turn, encourages savings and investment—both of which are essential for economic progress.

vi. **Efficient Monetary Policy Implementation**: A developed money market enables the central bank to regulate and control the money supply effectively, contributing to financial stability.

vii. **Optimal Resource Allocation**: The money market helps balance the demand and supply of loanable funds, converting community savings into productive investments. This process leads to an efficient allocation of resources in the economy.

viii. **Government Financial Support**: An organized money market assists the government in raising funds by selling Treasury bills at lower interest rates. This reduces the need for deficit financing through excessive money printing, which can lead to inflationary pressures.

SELF-CHECK EXERCISE-5.5

Q1. What are the importance of Money Market.

5.8 MEASURES To STRENGTHEN The INDIAN MONEY MARKET

In recent years, serious efforts have been made by the Government of India and the Reserve Bank of India (RBI) to remove the shortcomings of Indian money market. The major money market reforms came after the recommendations of S. Chakravarty Committee and Narsimham Committee. These were major changes which helped unfold the banking potential of India and shape our financial institutions to world class standards. It was soundness of these reforms which helped our economy to easily tide over the economic crisis which had gripped the world in 2008. These are discussed below:

1) **Deregulation of Interest Rates:** Interest rates are now subject to market conditions as the ceiling limit on them have been removed by RBI after 1989.The important interest rates in India are-Bank rate, Medium-term lending rate, Prime Lending rate, Bank Deposit rate, Call rate, Certificate of Deposit rate, Commercial paper rate etc. This deregulation got a major push after the economic liberalisation of 1991. Chakravarty Committee was a strong proponent of free and flexible interest rates to promote savings, investments, government financial system and stability. RBI removed the upper ceiling of 16.5 per cent and instead fixed a minimum of 16 per cent per annum. The rates were further relaxed after the Narasimhan Committee report in 1991.

2) **Remitting the Stamp Duty:** In August 1989, the government remitted the stamp duty on usance bills which was considered a major administrative constraint in the use of bill system. This measure has failed to induce use of commercial bills. Unless effective measures are undertaken to discourage cash credit system, the government's decision to remit the stamp duty alone would not change the situation in favour of the use of bill system.

3) **Reforms in Call and Term Money Market**: It was mainly an inter-bank market until 1990. Only the Unit Trust of India and the Life Insurance Corporations were allowed to operate as lenders since 1971. During the 1990s, the RBI's policy relating to entry into the Call Money Market was liberalized to provide more liquidity. Now, banks and primary dealers are operating as both lenders and borrowers, while a number of non-bank financial institutions and mutual funds are operating only as lenders.

4) **Introduction of new Money Market Instruments:** RBI introduced many new market instruments to diversify the market. These were 182-day treasury bills, 364-day treasury bills, certificates of deposits and commercial paper. 182-day treasury bills were systematically promoted by the discount and finance House of India and were the first security sold by auction for financing the fiscal deficit of the central government. It also developed a secondary market in these bills and they became popular with the banks. Like 182-day treasury bills 364-day treasury bills can be held by the commercial banks for meeting Statutory Liquidity Ratio. Certificate of Deposit (CDs) gained a considerable market in 1996-97. The Commercial Papers (CPs) as money market instrument are now more than twenty years old. The Indians' market is driven by the demand for CP by scheduled commercial banks which, in turn is determined by bank liquidity. The secondary activity is subdued in the Indian CP market due to most investors' preference to hold the instrument on account of higher risk-adjusted return relative to those of other instruments.

5) **Introducing Money Market Mutual Funds**: They were introduced in India in April 1991 to provide an additional short-term avenue to investors and bring money market instruments within the reach of individuals.

6) **Setting up Discount and Finance House of India:** Discount and Finance House of India was set up in 1988 to impart more liquidity and also further develop the secondary market instruments. However, maturities of existing instruments like CDs and CPs were gradually shortened to encourage wider participation. Likewise 'ad

hoc' treasury bills were abolished in 1997 to stop automatic monetisation of fiscal deficit.

7) **Introducing Liquidity Adjustment Facility:** The RBI introduced **Liquidity Adjustment Facility (LAF)** in June 2000 which was operated through fixed repo rate and reverse repo rate. This helped in the establishment of interest rate as an important monetary instrument and granted greater flexibility to the RBI to respond to the market needs and suitably adjust liquidity in the market. Repo and Reverse Repo rates were introduced in 1992 and 1996 respectively.

8) **Regulation of Non-Banking Financial Companies (NBFCs):** The RBI Act was amended in 1997 to bring the NBFCs under its regulatory framework. A NBFC is a company registered under Companies Act, 1956 and is involved in making loans and advances, acquisition of shares, stocks, bonds, securities issued by government etc. They are similar to banks but are different from the latter as they cannot accept demand deposits and cannot issue cheques. They have to be registered with the RBI to operate within India. There are a host of regulations which NBFCs have to follow to smoothly operate within India like accept deposit for a minimum period, cannot accept interest rate beyond the prescribed rate given by the RBI.

9) **Debt Recovery:** The RBI has set up special Recovery Tribunals which provide legal assistance to banks for recovery of dues.

SELF-CHECK EXERCISE-5.6

Q1. Which measures would be taken to strengthen the Indian money market?

5.9 SUMMARY

Financial markets are broadly categorized into two types: the money market and the capital market. The money market refers to the segment of the financial system that facilitates the borrowing and lending of short-term funds, typically for a duration of up to 365 days. It can be further divided into the organized and unorganized money markets. The unorganized money market operates outside the regulatory framework of the Reserve Bank of India (RBI), whereas the organized money market includes institutions such as the RBI, commercial banks, Development Financial Institutions (DFIs), cooperative banks, and other financial entities like the Life Insurance Corporation of India (LIC). The organized segment functions under the direct supervision and regulations of the RBI. Although India's money market is regarded as one of the most developed among emerging economies, , it still suffers from many drawbacks or defects.

5.10 GLOSSARY

- **Money Market:** is the market for dealing in monetary assets of short-term nature.
- **Unorganised Sector:** whose activities are not controlled or coordinated by RBI.
- **Organised Sector:** comprising of RBI, commercial banks, Development Financial Institutions, co- operative banks and other financial institutions such as LIC. This sector is within the direct purview of RBI regulations.
- **Call Money Market:** A segment of the financial market where short-term funds are borrowed and lent for overnight transactions.
- **Treasury Bill (T-Bill):** A short-term government-issued debt instrument with a maturity of less than one year.
- **Commercial Bills:** Low-risk, negotiable, and self-liquidating instruments used in short-term trade financing.
- **Certificate of Deposits (CDs):** Unsecured, negotiable promissory notes issued at a discount to their face value.

- **Commercial Paper:** A short-term, unsecured, negotiable financial instrument with a fixed maturity period, transferable by endorsement and delivery.
- **Repo Market:** A financial arrangement in which a security is sold with an agreement to repurchase it at a predetermined date and rate.
- **Bill of Exchange:** A legally binding, written directive issued by a seller (drawer) to a buyer (drawee), requiring payment of a specific sum either immediately or on a predetermined date for goods or services received.

5.11 ANSWERS TO SELF CHECK EXERCISES

Self-Check Exercise-5.1

Ans. Q1. Refer to Section 5.3

Self-Check Exercise-5.2

Ans. Q1. Refer to Section 5.4

Self-Check Exercise-5.3

Ans. Q1. Refer to Section 5.5.1

Ans. Q1. Refer to Section 5.5.2

Self-Check Exercise-5.4

Ans. Q1. Refer to Section 5.6

Self-Check Exercise-5.5

Ans. Q1. Refer to Section 5.7

Self-Check Exercise-5.6

Ans. Q1. Refer to Section 5.8

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5.13 TERMINAL QUESTIONS

Q1. Explain the measures taken by Indian Government to strengthen the Indian Money Market.

Q2. Write a note on constituents of Indian Money Market.

Q3. “Money market is very important segment of Indian Financial System”. Comment and discuss various features of money market.

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CAPITAL MARKET

STRUCTURE

6.1 INTRODUCTION

A dynamic and efficient financial system is crucial for any economy as it ensures the optimal allocation of resources from surplus areas to those experiencing deficits. This system comprises financial markets, intermediaries, and various financial instruments. A robust and well-developed financial structure, supported by diverse intermediaries with varying risk profiles, is essential for a thriving economy. India's financial sector is characterized by progressive liberal policies, well-functioning equity and debt markets, and prudent banking regulations. Additionally, the financial system contributes to economic growth by facilitating the transformation of wealth into more productive assets. It encourages individuals and investors to shift their savings away from non-financial assets such as precious metals, real estate, consumer durables, and idle cash, directing them instead towards financial instruments like bonds, shares, preference shares, and mutual fund units.

Moreover, a well-functioning financial system enhances investment levels by enabling deficit-spending entities to access additional capital. By lowering financing costs and mitigating risks, it promotes investment activities. This is achieved through services such as insurance, hedging, remittances, discounting, acceptance, and financial guarantees. Ultimately, the financial system not only boosts overall investment but also enhances the efficiency of resource allocation across various investment avenues.

6.2 LEARNING OBJECTIVES

After going through this Unit, you will be able to:

- define capital market
- identify the constituents of capital market
- explain the factor influencing the capital market
- understand the role of capital market in India
- recognize the development of capital market in India

6.3 CAPITAL MARKET

Capital markets are a sub-market of the financial system. It is the market for long-term funds, just as the money market is the market for short-term funds. It is the organised mechanism for effective and efficient transfer of money capital from individuals and institutional savers to entrepreneurs engaged in industry of commerce in both private sector and public sector. Capital market deals in financial instruments and commodities like bonds, stocks, shares, securities, debentures, etc. They have a maturity of at least more than one year. These also differ in nature, maturity, interest rate, dividend, liability, ownership etc. It does not deal with capital goods but it concerns with raising medium and long term funds for investment.

Like all the market, capital market is also comprised of those who demand funds (borrowers) and those who supply funds (lenders). The demand for long term money comes predominantly from private sector manufacturing industries and agriculture and from the government largely for the purposes of economic development. The supply of funds for capital market comes largely from individual savers, corporate savers, banks, insurance companies, specialized financing agencies and the government. An ideal capital market attempts to provide adequate capital at reasonable rate of return for any business or industrial proposition which offers a prospective yield high enough to make borrowing worthwhile.

SELF-CHECK EXERCISE-6.1

Q1. What is meant by capital market.

6.4 ROLE/FUNCTIONS OF CAPITAL MARKET

Capital market plays an important role in mobilising resources, and diverting them in productive channels. In this way, it facilitates and promotes the process of economic growth in the country. It ensures better coordination between the f low of savings and the f low of investment that leads to capital formation and directs the f low of savings into most profitable channels.

Beyond resource allocation, capital markets serve as a vital platform for risk management by enabling the diversification of risk within the economy. An efficiently functioning capital market enhances information transparency and promotes the adoption of robust corporate governance practices. This, in turn, fosters a trading environment built on trust and integrity. The key roles and functions of the capital market are outlined below.

1) **Link between Savers and Investors**: The capital market acts as a link between savers and investors. It plays an important role in mobilising the idle savings of people and diverting them in productive and profitable 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) **Encouragement to Saving**: With the development of capital market, the banking and non- banking institutions provide facilities to invest money in stock market, which encourage people to save more. In the less developed countries, in the absence of a capital market, there are very little savings and those who save often invest their savings in unproductive and wasteful areas such as real estate, gold etc.

3) **Capital Formation**: The capital market facilitates lending to the businessmen and the government and thus encourages investment. It helps to mobilise the huge capital required for business. It is an important and efficient means to channel and mobilize funds to enterprises, and provide an effective source of investment in the economy.

4) **Promotes Economic Growth**: The capital market serves as both a mirror of the overall economic climate and a driving force behind economic growth. By ensuring the efficient allocation of resources, it fosters the expansion of trade and industry across both public and private sectors, contributing to balanced national development. Additionally, it plays a crucial role in channeling savings into investments in productive assets, thereby strengthening a country's long-term growth potential. As a result, the capital market acts as a key enabler in transforming the economy into a more dynamic, innovative, and competitive player in the global marketplace.

5) **Stability in Security Prices**: The capital market tends to stabilise the values of stocks and securities and reduce the fluctuations in the prices to the minimum. The process of stabilisation is facilitated by providing capital to the borrowers at a lower interest rate and reducing the speculative and unproductive activities.

6) **Assists to Government:** Capital market assists the Government to close resource gap, and complement its effort in financing essential socio- economic development, through raising long-term project based capital.

7) **Benefits to Investors**: Capital market is beneficial to the investors in many ways:

   a) **Liquidity of Investment:** Shares and bonds are easily transferable at low transaction cost as compared to other assets such as real estate. Therefore an investor can buy and sell at considerable convenience.

b) Hedge against inflation: Securities prices over the long term tend to outperform inflation, therefore investment in securities can be a reliable hedge against inflation in the long term.

c) Higher Return: Capital market provides comparatively higher return in the long run than other invest avenues such as real estate, gold, and bank deposits.

d) Collateral: Securities represent stocks of wealth, and can be used as collateral to secure financing such as loans from lending institutions.

e) Flexibility: Shares and bonds are traded in units and lots that are affordable by investors of different income levels. As such, investment in securities can be customized to the specific incomes of investors.

f) Tax advantage: The government offers many tax advantages to the long term investment in equity market.

SELF-CHECK EXERCISE-6.2

Q1. What are the functions of capital market.

6.5 IMPORTANT FINANCIAL INSTRUMENTS IN CAPITAL MARKET

1. Shares:

According to the Companies Act 1956, 'a share is the share in the share capital of a company'. It is a portion of capital which is divided among number of people. It is a unit of ownership interest in a corporation and offered for sale. Shares are of two types, Preference shares and Equity shares.

(i) Preference shares:

Preference shares are those shares which have a preferential right for the payment dividend during the life time of the company and for the return of capital at the time of winding up. Preference shares carry fixed rate of dividend that are paid to shareholders before equity stock dividends are paid out.

(ii) Equity shares (Ordinary shares or Common shares):

Equity shares are the ordinary shares of a company which have no preferential rights. They are the shares representing the ownership interest. Equity shares give their holders the power to share the earnings in the company as well as a vote in the Annual General Meetings of the company. Such a shareholder has to share the profits and also bear the losses incurred by the company. Equity share holders are the real owners of the company.

2. **Debenture/Bond**:

A debenture is an acknowledgement of the debt of the Company. It is a long term debt instrument yielding a fixed rate of interest issued by a company. A debenture is like a certificate of loan or debt evidencing the fact that the company is liable to pay a specified amount with interest. Debenture is not secured by the physical asset of the company. Debenture holders are the creditors of the company and hence they have no voting right in the company. Bonds are the debt instruments secured by the physical asset of the company. In some countries, the term denture is used interchangeably with 'bond'.

SELF-CHECK EXERCISE-6.3

Q1. What are the important financial instruments in Capital Market.

6.6 COMPONENTS OF CAPITAL MARKET:

Capital market can be classified into two:

6.6.1 Primary market

6.6.2 Secondary market.

6.6.1 Primary Market

It is also called New Issue Market. It is the market where securities are issued for the first time. These securities are never traded before elsewhere. Both new companies and existing companies approach primary market for raising capital. The main function of primary market is to facilitate transfer of funds from willing investors to the entrepreneurs setting up new business or diversification, expansion or modernisation of existing business.

A new issue market is of paramount importance for economic growth and industrial development as it supplies necessary long term capital. Though the functions of primary market are so different from that of secondary market, the sentiments in the secondary market do affect the primary market activities.

Methods of raising funds in the primary market:

1) **IPO:** Initial Public Offer means offering shares of a company to the public for the first time. Investors can directly buy the securities from the issuing company.
2) **FPO(Further/follow-on public offer):** When a company issues shares to the public after an initial public offer (IPO) it is called a further/ follow-on public offer.
3) **Rights Issue:** When a company needs extra additional funds, they can collect from their present investors by giving them an opportunity to buy the shares of the company. Such issues of shares are known as Rights Issue as the present or existing shareholders are given the ”right” to buy new shares before it is offered to the public.
4) **Private placement:** Private placement means when a company offers its securities to a selective group of persons identified by the Board excluding qualified institutional buyers and employees that is financial institutions, Banks, Insurance companies, etc. not exceeding 200. This helps the company raise the funds efficiently, quickly, and economically.

Primary Market Intermediaries

A number of intermediaries play a critical role in the process of issue of new securities. They are

1) Merchant bankers/lead managers: it is an institution that extends a number of services in connection with issue of capital. Their services include management of security issues, portfolio management services, underwriting of capital issues, credit syndication, financial advice and project counseling etc. It has now made mandatory that all public issues should be made by merchant bankers acting as lead managers.

2) Underwriters: underwriter guarantee that the securities offered for the public will be subscribed if it is not subscribed by the public. It is insurance to the issuing company against the failure of issue. In case, the public fails to subscribe, the underwriter will have to take them up and pay for them. They charge a commission called underwriting commission for their service. It should not exceed 5 per cent in case of shares and 2.5 per cent for debentures.

3) Bankers to an issue: Banker to an issue accepts applications and application money, refund application money after allotment and participate in the payment of dividend by companies. No banker can act as a banker to an issue unless it

possesses a registration with SEBI. SEBI grants registration only when it is satisfied that the bank has enough infrastructure, communication and data processing facilities and requisite man power to discharge such duties. The banker is required to maintain documents and records relating to the issue for a period of 3 years. It is also required to furnish information to the SEBI regarding the number of applications received, number of issues for which it has acted as a banker to an issue, date on which applications from investors were forwarded to registrar of issue, date and amount of refund to investors etc.

4) **Registrar to an issue:** It is an intermediary who performs the function of collecting application from investors (through bankers), keeping record of applications, keeping record of money received from investors, assisting companies in allotment and helping dispatch of allotment letters, refund orders etc.

5) **Share transfer agents:** They maintain the record of holders of securities on behalf of companies and deals with all activities connected with transfer or redemption of securities.

6) **Debenture trustees:** A debenture is a financial instrument representing a company's debt, signifying its commitment to repay the principal amount along with interest. When debentures are issued to the public, the company may have a large number of debenture holders in its records. Since it is impractical to establish a direct charge in favor of each individual debenture holder, a common approach is to create a Trust Deed. This deed transfers the company's property to a trustee, who holds it for the benefit of the debenture holders. Companies issuing debentures through public or rights offerings are legally required to appoint one or more debenture trustees before releasing a prospectus or offer letter. Additionally, the trustees' consent must be obtained and explicitly stated in the offer document.

7) **Brokers to an issue:** Brokers are the persons who procure subscriptions to issue from prospective investors spread over a larger area. A company can appoint as much number of brokers as it wants.

8) **Portfolio managers:** Portfolio construction, formulation of investment strategy, evaluation and regular monitoring of portfolio is an art that requires skill and high degree of expertise. Any person who pursuant to a contract or arrangement with a client, advises or directs or undertakes on behalf of the client [whether as a discretionary portfolio manager or otherwise (adviser)] the management or administration of a portfolio of securities or the funds of the client, as the case may be is a portfolio manager.

6.6.2 Secondary Market/Stock Market

Secondary Market refers to a market where securities are traded after being initially offered to the public in the primary market and/ or listed on the Stock Exchange. Majority of the trading is done in the secondary market. Secondary market comprises of equity markets and the debt markets. It is the organized mechanism for purchase and sale of existing securities. Investors in new issue market who do not want to hold the securities up to maturity can approach stock market to sell their securities. Similarly those who want to become an investor in an existing company which does not offer new issue of securities at present, approach stock market for purchasing securities.

Definition

Securities Contract & Regulation Act 1956 defines secondary market as ‘anybody of individuals whether incorporated or not, constituted for the purpose of assisting, regulating or controlling the business of buying, selling of securities’.

Stock Exchange

Stock exchange is an organized market for buying and selling corporate and other securities. In Stock exchange, securities are purchased and sold out as per certain well-defined rules and regulations. It provides a convenient and secured mechanism or platform for transactions in different securities. Stock exchanges are indispensable for the smooth and orderly functioning of corporate sector in a free market economy. A stock exchange need not be treated as a place for speculation or a gambling. It acts as a place for safe and profitable investment.

Characteristics of a Stock Exchange

1) It is the place where securities are purchased or sold
2) It is an Association of Person whether incorporated or not
3) Trading is regulated by rules & regulations prescribed by SEBI and itself.
4) Both genuine investors and speculators buy and sell shares
5) Securities or corporations, trusts, governments, semi govt. bodies etc. are allowed to be dealt at stock exchanges.

Investors and Speculators:

Stock market participants consist of Investors and Speculators. Investor is a person or institution who makes investment in securities with the intention of getting a fair return from the investment. But the Speculator makes investment in risky securities in an attempt to profit from short and medium term fluctuations in the market value of shares.

Types of Speculators in Stock market:

- **Bull (Tejiwala):** Bull is a speculator who is hopeful of price rise in the near future. He makes purchases of securities with the intention of selling them at a higher price in future.
- **Bear (Mundiwala):** Bear is a speculator who expect fall in prices. He sells securities with the intention of buying them at a lower price in future.
- **Lame Duck:** When the bear fails to meet his obligations, he is called Lame Luck. Generally a bear agrees to dispose of certain shares on specific date. But sometimes he fails to deliver due to non-availability of shares in the market.
- **Stag:** Stag is a speculator who purchases shares to sell them above par value to earn premium. He rapidly buy and sell stocks in quick succession.
- **Jobber:** Jobber is a professional speculator who has complete information regarding the particular shares he deals. He conducts the securities in his own name. He is the member of the stock exchange and he deals only with the members.

Stock Exchanges in India

There are twenty two stock exchanges in India (2013) out of which seven are permanent. Bombay Stock Exchange (BSE) and the National Stock Exchange (NSE) are the main stock exchanges in India.

Bombay Stock Exchange (BSE):

It was established in 1875 as "The Native Share & Stock Brokers' Association". BSE Ltd. (formerly known as Bombay Stock Exchange Ltd.) is Asia’ s first Stock Exchange and one of India’ s leading exchange groups located in Dalal Street, Mumbai.. BSE is a corporatized and demutualised entity, with a broad shareholder-base which includes two leading global exchanges, Deutsche Bourse and Singapore Exchange as strategic partners.

BSE provides an efficient and transparent market for trading in equity, debt instruments, derivatives, mutual funds. More than 5000 companies are listed on BSE. The companies listed on BSE Ltd command a total market capitalization of USD 1. 32 Trillion as of January 2013. BSE's popular equity index - the S&P BSE SENSEX is India's widely tracked stock market benchmark index.

National Stock Exchange (NSE)

The **National Stock Exchange of India Ltd. (NSE),** located in Mumbai, is the **leading stock exchange in India** and the **third-largest in the world by number of trades** in equity shares. NSE was the first exchange in India to implement electronic or screen-based trading. **It began operations in 1994** and is ranked as the **largest stock exchange in India** in terms of total and average daily turnover for equity shares every year since 1995, based on SEBI data. . NSE has a market capitalisation of more than US$989 billion and 1,641 companies listed in 2020. NSE's flagship index, the S&P CNX Nifty, is used extensively by investors in India and around the world to take exposure to the Indian equities market.

Stock Index

An Index is basically an indicator of stock prices. It gives us a general idea about whether the prices of stocks have gone up or gone down. The Dow Jones Industrial Average (DJIA), Standard &Poor's 500 (S&P 500), Wilshire 5000, Nasdaq Composite Index etc are the examples of world's top stock market indices. BSE-Senex and NSE-Nifty are the main stock.

INDICES IN INDIA

BSE-SENSEX

The S&P BSE SENSEX is a stock market index of 30 well established and financially sound companies listed in Bombay Stock exchange. These 30 component companies which are some of the largest and most actively traded stocks, are representative of various industrial sectors of the Indian economy. Published since 1 January 1986, the BSE SENSEX is regarded as the pulse of the domestic stock markets in India. The base value of the BSE SENSEX is taken as 100 on 1 April 1979, and its base year as 1978–79. Other popular indices of BSE are S&P BSE 100, S&P BSE 200, S&P BSE MIDCAP, S&P BSE SMALLCAP etc.

NSE- NIFTY

The CNX NIFTY, also called the NIFTY 50 or simply the NIFTY, is National Stock Exchange of India's benchmark index for Indian equity market. It is a stock market Index of 50 companies of 22 sectors of the Indian economy. NIFTY, is used extensively by investors in India and around the world to take exposure to the Indian equities market. The base period for the CNX NIFTY is November 3, 1995 and base value of the index has been set at 1000. Besides CNX NIFTY there are many other stock market Indices for NSE such as CNX NIFTY JUNIOR, LIX 15, CNX MIDCAP, INDIA VIX, CNX SMALLCAP etc. 15, CNX MIDCAP, INDIA VIX, CNX SMALLCAP etc.

Listing of securities

Listing of securities means the enrolment of a name of company in an official list of the Stock exchange. Listing means admitting for trading on a recognized stock exchange. It facilitates buying and selling of securities in the exchange. Listing provides an exclusive privilege to securities in the stock exchange. Only listed shares are quoted on the stock exchange. Stock exchange facilitates transparency in transactions of listed securities in perfect equality and competitive conditions. Listing is beneficial to the company, to the investor, and to the public at large.

A company, desirous of listing its securities on the Exchange, shall be required to file an application, in the prescribed form, with the Exchange before issue of Prospectus by the company, where the securities are issued by way of a prospectus or before issue of 'Offer for Sale', where the securities are issued by way of an offer for sale. The company shall be responsible to follow all the requirements specified in the Companies Act, the listing norms issued by SEBI from time to time and such other conditions, requirements and norms that may be in force from time to time.

Advantages/Importance of Listing

1) **Capital Generation:** Listing enables corporations and entrepreneurs to raise capital, which can be utilized for funding new projects, business expansion, diversification, or acquisitions.

2) **Enhanced Liquidity and Marketability:** Listed securities enjoy continuous liquidity and easy marketability, adding prestige and credibility to the company.

3) **Improved Access to Additional Capital:** A company that is publicly listed has a greater ability to raise additional capital through various mechanisms such as preferential issues, rights issues, Qualified Institutional Placements (QIPs), and American Depository Receipts (ADRs) or Global Depository Receipts (GDRs).

4) **Regulated and Transparent Trading:** Transactions involving listed securities must comply with stock exchange regulations and bylaws, ensuring uniformity and preventing unfair trade practices. This regulatory oversight enhances investor confidence, particularly among retail investors.

5) **Fair Market Valuation:** The price of listed securities is determined transparently based on market demand and supply, providing an independent and fair valuation of the company.

6) **Tax Benefits:** Listed companies are classified as widely held entities under income tax laws, allowing them to benefit from various tax advantages available to such entities.

7) **Investor Protection and Transparency:** The listing agreement mandates companies to disclose critical information, including financial performance, asset details, dividends, bonus and rights issues, and transfer facilities. This transparency strengthens investor trust and confidence.

8) **Collateral Utility of Securities:** Listed securities are widely accepted as collateral for securing credit from financial institutions. Moreover, listed companies find it easier to attract investments from Domestic Institutional Investors (DIIs) and Foreign Institutional Investors (FIIs), such as banks, insurance companies, pension funds, hedge funds, and mutual funds.

Domestic institutional investors (DII) are those institutional investors established or incorporated in India which undertake investment in the financial markets of India. These are institutions or organizations such as banks, insurance companies, mutual funds etc. An institutional investor that has met certain qualifications to invest in securities outside its home country is called Qualified Domestic Institutional Investor (QDII).An investor or investment fund that is established or registered in a foreign country and investing in the financial markets of India is called Foreign Institutional Investor (FII).

International institutional investors must register with the Securities and Exchange Board of India to participate in the market. FIIs are investing huge amounts in the Indian stock exchanges and it reflects their high confidence and a healthy investor sentiment for our markets. However, the ceiling for overall investment for FIIs is 24 per cent of the paid up capital of the Indian company and 10 per cent for NRIs/PIOs. The limit is 20 per cent of the paid up capital in the case of public sector banks. The ceiling of 24 per cent for FII

investment can be raised up to sectoral cap/ statutory ceiling, subject to the approval of the board and the general body of the company passing a special resolution to that effect. In December 2013, there are more than 1700 Foreign Institutional Investors registered with SEBI.

Securities and Exchange Board of India (SEBI)

The Securities and Exchange Board of India (SEBI) is the regulatory authority for the securities market in India. It was established in the year 1988 under a resolution of the Government of India and given statutory powers on 12 April 1992 through the SEBI Act, 1992. Its headquarters is located at Mumbai. It has four regional offices in New Delhi, Kolkata, Chennai and Ahamedabad. Controller of Capital Issues derived from the Capital Issues (Control) Act, 1947 was the regulatory authority in capital market before SEBI came into existence.

The SEBI is managed by a chairman and eight members. The chairman is nominated by Union Government of India. Two members are selected from the officers of the Union Finance Ministry and one member from The Reserve Bank of India. The remaining 5 members are nominated by Union Government of India, out of them at least 3 shall be whole-time members.

Functions of SEBI

The Preamble of the Securities and Exchange Board of India describes the basic functions of the Securities and Exchange Board of India as "...to protect the interests of investors in securities and to promote the development of, and to regulate the securities market and for matters connected therewith or incidental thereto". SEBI adopts the following measures to protect the interest of investors and to regulate and promote the securities market in India.

a) Regulating the business in stock exchanges and any other securities markets

b) Registering and regulating the working of stock brokers, sub- brokers, share transfer agents, bankers to an issue, trustees of trust deeds, registrars to an issue, merchant bankers, underwriters, portfolio managers, investment advisers and such other intermediaries who may be associated with securities markets in any manner

c) Registering and regulating the working of the depositories, Depository Participants (DP) custodians of securities, foreign institutional investors, credit rating agencies and such other intermediaries.

d) Registering and regulating the working of venture capital funds and collective investment schemes including mutual funds.

e) Promoting and regulating self-regulatory organisations.

f) Prohibiting fraudulent and unfair trade practices relating to securities markets.

g) Promoting investors' education and training of intermediaries of securities markets.

h) Prohibiting insider trading in securities.

i) Regulating substantial acquisition of shares and take- over of companies.

j) Calling for information from, undertaking inspection, conducting inquiries and audits of the stock exchanges, mutual funds, other intermediaries and self-regulatory organisations associated with the securities market.

k) Performing such functions and exercising such powers under the provisions of the Securities Contracts (Regulation) Act, 1956 as may be delegated to it by the Central Government;

l) Levying fees or other charges for carrying out the purposes of the Act.

m) Conducting research for the above purposes.

n) Performing such other functions as may be prescribed.

Powers of SEBI

For the discharge of its functions efficiently, SEBI has been vested with the following powers:

1. Power to regulate the matters relating to the issue of capital, transfer of securities etc.
2. Power to issue directions to the parties and intermediaries associated with securities market.
3. Approve by−laws of stock exchanges.
4. Inspect the books of accounts and call for periodical returns from recognized stock exchanges.
5. Power to investigate the affairs of intermediaries or persons associated with securities market.
6. Inspect the books of accounts of financial intermediaries.
7. Compel certain companies to list their shares in one or more stock exchanges.
8. Registration of intermediaries

Self-Check Exercise-6.4

Q1. What is meant by primary market.

Q2. What are the methods of raising funds in the primary market.

Q3. What is meant by secondary market.

6.7 INDIAN CAPITAL MARKET

The Indian capital market is the market for long term loanable funds as distinct from money market which deals in short-term funds. It refers to the facilities and institutional arrangements for borrowing and lending ‘term funds’, medium term and long term funds. In principal capital market loans are used by industries mainly for fixed investment. It does not deal in capital goods, but is concerned with raising money capital or purpose of investment.

SELF-CHECK EXERCISE-6.5

Q1. What is meant by Indian Capital Market.

6.8 CONSTITUENTS OF CAPITAL MARKET

Capital market is classified in two ways:

i) **Classification of capital market in first way:** The first way in which capital market is classified is as follows:

a) Gilt-Edged Market:

Gilt-Edged market refers to the market for government and semi- government securities, which carry fixed rates of interest. RBI plays an important role in this market.

b) Industrial Securities Market:-

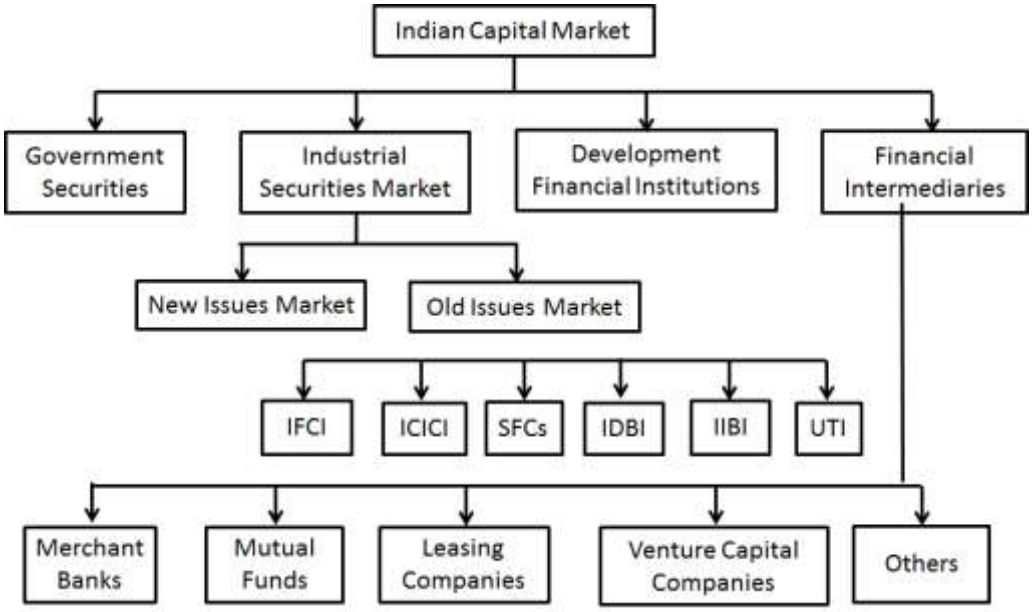
It deals with equities and debentures in which shares and debentures of existing companies are traded and shares and debentures of new companies are bought and sold.

c) Development Financial Institutions:-

Development financial institutions were set up to meet the medium and long-term requirements of industry, trade and agriculture. These are IFCI, ICICI, IDBI, SIDBI, IRBI, UTI, LIC, GIC etc. All These institutions have been called Public Sector Financial Institutions.

d) Financial Intermediaries:-

Financial Intermediaries include merchant banks, Mutual Fund, Leasing companies etc. they help in mobilizing savings and supplying funds to capital market.



ii) **Classification of capital market in second way**; The Second way in which capital market is classified is as follows:-

a) Primary Market:-

Primary market is the new issue market of shares, preference shares and debentures of non-government public limited companies and issue of public sector bonds.

b) Secondary Market:-

This refers to old or already issued securities. It is composed of industrial security market or stock exchange market and gilt-edged market.

SELF-CHECK EXERCISE-6.6

Q1. What are the main constituents of Indian Capital Market.

6.9 FACTORS INFLUENCING CAPITAL MARKET:

The firm trend in the market is basically affected by two important factors:

(i) Operations of the institutional investors in the market; and

(ii) The excellent results following in from the corporate sector.

New Financial Intermediaries in Capital Market:

Since 1988 financial sector in India has been undergoing a process of structural transformation. Some important new financial intermediaries introduced in Indian capital market are:

Merchant Banking:

Merchant bankers act as financial intermediaries, bridging the gap between entrepreneurs and investors. These institutions can either function as subsidiaries of commercial banks, operate independently as private financial service entities, or be established by firms and individuals specializing in financial advisory services. In India, merchant banks play a crucial role in managing and underwriting new issues, facilitating credit syndication, and advising corporate clients on fundraising and other financial matters. Since 1993, the Securities and Exchange Board of India (SEBI) has regulated merchant banking to enhance transparency and accountability in their operations. Additionally, the Reserve Bank of India (RBI) oversees merchant banks that function as subsidiaries or affiliates of commercial banks.

Leasing and Hire-Purchase Companies:

Leasing has emerged as a widely used financing option, particularly for small and medium-sized enterprises seeking to acquire plant and machinery. The popularity of leasing companies can be attributed to their efficiency, flexibility, and ability to cater to specific financial needs. The Narasimhan Committee acknowledged the significant role of leasing and hire-purchase companies in financial intermediation and proposed several measures, including:

(i) Establishing a minimum capital requirement;

(ii) Implementing prudential norms and guidelines for business operations; and

(iii) Introducing a unified supervisory authority to oversee compliance through periodic reporting.

Mutual Funds:

Mutual funds involve the aggregation of savings from various investors, including small, medium, and large contributors. The pooled funds form a substantial corpus managed by a team of investment experts who rely on in-depth analysis and data-driven insights. These funds bridge the gap in investor knowledge and awareness by offering an optimized balance between high returns, safety, and liquidity, ensuring maximum benefits for investors. Additionally, they enhance accessibility to financial markets, particularly for small investors in both urban and rural areas.

Among the emerging capital market institutions, mutual funds play a crucial role. Several public sector banks and financial institutions have established mutual funds with tax exemptions, operating under similar conditions as the Unit Trust of India (UTI). These funds have successfully attracted substantial investor interest and demonstrated significant growth.

The government has now opened the mutual fund sector to private and joint-sector enterprises. The Securities and Exchange Board of India (SEBI) is responsible for establishing guidelines and overseeing the functioning of mutual funds. SEBI's regulations, introduced in January 1991, cover aspects such as advertisements, disclosures, and reporting requirements. Investors must be informed about the allocation of their funds in equities, debentures, government securities, and other financial instruments.

The Narasimhan Committee has made the following recommendations regarding mutual funds: (i) creation of an appropriate regulatory framework to promote sound, orderly and competitive growth of mutual fund business: (ii) creation of proper legal framework to govern the establishments and operation of mutual funds (the UTI is governed by a special statute), and (iii) equality of treatment between various mutual funds including the UTI in the area of tax concessions.

Global Depository Receipts (GDR):

Since 1992, the Indian government has permitted foreign investments in the country's securities market through Global Depository Receipts (GDRs) and Foreign Currency Convertible Bonds (FCCBs). Initially, the funds raised through Euro-issues were required to be utilized for approved purposes within a year of issuance. However, due to the continuous increase in foreign exchange reserves held by the Reserve Bank of India (RBI) and the long gestation periods of new investments, the government mandated that issuing companies keep the Euro-issue proceeds overseas. These funds were to be repatriated only as needed to cover expenses for approved purposes.

Venture Capital Companies (VCC):

Venture capital firms play a crucial role in providing financial assistance for innovative ideas and the adoption of new technologies. They are particularly valuable for technocrat entrepreneurs who possess technical expertise but lack the necessary capital. Traditional financial institutions often require a higher share of investment financing, making venture capital firms a vital alternative for such entrepreneurs. However, venture capital financing carries significant risks.

The Narasimhan Committee has observed that the existing guidelines for establishing venture capital firms are overly restrictive and impractical, hindering their growth. To address this issue, the committee has suggested revising and amending these regulations. Recognizing the high-risk nature of venture capital investments, the committee has also proposed reducing capital gains tax for these firms and ensuring equal tax treatment between venture capital firms and mutual funds.

Other New Financial Intermediaries:

Besides the above given institutions, the government has established a number of new financial intermediaries to serve the increasing financial needs of commerce and industry is the area of venture Capital, credit rating and leasing etc.

(i) Technology Development and Information Company of India (TDICI) Ltd., a technology venture finance company, which sanctions project finance to new technology venture since 1989.

(ii) Risk Capital and Technology Finance Corporation (RCTFC) Ltd., which provides risk capital to new entrepreneurs and offers technology finance to technology- oriented ventures since 1988.

(iii) Infrastructure Leasing and Financial Services (IL&FS) Ltd. set up in 1988 focuses on leasing of equipment for infrastructure development.

(iv) The credit rating agencies namely credit rating information services of India (CRISIS) Ltd., setup in 1988; Investment and Credit Rating Agency (ICRA)

setup in 1991, and Credit Analysis and Research (CARE) Ltd., setup in 1993 provide credit rating services to the corporate sector.

Credit rating promotes investors interests by providing them information on assessed comparative risk of investment in the listed securities of different companies. It also helps companies to raise funds more easily and at relatively cheaper rate if their credit rating is high.

(v) Stock Holding Corporation of India (SHCIL) Ltd., setup in 1988, with the objective of introducing a book entry system for transfer of shares and other type of scrips thereby avoiding the voluminous paper work involved and thus reducing delays in transfers.

SELF-CHECK EXERCISE-6.7

Q1. What are the factors influencing the capital market.

6.10 ROLE AND IMPORTANCE OF CAPITAL MARKET IN INDIA

The capital market plays a vital role in capital formation, which is essential for rapid economic growth. A well-functioning capital market ensures the efficient allocation of financial resources, fostering industrial expansion and overall economic progress. The key contributions of the capital market to economic development are as follows:

1) **Mobilization of Savings and Acceleration of Capital Formation:** In developing economies like India, the capital market serves as a crucial platform for channeling savings from various sections of society into productive investments. The availability of diverse financial securities, along with liquidity and reasonable returns, encourages individuals to invest, thereby accelerating capital formation.

2) **Facilitation of Long-Term Capital Raising:** Companies often require long-term funding, whereas investors may prefer short-term commitments. The stock exchange bridges this gap by enabling investors to trade securities freely while ensuring that firms retain access to permanent capital without disruption.

3) **Boosting Industrial Growth:** By directing financial resources toward the industrial sector, the stock exchange contributes to industrial expansion. It encourages investment in productive ventures, fostering industrial development and stimulating economic growth.

4) **Ensuring Market Liquidity and Accessibility:** A well-organized stock exchange provides a centralized marketplace where securities can be easily bought and sold. This liquidity feature makes investment in financial assets more attractive compared to less liquid assets, enhancing investor confidence.

5) **Providing Technical Assistance:** Entrepreneurs in developing nations often face challenges related to technical expertise. Financial institutions within the capital market offer valuable services such as feasibility studies, business advisory support, and training programs, helping enterprises enhance their efficiency and potential.

6) **Serving as a Reliable Indicator of Corporate Performance:** The capital market acts as a barometer of economic activity by reflecting the financial health and efficiency of companies. Stock prices and financial performance indicators guide investors in making informed decisions.

7) **Efficient Allocation of Financial Resources:** Market-driven pricing mechanisms ensure that funds are directed toward enterprises with strong potential. The prevailing stock prices and expected returns help investors allocate their capital effectively, leading to optimal resource utilization.

8) **Offering a Range of Financial Services:** Capital market institutions provide a variety of essential services, including long-term and medium-term financing, underwriting support, equity participation, and expert financial advice. These services contribute significantly to the stability and growth of businesses.

9) **Encouraging Development in Underdeveloped Regions:** Investment in projects located in underdeveloped areas is facilitated by capital market financing. This promotes balanced regional development by channeling resources into economically weaker sections of the country.

10) **Attracting Foreign Investment:** The capital market enables companies to raise funds from international sources through bonds and other financial instruments. The government's liberalization policies on Foreign Direct Investment (FDI) not only attract foreign capital but also facilitate the transfer of advanced technology, thereby supporting economic modernization.

11) **Enhancing Liquidity for Investors:** Through the secondary market, investors can liquidate their holdings as needed, converting securities into cash with ease. Commercial banks also support liquidity by allowing withdrawals when required.

12) **Supporting the Revival of Distressed Businesses:** Financial institutions play a crucial role in rehabilitating financially struggling enterprises by providing timely financial assistance. In some cases, banks and financial institutions restructure or write off loans to help businesses recover from financial distress.

SELF-CHECK EXERCISE-6.8

Q1. What are the importance of capital market in India.

6.11 GROWTH OF INDIAN CAPITAL MARKET

6.11.1 Indian Capital Market before Independence

Before India gained independence, the capital market was largely underdeveloped. The economy was predominantly agrarian, yet long-term financing for the agricultural sector was almost nonexistent. Similarly, the industrial securities market experienced minimal growth due to the limited number of companies, resulting in a very small volume of securities being traded on stock exchanges.

The capital market at that time was primarily driven by gilt-edged securities issued by the government and semi-government bodies. Individual investors were scarce, and those who participated were mostly from affluent sections of urban and rural areas. Additionally, there were no specialized financial intermediaries or institutions to effectively mobilize public savings and direct them towards investment opportunities.

6.11.2 Indian Capital Market after Independence:

Post-independence, the Indian capital market witnessed substantial growth across various sectors, reflecting a significant rise in savings and investments. In 1951, the number of joint-stock companies, which serves as a key indicator of capital market development, stood at 28,500 (including both public and private limited companies) with a total paid-up capital of ₹775 crore. By 1990, this number had grown to 50,000 companies, with a paid-up capital of ₹20,000 crore.

The pace of investment has accelerated in recent years, aligning with the rapid economic development facilitated by India's Five-Year Plans. This expansion has contributed to a more structured and dynamic capital market, playing a crucial role in the country's overall economic progress.

Developments in Capital Market Since 1991

The Indian capital market has undergone significant transformation since the economic reforms of 1991. Several policy measures and structural reforms have been introduced to enhance market efficiency, transparency, and investor protection. Some of the key developments include:

i. **Establishment of the Securities and Exchange Board of India (SEBI):** SEBI was formally empowered in 1992 to regulate and oversee various market-related activities, including stock exchanges, merchant banking, portfolio management, and brokerage services. The primary objective of SEBI is to safeguard the interests of investors and ensure the smooth functioning of both primary and secondary markets.

ii. **Launch of the National Stock Exchange (NSE):** The establishment of NSE marked a significant milestone in the Indian financial markets. Today, NSE is the largest stock exchange in the country, providing nationwide access to trading through a satellite-linked network. Additionally, it introduced inter-regional clearing mechanisms to streamline transactions.

iii. **Introduction of Dematerialization (Demat) of Shares:** The dematerialization of shares was implemented to facilitate paperless trading, improving efficiency and reducing the risk of fraud. Today, securities such as bonds and debentures can also be held in demat form, simplifying ownership transfers and enhancing transparency.

iv. **Computerized Screen-Based Trading System (SBTS):** Stock exchanges were modernized in the 1990s with the introduction of computerized trading platforms. The Screen-Based Trading System (SBTS) significantly improved operational efficiency by reducing transaction time, costs, and the risk of errors and malpractices. It also provided real-time market data to investors.

v. **Investor Protection Initiatives:** In 2001, the government established the Investor Education and Protection Fund (IEPF) to safeguard investors' interests. This fund collects unclaimed dividends, refundable application money, matured deposits, and interest amounts that remain unpaid for over seven years. The IEPF is used to raise investor awareness and ensure financial security.

vi. **Implementation of Rolling Settlement:** Rolling settlement was introduced to enhance the efficiency and integrity of stock market transactions. Initially, trades followed a T+3 settlement cycle from April 2002, which was later shortened to T+2 in April 2003. This reduction in settlement time helped curb excessive speculation and improved liquidity.

vii. **Establishment of the Clearing Corporation of India Limited (CCIL):** The CCIL was incorporated in 2001 under the Companies Act, 1956, with the State Bank of India as the lead promoter. It facilitates the clearing and settlement of transactions in government securities, repos, and foreign exchange deals. All government security trades below ₹20 crores must be settled through CCIL, while larger transactions can opt for settlement through the Reserve Bank of India (RBI) or CCIL.

viii. **Creation of the National Securities Clearing Corporation Limited (NSCL):** The NSCL, set up in 1996, has been guaranteeing all trades executed on NSE since July 1996. It is responsible for post-trade settlement activities and has developed a comprehensive risk management framework to minimize market failures.

ix. **Trading in Government Securities:** To encourage broader investor participation, including retail investors, government securities were made available for trading on stock exchanges from January 2003. This move enabled seamless transactions through an electronic, screen-based trading system, similar to equity trading.

x. **Role of Credit Rating Agencies:** Several credit rating agencies, such as CRISIL (established in 1988) and ICRA (founded in 1991), were introduced to support the

capital market. These agencies assist investors, brokers, merchant bankers, and regulatory bodies by evaluating debt instruments and ensuring financial transparency.

xi. **Access to Global Capital Markets:** Indian companies were granted permission to raise funds from international financial markets through instruments like American Depository Receipts (ADRs), Global Depository Receipts (GDRs), Foreign Currency Convertible Bonds (FCCBs), and External Commercial Borrowings (ECBs). Additionally, foreign investors, including Non-Resident Indians (NRIs), Foreign Institutional Investors (FIIs), and Overseas Corporate Bodies (OCBs), were allowed to invest in Indian markets.

xii. **Growth of Mutual Funds :** Mutual funds have emerged as a crucial investment avenue for retail investors, offering diversified portfolios and professional fund management. SEBI plays a key role in regulating and supervising mutual funds to ensure investor protection and market stability.

xiii. **Introduction of Internet-Based Trading:** Stock exchanges now allow investors to trade securities online through registered stockbrokers. Internet trading has significantly enhanced the accessibility, speed, and efficiency of executing market transactions**.**

xiv. **Share Buyback Mechanism:** Since 1999, companies have been permitted to repurchase their own shares from the market. Share buybacks help firms reduce free-floating stock, prevent hostile takeovers, and optimize their capital structure.

xv. **Expansion of Derivatives Trading:** India introduced derivatives trading in equities in June 2000. Currently, the derivatives market includes stock futures, stock options, index futures, and index options, with trading permitted on both NSE and BSE. The turnover in the derivatives segment has now surpassed that of the cash market.

xvi. **Mandatory PAN Requirement:** To strengthen "Know Your Client" (KYC) norms and enhance transaction audit trails, the government made Permanent Account Number (PAN) mandatory for securities market transactions starting January 1, 2007.

SELF-CHECK EXERCISE-6.9

Q1. Write a note on the growth of Indian Capital Market.

6.12 CAPITAL MARKET REFORM IN INDIA

1) **Discloser of Standards:** Companies are required to disclose all materials facts and specific risk factors related to their projects. SEBI has also introduced a code of advertisement for public issues for the fair and truthful discloser.

2) **Freedom to determine the par value of shares:** SEBI has allowed the companies to determine the par value of shares issued by the company. SEBI has allowed issues of IPOs through the “book building” process.

3) **Underwriting Optional:** It is subject to the condition that if an issue was not underwritten and was not able to collect 90 percent of the amount offered to the public, the entire amount collected would be refunded to the investor.

4) **FIIs Allowed to operate in the Indian market:** Foreign institutional investors (FIIs like mutual funds and pension funds are allowed to invest in equity share as well as in the debt market. Access to Global Funds Market: Indian companies are permitted to access the global finance market through ADR, GDR, FCCBs, ECBs, etc., and benefits from the lower cost of funds.

5) **Credit Rating Agencies:** Different credit agencies like CRISIL, ICARE, and CARE, etc. set up to meet the emerging needs of the capital market. Credit rating agencies provide risk and quality investment of instruments by the business units. It helps a healthy discipline on the borrowers and provides guidance to investors.

6) **Investor Protection Measures:** Discloser and Investors Protection (DIP) guidelines for new issues proceed the interest of investors and the development of the securities market. SEBI also introduced an automated complaints handling system to deal with investor complaints.

7) **PAN made Mandatory:** PAN has been made mandatory with effect from 1st January 2007 to strengthen the KYC "know your customer.

8) **Electronic Transactions:** Due to technological development in the recent. The physical transaction or paperwork is reduced. Now investors make transactions online. It helps to save both money and time for investors. Thus it has made investing safer and hassle-free influences more people to join the capital market.

9) **Securities Laws (Amendment) Act, 2014:** This Act passed in August 2014 enhance powers were conferred upon SEBI, including explicit power to disgorge ill-gotten gains, the power to conduct search and seizure, explicit powers for settlement, attachment and recovery, increase in penalties, and constitutions of special courts.

10) **Mutual Fund, Corporation Bonds, AIF:** SEBI notified the Infrastructure Investment Trust Regulation in Sept 2014 that provides a framework for registration and regulation of investment in India. SEBI (Research Analysts) Regulation, 2014 was notified on September 01, 2014.

11) **New Instruments:** A number of new financial instruments have been introduced after 1992. Instruments like convertible preference shares, secured premium notes, warrants, Zero Coupon Bonds, deep discount bonds, discount bonds, Flexible bonds, loyalty coupons, etc.

SELF-CHECK EXERCISE-6.10

Q1. Write a note on capital market reform in India

6.13 SUMMARY

The capital market facilitates the provision of medium- and long-term funds, encompassing all systems and institutional frameworks for borrowing and lending over extended durations. The need for long-term funding arises from private enterprises, public sector entities, and the government. Conversely, the supply of such funds primarily originates from individual and institutional investors, banks, specialized financial institutions, and the government. The processes of globalization and financial liberalization in India have significantly transformed the financial landscape, leading to greater integration between domestic and international financial markets. While this integration has created new opportunities, it has also introduced considerable risks to the financial system. Despite notable advancements in capital market reforms, certain challenges persist—particularly in the long-term debt and corporate bond markets. Consequently, many large Indian corporations turn to international capital markets to secure long-term financing through debt and equity instruments.

6.14 GLOSSARY

- **Capital market:** refers to the institutional arrangements for facilitating borrowing and lending of long term funds.

- **Shares:** is a portion of capital which is divided among number of people. It is a unit of ownership interest in a corporation and offered for sale.
- **Debenture:** is an acknowledgement of the debt of the Company. It is a long term debt instrument yielding a fixed rate of interest issued by a company.
- **Primary Market:** is also called New Issue Market. It is the market where securities are issued for the first time. These securities are never traded before elsewhere.
- **Secondary Market:** refers to a market where securities are traded after being initially offered to the public in the primary market and/ or listed on the Stock Exchange.
- **Stock exchange:** is an organized market for buying and selling corporate and other securities. In Stock exchange, securities are purchased and sold out as per certain well- defined rules and regulations.

6.15 ANSWERS TO SELF-CHECK EXERCISES

Self-Check Exercise-6.1

Ans. Q1. Refer to Section 6.3

Self-Check Exercise-6.2

Ans. Q1. Refer to Section 6.4

Self-Check Exercise-6.3

Ans. Q1. Refer to Section 6.5

Self-Check Exercise-6.4

Ans. Q1. Refer to Section 6.6.1

Ans. Q2. Refer to Section 6.6.1

Ans. Q3. Refer to Section 6.6.2

Self-Check Exercise-6.5

Ans. Q1. Refer to Section 6.7

Self-Check Exercise-6.6

Ans. Q1. Refer to Section 6.8

Self-Check Exercise-6.7

Ans. Q1. Refer to Section 6.9

Self-Check Exercise-6.8

Ans. Q1. Refer to Section 6.10

Self-Check Exercise-6.9

Ans. Q1. Refer to Section 6.11

Self-Check Exercise-6.10

Ans. Q1. Refer to Section 6.12

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6.17 TERMINAL QUESTIONS

Q1. Discuss the role and scope of a well-developed capital market in the growth process of an economy.

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Unit -07

COMMERCIAL BANKS

STRUCTURE

7.1 INTRODUCTION

People earn money to cover their daily expenses, including food, clothing, and children's education. Additionally, they require funds for future expenses such as weddings, higher education, home construction, and social events. These significant financial commitments can be managed by setting aside a portion of their current income as savings. Traditionally, saving money ensured its availability in times of need, but it also posed risks such as theft, robbery, or accidental loss.

To address this concern, people needed a secure place to store their savings while ensuring accessibility when required. Banks serve this purpose by providing a safe environment for individuals to deposit their money with the confidence that they can withdraw it whenever necessary.

7.2 LEARNING OBJECTIVES

After reading this Unit, you will be able to:

- Define bank
- Classify the banks on the basis of ownership and their functions
- List the features of commercial banks
- Identify the various functions of the commercial banks

7.3 MEANING OF BANKING

A commercial bank is a financial institution that accepts deposits and provides loans. It offers various banking services, including deposit accounts, business loans, and financial transactions. These banks gather funds from individuals with surplus money and lend them to those in need. Acting as a banker to the general public, commercial banks operate under the Indian Companies Act, 1936, and are regulated by the Indian Banking Regulation Act, 1949.

SELF-CHECK EXERCISE-7.1

Q1. What is meant by Banking.

7.4 DEFINITIONS OF BANK

Different authors have provided various definitions of a bank. Below are some key definitions:

"Banking means the accepting, for the purpose of lending or investment, of deposits money from the public, repayable on demand or otherwise, and withdrawal by cheque, draft, or otherwise".

-Indian Banking Companies Act, 1936

"A bank is an establishment for custody of money received from or on behalf of its customers. It's essential duty is to pay their drafts on it. Its profit arises from the use of the money left employed by them".

-Oxford Dictionary

"A bank is an institution which trades in money, establishment for the deposit, custody and issue of money, as also for making loans and discounts and facilitating the transmission of remittances from one place to another".

-Webster's Dictionary

"A bank is an establishment which makes to individuals such advances of money as may be required and safety made, and to which individuals entrust money when not required by them for use."

-Prof. Kinley

"A bank collects money from those who have it to spare or those who are saving it out of their incomes, and it lends this money to those who require it."

-Prof. Crowther

The definitions provided above indicate that a bank is a financial institution engaged in monetary transactions and fund management. Therefore, a precise and comprehensive definition of a bank should encompass the various functions it performs systematically. Essentially, a bank can be an individual, an institution, a company, or an enterprise. Its

primary activities include accepting deposits, facilitating withdrawals, granting loans and advances, and making investments, all of which contribute to the creation of credit.

SELF-CHECK EXERCISE-7.2

Q1. Define the term ‘Bank’.

7.5 TYPES OF BANKS

Various banks operate in the country to fulfill the financial needs of diverse groups, including individuals engaged in agriculture, business, and other professions. These banks can be categorized based on their functions, ownership, and geographical operations.

7.5.1 Classification on the Basis of functions

a) Central Bank: The central bank serves as the highest regulatory authority in a nation's banking and financial system. It oversees credit control, acts as the banker’s bank, and holds the exclusive right to issue currency on behalf of the government. Typically, a central bank is government-controlled and often government-owned. In India, the **Reserve Bank of India (RBI)** performs these functions.

b) Commercial Banks: Commercial banks operate with the primary objective of earning profits. They accept deposits from the public and provide loans to individuals, businesses, and the government. Key characteristics of commercial banks include:

- Accepting public deposits for lending or investment, which can be repaid on demand.
- Allowing withdrawals through instruments like cheques.
- Holding a significant portion of deposits as demand deposits, which can be withdrawn or transferred via cheque.

c) Industrial Banks (Investment Banks): Also referred to as investment banks, industrial banks primarily cater to the medium- and long-term financial needs of industries. Their main functions include:

- Accepting long-term deposits.
- Providing long-term loans to industries for purchasing land, constructing factories, and acquiring heavy machinery.
- Assisting in the issuance and underwriting of shares and debentures for industrial firms.
- Offering insights into the overall economic situation. Notable examples in India include the Industrial Development Bank of India (IDBI), Industrial Finance Corporation of India (IFCI), and State Finance Corporations (SFCs).

d) Agricultural Banks: The financial needs of the agricultural sector differ from those of industry and trade. Farmers require:

- **Short-term credit** for purchasing seeds, fertilizers, and other inputs.
- **Long-term credit** for acquiring land, making permanent improvements, and buying agricultural equipment. In India, cooperative institutions generally provide short-term credit, while Land Development Banks cater to long-term financial needs.

e) Specialized Banks: These banks are established under special legislative acts and are granted unique status. Examples include:

- **National Bank for Agriculture and Rural Development (NABARD):** Established in 1982, NABARD functions as the apex institution supporting agricultural and rural economic activities.

- **Small Industries Development Bank of India (SIDBI):** Formed in 1990 as a subsidiary of IDBI, SIDBI focuses on providing loans, bill discounting, rediscounting, and leasing services for small industries.

f) Export-Import Bank of India (EXIM Bank): The **EXIM Bank** is India's principal financial institution for facilitating export and import trade. Established on January 1, 1982, as a wholly government-owned entity, it provides financial assistance, information, and guidance to exporters and importers. The bank also offers insights into global market opportunities, risks, and competition.

g) Exchange Banks: These banks specialize in handling foreign exchange transactions and financing international trade. They facilitate global payments by buying and selling bills of exchange, thereby playing a crucial role in the expansion of foreign trade.

h) Savings Banks: Savings banks encourage the habit of saving among the general public by mobilizing small deposits. In India, **postal savings banks** perform this function by offering savings accounts and issuing postal cash certificates.

i) World Bank: The **World Bank** is a global financial institution that extends financial aid to member nations. Following the Great Depression and World War II, two international institutions were established in 1944:

- **International Monetary Fund (IMF):** Provides short-term loans to countries facing balance of payments crises.
- **International Bank for Reconstruction and Development (IBRD) (commonly known as the World Bank):** Grants long-term loans to support post-war reconstruction and economic development in less developed countries.

7.5.2 Classification on the Basis of Ownership:

On the basis of ownership, banks can be classified into three categories:

a) **Public Sector Banks:** These are owned and controlled by the Government of the country. In public sector banks, the major stake is held by the Government. In India, public sector banks operate under the guidelines of Reserve Bank of India (RBI), which is the central bank. Some of the Indian public sector banks are State Bank of India (SBI), Corporation Bank, Bank of Baroda, and Punjab National Bank.

b) **Private Sector Banks:** These banks are owned by the private individuals or corporations and not by the Government or co-operative societies. In these banks, major part of share capital is held by private businesses and individuals. These banks are registered as companies with limited liability. Some of the Indian private sector banks are Vysya Bank, Industrial Credit and Investment Corporation of India (ICICI) Bank, and Housing Development Finance Corporation (HDFC) Bank.

c) **Co-operative Banks:** Cooperative banks are operated on the co-operative lines. In India, co-operative credit institutions are organized under the co-operative society's law and play an important role in meeting the financial needs in the rural areas.

d) **Foreign Banks:** These banks have their headquartered in the foreign country, but operate through branches in different countries. Some of the foreign banks operating in India are Hong Kong and Shanghai Banking Corporation (HSBC), Citibank, American Express Bank, Standard & Chartered Bank, and Grindlay's Bank. In India, there is a rapid increase in the number of foreign banks after the financial reforms of 1991.

7.5.3 Classification on the basis of domicile

On the basis of domicile, the banks are divided in to two categories:

a) **Domestic Banks:** These are registered and incorporated within the country.

b) **Foreign Banks:** These are foreign in origin and have their head offices in the country of origin, but operate through branches in different countries. Some of the foreign banks operating in India are Hong Kong and Shanghai Banking Corporation (HSBC), Citibank, American Express Bank, Standard & Chartered Bank, and Grindlay's Bank.

7.5.4 Scheduled and Non-Scheduled Banks

a) **Scheduled Bank:** Scheduled Bank is that which has been included in the Second Schedule of the Reserve Bank of India Act,1934 and fulfills the three conditions: It has paid-up capital and reserves of at least of Rs. 5 lakhs. It ensures the reserve bank that its operations are not detrimental to the interest of the depositor. It is a corporation or a cooperative society and not a partnership for single owner firm.

b) **Non-Scheduled Banks:** The banks which are not included in the Second schedule of the Reserve Bank of India Act are called Non-Scheduled Banks.

SELF-CHECK EXERCISE-7.3

Q1. Classify the banks on the basis of functions.

Q2. Distinguish between Scheduled and Non-scheduled Banks

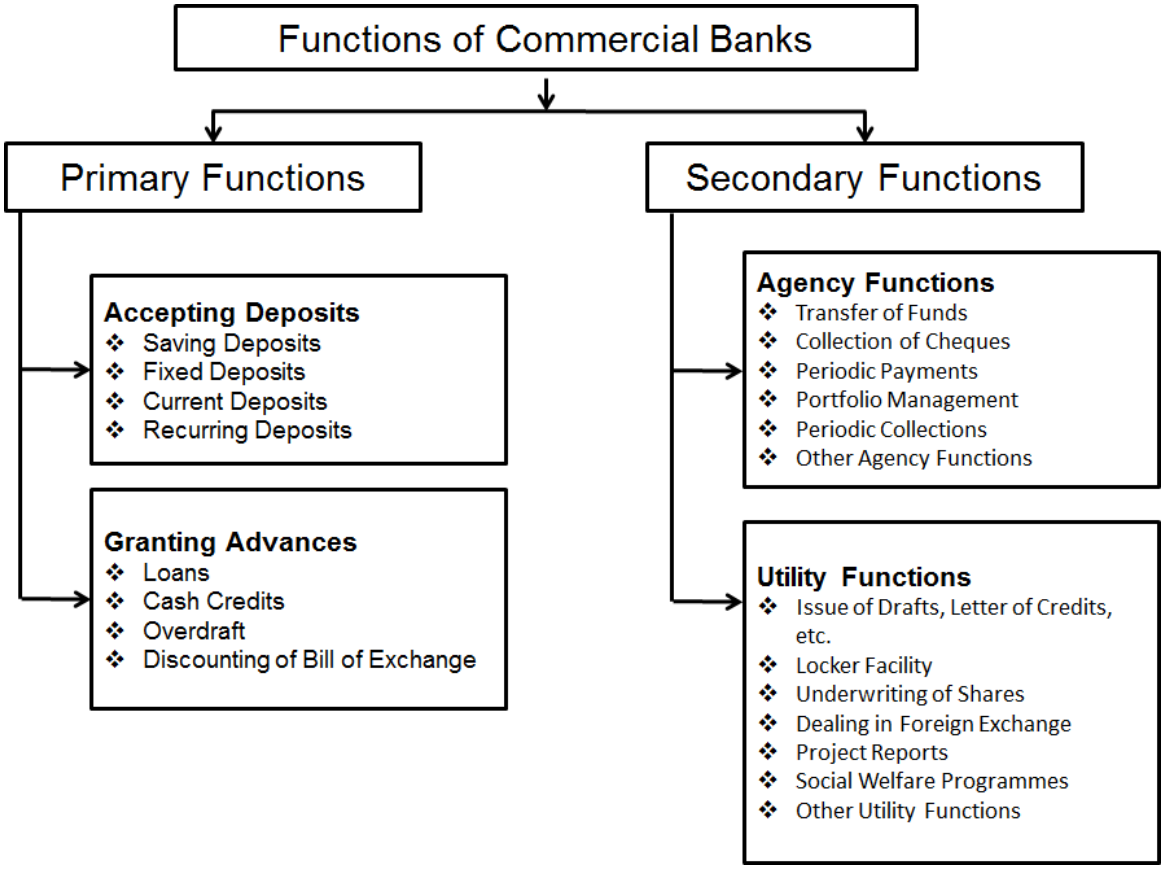
7.6 FUNCTIONS OF COMMERCIAL BANKS

7.6.1 Primary Functions:

1) Accepting Deposits

Commercial banks play a crucial role in collecting surplus funds from individuals and businesses and channeling them into productive use. Deposits are the foundation of banking operations, categorized into different types based on their purpose and accessibility:

- **Savings Deposit Account**: Designed for individuals from middle- and low-income groups, these accounts help customers save a portion of their earnings while earning moderate interest. Although deposits can be made at any time, withdrawals are subject to certain restrictions.
- **Fixed Deposit Account**: Suitable for small investors who prefer secure savings over riskier investments. Customers deposit a fixed amount for a predetermined period at a fixed interest rate. These deposits cannot be withdrawn on demand and are instead accessible only upon maturity, hence referred to as "time deposits."
- **Current Deposit Account**: Commonly used by businesses, industries, and public authorities, these accounts facilitate frequent transactions. There are no restrictions on deposits or withdrawals, making them highly liquid. Since the deposited funds are repayable on demand, they are also known as "demand deposits." Generally, banks do not offer interest on current deposits.
- **Recurring Deposit Account**: Intended for individuals with regular incomes, these accounts promote systematic savings. The depositor contributes a fixed amount every month for a specific duration, after which they receive the principal along with accrued interest.



2. Granting Loans and Advances

A primary function of commercial banks is to provide financial assistance in the form of loans and advances to businesses and individuals, generating revenue through interest. Banks retain a portion of deposits as reserves while lending the rest to borrowers. Key lending methods include:

- **Loans**: A lump sum amount granted for a fixed period at a predetermined interest rate. Borrowers may repay the loan in installments or as a whole upon maturity. Loans can be either secured or unsecured and classified as:
    - ***Demand Loans*:** Short-term loans repayable on demand, typically used for working capital needs.
    - ***Term Loans*:** These can be medium-term (1 to 5 years) for asset purchases like vehicles or equipment, or long-term (over 5 years) for investments in land, buildings, and machinery.
- **Cash Credit**: A flexible borrowing facility that allows businesses to withdraw funds as needed, up to a sanctioned limit. Interest is charged only on the utilized amount. This type of credit is typically secured against pledged or hypothecated goods.
- **Overdraft**: A temporary credit arrangement permitting customers to withdraw more than their account balance, up to a specified limit. This facility is often backed by collateral, and interest is levied on the overdrawn amount.
- **Discounting of Bills of Exchange**: Banks provide liquidity to businesses by purchasing or discounting bills of exchange before maturity. The bank deducts interest in advance and credits the discounted amount to the customer's account. This facilitates smooth credit transactions among traders.

3. Credit Creation

Commercial banks contribute to economic growth by expanding the money supply through credit creation. Instead of disbursing cash loans, banks credit the borrower's account with the sanctioned amount, allowing them to withdraw or make transactions. This newly created deposit, known as a derivative deposit, enhances financial circulation in the economy.

4. Cheque System

Commercial banks simplify transactions by issuing and processing cheques, which serve as negotiable instruments. Cheques provide a secure and convenient alternative to cash payments, allowing seamless fund transfers between individuals and businesses.

5. Fund Transfers

Banks facilitate money transfers for their customers through various modes, including demand drafts, mail transfers, telegraphic transfers, and electronic transfers. These services ensure quick and efficient remittance of funds across different locations, usually for a nominal fee.

7.6.2 Secondary Functions

The secondary functions of a modern banker may be classified into:

I. Agency functions

II. Miscellaneous functions/General utility functions.

I. Agency functions: The banker acts as an agent to his customers.

i) **Handling payments and collections**: Customers can set up standing instructions with their bank to facilitate recurring payments such as dividends, salaries, pensions, utility bills, and insurance premiums. This ensures timely transactions without requiring manual intervention.

ii) **Buying and selling securities**: Banks act as intermediaries, assisting customers in purchasing and selling financial instruments such as shares, stocks, and debentures. They function as brokers to execute these transactions on behalf of their clients.

iii) **Serving as executor, administrator, and trustee**: An executor is an individual designated in a will to carry out the wishes of the deceased. If no will exists, or if the appointed executor is unavailable or unwilling to serve, the court designates an administrator. Additionally, a trustee is someone responsible for managing assets on behalf of a beneficiary, as per the settlor's instructions. Modern banks often take on the role of trustee to manage their customers' assets.

iv) **Acting as an attorney**: A person can authorize another individual to act on their behalf through a power of attorney. Banks, when granted this authority, can sign transfer documents and facilitate the buying or selling of securities for their customers.

II. Miscellaneous functions/general utility functions:

i) Safe custody of valuables: A banker ensures the safety of customers' valuables in two ways:

a. Accepting valuables for secure custody.

b. Providing safe deposit lockers for customers to store their belongings.

ii) Letter of credit: Letter of credit assumes great importance in international trade. Letter of credit assures payment to an exporter soon after he parts with the goods

and enables the importer to make payment only after he receives the goods or the document title to goods. Thus, letters of credit facilitate foreign trade.

iii) **Traveller's Cheques:** A traveller's cheque can be purchased by anyone, are issued in different denominations. No commission is charged on the sale of traveller's cheque, the purchaser has to deposit the money in the issuing bank equivalent to the amount of traveller's cheque, at the time of purchase as well as at the time of encashment he has to sign in the cheque. There is no expiry period, refundable, issued in single name only and not in joint names, clubs, Societies etc.

iv) **Merchant Banking:** It covers a wide range of activities such as management of customer's services, portfolio management, credit syndication, counselling, assisting companies in matters relating to restructuring, amalgations, mergers and take over etc., preparation of project reports, project counselling, corporate counselling, issue management, pre-investment and feasibility.

v) **Dealing in foreign exchange business:** It includes, export finance, forward contract, issue of solvency certificates, banks get trade information and disseminate.

vii) **Leasing Finance:** The banking laws (Amendment) act, 198, enables commercial banks to carry on equipment leasing business and set up subsidiaries for carrying on such business.

viii) **Factoring:** Factoring is a 'continuing arrangement between a financial institution say, a commercial bank (called the factor) and the business concern (called the customer) selling goods and services to trade customers in which the factor purchases the book debts of his client and immediately pay the client either the full value or a substantial part of the book debts, and thereafter collects the book debts from the debtors of the client on the due dates.

ix) **Tax Consultancy:** Banks advices on income tax and other taxes, preparing customers annual statements, claiming allowances file appeals etc.,

x) **Underwriting of securities:** Every modem banker underwrite the shares and debentures of trading companies. He also underwrites the securities of government and semi government institutions.

xi) **Credit cards:** Credit cards are issued to customers having current saving stock. It enables a customer to purchase the goods and services up- to a certain limit without making immediate payment.

Xiii) **Gift cheques:** The purchaser of the cheque need not be an account holder, it has no negotiability and its payment is made only to the payee, gifted on occasions such as wedding, birthday etc.,

xiv) **Consultancy Function:** The consultancy service covers technical, financial, managerial and economic aspects. This service is provided small scale industries.

xv) **Teller System:** Under this system, tellers are permitted to accept cash deposits and process payments up to a specified limit without needing to verify the ledger balance or specimen signature. This function has now been automated with the introduction of the Automated Teller System.

7.6.3 Innovative Functions

The adoptions of Information and Communication technology enable banks to provide many innovative services to the customers such as; The integration of Information and Communication Technology (ICT) has allowed banks to offer a variety of innovative services to their customers, including:

1. **ATM Services**

An Automated Teller Machine (ATM) is an electronic banking terminal that enables customers to conduct financial transactions using a plastic card. ATMs are installed by banks to provide 24/7 access to cash withdrawals, balance inquiries, fund transfers, mini statements, bill payments, and other banking services.

2. **Debit and Credit Cards**

   Debit Card: A debit card is an electronic payment card issued by a bank, allowing customers to access their accounts for cash withdrawals or purchases. It can be used at ATMs, Point-of-Sale (POS) terminals, and e-commerce platforms. Unlike cheques, debit cards facilitate instant fund transfers from the customer's account to a merchant's account.

   Credit Card: A credit card, issued by a financial institution, allows users to borrow funds for purchases. It provides short-term financing and incurs interest on the borrowed amount.

3. **Telephone Banking**

   This service allows customers to perform banking transactions via telephone without needing to visit a branch or ATM. It offers convenience by enabling access to banking services remotely.

4. **Internet Banking**

   Also known as online banking or e-banking, this facility enables customers to carry out financial transactions securely through a bank's website. After registering for the service, customers can check balances, transfer funds, shop online, and pay bills using their credentials.

5. **Bancassurance**
   This refers to the sale of insurance products through banking channels. Banks partner with insurance companies to offer policies to their customers, generating additional revenue while helping insurers expand their customer base without increasing their salesforce.

6. **Mobile Banking**

   Mobile banking allows users to access banking services via mobile phones or digital devices. Customers can manage their accounts, transfer funds, check balances, and make payments anytime, anywhere, free of cost.

7. **Electronic Clearing Services (ECS)**

   ECS is an electronic fund transfer system used for bulk transactions, such as salary disbursement, pension payments, dividends, interest payments, and utility bill collections. This system facilitates seamless transactions between multiple accounts using a clearinghouse.

8. **National Electronic Fund Transfer (NEFT)**

   NEFT is a nationwide payment system that enables individuals, businesses, and corporations to electronically transfer funds between bank accounts. Transactions are settled in batches at scheduled intervals. There are 11 settlements on weekdays and 5 on Saturdays.

9. **Real-Time Gross Settlement (RTGS)**

   RTGS is the fastest interbank money transfer system, processing transactions in real-time on an order-by-order basis. Unlike other systems, it does not involve batch processing, ensuring instant fund settlement.

SELF-CHECK EXERCISE-7.4

Q1. Explain the primary functions of a commercial banks.

Q2. Explain the secondary function of commercial banks.

7.7 SUMMARY

A commercial bank is a kind of financial institution that carries all the operations related to deposit and withdrawal of money for the general public, providing loans for investment, and other such activities. The main purpose of commercial banks is to provide financial services to the general public and also provide loan facilities to the business which helps in ensuring economic stability and growth of the economy. Therefore, banks have been rightly crowned as 'the nerve' center of all economic activity.

7.8 GLOSSARY

- **Bank:** is a lawful organization which accepts deposits that can be withdrawn on demand.
- **Exchange banks:** deal in foreign exchange and specialize in financing foreign trade.
- **Savings Banks:** promotes saving habits among the general public and mobilize their small savings.
- **World Bank:** refers to an institution which provides financial assistance to the member countries of the world.
- **Public Sector Banks:** are owned and controlled by the Government.
- **Private Sector Banks:** owned by the private individuals or corporations and not by the Government or co-operative societies.
- **Co-operative Banks:** are operated on the co-operative lines.
- **ATM Services**: An Automated Teller Machine (ATM) is an electronic banking device that allows customers to carry out financial transactions using a plastic card. Banks set up ATMs to provide their customers with round-the-clock access to cash and other banking services.
- **Mobile Banking**: Mobile banking is a service that enables customers of a financial institution to perform various financial transactions using a mobile device, such as a smartphone or tablet. This system allows users to access banking services anytime and from any location through their mobile devices.
- **Real Time Gross Settlement System (RTGS):** is one of the processes that settle payments to the recipient on an instant basis without having to wait for some time for the settlement to happen.
- **National Electronic Fund Transfer (NEFT):** is a country-wide electronic fund transfer system for sending money from one bank account to another in a safe and hassle-free manner.

7.9 ANSWERS TO SELF CHECK EXERCISES

Self-Check Exercise-7.1

Ans. Q1. Refer to Section 7.3

Self-Check Exercise-7.2

Ans. Q1. Refer to Section 7.4

Self-Check Exercise-7.3

Ans. Q1. Refer to Section 7.5.1

Ans. Q2. Refer to Section 7.5.2

Self-Check Exercise-7.4

Ans. Q1. Refer to Section 7.6.1

Ans. Q2. Refer to Section 7.6.2

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7.11 TERMINAL QUESTIONS

1. What is a bank? On what basis the banks are classified, explain in detail.
2. What is meant by Commercial Bank? Explain the functions of commercial bank.

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Unit - 08

THEORIES OF COMMERCIAL BANKING

STRUCTURE

8.1 INTRODUCTION

Commercial banks often face inherent conflicts among the objectives of liquidity, safety, and profitability. Striking a balance between these goals can be challenging, as prioritizing one may come at the expense of the others. Recognizing these contradictions, economists have developed various theoretical frameworks over time to address them effectively. These theories serve as guiding principles for asset allocation, ensuring that banks can maintain adequate liquidity while safeguarding their financial stability and maximizing profitability. Collectively, these frameworks are known as theories of liquidity management, and they play a crucial role in shaping banking policies and decision-making processes.

8.2 LEARNING OBJECTIVES

In this Unit, we will discuss different theories of commercial banking along with their merits and demerits.

8.3 THEORIES OF COMMERCIAL BANKING

The economists developed the following theories of commercial banks to maintain the balance among the liquidity, safety and profitability of the banks:

8.3.1 Commercial Loan Theory

The **Commercial Loan Theory**, also referred to as the **Real Bills Doctrine**, represents one of the oldest banking theories that prevailed before the Great Depression of the 1930s. According to this theory, commercial banks should primarily issue short-term, self-liquidating, and productive loans to businesses, considering the nature of their liabilities.

Self-liquidating loans are those extended to finance various stages of production, storage, transportation, and distribution of goods. These loans are designed to be repaid

automatically as the goods they finance move through the supply chain and are eventually sold in the market. For example, if a bank provides a loan to a business for purchasing inventory, the loan is expected to be repaid using the revenue generated from the sale of that inventory, thereby making it **self-liquidating** in nature.

The theory also stipulates that central banks should provide financial support to commercial banks only against short-term, self-liquidating loans. This practice was believed to ensure liquidity for individual banks and maintain an optimal money supply within the economy. To regulate the availability of credit, the central bank could increase or decrease bank reserves by rediscounting approved loans. When economic activity expanded and trade volumes increased, commercial banks could obtain additional reserves by rediscounting trade bills with the central bank. Conversely, during periods of economic contraction, when business activities slowed down, the volume of rediscounting would decline, leading to a reduction in bank reserves, credit availability, and money supply.

Advantages of the Commercial Loan Theory

The Commercial Loan Theory offers several benefits, particularly concerning liquidity and financial stability:

1. **Ensured Liquidity:** Since self-liquidating loans are automatically repaid when the goods they finance are sold, they provide banks with a consistent and predictable source of liquidity.
2. **Lower Credit Risk:** These loans are short-term and meant for productive purposes, reducing the likelihood of default or bad debt accumulation.
3. **Profitability for Banks:** As productive loans, they generate revenue for banks by earning interest while simultaneously ensuring that funds are efficiently circulated within the economy.

Limitations of the Commercial Loan Theory

Despite its advantages, the Commercial Loan Theory has several weaknesses, making it impractical in modern banking systems:

1. **Constraints on Business Expansion:** Since this approach discourages banks from issuing fresh loans until previous ones are repaid, businesses may face difficulties in maintaining or expanding their operations. If multiple banks adopt this approach, it can lead to a decline in money supply, reduced investment, and economic slowdown.
2. **Ineffectiveness During Economic Downturns:** The theory assumes that loans will always be repaid under normal economic conditions. However, during recessions or depressions, when production and trade decline, borrowers may struggle to repay their loans, leading to financial instability.
3. **Limited View on Bank Liquidity:** The doctrine focuses solely on real trade bills while neglecting the importance of diversified liquid assets, such as government securities, which can be sold in capital markets to maintain liquidity during financial distress.
4. **Dependence on Consumer Demand:** No loan is inherently self-liquidating unless the financed goods are successfully sold. If demand for the goods decreases and inventories remain unsold, businesses may fail to generate enough revenue to repay the loans, creating financial risks for banks.
5. **Flawed Basis for Credit Regulation:** The theory relies on the **"needs of trade"** to regulate money supply, a concept that is no longer considered a reliable criterion for managing credit. If credit expansion and contraction are solely based on trade requirements, central banks may lose control over inflationary and recessionary trends, leading to financial instability.

8.3.2 Shiftability Theory of Bank Liquidity

The **Shiftability Theory of Bank Liquidity** was introduced by **H.G. Moulton**, who argued that commercial banks can ensure liquidity by holding assets that can be easily transferred to other banks without incurring significant losses. According to this theory, banks do not necessarily have to rely on asset maturities to maintain liquidity. Instead, they should hold financial instruments that can be quickly converted into cash when required.

For an asset to be considered **perfectly shiftable**, it must be **readily transferable** without any depreciation in value when liquidity needs arise. This concept applies primarily to **short-term marketable securities**, such as **treasury bills** and **bills of exchange**, which can be sold immediately to generate cash when required. However, during a financial crisis where all banks face liquidity constraints, this theory suggests that financial institutions should hold assets that can be transferred to the **central bank**, which acts as the **lender of last resort**.

Advantages of Shiftability Theory

i) **Enhanced Liquidity Management** – The theory encourages banks to invest in **high-quality, marketable assets**, such as government securities, treasury bills, and corporate bonds, which can be readily sold when liquidity is needed.

ii) **Facilitates Term Lending** – Since banks can hold assets that are shiftable to other financial institutions, they are encouraged to **engage in long-term lending** while still maintaining liquidity.

iii) **Reduces Dependency on Maturity** – Unlike traditional liquidity theories that emphasize asset maturities, the shiftability approach allows banks to focus on **asset marketability** rather than waiting for loans or investments to mature.

Limitations of Shiftability Theory

i) **Dependency on Market Conditions** – The effectiveness of shiftability relies heavily on **favorable economic conditions**. In times of financial instability, banks may struggle to sell their assets without incurring losses.

ii) **Vulnerability During Economic Crises** – During severe economic downturns or financial panics, investors may be unwilling to buy securities, rendering shiftability ineffective. In such situations, banks holding **shares and debentures** may find it difficult to sell them at a reasonable price.

iii) **Systemic Risk** – If an individual bank attempts to sell large amounts of shiftable assets during a financial crisis, it may trigger **panic selling**, leading to a broader crisis in the banking sector.

iv) **Adverse Impact on the Banking System** – If all banks simultaneously try to shift their assets**,** it can have catastrophic consequences for both lenders and borrowers, further exacerbating financial instability.

8.3.3 Anticipated Income Theory:

The **Anticipated Income Theory** was formulated by **H.V. Prochanow** in **1944**, based on the lending practices of U.S. commercial banks, particularly concerning term loans. This theory suggests that, irrespective of the type and nature of a borrower's business, a bank structures the repayment schedule of a term loan based on the borrower's expected future earnings.

A **term loan** typically spans a period of more than one year but is usually repaid within five years. These loans are granted against the hypothecation of **machinery, inventory, or even immovable property**. When extending a term loan, banks impose certain financial restrictions on the borrower to ensure proper utilization of funds. Apart from

evaluating the collateral, banks also consider the borrower's anticipated income while approving the loan.

Under this approach, the repayment of the loan is made through periodic installments rather than a **single lump-sum payment** upon maturity. This structured repayment method ensures that the borrower can gradually clear their debt using their future earnings.

Advantages of the Anticipated Income Theory

This theory is regarded as superior to earlier banking theories such as the **Real Bills Doctrine** and the **Shiftability Theory** because it effectively balances three essential banking principles: **liquidity, safety, and profitability**.

i. **Liquidity Assurance**: Since borrowers repay the loan through **regular installments**, banks maintain a steady cash flow, which enhances their liquidity position.

ii. **Ensured Safety**: This approach considers both **collateral security and the borrower's ability to repay**, reducing the risk of default.

iii. **Profitability**: Banks can efficiently allocate their surplus reserves by offering term loans, thereby generating **a stable stream of income**.

iv. **Support for Businesses**: The availability of medium-term funding under this system provides significant financial support to businesses, enabling them to **expand and operate efficiently**.

Limitations of the Anticipated Income Theory

Despite its advantages, this theory is not without flaws:

i. **Not a Full-Fledged Theory**: Instead of offering a theoretical foundation, this concept is primarily a **method for assessing a borrower's creditworthiness**, guiding banks in evaluating a borrower's potential to repay.

ii. **Liquidity Challenges in Emergencies**: While installment-based repayment helps maintain liquidity, it may not be **sufficient to meet sudden, large-scale liquidity demands** of the lender bank during economic uncertainties.

8.3.4 Liabilities Management Theory

The **Liabilities Management Theory** emerged in the **1960s**, introducing a shift in banking practices. Unlike earlier approaches that emphasized **self-liquidating loans and maintaining liquid assets**, this theory proposes that banks can secure additional reserves from the **money market** when needed, rather than relying solely on their own liquidity. According to this theory, commercial banks can **generate liquidity** by acquiring additional liabilities through various financial instruments and funding sources, including:

i. **Issuing Time Certificates of Deposit**

ii. **Interbank Borrowing**

iii. **Borrowing from the Central Bank**

iv. **Raising Capital through Shares and Debentures**

v. **Retained Earnings (Ploughing Back Profits)**

Each of these sources plays a crucial role in the financial flexibility of banks, enabling them to maintain liquidity and sustain their lending operations.

Key Sources of Bank Liquidity

(a) **Time Certificates of Deposit (TCDs):** In the **United States**, time certificates of deposit serve as a primary means for commercial banks to **raise reserve funds**. These certificates

have varying maturities, generally ranging from **90 days to less than one year**, and are **negotiable in the money market**, allowing banks to access liquidity by selling them.

However, two limitations affect their reliability:

i. **Market Interest Rate Fluctuations**: If the prevailing interest rates in the money market surpass the **ceiling rate** set by the central bank, TCDs may become **difficult to sell**.

ii. **Unequal Access for Smaller Banks**: Larger banks can afford to sell large-value certificates at **lower interest rates**, while smaller banks may struggle to raise adequate funds from this source.

(b) **Borrowing from Other Commercial Banks:** Banks with **surplus reserves** often lend to those facing liquidity shortages. These interbank borrowings are generally **short-term**, lasting for a day or a few weeks. The interest rate for such transactions is determined by the money market. However, this option is viable only during **stable economic conditions**. During financial crises, banks become reluctant to lend to others, making this an **unreliable liquidity source**.

(c) **Borrowing from the Central Bank:** Commercial banks can also **borrow directly from the central bank** to meet short-term liquidity needs. They do so by:

- **Taking direct loans from the central bank**
- **Discounting bills** (i.e., selling promissory notes or commercial papers)

However, central bank borrowing is relatively **expensive** compared to other funding options, as it involves **higher interest costs** and strict regulatory oversight.

(d) **Raising Capital through Shares and Debentures:** Another method of securing funds is through **equity financing**, where banks issue **new shares or debentures**. However, their success in raising capital depends on their **dividend or interest offerings**. Since banks typically **offer lower returns** compared to manufacturing or trading firms, they **struggle to attract sufficient capital** from investors.

(e) **Ploughing Back Profits (Retained Earnings):** A portion of a bank's profits is often **retained** instead of being distributed as dividends, forming an internal reserve for future liquidity needs. However, the effectiveness of this source depends on:

- The **profitability** of the bank
- Its **dividend distribution policy**

Generally, **larger banks** have a greater ability to accumulate and rely on retained earnings compared to smaller financial institutions.

SELF-CHECK EXERCISE-8.1

Q1. Explain the commercial loan theory of commercial banking

Q2. Write a note on shiftability theory of commercial banking.

Q3. Explain the anticipated income theory of commercial banking.

Q4. What is liabilities management theory of commercial banking

8.4 SUMMARY

In this Unit, we have discussed the different theories of commercial banking, developed by the economists along with their merits and demerits. In fact, these theories monitor the distribution of assets of the banks. The oldest theory of banking is the Commercial Loan Theory. This theory states that a commercial bank, because of the nature of their liabilities, should forward only short-term, self-liquidating, productive loans to business organizations. The shiftability theory of bank liquidity is the second theory which

states that if the commercial banks maintain a substantial amount of assets that can be shifted on to the other banks for cash without material loss in case of necessity, then there is no need to rely on maturities. According to this view, an asset to be perfectly shiftable must be immediately transferable without capital loss when the need for liquidity arises. According to Anticipated Income Theory, regardless of the nature and character of a borrower's business, the bank plans the liquidation of the term-loan from the anticipated income of the borrower. A term-loan is for a period exceeding one year and extending to less than five years. Liabilities Management Theory of bank liquidity is the next theory which states there is no need for banks to grant self-liquidating loans and keep liquid assets because they can borrow reserve money in the money market in case of need.

8.5 GLOSSARY

- **Self-liquidating loan**: is a type of short term loan whereby the funds borrowed are used to buy some asset, which is in turn sold to repay the loan at the time of maturity.
- **Shiftability**: is an approach to keep banks liquid by supporting the shifting of assets.
- **Anticipated income:** means the amounts of income the applicant can reasonably be expected to receive during the calendar year.
- **Certificate of Deposit (CD)**: is a money market instrument which is issued in a dematerialised form against funds deposited in a bank for a specific period.
- **Ploughing back of profits**: means not distributing all the profits to the shareholders and investing some profit back in the business. It basically means to retain or invest back the profits in the business.

8.6 ANSWERS TO SELF-CHECK EXERCISES

Self-Check Exercise-8.1

Ans. Q1. Refer to Section 8.3.1

Ans. Q2. Refer to Section 8.3.2

Ans. Q3. Refer to Section 8.3.3

Ans. Q4. Refer to Section 8.3.4

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8.8 TERMINAL QUESTIONS

Q1. Explain the various theories of commercial banks, in details.

Unit - 09

CREDIT CREATION

STRUCTURE

9.1 INTRODUCTION

Credit creation is a key feature that distinguishes banks from other financial institutions. Simply put, it refers to the process of expanding deposits. Banks can increase their demand deposits by multiple times their cash reserves since these deposits function as a primary medium of exchange. As a crucial component of the money supply, an increase in demand deposits leads to an expansion of the overall money supply. The foundation of the banking system is built on credit, which essentially allows individuals or businesses to access purchasing power immediately while committing to repay in the future. Bank credit encompasses loans and advances provided by banks.

To ensure liquidity, banks retain a portion of their deposits as reserves to meet withdrawal requests, while the remaining funds are extended as loans to generate income. When a bank grants a loan, the amount is credited to the borrower's account, effectively creating a new deposit. As a result, credit creation translates to the expansion of bank

deposits. This process operates on the premise that, at any given time, only a small percentage of depositors will require cash withdrawals, and not all customers will demand their funds simultaneously.

9.2 LEARNING OBJECTIVES

After studying this Unit, you will be able to:

- recognize the basis of credit creation
- explain the process of credit creation
- elucidate the limitations of the bank

9.3 MEANING OF CREDIT CREATION

Banks, unlike other financial institutions, have a peculiar ability to create credit, i.e., to expand their demand deposits as a multiple of their cash reserves. This is because of the fact that demand deposits of the banks serve as the principal medium of exchange, and in this way, the banks manage the payment system of the country. In short, multiple expansion of deposits is called credit creation. When a bank extends loans it is not directly paid to the borrower, but is only credited to his account and a cheque book is given. Thus every bank loan creates an equivalent amount of derivative deposit. By using this deposit, banker can again extend loan to some other parties after keeping a specified amount as reserve. Thus with a little cash in hand the banks can create additional purchasing power to a considerable degree. Credit can be created by a single bank or by more than one banker. When it is created by more than one banker, it is called multiple credit creation.

SELF-CHECK EXERCISE-9.1

Q1. What is meant by Credit Creation?

9.4 BASIC CONCEPTS OF CREDIT CREATION

In order to understand the process of credit creation, the proper knowledge of some basic concepts is necessary:

1. **Bank as a Business Entity** – A bank operates as a financial institution that aims to generate profits by providing loans and advances based on customer deposits.
2. **Bank Deposits** – These serve as the foundation for credit creation and can be categorized into two types:
    - **Primary Deposits** – When a bank receives cash from a customer and deposits it into their account, it constitutes a primary deposit. This transaction does not create credit; rather, it converts physical currency into deposit money, which then serves as the basis for credit creation.
    - **Secondary or Derivative Deposits** – When a bank provides loans or advances, instead of disbursing cash, it credits the borrower's account, forming a derivative deposit. Since every loan results in a deposit, this process effectively leads to credit creation.
3. **Cash Reserve Ratio (CRR)** – Banks anticipate that depositors will not withdraw all their funds simultaneously. Therefore, they maintain a fraction of total deposits as cash reserves to fulfill withdrawal requests, while the remaining portion is utilized for lending. The CRR refers to the percentage of total deposits that banks are required to hold as cash reserves to meet customer withdrawals.

4. **Excess Reserves** – Any reserves held by the bank beyond the mandatory cash reserves are termed excess reserves. These funds are utilized for granting loans and facilitating credit creation.
5. **Credit Multiplier** – Banks can create multiple times the amount of credit in relation to their initial cash reserves. The total amount of derivative deposits generated through the credit creation process is a multiple of the bank's excess reserves. The ratio between total derivative deposits and the initial excess reserves is known as the credit multiplier.

   Credit Multiplier = $\frac{\text{Total Amount of Derivative Deposits}}{\text{Initial Amount of Excess Reserve}}$

   Credit Multiplier is also the reciprocal of cash reserve ratio. The formula is:

   Credit Multiplier = $\frac{1}{r}$

   Where K is the credit multiplier and r is the required reserves.

SELF-CHECK EXERCISE-9.2

Q1. Write a note on Derivative Deposits

Q2. What is meant by Cash Reserve Ratio

Q3. What is Credit Multiplier

Q4. Write Excess Reserve

9.5 DETERMINANTS OF CREDIT CREATION OF A BANK

The following are the main determinants of credit creation of a bank:

- The capacity of banks to create credit.
- The accessibility of money deposits with banks.
- The factors which decide their money deposit proportion.
- The willingness of the banks to create credit
- The interest should exist in the market.
- Financially sound borrowers (to avoid bad debts).
- The amount of credit conceded ought not to surpass the paying limit of the borrower.
- Also, the demand for credit in the market.

SELF-CHECK EXERCISE-8.3

Q1. Write the factors that affecting the credit creation of a bank.

9.6 PROCESS OF CREDIT CREATION

The process of credit creation can be studied in two parts:

9.6.1 Single Banking System

9.6.2 Multiple Banking System

9.6.1 Credit Creation in a Single Banking System: In this system, a single bank operates within the country, handling all financial transactions. The process can be illustrated as follows:

Suppose an individual, 'A,' deposits ₹10,000 in the bank. This amount serves as the primary deposit. Based on past experience, the bank understands that not all

depositors withdraw their funds simultaneously. Therefore, it retains 10% of the total deposits as cash reserves and lends out the remaining amount. In this case, the bank keeps ₹1,000 in cash and extends a loan of ₹9,000 to an individual, 'B.' Instead of providing this loan in cash, the bank creates a current account in 'B's' name and credits ₹9,000 to this account. 'B' is then permitted to issue cheques up to this amount. Now, suppose 'B' owes ₹9,000 to 'C' and settles the debt by issuing a cheque for the same amount. 'C' deposits this cheque in the same bank. The bank debits ₹9,000 from 'B's' account and credits it to 'C's' account, thereby increasing the bank's deposits by ₹9,000. Again, the bank retains 10% of this new deposit as a reserve and lends the remaining ₹8,100 to another borrower, 'D.' This cycle continues, gradually increasing the total deposits in the banking system. The process can also be illustrated using the following table:

Table 9.1: Process of Credit Creation by Single Bank

Round	**Primary Deposits**	**CRR=10%**	**Credit Creation or Derivative Deposits (∆D)**
Person 'A'	10,000.00 (Initial primary deposits)	1,000.00	9,000.00 (Initial excess reserve ∆**R**)
Person 'B'	9,000.00	900.00	8,100.00
Person 'C'	8,100.00	810.00	7,290.00
Person 'D'	7290.00	729.00	6561.00
Person 'E'	-	-	-
Person 'F'	-	-	-
Total	**Rs. 1,00,00.00**	**Rs. 10,000.00**	**Rs. 90,000.00**

The above table shows the following points:

a) on the basis of cash reserve ratio of 10% and with initial primary deposit of Rs. 10,000, the bank creates derivative deposits of Rs. 90,000 and the total demand deposits will be Rs. 1,00,000 (i.e., primary plus derivative deposits).

b) the credit expansion (i.e. Rs. 90,000) is ten times the initial excess reserve (i.e., Rs. 9,000).

c) The credit multiplier will be 10. i.e.

$$\text{Credit Multiplier} = \frac{1}{Cash\ reserve\ ratio\ (r)} = \frac{1}{10} = 10$$

Credit Multiplier

Credit multiplier depends upon the ratio of cash reserve to deposits. The credit or deposit multiplier is the reciprocal of cash reserve ratio. The higher the cash reserve ratio, the lower will be the credit multiplier; the lower the cash reserve ratio, the higher will be the credit multiplier.

The additional aggregate deposits (∆D) will be the initial excess reserve (∆R) multiplied by the credit multiplier (k) or the inverse of cash reserve ratio (r), i.e.

$\Delta D = k\Delta R = \frac{\Delta R}{r}$

Where, ΔD = Derivative deposits

ΔR = Initial excess reserve

r = cash reserve ratio

k = Credit Multiplier

if, for example, the commercial banks get new deposits of Rs. 10 crore and the cash reserve ratio is 20%, the additional aggregate deposits will be

$\Delta D = \frac{\Delta R}{r}$ = 10 ×5 = Rs. 50 crore

Algebraically, the formula for additional aggregate deposits, i.e., $\Delta D = \frac{\Delta R}{r}$, can be derived in the following manner:

Total Increase in Bank Deposit (ΔD)= Primary Deposit in the First Round + Secondary Deposit in the2nd Round +……..+Secondary Deposit in nth Round

$$\Delta D=\Delta R+(1-r)\Delta R+(1-r)^2\Delta R+\ldots\ldots+(1-r)^{n-1}\Delta R \text{---------- (1)}$$

Multiplying equation (1) by (1 - r)

$$(1-r)\Delta D=(1-r)\Delta R+(1-r)^2\Delta R+(1-r)^3\Delta R+\ldots\ldots+(1-r)^n\Delta R \text{----------(2)}$$

Subtracting equation (1) from (2)

$$(1-r)\Delta D-\Delta D=[(1-r)\Delta R+(1-r)^2\Delta R+(1-r)^3\Delta R+\ldots\ldots+(1-r)^n\Delta R]$$

$$-[\Delta R+(1-r)\Delta R+(1-r)^2\Delta R+\ldots\ldots+(1-r)^{n-1}\Delta R]$$

Or

$$-\Delta Dr=-\Delta R+(1-r)^n\Delta R$$

When $n \rightarrow ά$, the value of $(1-r)^n\Delta R$ tends to zero. Thus,

$\Delta D = \frac{\Delta R}{r}$

9.6.2 Credit creation by multiple banking system:

In reality, an economy does not operate with just a single bank; rather, multiple banks function simultaneously. While an individual bank can only generate credit up to the limit of its excess reserves, a banking system consisting of multiple banks can create significantly more credit based on the initial deposits.

Consider an economy with multiple banks. Suppose a person deposits Rs. 10,000 in cash with Bank ‘A’. If the bank maintains a 10% cash reserve, it retains Rs. 1,000 and lends out the remaining Rs. 9,000. The borrower then makes a payment of Rs. 9,000 via cheque to another individual who holds an account in Bank ‘B’. This person deposits the cheque in Bank ‘B’, increasing its deposits by Rs. 9,000. Bank ‘B’ then keeps 10% of this amount (Rs. 900) as a cash reserve and lends out Rs. 8,100 to another borrower. The recipient deposits Rs. 8,100 in Bank ‘C’, where the process continues. Bank ‘C’ retains 10% (Rs. 810) and lends the remaining Rs. 7,290.

This cycle of deposits and lending continues across multiple banks, progressively increasing the total credit in the economy. Ultimately, the banking system is able to generate credit worth Rs. 90,000 based on the initial primary deposit of Rs. 10,000. The process can be better understood with the help of the following table:

Table 9.2 : Process of Credit Creation by Banking System

Banks	Primary Deposits	Cash Reserve Ratio = 10%	Credit Creation or Derivative Deposits (ΔD)
A	10,000.00 (Initial primary deposits)	1,000.00	9,000.00 (Initial excess reserve ΔR)
B	9,000.00	900.00	8,100.00
C	8,100.00	810.00	7,290.00
D	7290.00	729.00	6561.00
E	-	-	-
F	-	-	-
Total	**1,00,000.00**	**10,000.00**	**90,000.00**

An initial primary deposit of ₹10,000 allows the banking system to extend loans amounting to ₹9,000, assuming a 10% cash reserve is maintained. Consequently, the total credit generated within the banking system will reach ₹90,000.

SELF-CHECK EXERCISE-9.4

Q1. How do the banks create credit in a single banking system?

Q2. Explain credit creation process in multiple banking system.

9.7 LIMITATIONS ON CREDIT CREATION

Commercial banks do not possess unlimited authority to create credit. Their capacity to generate credit is constrained by several factors:

i) **Availability of Cash:** The extent of credit creation is directly influenced by the cash reserves banks receive. A higher cash inflow enables greater credit creation, whereas a lower cash supply limits it. The central bank regulates the overall cash supply in the economy.

ii) **Cash Reserve Ratio (CRR):** Banks cannot utilize all deposits for lending; a certain proportion must be maintained as reserves. The volume of credit a bank can create depends on the prescribed cash reserve ratio. An increase in the CRR reduces credit creation, while a decrease enhances it. The central bank holds the authority to modify this ratio, thereby influencing the overall credit volume.

iii) **Public Banking Habits:** The effectiveness of credit expansion relies on customers depositing borrowed funds back into the banking system. Multiple expansions in credit occur only when people habitually deposit money in banks and utilize cheques for transactions.

iv) **Economic Conditions:** Credit creation fluctuates with business cycles. During periods of economic growth, demand for loans and investments rises, leading to greater credit expansion. Conversely, during economic downturns, businesses and individuals borrow less, reducing the overall credit volume.

v) **Leakages in Credit Circulation:** Not all funds circulate smoothly between banks. Some individuals may retain a portion of their money as idle cash, disrupting the credit creation process.

vi) **Quality of Collateral:** Banks issue credit against secure and profitable assets, such as government securities and bills. If borrowers fail to provide sound collateral, banks are unable to extend credit. As Crowther states, “A bank cannot create money out of thin air; it transmutes other forms of wealth into money.”

vii) **Liquidity Preference:** When individuals prefer holding cash rather than depositing it in banks, the ability of banks to generate credit diminishes.

viii) **Monetary Policy of the Central Bank:** The central bank plays a crucial role in regulating credit creation. Through instruments like the bank rate and open market operations, it can control the expansion or contraction of credit in the economy.

These factors collectively determine the extent to which commercial banks can create credit, ensuring stability within the financial system.

SELF-CHECK EXERCISE-9.5

Q1. What are the limitations on Credit Creation in an economy?

9.8 LEAF AND CANNON CRITICISM

Economists such as Edwin Cannon and Walter Leaf have criticized the theory of multiple credit creation, asserting that banks cannot lend beyond the deposits they receive from customers. Their arguments can be summarized as follows:

(i) The process of credit creation does not begin with banks but rather with depositors who place their money in banks. Banks merely act as intermediaries between lenders and borrowers.

(ii) When a bank grants a loan, it credits the borrower's account with the loan amount. However, this deposit can be withdrawn at any time, reducing the bank's cash reserves. As a result, banks cannot extend loans beyond the total deposits made by customers.

(iii) Banks are able to lend primarily because not all customers withdraw their funds simultaneously, allowing them to utilize the remaining deposits for lending purposes.

SELF-CHECK EXERCISE-9.6

Q1. Criticize the process of credit creation.

9.9 SUMMARY

The bank's capacity to generate credit is constrained by several factors. However, the significance of this function should not be overlooked, as it plays a crucial role in the economy. Credit creation by banks has a profound impact, particularly on business activities. It serves as the essential fuel that keeps the wheels of commerce running smoothly.

9.10 GLOSSARY

- **Credit creation**: refers to expanding the availability of money through the advancement of loans and credit by banks and financial institutions
- **Primary Deposits:** are cash deposits with the commercial banks by the people.
- **Secondary or Derivative Deposits**: are those deposits which arise on account of loans by the banks to the people.

- **Cash Reserve Ratio (CRR**): is the percentage of total deposits which the banks must hold in cash reserves for meeting the depositors' demand for cash as mandated by RBI.
- **Excess Reserves**: The reserves over and above the cash reserves are the excess reserves.
- **Credit Multiplier**: refers to the ratio between the change in demand deposits and change in cash reserves of the commercial banks with the RBI.

9.11 ANSWERS TO SELF-CHECK EXERCISES

Self-Check Exercise-9.1

Ans. Q1. Refer to Section 9.3

Self-Check Exercise-9.2

Ans. Q1. Refer to Section 9.4

Ans. Q2. Refer to Section 9.4

Ans. Q3. Refer to Section 9.4

Ans. Q4. Refer to Section 9.4

Self-Check Exercise-9.3

Ans. Q1. Refer to Section 9.5

Self-Check Exercise-9.4

Ans. Q1. Refer to Section 9.6.1

Ans. Q2. Refer to Section 9.6.2

Self-Check Exercise-9.5

Ans. Q1. Refer to Section 9.7

Self-Check Exercise-9.6

Ans. Q1. Refer to Section 9.8

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9.13 TERMINAL QUESTIONS

Q1. What is credit creation? What concepts are involved in the process of credit creation?

Q2. How do the banks create credit in a single bank and a multiple bank system?

Q3. Explain the concept of credit creation and discuss the importance in the real world.

Q4. Examine the various limitations of credit creation.

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NON-BANK FINANCIAL INTERMEDIARIES

STRUCTURE

10.1 INTRODUCTION

In the previous Units, you have studied the theory and practice of commercial banking. You have also learnt about the role of various banking institutions particularly the commercial banks and the central bank in the economic development of a country. In this Unit, you will study the role of various non-bank financial intermediaries in the economic development of the country. Before taking up a detailed discussion of these institutions, it is necessary to know the meaning of financial intermediation and the manner in which non-bank financial intermediaries differ from the financial intermediaries, viz., commercial banks.

10.2 LEARNING OBJECTIVES

After studying this Unit, you will be able to:

- explain the meaning of non-bank financial intermediaries
- describe the role of non-bank financial intermediaries
- identify various types of non-bank financial intermediaries

10.3 NON-BANK FINANCIAL INTERMEDIARIES

A Non-Bank Financial Intermediary (NBFI) is an institution registered under the Companies Act 2013 or 1956. According to section 45-I (c) of the RBI Act, a Non–Banking Company carrying on the business of a financial institution will be an NBFC. It further states that the NBFC must be engaged in the business of Loans and Advances, acquisition of stocks, equities, debt etc issued by the government or any local authority or other marketable securities, but does not include any institution whose primary business is agriculture, industrial activity, purchase or sale of real estate.Non-Bank Financial Institutions are financial institutions that provide financial services to customers, but do not hold a banking license. This means that NBFIs do not have the ability to accept deposits from the general public, which is one of the key functions of a traditional bank. NBFIs offer a range of financial services, such as providing loans, managing investments, and facilitating financial transactions. Some common examples of NBFIs include insurance companies, leasing companies, factoring companies, investment companies, and microfinance institutions.

NBFIs have become increasingly important in recent years as they fill the gap left by traditional banks in certain areas of the financial market. For example, microfinance institutions provide loans to individuals and small businesses who may not have access to traditional bank loans. Similarly, factoring companies provide working capital to small and medium-sized enterprises by buying their accounts receivable at a discount. Overall, NBFIs play an important role in the financial sector by providing a variety of financial services to customers who may not have access to traditional banking services

What is NBFI?

- A non-bank financial company, also known as a non-bank financial institution, provides financial services and products but is not recognised as a bank with a full banking licence.
- NBFIs are not banks, but their activities include lending and other activities such as providing loans and advances, credit facilities, savings and investment products, trading in the money market, managing stock portfolios, money transfers, and so on.
- NBFI Registration is required before NBFI activities can begin.
- Their activities include hiring, leasing, infrastructure finance, venture capital finance, housing finance, and so on.
- Deposits can be accepted by NBFI, but only **term deposits** and deposits repayable on demand are not accepted.
- Some examples of well-known NBFIs are Kotak Mahindra Finance, SBI Factors, Sundaram Finance, and ICICI Ventures.

SELF-CHECK EXERCISE-10.1

Q1. What do you mean Non-Bank Financial Intermediaries (NBFIs)?

10.4 CRITERIA FOR NBFI LICENSE

- The company must be registered in accordance with the Companies Act.
- The corporation should be either a Limited Company or a Private Limited Company (PLC).
- The company's Net Owned Fund must be at least Rs. 2 crores.

SELF-CHECK EXERCISE-10.2

Q1. Mention the criteria for NBFI License ?

10.5 DIFFERENCES BETWEEN COMMERCIAL BANKS AND NON-BANK FINANCIAL INSTITUTIONS (NBFIS)

Commercial banks and non-bank financial institutions (NBFIs) differ in various ways, as outlined below:

1) **Deposit Mobilization and Withdrawal**:
   Commercial banks accept demand deposits and other forms of deposits from the public, allowing customers to withdraw funds at any time. In contrast, NBFIs typically return the money collected from the public only after a predetermined period.

2) **Lending Practices**:
   Commercial banks primarily offer short-term loans to both individuals and businesses. On the other hand, NBFIs provide long-term financing, mainly to business enterprises, and also invest in shares and debentures of industrial firms.

3) **Role in Economic Development**:
   Commercial banks generally do not engage in direct promotional activities. In contrast, NBFIs actively participate in various initiatives aimed at accelerating industrial growth.

4) **Regulatory Framework**:
   All commercial banks operate within the organized financial sector and are governed by the **Banking Regulation Act, 1949**. NBFIs, however, exist in both organized and unorganized financial sectors, making their regulatory framework more diverse.

SELF-CHECK EXERCISE-10.3

Q1. Distinguish between Commercial Bank and NBFIs.

10.6 ROLE OF NON-BANK FINANCIAL INTERMEDIARIES

Non-bank financial institutions serve as vital intermediaries, bridging the gap between savers and borrowers. Their role in financial intermediation ensures that individuals can securely invest their funds while enabling businesses to access capital efficiently.

For instance, consider an automobile manufacturing company that requires a loan of ₹100 crore. Without financial intermediaries, the firm would have to find individual lenders willing to provide this amount, which would be a complex and time-consuming process. Similarly, if an individual has ₹1,000 to lend, finding a borrower who needs precisely that amount would be challenging. This is where financial institutions step in, offering a structured system that benefits all parties involved. By pooling funds from multiple savers and lending them to those in need, they streamline the process and enhance financial efficiency. Additionally, this pooling mechanism leads to administrative economies of scale.

As intermediaries, non-bank financial institutions contribute significantly to individuals, businesses, and the economy in several ways:

i. **Benefits to Individual Investors** – They offer a combination of low-risk investment opportunities, stable returns, and potential capital appreciation.

ii. **Support for Businesses** – By mobilizing savings from numerous small investors, these institutions provide businesses with timely and affordable funding, eliminating the need for companies to approach individual investors scattered across the country.

iii. **Sectoral Development** – They allocate financial resources based on the government's economic priorities, ensuring that various sectors receive adequate funding.

iv. **Regional Economic Balance** – By offering financial assistance on favorable terms to enterprises in underdeveloped regions, these institutions help reduce regional disparities.

v. **Industrial Growth** – When industrialization faces setbacks due to financial constraints, non-bank institutions step in with crucial support in the form of loans, underwriting services, or direct investments in shares and debentures.

vi. **Entrepreneurial Assistance** – These institutions provide not only financial aid but also technical and managerial guidance. They engage in promotional activities such as project identification, feasibility analysis, and implementation, thereby accelerating industrial development.

SELF-CHECK EXERCISE-10.4

Q1. What are the role of Non-Bank Financial Intermediaries in the economic development.

10.7 TYPES OF NON-BANK FINANCIAL INTERMEDIARIES

Non-bank financial institutions can be categorized into three main types based on their functions:

i. **Investment Trusts**: Also referred to as investment banks, these institutions collect savings from the general public and direct them toward productive investments. They invest surplus funds in various securities and also provide long-term loans. Additionally, they engage in merchant banking activities such as underwriting securities. Examples of such institutions in India include the Life Insurance Corporation of India (LIC), the General Insurance Corporation of India (GICI), and the Unit Trust of India (UTI).

ii. **Development Banks**: Also known as special financial institutions, development banks offer long-term financial support to industrial enterprises. Alongside funding, they play a crucial role in promoting industrial development. Key national-level development banks include the Industrial Finance Corporation of India (IFCI), the Industrial Credit and Investment Corporation of India (ICICI), and the Industrial Development Bank of India (IDBI). At the state level, similar institutions include State Financial Corporations (SFCs) and State Industrial Development Corporations (SIDCs).

iii. **Other Institutions**: Some organizations do not directly provide financial assistance but instead focus on promoting entrepreneurship and offering support services. Institutions in this category include the National Small Industries Development Corporation (NSIC), State Small Industries Development Corporations (SSIDCs), and Technical Consultancy Organizations (TCOs).

SELF-CHECK EXERCISE-10.5

Q1. What are types of Non-bank Financial Intermediaries.

10.8 PROGRESS/GROWTH OF NBFIS

Non-bank Financial Intermediaries have registered significant growth in recent years both in terms of number and volume of business transactions. NBFIs started in a small way

in the sixties and the seventies and tried to serve the needs of the savers and investors whose needs remained unfulfilled by the banking system. In the eighties, there was virtually a boom, when entrepreneurs suddenly woke up to the tremendous possibilities offered in an economy chronically affected by the massive paucity of funds and a growing realization of enormous resource mobilisation capacity offered by the capital market. Along with the growth of Indian economy, NBFIs have also grown gradually into institutions that can provide services similar to that of commercial banks in the country.

The growth of NBFIs in India was more pronounced in the last two decades. Several factors have contributed to the growth of these institutions. Their tailor made services, customer-orientation, minimum procedures and simplicity, speed of operations, etc. have attracted more and more customers to them. The monetary and credit policy followed in the country in the recent past has left a section of borrowers outside the purview of banking system and these NBFIs increasingly hatred to these sections. Comprehensive regulation of the commercial banks and the absence or less rigorous regulations over NBFIs have also contributed to the phenomenal growth or the latter in terms of their numbers, clientele deposits and Net Owned Fund (NOF).

However, most of these companies possessed neither the inclination nor the mental and attitudinal ability to acquire these traits. A host of factors such as the erosion of margins due to over concentration of blue chip companies, a high rate of default by lessees, severe problems in sustaining consistent and adequate utilisation of resources, sales tax and turnover tax levied on lease by respective state government and dubious accounting practices by some companies, all combined in an unholy alliance to sound the death knell for most companies in this budding industry. This rapid growth in the business of NBFIs also brought in its wake the need for effective regulatory action to protect the interests of investors.

The Reserve Bank has started regulating the activities of NBFIs with the twin objectives of ensuring that they serve the financial system efficiently and do not put at risk the interest of depositors. In the backdrop of general sickness in the real estate market and some of the industrial activities coupled with steep decline in the value of some of the unquoted shares, the NPAs of NBFIs have registered an upward trend. The profitability of NBFIs has generally come under strain due to mandatory provisioning requirements against NPAs. The provisions in the RBI Act which, till recently were considered inadequate to deal with the growing number of weak and unscrupulous players, were expanded in January, 1997, vesting considerable powers with the Notes of Reserve Bank.

RBI has put in place a comprehensive regulatory and supervisory framework in order to discharge the heavy statutory responsibilities cast on it with a view to providing indirect protection to the depositors' interest and strengthening the NBFI sector. As a result, growth rate had slowed down, gradually leading to a negative growth rate in 1988. However, from 1989 the trend has changed for the better, there are a host of reasons that have led to the revival of interest in financial services. Firstly, the enormously progressive measured of liberalisation and dismantling of the hitherto control ridden economy have to a great extent opened up larger vistas of growth.

The Reserve Bank of India (RBI) grants registration to Non-Banking Financial Institutions (NBFIs) based on a comprehensive assessment of various factors, following the criteria outlined in the RBI Act. Applications for registration undergo rigorous scrutiny before approval. As of August 24, 2009, the RBI has approved the registration of 336 NBFIs authorized to accept public deposits and 12,607 NBFIs that operate without accepting public deposits.

A company incorporated under the Companies Act, 1956, intending to function as an NBFI as defined under Section 45 I(a) of the RBI Act, 1934, must have a minimum net owned fund of ₹25 lakhs, which was increased to ₹200 lakhs effective April 21, 1999. The

RBI closely monitors NBFIs accepting public deposits through an extensive supervision framework, including on-site inspections, off-site surveillance, market intelligence, and necessary regulatory interventions.

Statutory auditors of NBFIs are mandated to report any regulatory non-compliance directly to the RBI, enabling appropriate punitive actions. Additionally, the RBI has launched nationwide awareness campaigns through print media to educate the public on safe practices regarding deposits with NBFIs. The central bank also collaborates with state governments and enforcement agencies to curb illegal deposit-taking activities by NBFIs and unregistered entities.

At the same time, financially sound and well-managed NBFIs are encouraged to continue their legitimate business activities. Recently, bank credit extended to NBFIs for financing commercial vehicle purchases has been categorized under priority sector lending. Furthermore, the previous limits on bank credit to NBFIs, which were based on a multiple of their net owned funds (NOF), have been removed for those registered with the RBI.

SELF-CHECK EXERCISE-10.6

Q1. Explain the growth of Non-bank Financial Intermediaries.

10.9 SUMMARY

Non-bank Financial Intermediaries (NBFIs) have taken on new meaning in India and have experienced rapid growth in the recent years. NBFIs are corporations that are not banks but carry out lending activities at par with banks. They may also accept public deposits, but these are term deposits rather than call deposits. NBFIs are not as heavily regulated as banks adds to the risk. Such a risk was highlighted during the 2008 Global Financial Crisis, when companies' lending practises went unchecked, resulting in a disastrous outcome. The IL&FS default and subsequent turbulence in the Indian credit markets in 2018 raised some critical and fundamental questions about the role of NBFCs, their business model, and the best regulatory regime for them.

10.10 GLOSSARY

- **Non-bank financial Intermediaries (NBFI):** are financial institutions that operate without a full banking license and are not authorized to accept public deposits. However, they play a crucial role in providing alternative financial services, including investment management (both individual and collective), risk pooling, financial advisory, brokerage services, money transfers, and check cashing.
- **Commercial Bank**: a financial institution whose purpose is to accept deposits from people and provide loans and other facilities
- **Central Bank**: is a public institution that manages the currency of a country or group of countries and controls the money supply
- **NPAs**: Non-Performing Assets (NPAs) are defined by the Reserve Bank of India (RBI) as any advance or loan overdue for more than 90 days.

10.11 ANSWERS TO SELF-CHECK EXERCISES

Self-Check Exercise-10.1

Ans. Q1. Refer to Section 10.3

Self-Check Exercise-10.2

Ans. Q1. Refer to Section 10.4

Self-Check Exercise-10.3

Ans. Q1. Refer to Section 10.5

Self-Check Exercise-10.4

Ans. Q1. Refer to Section 10.6

Self-Check Exercise-10.5

Ans. Q1. Refer to Section 10.7

Self-Check Exercise-10.6

Ans. Q1. Refer to Section 10.8

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10.13 TERMINAL QUESTIONS

Q1. What are Non-bank Financial Intermediaries? Explain the growth of NBFIs in India.

Q2. Why NBFIs are important for an economy?

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THEORY OF CENTRAL BANKING

STRUCTURE

11.1 INTRODUCTION

The evolution of banking system is marked by emergence of a very important banking institution known as the Central bank. Now almost every country of the world has its own central bank. Although the organization and the policies of these central banks may vary from country to country, nevertheless, their functions are more or less similar. But what is a central bank? A central bank can be defined only in terms of its functions. But the list of its functions is so large that any attempt to refer to all of them in a definition of it will make the definition cumbersome. Therefore, instead of giving a comprehensive but cumbersome definition of it, we shall give here only a working definition of it and explain its functions separately in some details,

11.2 LEANING OBJECTIVES

After readings this Unit, you will be able to:

- explain the meaning of Central Bank
- explain the various functions of Central Bank
- understand the objectives and methods of credit control
- knew about currency and credit schools.

11.3 MEANING OF CENTRAL BANK

A central bank is the central bank or apex monetary institution of a country which is generally vested with a number of functions so that it is able to manage the monetary and banking system in the best interest of the country. A central bank differs from ordinary banks, firstly, because, unlike the ordinary banks, it is not a business enterprise which is guided by the private profit motive. On the contrary, its objective is to act in the best

economic interest of the nation. Secondly, It is the overall controlling monetary authority; it heads the monetary and banking system of country and all other types of banks function under its guidance and control.

SELF-CHECK EXERCISE-11.1

Q1. What is meant by Central Bank?

11.4 FUNCTIONS OF CENTRAL BANK

De Kock has observe that a central bank is bank which constitutes the apex of the monetary and banking structure of its country and which performs, as best as it can in the national interest. ed the following functions:

i. The regulation of currency in accordance with the requirements of business and the general public for which purpose it is granted either the sole right of note issue or at least a partial monopoly there of ;

ii. The performance of general banking and agency services for the state;

iii. The custody of cash reserves of the commercial banks:

iv. The custody and management of the nation's reserves of international currency:

v. The granting of accommodation, in the form of discount or collateral advances, to commercial banks, bill brokers and dealers or other financial institutions, and the general acceptance of the responsibility of lender of the last resorts;

vi. The settlement or clearance of balances between the banks; and

vii. The controls of credit in accordance with the need of business and with a view to carrying out the broad monetary policy adopted by the state.

In summary form the above functions of a central bank may be listed as follows:

i. It acts as the country's bank issue.

ii. It acts as the banker, agent and financial advisor to the government of the country;

iii. It acts as the custodian of member banks cash reserves;

iv. It acts as the custodian of the foreign exchange reserves of the country:

v. It acts as the lender of the last resort:

vi. It acts as the clearing house for the member banks; and above all;

vii. It acts as the controller of credit.

Let us explain these functions in relativity greater detail.

1. Bank of Note Issue: The central bank of a country has generally the monopoly right of note issue. Sometimes, as in India in the case of one-rupee notes, a small part of it may be done by the government through its treasury or the Finance Ministry. But, for all practical purposes, the Central banks enjoy the monopoly right of note issue. The reasons for which this monopoly right is given to the central banks are as follows:

i) It enables the central Bank to control the total volume of credit more efficiently.

ii) It lend uniformity to the currency notes.

iii) It lends also prestige to the note currency

iv) It also enables the government to have a better supervision of the way this function is performed and irregularities, if any, can be easily checked and removed

2. **Banker to the Government:** As government banker, the central bank manages the banking accounts of the government departments and enterprises. It also gives to the government short-term loans described as of "ways-and-means" advances in anticipation of collection of taxes or raising of loans from the public It also gives to the government extra- ordinary advances during extra-ordinary situation, such as economic depression, war and other emergencies It manages the public debt, for it is the agency through which public loans are raised and paid back. It also carries, out foreign exchange transaction on behalf of the government. It also acts as advisor to the government on financial and monetary matters.

3. **Banker's Bank:** It acts not only as a banker to the government but also as a banker to the other banks. These banks keep their deposits with the central bank and as such it acts as the custodian of member bank's cash reserves. It also lends to the member banks by rediscounting the bills of exchange against which the banks lend to the public "The centralization of cash reserves in the central bank," according to De Kock." is a source of great strength to the banking system of any country." It is because this can serve as the basis of a larger and more elastic credit structure."

4. **Custodian of Nations foreign exchange Reserve:** All foreign exchange transaction (buying and selling of foreign currencies) takes place through- it Foreign exchange balances, therefore, remain in its custody this monopoly help it to correct the adverse balance of payment of the country in a better way as well as to the stabiles the foreign value of national currency

5. **Lender of Last Resort:** Being the central monetary and banking authority of the country, it is its duty to take care of the stability and soundness of the banking system. There might be situation when some member banks are usable to meet the demand of their depositors for withdrawal of their deposits due to lack of liquidity. Such situations are fraught. With great danger to the stability of the banking system, as it may cause a breakdown of public confidence in the soundness of banks resulting in a general run on the banks and their eventual collapse. The central bank, in such situation, comes to the rescue of the banks by acting as the lender of last resort. In this capacity the central banks tries to meet all reasonable demands of the member banks for financial accommodation. This function need not always be performed under the extreme situation mentioned above Even under normal circumstances when the banks are unable to meet the rising demand for credit out of their own funds, they can approach the central banks for loans in order to replenish their own funds

6. **Controller of Credit:** However, the most important function of a central bank to which all other functions of it are more or less subservient is to act as the controller of credit this is essential, because one of the basic duties of a central bank is to maintain the internal and external stability of the economic system of the country, Internally it requires the prevention of inflationary and deflationary spirals and thus to fend against fluctuation in the general price level and consequent changes in the internal value of the national currency. Externally it requires the preventing of fluctuation in the foreign exchange rate or the external value of the national currency. These objectives cannot be achieved without controlling the volume of credit in the country. Hence, the function of a central bank as controller of credit has assumed great importance.

7. **Clearing House:** Lastly, a central bank also acts as the bank of central clearance, settlement and transfer .Since all member banks keep their surplus cash reserves as deposits with the central bank, it is much easier for them to settle their claims and counterclaims against one another by making simply transfer entries in their accounts with the central bank. This mechanism saves a lot of Labour, inconvenience and botheration as well as economics the use of money.

SELF-CHECK EXERCISE-11.2

Q1. Explain the central bank as the banker of the government.

Q2. How does the central bank function as the tender of the last resort?

11.5 CREDIT CONTROL: OBJECTIVES AND METHODS

The most important function of a central bank is to control the total volume of credit in the economy we have also observed that the main objectives of credit control are maintaining the stability of the rate of exchange and also maintaining the stability of the domestic price. level and thus stabilizing the internal or domestic value of the national currency. Under the gold standard, the objectives were incompatible and greater preference used to be given objective of exchange rate stability. The reason might be that it lent prestige to a currency in the international economy. Moreover, since stability of exchange rate is important for the international trade and for the economies like the British economy whose mainstay was foreign trade, this goal acquired a preferred position compared to the goal of domestic price stability.

However, with the abandonment of the gold standard after the great Depression, the objective of maintaining price stability took preference exchange rate stability objective, whenever the two goals/were found to be incompatiable.

In recent times, the focus of credit control policy of central bank has shifted from the objective of mere stability of internal price level to the objective of full employment and growth with stability. As a Controller of credit, RBI is authorized to control the credit operations of banks. The quantitative credit controls include bank rates, open market operations and variable reserve ratio. The qualitative credit controls are the selective credit control measures adopted by the RBI as required by the economy.

The three instruments are designed to affect liquidity in the economy by acting on the quantum of bank reserves. Open market operations and reserve requirements directly affect the reserve base while the Bank rate produces its impact indirectly through variations in the cost of acquiring the reserves. The effects of Bank rate changes are not confined to the banking system and money market; they produce wider repercussions on the economy as a whole. However, its action is indirect, its influence on money and credit being through primary changes in short-term money rates and secondary repercussions on long-term interest rates or yields; it is not also as flexible for day-today adjustments as open market operations, which can also be used for carrying out changes on even the smallest scale. Changes in reserve requirements operate directly and immediately by affecting the quantum of loanable resources with banks an increase reduces the banks' capacity to lend and a reduction in effect places funds with them. The effects of changing reserve requirements are similar in some respects but different in others from these of open market operations. The two instruments differ in that changes in reserve requirements are much more effective than open market operations and also discount rate in situations where the banks have a volume of reserves far in excess of the legal requirements or where a large expansion of credit is desired. Unlike the Bank rate whose effectiveness depends, among other things, upon the attitude of the commercial banks and the borrowers, open market operations can be so regulated that bank reserve change to the level desired by the central bank. However, the use of one instrument rather than another at any point of time is determined by the nature of the situation and the range of influence it is desired to wield as well as the rapidity with which the change is required to be brought about. Rather, it has come to be recognized that in the majority of circumstances, no single instrument is adequate to meet the task instead all three need to be employed in appropriate combination.

SELF-CHECK EXERCISE-11.3

Q1. What is meant by Credit Control.

Q2. What are the various methods of Credit Control.

11.6 THE CURRENCY AND CREDIT SCHOOLS

The controversy between the so-called Currency School (the earlier incarnation of which was Bullionism or the Bullionist School) and the Banking or Credit School took place in the context of the suspension of the convertibility of the British pound. The convertibility of the British pound was suspended in 1797 until 1821, and consequently the pound depreciated in terms of gold and other convertible currencies. The controversy arose around the question whether the depreciation was an evidence of inflation and if so, if it was causes by an over issue of the notes of the bank of England. The Bullionists, who later on come to be known as the Currency School, took the position that the cause indeed was an excess supply of Bank of England notes, on account of which the stock of money increased at a faster rate than the real output and therefore the prices rose. Rise in internal prices made imports cheaper and exports dearer to the importers do foreign countries. This caused a deficit in the balance of payments which under the gold standard and convertibility of paper currency, was to be met by the outflow of gold. Thus, according to the Currency School, the heavy outflow of gold forced suspension of the convertibility of pound, and its depreciation I the foreign exchange market. Therefore they argued for curtailing the supply of "Bank of England notes and to issue them to future in amounts corresponding exactly to the amount of gold that could fully back it.

The implication of the argument of the Currency School was that money supply was determined exogenously by the Central Bank of a country and the money issued by the central bank of a country (currency notes and coins) was a basic determinant of the aggregate supply of money. They acknowledged that the money substitutes, which now are referred to as "near- moneys" and which they referred to as auxiliary media of payment, did exist, but, In opposition to the views of the Banking School which is also referred to as the Credit School, they argued that money substitutes or "near-money" could not influence the level of prices independently. According to them, the money substitures merely magnified the influence of the Bank of England notes, that is, the currency issued by the central bank of a country. It will be seen that the currency issued by the central bank of a country is what we now describe as the "high-powered money," and that the views of the Currency School were akin to the views of the modern monetarists as reflected in their sophisticated theory of money supply Known as the "H" Theory of money supply. The Currency School advanced arguments in contention of their stand along the following lines:

(1) The payments in specie and notes have a constant proportion to payments by their substitutes. Therefore the latter could not vary and exert an independent influent on prices.

(2) Since the turnover rate or the velocity of circulation of the money substitutes was much lower than that of currency notes and coins, the influence of these "economizing expedients" on prices was relatively too small.

(3) Moreover, the supply of some of the money substitutes was directly linked to the bank of England-currency notes because at that time some other banks had also the right of note issue and they held their reserves in Bank of England notes.

(4) Bank deposits arose from the deposits made by the public in currency notes or specie which the banks merely passed on as loans which means that this school of thought regarded the banks as mere cloak rooms and, therefore, it believed that the bank deposits depended upon the availability of currency notes and specie. A

reduction in the latter led directly to a reduction in the former. Therefore the gap caused by the decrease in the amount of currency notes and specie could not be filled by the banks by increasing their deposits on their own initiative.

(5) Lastly, in times of crisis, it was argued, Bank of England notes were always demanded or final payments. Thus other circulating media could be ignored, as they were not used in really crucial situations.

The Banking School or the Credit School, like their Anti-Bullionist predecessors, argued that paper money could never be over-issued so long as its convertibility into gold was maintained. Therefore they attributed the rise in prices, against the background of which the controversy between the Banking School and Currency School took place. to the necessity of making huge expenditures abroad to support the British military in its wars with France, on the one hand, and the necessity of making extra-ordinary imports of food grains following several years of bad harvests in England.

Secondly, unlike the Currency School, this school did not believe that by controlling the amount of Bank of England currency notes (the so-called "high-powered" money) the price level could be controlled. It is because, unlike the Currency School, this school of thought defined money (implicitly, of course) not as a stock but as a flow in the sense of money expenditure pet period of time (as MV and not as M. to use the language of the Quantity Theory). Therefore they argued that any decrease in money stock (M) could be nullified by a compensating increase in the velocity of money or dishoarding, as they would describe it.

The Banking School also referred to the money substitutes which, in their opinion, could compensate any decrease in the Bank of England currency notes. They believed that the volume of the money substitutes (demand deposits, upon book credit, commercial bills of exchange, etc.) was independent of the volume of Bank of England note issue. Thus control of one particular assets, defined as money rather arbitrarily, could not guarantee control of the price level and the external value of the pound.

However, their rather most important argument which had a significant bearing on the supply side of money was that the supply of money was demand determined. This implied that to them money supply was not determined exogenously but, to the contrary, it was determined endogenously. This argument of the Banking School was based upon the Real Bills Doctrine and the law of Reflux. The Real Bills Doctrine, first enunciated by Adam Smith, held that so long as the paper or credit or bank money was advanced as loans against "sound" (non-speculative short- term commercial bills of exchange arising from genuine productive activities of the public, there could never be an over-issue of money, that is, the supply of money could not be in excess of the demand or the "needs of business", for no one would borrow, at interest, funds which he did not need. Since the "sound" or "genuine" commercial bills were "self-liquidating" in character, based as they are upon goods in process, the supply of money in an economy would necessarily expand in step with the volume of trade or "needs of business",. That is, the demand for money. Thus the supply of money, according to this school, was demand determined, and, therefore, endogenously determined.

If there was, due to any reason, any "excess" issue of money supply forced on the public who did not need it in view of the volume of trade to be transacted, the "excess" amount of money supply would be simply returned to the banks by way of repaying loans or as deposits or for being converted into gold. This is what was known as the Law of Reflux.

The important implications of the above views of the Banking or Credit School are:

(1) Since the supply of money in an endogenous variable determined by the demand for money, the central bank of a country cannot control the supply of money:

(2) The supply of money is infinitely elastic's

(3) They deny the validity of both the direct mechanism and the indirect mechanism through which, according to the Currency School, changes in money supply influenced the level of prices. It is because the supply of money being demand determined (according to the Banking School), and excess" supply of money can never develop to pull up the prices;

(4) They imply that trade cycles are not monetary in their causes;

(5) Since supply of money is demand determined, rice in prices in determined by non-monetary causes and proceed and cause the increase in money supply;

(6) The monetary policy has thus an accommodative role to play land not a "controlling" or "restrictive" role.

SELF-CHECK EXERCISE-11.4

Q1. Discuss the process adopted by a central bank to control credit.

11.7 SUMMARY

The Central Bank is the apex monetary institution in the money market which acts as the monetary authority of the country and serves as the government bank as well as the banker's bank. It undertakes the major financial operations of the government. It influences the behavior of financial institutions to ensure that they support the economic policy of the government. Modern economy is a credit economy because credit has come to play a major role in setting all kind of monetary and business transaction in the modern economic system. The central bank can use quantitative and qualitative technique to control the credit flow in the economy. For effective and successful monetary management, both the quantitative and qualitative credit control methods are to be combined judiciously.

11.8 GLOSSARY

- **Central Bank**: is an apex financial institution of a country. It is needed to regulate and control the monetary system of an economy.
- **Near Money**: assets which can readily be converted into cash.
- **High Powered Money**: refers to the money produced by RBI and government of India.
- **Quantity Theory of Money**: states that the general price level of goods and services is directly proportional to the amount of money in circulation or money supply.

11.9 ANSWERS TO SELF CHECK EXERCISE

Self-Check Exercise-11.1

Ans. Q1. Refer to Section 11.3

Self-Check Exercise-11.2

Ans. Q1. Refer to Section 11.4 part (2)

Ans. Q2. Refer to Section 11.4 part (5)

Self-Check Exercise-11.3

Ans. Q1. Refer to Section 11.5

Self-Check Exercise-11.4

Ans. Q1. Refer to Section 11.6

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11.11 TERMINAL QUESTIONS

Q1. What is a central bank? Describe the functions of central bank and discuss their significance.

Q2. Discuss the process adopted by a central bank to control credit.

Q3. Discuss the importance of quantitative and qualitative techniques of credit control in a developing economy.

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NARSIMHAM COMMITTEES' REPORTS AND DIGITALISATION OF INDIAN BANKING

STRUCTURE

12.1 INTRODUCTION

Banks are often regarded as the foundation of any economy. During the late 1980s, India faced multiple economic challenges, including a severe Balance of Payments crisis. In mid-1991, the country's foreign reserves were nearly depleted, but by 2011, India had emerged as the world's third-largest economy. A significant factor in this transformation was the banking sector.

India's banking system comprises both public and private sector banks. Following the economic liberalization of 1991, concerns arose regarding the efficiency of banks. The economic crisis underscored the critical role of banks in economic stability and growth, making it imperative to enhance their competitiveness and effectiveness. In response, the Ministry of Finance, under then-Finance Minister Dr. Manmohan Singh, established the Narasimham Committee to evaluate the banking sector and propose necessary reforms.

12.1 LEARNING OBJECTIVES

After studying this Unit, you will be able to:

- Understand the reports of Narsimham Committees on banking reforms;
- Know the need and the progress of digitalization of banking sector; and
- Explain the advantages and challenges of digitalization of banking sector

12.3 NARSIMHAM COMMITTEES' REPORTS ON BANKING REFORMS

The Committee was set up under the chairmanship of Maidavolu Narsimham. He was the 13th governor of the Reserve Bank of India (RBI) from 2nd May 1977 to 30th November 1977. There was another Committee, this time under P. Chidambaram as the finance minister, headed by Narsimham, which was formed in 1998. The first Committee was set up in 1991 and is referred to as the Narsimham Committee- I and the 1998 Committee is known as the Narsimham Committee–II. The purpose of these two committees was to investigate all aspects of the financial systems' structure, organization, functions, and procedures in order to recommend improvements in their efficiency and productivity. The reports produced by the two Committees remain the foundational documents for any discussion of banking sector reforms and banking policy. These committees are also credited with laying the groundwork for historic events such as bank mergers, the emergence of new-generation private banks, and asset reconstruction firms.

SELF-CHECK EXERCISE-12.1

Q1. What does Narsimham Committee Report relates to?

Q2. What was the purpose of setting up Narsimham Committee?

12.4 NARSIMHAM COMMITTEE-I (1991)

The Narsimham Committee-I (1991) assumed that commercial banks' financial resources came from the general public and were held in trust by the banks and that the bank funds were to be used to the greatest extent possible for the benefit of depositors. This assumption implied that even the government had no business jeopardizing the solvency, health, and efficiency of nationalized banks under the guise of using bank funds for social banking, poverty alleviation, and so on. As a result, the Narsimham committee-I set out to effect three major changes in India's banking sector:

- Assuring a certain level of operational flexibility.
- Banks have internal autonomy in their decision-making processes.
- Increased professionalism in banking operations.

12.4.1 Recommendations of Narsimham Committee-I

This Committee delivered its report to the Government on November 16, 1991 and the report was introduced in Parliament on December 17, 1991. The followings are the main recommendations of the Committee:

1) Reduction in SLR and CLR

The committee recommended that the higher proportions of the Statutory Liquidity Ratio (SLR) and Cash Reserve Ratio (CRR) should be reduced. At the time, both of these ratios were extremely high. The SLR was 38.5 percent at the time, and the CRR was 15 per cent. Because of the large amount of SLR and CRR, the bank's resources were locked up for government use. It was a hindrance to the bank's productivity, so the committee

recommended a gradual reduction.SLR should be reduced from 38.5 percent to 25 percent, and CRR should be reduced from 15 percent to 3 to 5 percent.

2) Phasing out Directed Credit Programme

Since nationalization, the government of India has implemented directed credit programs. The committee recommended that this program be phased out. This program compelled banks to set aside funds for the needy and poor sectors at concessional interest rates. Because it was reducing bank profitability, the committee recommended that this program be discontinued.

3) Determination of Interest Rate

The committee believed that interest rates in India were regulated and controlled by the government. The interest rate should be determined based on market forces such as the demand for and supply of funds. As a result, the committee recommended eliminating government interest rate controls and gradually phasing out concessional interest rates for the priority sector.

4) Structural Reorganization of Banking Sector

The Narsimham committee (1991) proposed a significant reduction in the number of public sector banks through mergers and acquisitions to increase efficiency in banking operations. Three or four large banks, including SBI, should take on an international flavor. Eight to ten banks should be national banks with a widespread network of branches across the country. The remainder should remain as regional banks with operations limited to a specific region. The RBI should allow the establishment of new private-sector banks as long as they meet the minimum start-up capital and other requirements. The government should declare that no more banks will be nationalized. Foreign banks are permitted to open branches in India, either wholly-owned or as subsidiaries. This would increase productivity. Foreign banks and Indian banks are permitted to form joint ventures in merchant and investment banking. Since the country already had a network of rural and semi-urban branches, the system of licensing branches with the goal of spreading the banking habit should be phased out. Banks should be allowed to open branches wherever they see fit.

5) Establishment of ARF Tribunal

In those days, the proportion of bad debts and Non-Performing Assets (NPA) of public sector banks and development financial institutions was very concerning. The committee proposed the creation of an Asset Reconstruction Fund (ARF).This fund will assume a portion of the banks' and financial institutions' bad and doubtful debts. It would assist banks in getting rid of bad debts.

6) Removal of Dual Control

Banks were under the dual control of the Reserve Bank of India (RBI) and the Ministry of Finance's Banking Division at the time. It considered and recommended that the RBI be the sole primary regulator of banking in India.

7) More Freedom to Banks

In order to improve the workings of banks, the Narsimham committee-I (1991) recommended that:

- Each bank is free and autonomous.
- Every bank should pursue radical changes in working technology and culture in order to become internally competitive and to keep up with the wide-ranging innovations that are taking place.
- Over-regulation and over-administration should be avoided, and internal audits and inspections should rely on more.

- The various guidelines issued by the government or the RBI regarding internal administration should be considered in the context of the bank's independence and autonomy.
- The appointment of the bank's CEO and board of directors should be based on professionalism and integrity rather than political considerations.

12.4.2 Government actions on Narsimham Committee-I

Since 1991, the government has implemented the following measures based on the recommendations of the Narsimham Committee-I:

1. Lowering SLR and CRR

Bank profits were harmed as a result of the high SLR and CRR. The SLR was reduced from 38.5 per cent in 1991 to 25 per cent in 1997.As a result, banks now have more funds to allocate to agriculture, industry, trade, and other sectors. The Cash Reserve Ratio (CRR) is the cash ratio of a bank's total deposits with the RBI. The CRR had been reduced from 15 per cent in 1991 to 4.1 percent in June 2003. The current CRR is 4.5 per cent. The goal is to free the funds held by the RBI.

2. Prudential Norms

The RBI has begun to implement prudential standards in order to instill professionalism in commercial banks. Prudential norms aim to ensure that commercial banks' books reflect an accurate and correct picture of their financial position by requiring proper disclosure of income, asset classification, and provision for bad debts. Prudential guidelines required banks to make a full provision for all non-performing assets (NPAs).The funding for this purpose has been set at Rs. 10,000 crores, which will be phased over a two-year period.

3. Capital Adequacy Norms (CAN)

The capital adequacy ratio is the minimum capital-to-risk-asset ratio. In April 1992, the RBI set CAN at 8 per cent. By March 1996, all public sector banks had achieved the 8 per cent ratio. Foreign banks also obtained it.

4. Deregulation of Interest Rates

The Narsimham Committee advocated allowing market forces to determine interest rates. Interest rates have become much simpler and more free since 1992.Scheduled commercial banks now have the freedom to set deposit interest rates subject to minimum floor rates and maximum ceiling rates. Domestic term deposit interest rates have been deregulated. SBI and other banks' prime lending rates on general advances of more than Rs. 2 lakhs have been reduced. The interest rate on bank loans exceeding Rs. 2 lakhs has been completely deregulated. All cooperative banks' interest rates on deposits and advances have been deregulated, subject to a minimum lending rate of 13 per cent.

5. Recovery of Debts

The Indian government enacted the ‘Recovery of Debts Due to Banks and Financial Institutions Act 1993’ to facilitate and expedite the recovery of debts owed to banks and financial institutions. Six Special Recoveries Tribunals have been established. In addition, an Appellate Tribunal has been established in Mumbai.

6. Competition from New Private Sector Banks

Banking is available to the private sector. New private-sector banks have already begun operations. These new private sector banks are permitted to raise capital contributions of up to 20 per cent from foreign institutional investors and 40 per cent from Non-Resident Indians (NRIs). As a result, competition has increased.

7. Access to Capital Market

The Banking Companies (Acquisition and Transfer of Undertakings) Act was amended to allow banks to raise capital via public offerings. This is subject to the condition that Central Government's holding does not fall below 51 percent of paid-up capital. SBI has already raised a significant amount of capital through equity and bonds.

8. Freedom of Operation

After meeting capital adequacy and prudential accounting standards, Scheduled Commercial Banks are permitted to open new branches and upgrade extension counters. Banks are also allowed to close non-viable branches that are not located in rural areas.

9. Local Area Banks (LABs)

In 1996, the RBI issued guidelines for the establishment of Local Area Banks (LABs), and it approved the establishment of seven LABs in the private sector. LABs will aid in mobilizing rural savings and channeling them into local investment.

10. Supervision of Commercial Banks

To strengthen the bank and financial institution supervision, the RBI established a Board of Financial Supervision with an advisory Council. In 1993, the RBI established a new department known as the Department of Supervision as an independent unit for commercial bank supervision.

SELF-CHECK EXERCISE-12.2

Q1. What were the major recommendations of Narsimham Committee (1991) on banking sector?

Q2. Explain the steps taken by the government to implement the recommendations of Narsimham Committee-I.

12.5 NARSIMHAM COMMITTEE-II (1998)

In 1998, the government appointed yet another committee under the chairmanship of Mr. Narsimham. It is better known as the Banking Sector Committee. It was told to review the banking reform progress and design a programme for further strengthening the financial system of India. The committee focused on various areas such as capital adequacy, bank mergers, bank legislation, etc.

12.5.1 Recommendations of Narsimham Committee-II

This Committee submitted its report to the Government in April 1998 with the following recommendations.

1. **Strengthening Banks in India**

The committee considered the stronger banking system in the context of the Current Account Convertibility ‘CAC’. It thought that Indian banks must be capable of handling problems regarding domestic liquidity and exchange rate management in the light of CAC. Thus, it recommended the merger of strong banks which will have ‘multiplier effect’ on the industry.

2. **Narrow Banking**

Those days many public sector banks were facing a problem of the Non-Performing Assets (NPAs). Some of them had NPAs were as high as 20 percent of their assets. Thus for successful rehabilitation of these banks, it recommended ‘Narrow Banking Concept’ where weak banks will be allowed to place their funds only in the short term and risk-free assets.

3. **Capital Adequacy Ratio**

In order to improve the inherent strength of the Indian banking system the committee recommended that the Government should raise the prescribed capital adequacy norms. This will further improve their absorption capacity also. Currently, the capital adequacy ratio for Indian banks is at 9 percent.

4. **Bank ownership**

As it had earlier mentioned the freedom for banks in its working and bank autonomy, it felt that the government control over the banks in the form of management and ownership and bank autonomy does not go hand in hand and thus it recommended a review of functions of boards and enabled them to adopt professional corporate strategy.

5. **Review of banking laws**

The committee considered that there was an urgent need for reviewing and amending main laws governing Indian Banking Industry like RBI Act, Banking Regulation Act, State Bank of India Act, Bank Nationalisation Act, etc. This up gradation will bring them in line with the present needs of the banking sector in India.

Apart from these major recommendations, the committee has also recommended faster computerization, technology up gradation, training of staff, depoliticizing of banks, professionalism in banking, reviewing bank recruitment, etc.

SELF-CHECK EXERCISE-12.3

Q1. What were the major recommendations of Narsimham Committee (1998) on banking sector?

12.6 DIGITALIZATION OF THE BANKING SECTOR

Digital transformation in banking refers to the shift of data and services into a digital format through technological advancements. The term "digital" has become a major trend across all industries, and banking is no exception. Banks worldwide are making significant strides toward digitalization to remain competitive and enhance customer satisfaction. By automating traditional manual processes, digitalization reduces human error, saves time, and fosters customer loyalty. Consumers now enjoy seamless banking services around the clock through online platforms, revolutionizing conventional banking operations.

During the late 1980s, the Indian banking sector recognized the need to improve customer service and modernize record-keeping through computerization. In response, the Reserve Bank of India (RBI) established a committee in 1988, chaired by Dr. C. Rangarajan, to explore computerization in banking. Following the introduction of the Liberalization, Privatization, and Globalization (LPG) policy, digitalization gained momentum, transforming the Indian economy.

The acceleration of digital banking was further driven by the entry of private and foreign banks, which emphasized digital transformation to enhance efficiency and customer experience. Digitalization in banking provides new opportunities for financial institutions to place customers at the center of innovation while maintaining market relevance. Indian commercial banks have embraced technology through automation and mechanization, implementing features such as Magnetic Ink Character Recognition (MICR) for cheque processing, electronic fund transfers, inter-branch connectivity, and ATMs, ensuring convenient banking at any time.

The rapid pace of technological advancement has made digitalization crucial for the Indian banking sector. The adoption of digital processes has improved service delivery, minimized errors, enhanced customer trust, and increased efficiency. The ultimate goal of digital banking is to cater to the expectations of tech-savvy customers while keeping pace with global trends.

The RBI and the National Payment Corporation of India have played a pivotal role in strengthening payment and settlement systems through initiatives like the Unified Payments Interface (UPI) and Bharat Interface for Money (BHIM). These platforms have enabled cashless transactions, reducing the need for physical currency handling and significantly cutting costs.

12.6.1 Progress in the Banking Sector

Digital transformation in Indian banking began with the introduction of ATMs. Since then, developments such as telebanking, electronic clearing services, electronic funds transfer (EFT), MICR, Real-Time Gross Settlement (RTGS), and point-of-sale terminals have significantly enhanced the sector. India is steadily moving toward a cashless, digital economy, with various government and central bank initiatives promoting digital transactions.

According to RBI reports, total digital transactions in volume terms grew by 58.8% in 2018-19, compared to 50.4% in 2017-18. In value terms, digital transactions increased by 19.5% in 2018-19, compared to 22.2% in 2017-18. Despite the dominance of RTGS transactions, retail digital transactions (excluding RTGS customer and interbank transactions) recorded a 59.3% volume growth in 2018-19, up from 50.8% in the previous year. The RBI report, "Payment and Settlement: The Plumbing in the Architecture of India's Financial System," highlighted that retail transactions grew by 38.2% in value terms. According to a Credit Suisse report, India's digital payment industry, valued at approximately $200 billion, is expected to grow fivefold to reach $1 trillion by 2023, presenting significant opportunities for digital transformation.

12.6.2 Advantages of Digitalization in Banking Sector

Digitalization in banking focuses on integrating technology to enhance accessibility and customer value. Some key advantages include:

1. **Seamless Transactions from Anywhere:** Digital banking enables customers to conduct transactions from anywhere at any time. Online banking services and digital payment methods such as UPI, e-wallets, and banking applications facilitate easy and instant money transfers across banks.
2. **Convenience and Efficiency:** The shift to digital banking has significantly reduced dependence on physical cash, minimizing risks associated with cash handling. Services like NEFT and RTGS have simplified fund transfers, enhancing convenience for customers.
3. **Automated Record-Keeping:** Digital banking provides an automatic record of transactions, enabling customers to track expenses and manage finances effectively. Banking apps and e-wallets maintain transaction histories, simplifying budget planning.
4. **Government Incentives and Discounts:** To encourage digital transactions, the government offers various incentives. Payments up to INR 2,000 made through digital modes are exempt from service tax. Additional benefits include 75% discounts on fuel payments and 10% discounts on insurance premiums from government insurers. Cashback and promotional offers from mobile payment operators further enhance consumer benefits.

12.6.3 Challenges Involved in Digitalizing Banking Activities

While digitalization has provided numerous benefits to consumers, it also presents several challenges. Like any technological advancement, digital banking comes with both advantages and drawbacks. Some of the key challenges faced in the digital transformation of the banking sector include:

1. **Cyber Security Threats:** Cybercrime involves the use of digital tools for fraudulent activities, identity theft, and privacy violations. As banking services have transitioned to digital platforms, the risks associated with cyber threats have also escalated for both financial institutions and customers. Fraudsters employ various tactics to illegally access funds, either through large-scale breaches or by siphoning small amounts from numerous accounts over an extended period. To address these concerns, governments and financial organizations have implemented robust cyber security measures to enhance protection.
2. **Ensuring Application Efficiency:** Mobile banking applications have revolutionized financial services, offering users convenience and accessibility. However, not everyone can benefit from these services, as some individuals lack access to smartphones or the knowledge to navigate these apps. Additionally, many banking applications suffer from frequent technical glitches, slow performance, and occasional crashes, making them difficult to use. These usability issues hinder the overall efficiency of digital banking solutions.
3. **Balancing Speed with Quality:** In the rush to launch new digital products and services quickly, financial institutions often compromise on quality. Even minor software bugs can pose significant security risks or negatively impact user experience. There have been instances where organizations knowingly released applications with flaws, prioritizing speed over thorough testing. This can lead to performance failures, security vulnerabilities, and customer dissatisfaction.
4. **Keeping Up with Technological Advancements:** Technology is constantly evolving, and the banking industry must continuously adapt to remain competitive. While digital upgrades enhance efficiency, they also pose a challenge for consumers who struggle to keep up with frequent changes. For example, an individual who has recently learned to use a banking app may find it difficult to adapt when the application undergoes an update or introduces new features. This continuous need for learning and adaptation can be overwhelming for many users.
5. **Resistance from Traditional Users:** A significant obstacle in digital banking adoption is the reluctance of older generations, who prefer traditional banking methods. Many believe that conventional banking is more secure and reliable, fearing financial losses due to online fraud, hacking, and data breaches. Concerns such as phishing scams, account takeovers, and unauthorized transactions contribute to their hesitation. The fear of losing money due to cyberattacks further discourages them from embracing digital banking solutions.
6. **Balancing Innovation and Stability:** Financial institutions must continuously innovate to stay ahead in a competitive market, especially with the growing number of tech-savvy consumers. However, excessive innovation without proper risk assessment can lead to unexpected failures and negative customer reactions. Many banks hesitate to introduce major digital transformations due to the potential for customer dissatisfaction, system glitches, or unforeseen challenges. Striking the right balance between innovation and reliability is crucial for maintaining customer trust.

SELF-CHECK EXERCISE-12.4

Q1. What is meant by digitalization of the banking sector?

Q2. Explain the challenges involved in digitalizing banking activities.

12.7 SUMMARY

To make the Indian banking sector more competitive and effective, two Narsimham Committees, first in 1991 known as Narsimham Committee-I and another in 1998 known as Narsimham Committee-II, were set up to analyze India's banking sector and recommend

reforms. The recommendations of the Narsimham Committee-I (1991) were revolutionary in many ways, and they were opposed by trade unions, the central government's finance ministry, and, of course, the progressive economists who generally supported public sector banks. The government, on the other hand, accepted many of the Narsimham committee's recommendations (1991).Narsimham Committee-II (1998) reviewed the banking reform progress and designed a programme for further strengthening the financial system of India. The committee focused on various areas such as capital adequacy, bank mergers, bank legislation, etc.

With the advent of digitalization, Indian banks are not only expanding their customer base but also enhancing service quality, as efficiency plays a crucial role. However, a major challenge for these financial institutions in the digital era is ensuring robust cyber security measures to protect customers from cyber threats while adhering to the highest standards of digital security. The transition to digital banking and its seamless integration should ultimately help reduce operational costs by minimizing manual efforts and automating various processes.

12.8 GLOSSARY

- **Statutory Liquidity Ratio (SLR):**is a minimum percentage of deposits that a commercial bank has to maintain in the form of liquid cash, gold or other securities.
- **Cash Reserve Ratio (CRR):**is a specified minimum fraction of the total deposits of customers, which commercial banks have to hold as reserves either in cash or as deposits with the central bank.
- **Non-Performing Assets:** is a loan or advance for which the principal or interest payment remained overdue for a period of 90 days.
- **Capital Adequacy Ratio (CAR):** is the ratio of a bank's capital in relation to its risk weighted assets and current liabilities. It is decided by central banks and bank regulators to prevent commercial banks from taking excess leverage and becoming insolvent in the process.
- **Current Account Convertibility:** means freedom to convert domestic currency into foreign currency and vice versa for trade in goods and invisibles.

12.9 ANSWERS TO SELF-CHECK EXERCISES

Self-Check Exercise-12.1

Ans. Q1. Refer to Section 12.3

Self-Check Exercise-12.2

Ans. Q1. Refer to Section 12.4.1

Ans. Q2. Refer to Section 12.4.2

Self-Check Exercise-12.3

Ans. Q1. Refer to Section 12.5.1

Self-Check Exercise-12.4

Ans. Q1. Refer to Section 12.6

Ans. Q1. Refer to Section 12.6.3

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12.11 TERMINAL QUESTIONS

Q1. What were the major recommendations of Narsimham Committee (1991) on banking sector?

Q2. Explain the steps taken by the government to implement the recommendations of Narsimham Committee-I.

Q3. What was the purpose to set up Narsimham Committee-II (1998) also write its recommendations on banking sector?

Q4. Which method of credit control was emphasized by Narsimham Committee?

Q5. Write, in details, on digitalization of Indian banking sector.

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Unit - 13

THEORY OF DEMAND FOR MONEY (1)

STRUCTURE

13.1 INTRODUCTION

Money is an asset of the public. As such, It must have a demand for it and a supply of it and also a market for it. The demand for it comes from the general public. The theory of the demand for money is mainly concerned with answering the question : What are the determinants of the public's demand for money and why? A related question is : Why does the public demand money? Several explanations have been offered in reply. The present Unit will survey then briefly.

13.2 LEARNING OBJECTIVES

After going through this Unit, you will be able to:

- understand the demand of money
- explain transaction approach and cash balance approach of classical theory
- understand the Keynesian approach of demand for money.

13.3 CLASSICAL THEORY: TRANSACTIONS APPROACH

The classical approach to the analysis of the demand for money is embodied in the Quantity Theory of Money. This theory was originally not presented as a theory of demand for money but it was presented as a theory of price level. However, we can derive from it a

theory of demand for money which can be described as the classical theory of the demand for money.

The Quantity Theory of Money itself is a derivation from what has come to be known as the Equation of Exchange which is as follows:

(1) MV = PT

Where M is the quantity of money: V is the velocity of circulation of money; P is the general price level; and T is the volume for transactions in a given period. T includes in itself the volume of goods and services produced during the given period which is, in fact, the national income (Y), and the transactions in old second-hand goods produced in some previous period or periods. Since the volume of the latter is generally insignificant, compared to the transactions in the goods and services produced in the given period, the above Equation of Exchange can safely be written as follows:

(2) MV = PY

The Quantity Theory of Money has been derived from this equation of exchange by making a hypothesis with regard to the behavior of the variable, V, that is, velocity of money. The hypothesis made in the classical theory with regard to it is that it remains constant. The constant-velocity hypothesis, was made on the basis that it depends on the basis of the people and institutions governing the payment of wages and salaries and making other types of payments. Since the habits of the people and institutional factors, do not change over short periods and even over reasonably long periods as distinguished from secular periods, the velocity of money, it was suggested, can be assumed to remain constant. The next step was to manipulate the equation of exchange a little to arrive at the now famous version of the Quantity Theory of Money which is known as the Fisher's version after the name of the famous American neoclassical monetary economist, Irving Fisher as follows:

(3) $P = \frac{MV}{T}$ which is derived from equation (1)

Or

(4) $P = \frac{MV}{T}$ which is derived from equation (2)

The classical Theory in its popular version tended to assume that Y is always at the full- employment level. Hence, in this theory both Y and V become constants and the price level P was shown to be directly proportional to the quantity of money (M). It was thus that the Quantity Theory of Money was originally presented as a theory of the price level.

But a little manipulation of another type of either equation (2) or equation (4) gives us the following equation:

(5) $M = \frac{PY}{V}$

is the classical theory of the demand for money. M in equation (5) represents the demand for nominal money and this equation shows that M. that is, the demand for nominal money depends directly on Y, that is, national income in real terms, and P, that is, the price level. This implies that given the price level, the demand for nominal money changes directly in proportion with the real income (Y). The higher is the level of real income, the higher is the demand for nominal money. The demand for nominal money is also directly and proportionately related with the money income, that is; PY. The demand for real money or

real money balances $\left(\frac{M}{P}\right)$ is also directly proportional to the level of real income (Y) as can be

seen from equation (6) which is only another version of equation (5).

Now from equation (5), we can write

$$\frac{M}{P} = \frac{Y}{V}$$

equation (6) shows that the important conclusion from the above discussion is that in the classical theory the demand for money is a function of the level of income only. The role of rate of interest in the demand for money in this theory was not realized, though some versions of it admit that at abnormally very high rates of interest, the demand for money may become sensitive to changes in the rates of interest.

The above conclusion emerges in the classical theory because it implicitly assumes that money acts only as a means of payments. It completely ignores the function of money as a store of value or wealth. The above version of the classical approach to the demand for money which we have already described as the Fisher's approach is also known as transactions approach, because, as observed above, this approach assumes that money is demanded only as a means of transacting exchanges of goods and services. In other words this approach assumes away the possibility that money may be demanded for its own sake. That is the main limitation of this theory.

Self-Check Exercise-1

Q1. What is the Transaction Approach of Demand for Money.

Q2. Explain the limitations of Quantity Theory of Money.

13.4 CLASSICAL THEORY: THE CASH BALANCE APPROACH

An alternative approach to the Quantity Theory was developed by Alfred Marshall and his followers at the Cambridge University of U.K. Therefore, this version also come to be known as the Cambridge Quantity Theory of money. The Cambridge approach was, perhaps, the first attempt which recognised that money might be demanded for its own sake as, like ordinary commodities, it too had utility. It can be said that this version of Quantity Theory tried to explain the demand for money in terms of micro-economic theory of demand which emphasises three factors that determine the demand for a commodity, namely, the utility of the commodity, the relative price or opportunity cost of the commodity and the budget constraint.

The Cambridge approach conveys the strong impression that, according to it, the utility of money consists in the convenience it provides in conducting business and meeting unforeseen contingencies. For example, Marshall has observed in his Money Credit and Commerce, "A large command of resources in the form of currency renders their business easy and smooth, and puts them at an advantage in bargaining." Later on Pigou, in one of his papers, "The Value of Money" made his point much more explicit. He observes. "Hence, everybody is anxious to hold enough of his resources in the form of titles to legal tenders (i.e., currency) both to enable him to effect the ordinary transactions of life without trouble and to secure him to effect the ordinary transactions of life without trouble and to secure him against unexpected demands or due to a sudden need, or to a rise in the price of something that he cannot easily dispense with. For these two objects, the provision of convenience and the provisions of security, people in general-effect to hold (money)."

Thus we find that in this approach the demand for money has been explained as regards the utility side of it, in terms of two motives which, later on another Cambridge economist, J.M. Keynes, termed as the transaction motive and the precautionary motive. Coming to the relative price or the opportunity cost side of the problem, they referred to the return on money which could be earned, if, instead of being held idle, it had been invested. This return could be in the form of utility foregone or in the form of money income foregone. For example, Marshall identifies this opportunity cost with "an income of gratification, if invested, say, in extra furniture; or a money income, if invested in extra machinery or cattle."

The Cambridge economists also recognised that the demand for money is also influenced by the expected changes in the price level. A rising price level reduces its demand, while a falling price level increases its demand. As Pigou observes, "Any holding titles to legal tender is always capable of being exchanged against some quantity of commodity. Clearly, if it is expected that the quantity of commodities, for which, say a note for one pound can be exchanged will be greater a year hence than it is now, the inducement to hold pounds now is increased, and, conversely, if it is expected that a pound will buy less commodities a year hence, it is diminished".

As regards the budget-constraint equivalent in the Cambridge approach to the demand for money, they had referred to both income and wealth. But, unfortunately, they were not always able to keep the two distinct from each other. On account of it, wealth came to be confused with income and, in the later versions, the reference to wealth as a determinant of the demand for money disappeared. Marshall had referred to both the "annual income" and "property" as the determinants of demand for money. Property can be taken to stand for wealth of all kinds. Pigou refers to "total resources" of the community expressed in terms of wheat. This too, indeed, is a reference to wealth. But Keynes, in his Treatise on Money, criticised Pigou's formulation and interpreted "resources" as identical with "current income". Due to this blurring between income and wealth, the reference to wealth in the later versions of the Cambridge approach tended to obliterate away.

In sum, it can be said that the Cambridge demand function for money was quite sophisticated for its times and it can be expressed in the following form:

(7) $M = f (W, P, Y, r, r_k, r_c, U. X)$

Where M is demand for nominal money or nominal cash; PY is money income; r is the nominal rate of interest; r_k is the rate of return of real capital; r_c is the rate of return on commodities which is related to expected prices; U is the utility of money, and X refers to institutional factors. It can be seen that in this form the Cambridge demand function for money is an embryonic form of Friedman's demand for money function which we shall consider in the next Unit.

However, it is not in the above form that the Cambridge theory of demand for money is more. popularly known. Its popular version (M = KPY) is a simplified version of it derived on the basis of certain simplifying assumptions made in Pigou's version. He assumed his "resources" (R) or wealth (W) bore a certain constant relation to the income level. On the valid additional assumption that rate of interest has an unimportant effect on the demand for money, the above Cambridge money demand function was transformed as follows:

(8) $M = f (PY, r_k, r_c)$

On the further assumption that expectations regarding r_k and r_c were constant, the Cambridge money demand function takes on the familiar form of equation (9) below:

(9) $M = kPY$

Where the value of the constant k depends on the variables which are assumed to be constant. They are institutional factors as reflected in X as well as economic factors embodied in r_k and r_c in addition to "tastes" represented by U.

Mathematically speaking the Fisher's transaction approach and the cash balances approach of the Cambridge School lead to the same conclusion, namely, that the demand for money is a direct and proportional function of the level of money income (PY). The k in the Cambridge version is the proportion of money income which the community wants to keep in the form of nominal cash balances. This, in fact, is nothing but the reciprocal of the income velocity of money. The two versions, therefore, can be written together as follows:

(10) $M = kPY = PY/V$

The two approaches however, differ on this point that while the transactions approach of Fisher emphasizes the function of money as means of payment, the cash balances approach of the Cambridge School emphasizes its function as store of value. The latter, therefore, contains the seeds of what is contemporarily described as the portfolio or capital theoretic approach to the theory of demand for money.

Self-Check Exercise-13.2

Q1. What is the Cash Balance Approach of Demand for Money.

Q2. Distinguish between Transaction Approach and Cash Balance Approach of Money.

13.5 THE KEYNESIAN APPROACH

Keynes developed his particular theory of demand for money in the General Theory in connection with his theory of the determination of the rate of interest. According to him, rate of interest is a monetary phenomenon; therefore it is determined by monetary forces. These monetary forces are demand for money and the supply of money. He believed that the supply of money is determined exogenously by the monetary authority. This implies the inference that the supply of money is not influenced by the rate of interest. Hence, the supply of money being given exogenously, it is essentially the demand for money which determines the rate of interest.

This brought him to the analysis of the demand for money which he made to depend on what he described as the Liquidity preference of the people. That is why, his theory of the rate of interest and his theory of demand for money have come to be known as the liquidity preference: theory of rate of interest and the Liquidity Preference Theory of the demand for money respectively. We shall here deal with the Liquidity Preference Theory of the demand for money.

Liquidity preference refers to the preference of the people to keep their assets (wealth) in the form of cash balances, that is, the form of money rather than in any other form. In his abstract model, Keynes in fact, considers only two alternative forms in which people can keep their assets. These alternative forms are money and bonds and as regards bonds, he did not consider that there can be bonds and securities of different maturities. He singled out only one particular type of bond or security like the British Consol which has indefinite maturity period. Or, we can say that he lumped together all kinds of bonds or securities under one head. Anyway, when people save a part of their income after consuming the other part, they have to decide the form in which they would like to keep their savings; whether it should be kept in the form of money or in the form of consols. While keeping it in the form of money, no income is earned, keeping it in the form of consols brings in income in the form of yield or interest on the bonds purchased. Still, people prefer to keep a part of their total assets or wealth in the form of money or cash balances or readily available purchasing power, whatever you prefer to call it.

This naturally raises the questions as to why people prefer to keep their assets in the form of money even when it implies an opportunity cost to the asset holder in the form of loss of yield from bonds which could be purchased with that money. In other words, how do we explain the liquidity preference or the demand for holding money? Keynes explains it in

terms of three motives which he describes as the transaction motive, the precautionary motive and the speculative motive. These motives are explained as:

13.5.1 The Transaction Motive

This motive for holding money has been analyzed by Keynes along the classical line of argument embodied in the classical quantity theory of money, already explained in the preceding sections. The demand for money on account of this motive arises because the incomes and expenditures of individuals and firms do not synchronize, that is they do not spend as and when they receive their incomes. Depending upon the system of payments of wages and salaries and other types of payments prevailing in a country, people receive their incomes at the end of a week or a month or some other specified period. But people have to meet their day to day expenditure. Due to this they have to keep a part of their incomes in the form of readily available purchasing power, that is, cash balances. Even business firms have to meet many types of expenditures, particularly for payment of wages and salaries, before they are able to realize their revenues. Hence, they too need to keep a part of their assets in the form of cash balances. It is clear that the cash balances held on account of this motive are destined to be exchanged against goods and services; that is to say, they are employed as means of payment. Therefore, the demand for holding money on account of this motive depends on the level of money income (PY). Assuming the price, level (P) to be constant, it will directly depend on the level of real income (Y), The higher is the level of real income, the greater is the demand for money and the lower is the level of income, the smaller is the demand for money. What fraction of the total income, the constant k of the Cambridge quantity theory, is kept in the form of money depends on the institutional factors and the habits of the people. Since these factors are assumed to remain constant over short periods, the only relevant determining variable as regards money held on account of this motive is the level of income. The important point to note in this connection is that, according to Keynes, this demand for money is insensitive to changes in the rate of interest.

13.5.2 Precautionary Motive

Individuals and firms prefer to keep cash balances not only to meet day to day expenditure but also to meet unforeseen contingencies. Individuals, for example, would prefer to keep with them some cash balances which may help them out of an unanticipated spell of sickness or unemployment or which may help them to meet some unforeseen but unavoidable obligation or other such contingency. Similarly, firms to keep some cash balances with them in order to meet some sudden unanticipated demand for cash payment. If their assets are totally locked up in illiquid forms, they may either fail to meet this demand which would spoil their trustworthiness or they may have to borrow funds on disadvantageous terms. Therefore, it is prudence on their part to keep a part of their assets in the form of cash balances. The money which is held on account of this motive also is ultimately destined to be exchanged against goods and services, this is real income. Therefore, according to Keynes, this demand for money also depends directly on the level of income and is also insensitive to changes in the rate of interest.

It should not be difficult to see that this motive too had been anticipated in the Cambridge version of the Quantity theory. Pigou, for example, refers to "provision of convenience" as well as "provision of security" as the motives for holding cash balances (See section 9.2 above). The former refers to the transaction motive and the latter refers to the precautionary motive.

It is obvious, then, that, according to Keynes, the demand for holding money on account of both the transaction motive and the precautionary motive has a direct and proportional relationship with changes in the level of real income, provided the price level remains constant. Moreover, it is independent of changes in the rate of interest. Therefore, this part of his demand function for money may be written as follows:

(1) $M_1 = L_1 (Y)$

Where M_1 is the demand for money for both the transaction motive and the precautionary motive taken together; and Y is the level of real income. L_1 refers to the functional relationship between Y and M_1.

13.5.3 Speculative Motive

The real innovation introduced by Keynes in the analysis of the demand for money is the speculative motive which is also referred to as the asset motive. Individuals and firms keep cash balances with them not only for satisfying the transaction and the precautionary motive but also the speculative motive. This motive refers to the desire of asset holders to make profit from the prospective changes in the rate of interest and the consequent changes in bond prices. If, for example, people expect the rate of interest to go up in future and, therefore, if bond prices are expected to come down in future, people will prefer to keep their assets in the form of cash balances rather than in bonds. So they will sell bonds now when their prices are high and will thus get into cash balances. High bond prices imply a low rate of interest. Therefore, holding assets in the form of cash balances implies a low opportunity cost of holding money. On account of it the demand for money increases. If people's expectations are realized and the bond prices fall and the rate of interest really goes up in future they will, then buy bonds and reduce their cash balances. Thus they make profit from the changes in bond prices and the rate of interest. According to Keynes, the demand for money on account of the speculative motive is sensitive to changes in the rate of interest.

Keynes' analysis of the speculative demand for money is based on the assumption that there is a certain rate of interest which people regard as the normal rate. When the current rate of interest is higher than this rate, people expect the rate of interest to come down to the normal level in future, therefore it is profitable for them to lend out their money now by purchasing bonds. Hence the demand for holding money is less at higher rates of interest. This can be explained as rational behavior in terms of two factors. Firstly, at higher rates of interest the opportunity cost of holding money is high; secondly, when the rate of interest is high, the probability of a fall in bond prices are less it is because, if the current rate of interest is already above the normal rate, the greater probability is that it will come down in future rather than go up, and therefore, there is greater probability of bond prices to go, up than to come down. This implies that at higher rates of interest, the greater probability is that there will be capital gains rather than capital losses, if assets are held in bonds rather than in cash balances. So this explains why the demand for money is less, when the rate of interest is higher. The reverse happens. if the current rate of interest is lower than the normal rate. This means that the speculative demand for money is inversely related with changes in the rate of interest. This part of Keynesian demand function for money can be expressed as follows:

(2) $M_2 = L_2 (r)$.

Where M_2 is the speculative demand for money and r is the rate of interest.

The aggregate Keynesian demand function for money can be expressed as follows:

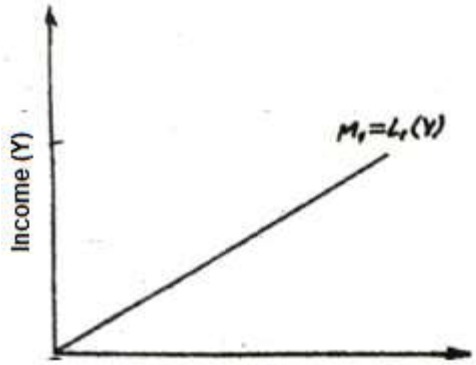
(2) $M = M_1 + M_2 = L_1 (Y) + L_2 (r)$

Or simply as follows:

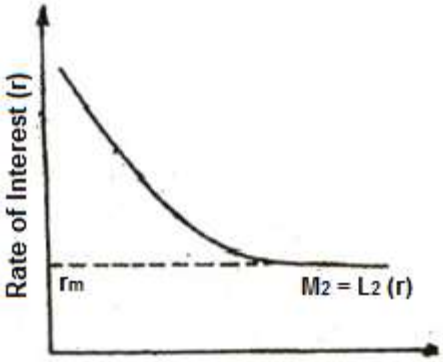
(3) $M = L (Y, r)$

13.5.4 Liquidity Trap Hypothesis

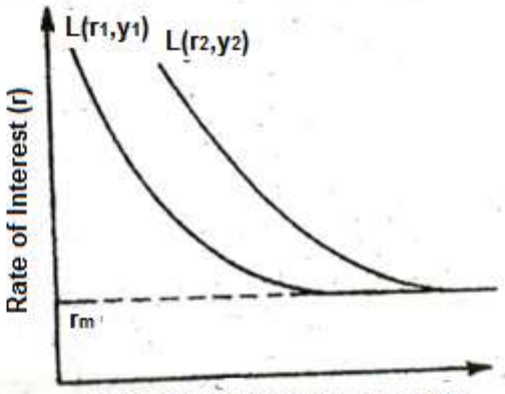
A special feature of the Keynesian theory of the demand for money is its liquidity trap hypothesis. According to this hypothesis, there is a certain critically minimum rate of interest at which the demand for holding money becomes perfectly elastic. At this rate of interest, the money demand (liquidity preference) function becomes horizontal as shown in Figures 13.2 and 13.3 below.



Demand for Money (M1)
(Trasaction and Precautionary Motives)
Figure 13.1



Speculative Demand for Money (M2)
Figure 13.2



Demand for Money (M = M1 + M2)
Figure 13.3

Figure 13.1 above shows the behavior of the transaction plus precautionary demand for money that is, it traces the function, $M_1 = L_1 (Y)$. Figure 13.2 shows the behavior of the speculative or asset demand for money, that is, it traces the function, $M_2 = L_2 (r)$. Figure 13.3 shows the behavior of the total demand for money ($M_2 = M_1 + M_2$), at two different levels of income, Y_1 and Y_2 where $Y_2 > Y_1$, that is, traces the aggregate money demand function, M = L (Y, r) at two different levels of income Y_1 and Y_2 where $Y_2 > Y_1$. In Figures 13.2 and 13.3 above, the money demand function becomes horizontal, that is, perfectly elastic, at the critically minimum rate of interest equaling r_m. This region is known as the liquidity trap. The implication of this liquidity trap is that any amount of increase in the supply of money will fail to push the rate of interest below this critically minimum rate, because the demand for money at this rate of interest is perfectly elastic. There are two reasons which are given in support of this hypothesis. Firstly, the rate of interest is extremely low on account of which the opportunity cost of holding money is insignificant. Secondly, since this rate of interest is extremely low, there is hardly any fall in the rate of interest that can be expected. On the contrary, there will be strong expectations that it will rise in future. The capital loss from the rise in the rate of interest and the fall in bond prices is much greater at very low rates of interest than at a high rate of interest.

Self-Check Exercise-13.3

Q1. What is Transaction Motive

Q2. What is meant by Precautionary Motive

Q3. What is Speculative Motive

Q4. Explain liquidity trap hypothesis

13.6 CRITICAL ASSESSMENT OF KEYNES'S THEORY

There is no doubt that Keynes's liquidity preference theory of demand for money is an improvement on the classical theory. It also represents further extension of the cash balances approach of the Cambridge School by the introduction of the speculative motive for the demand money. Unlike the classical theory, it takes note of both the function of money as a means of payment and the function of money as store of value, though the latter is shown to be more important. The classical theory recognized only the means of payment function.

However, in spite of this improvement, the theory of Keynes is not free from limitations. Harry G. Johnson has observe that this theory is "incomplete" as well as "misleading". It is incomplete because it treats the transaction demand in a cursory manner, adding nothing to the already existing classical analysis of it. It is misleading because it carries the impression that while the speculative demand for money can be treated as a problem in capital theory, the transaction demand for money could not be treated in this way. This has led him to the wrong conclusion that the transaction and the - precautionary demand for money is insensitive to chances in the rate of interest. Baumol and Tobin have demonstrated that this component of the demand for money is also sensitive to changes in the rate of interest. Therefore, it is misleading to write the money demand function as $M = M_1 + M_2 = L(Y) + L_2(r)$. It should be written simply as $M = L(Y.r)$.

There is also confusion in Keynes's analysis of the precautionary motive which he sometimes lists with the speculative motive and sometimes with the transaction motive.

Another defect of this theory is that it lumps together all types of securities under one and only one category, so that asset-holders can shift between one type of bonds of indefinite maturity and cash balances securities of different maturities. This would mean that a fall in the rate of interest need not always lead to an increase in the demand for cash balances. In this sense also the theory is misleading.

In addition, the theory is deficient also because it does not explore the implications of changes in wage rates and prices, based as it is on the assumption of a consistent wage-price level.

Lastly, some economists like Martin Bronfenbrenner and Thomas Mayer have questioned the validity of the liquidity trap hypothesis which is an integral part of Keynes's liquidity preference theory. As they observe "there is no evidence for the proposition that some floor or 'bottom stop' exists for interest rates at which elasticity of demand for money goes to infinity."

SELF-CHECK EXERCISE-13.4

Q1. On which grounds can the Keynesian theory of money be criticised?

13.6 SUMMARY

Keynes made the demand for money a function of two variables, namely income (r) and the rate of interest (r). Being a Cambridge Economist Keynes retained the influence of the Cambridge approach to the demand for money under which demand for money is hypothesized to be a function of Income. But he argued that this explain only the transactions and the precautionary demand for money and not the entire demand for money. The novel and revolutionary element of Keynes theory of the demand for money is the component of the speculative demand for money. Through it Keynes trade the demand for money a declining function of the rate of interest.

13.8 GLOSSARY

- **Transaction motive**: This is the amount of money needed to cover the needs of an individual, firm, or nation.
- **Precautionary motive**. A desire to hold cash in order to be able to deal effectively with unexpected events that require cash outlay.
- **Speculative motive:** is the desire to have money for transactions other than those necessary for living, namely for investment and profitable purposes.
- **Liquidity trap**: occurs when interest rates are very low, yet consumers prefer to hoard cash rather than spend or invest their money in higher-yielding bonds or other investments.
- **Velocity of Money**: is a measurement of the rate at which consumers and businesses exchange money in an economy.
- **Value of Money:** refers to the goods and services which can be purchased by per unit of money

13.9 ANSWERS TO SELF-CHECK EXERCISES

Self-Check Exercise-13.1

Ans. Q1. Refer to Section 13.3

Ans. Q2. Refer to Section 13.3

Self-Check Exercise-13.2

Ans. Q1. Refer to Section 13.4

Ans. Q2. Refer to Section 13.4

Self-Check Exercise-13.3

Ans. Q1. Refer to Section 13.5.1

Ans. Q2. Refer to Section 13.5.2

Ans. Q3. Refer to Section 13.5.3

Ans. Q4. Refer to Section 13.5.4

Self-Check Exercise-13.4

Ans. Q1. Refer to Section 13.6

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13.11 TERMINAL QUESTIONS

Q.1 Critically explain the Liquidity Preference Theory of Demand for Money.

Q.2 Discuss in detail the Classical Transactions Approach and the Real Cash Balance Approach.

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THEORY FOR DEMAND FOR MONEY (II)

STRUCTURE

14.1 INTRODUCTION

Keynes theory of demand for money is incomplete. Although he has linked money demand with the rate of interest in the case of speculative demand for money, the some notion has not been held in the case of active balances. Keynes has point one that speculative demand for money could be treated as a problem in capital theory, but he has given the some kind of treatment for transactional and precautionary motives. Keynes theory of demand for money has been modified and improved by many writers, specially by Tobin and Baumol.

14.2 LEARNING OBJECTIVES

After going through this Unit, you will be able to:

- understand post Keynesian approaches of demand for money
- know Baumol-Tobin thesis and portfolio balance approach
- understand Tobin's theory of liquidity preference
- understand Friedman's theory of demand for money

14.3 POST KEYNESIAN APPROACHES

A lot of work has been done since Keynes in the theory of demand for money. While, in general, the Post Keynesian developments have been along the lines laid down in Keynes' General Theory, that is, they stick to the capital theoretic approach, yet they

represent a further development and refinement of the Keynesian approach. The post Keynesian monetary theory has, on the whole, tried to fill up the gaps left in Keynes's theory and thus to make it more complete and at the same time, to make it more refined and sophisticated. This Unit explains a couple of relatively more important post-Keynesian approaches.

14.3.1 Baumol-Tobin Thesis

The classical theory of demand for money, ¡was perceived to perform the function of means of payment only and, consequently, the demand for money was believed in this theory to be insensitive to changes in the rate of interest. Keynes's approach had marked an advancement on the classical approach, in as much as it gave greater importance to the function of money as a store of value by introducing the speculative motive for holding money. The introduction of this motive led to the conclusion that demand for money was interest-elastic. Nevertheless, even in Keynes's theory the demand for money on account of the transaction-cum-precautionary motive was interest-inelastic.

One of the important post-Keynesian One of the developments in this field has been the demonstration by Baumol and Tobin that not only the speculative demand for money but also the transaction and precautionary demand for money is interest-elastic. This conclusion was arrived at by the two economists independently of each other in Baumol's paper, "The Transaction Demand for Cash : An Inventory-Theoretic Approach". published in the Quarterly Journal of Economics in November, 1952 and Tobin's paper, "The Interest Elasticity of Transaction Demand for Cash". published in Review of Economics and Statistics in August, 1965. That is why it is known as the Baumol-Tobin Thesis. Their argument is based on the inventory-capital theory which is reproduced here in brief along the lines of Baumol's paper.

In a modern economy having developed financial markets, the transactions demand for money is determined by both the level of income and the rate of interest. This fellows deductively from the usual assumption of rational behavior in economics.

In such an economy, it is possible to convert bonds into cash and cash into bonds with minimum delay and cost. An individual with an income Y per period and spending the whole of it uniformly over the period will find the ¾ of his income remains idle for ¼ of the period; ½ of income remains idle for ½ of the period; and ¼ of the income remains idle for ¾ of the period. When a well-developed organized bonds market is available the rational individual will use a part of his idle cash balances to buy income-yielding bonds which can be sold as and when the need for cash arises.

How much of the rational individual's money come will be invested in bonds and how much of it well be kept in the form of cash balances depends on the number of times he decides to enter the bonds market. If he decides to enter the bond market only twice, once as the buyer of bonds and second time as the seller of bonds, then he will maximize his yield from investment in bonds, if he invests ½ of his money income in bonds and keeps the other half in the form of cash balances. He will purchase bonds with half of his money income at the start of the period when he receives his money income. With the other half in cash he will conduct his transactions in real goods for half the period. At the start of the other half period, he will sell bonds to realize cash with which he will carry out his day-to-day transaction for the next half period. On the other hand, if he decides to enter the market thrice - once as buyer and twice as seller-he will maximize his earnings from investment in bonds, if he splits income period into three equal parts and invests 2/3 of his money income in bonds. He will carry out his transactions for 2/3 of his money income in bonds. He will carry out his transactions for 1/3 of the period with the help of the 1/3 of his money income that he will be keepings in cash. When the second period starts, he will sell one-half of his bond holdings(which are worth 1/2, 2/3 Y = 1/3 Y), realizing cash to carry out real transactions during the second period. When the second period ends and the third starts, he will sell the

remaining bonds to get cash in order to carry out transactions during the third period. From this we can generalize that if a rational individual decides to enter the bond market n times, he will invest (n-1)/n of his income in bonds and only 1/n of it will be kept in cash balances. Therefore, his average bond holdings over the period will be (n-1)/2 Y and his earnings from this investment will be ^{n}(n-1)//2 rY where r is the rate of interest.

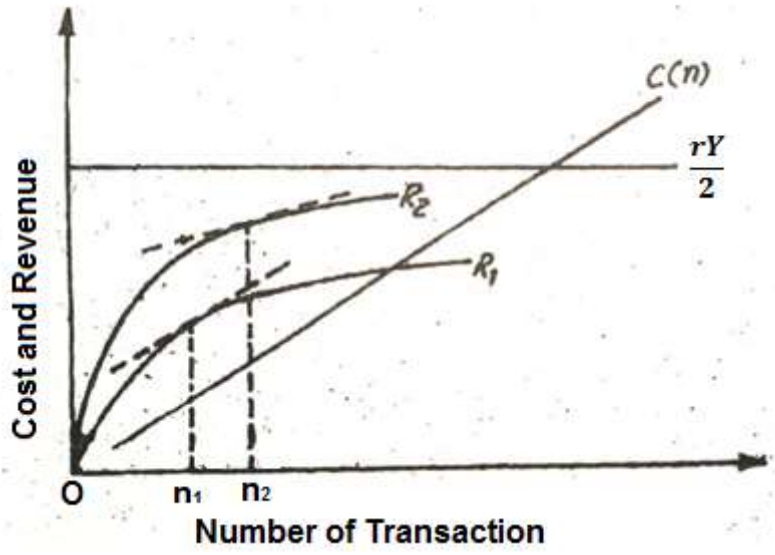

Figure 14.1

It can be easily seen from the above fig. that the number of times (n) the individual decides to enter the bond market, the greater is the earnings from investment which we may denote with R. 1/ 2n rY becomes his revenue function. But buying and selling of bonds has a cost which, like the revenue, can be related with n to get the cost function. On the simplifying assumption that the average cost of these operations remains constant, we shall have a cost function represented above by a straight line passing through the origin like the line c(n) in the figure. The revenue function will be positively sloped but the slope will be diminishing as shown by two revenue functions R_1 and R_2 in Figure14.1 above. Each revenue function is related to a given rate of interest. The higher is the rate of interest, the higher is the revenue function. The vertical distance between a revenue function and the cost function denotes net revenue at a given- rate of interest. The objective of a rational individual being to maximize this net revenue, it will be maximized at that value of n at which this vertical distance is the greatest, that is, where the slope of the revenue function equals the slope of the cost function. In Figure 14.1 above, when the rate of interest is r_1, the revenue function is R_1 and the net revenue is maximized at n_1. When the rate of interest rises to r_2 the revenue function shifts upward to the positive R_2 and the net revenue is maximized at n which is greater than n_1. The horizontal line rY/2 in the above figure shows the limit of, the revenue function when n becomes infinity.

It is obvious from the above analysis that as the rate of interest rises, the number of times the individual enters the bond market increases. As a result of it, the proportion of income kept in cash balances (1/n) decreases. Thus we find that even the transaction demand for money is influenced by changes in the rate of interest. Like the speculative demand for money, this too is inversely related with changes in the rate of interest. Hence, it is meaningless to distinguish between transaction cum precautionary demand for money and the speculative demand for money. Both are determined by both income and rate of interest.

14.3.2 Portfolio Balance Approach

We have earlier observed that Keynes's theory of demand for money suffered from certain defects, two of which were: (1) it assumed that the only alternative to keeping one's assets in the form of cash balances was to keep it in the form of bonds of a single uniform long maturity: (2) it assumed that the short period expectations of the people with regard to the rate of interest were inelastic. An important post Keynesian development has been in the form of development of a new approach known as the Portfolio Balance Approach which seeks to rid the theory of demand for money of the above said defects.

The basic idea underlying this approach was suggested long ago by J.R. Hicks in 1935 in his paper, "A suggestion for simplifying the theory of Money" (Economica, Feb. 1935). However, it was Tobin who gave his approach its present elaborate form. In his paper, "Liquidity Preference as a Behavior Towards Risk" (Review of Economic Studies Feb., 1958), Tobin has liberated the concept of the asset demand for money from its dependence on expectations with respect to the future rate of interest and the inelasticity of these expectations. It also does away with Keynes's unrealistic assumption that the only alternative to holding assets in the form of cash balances is to hold them in the form of bonds of a single uniform maturity.

14.3.3 Tobin's Theory of Liquidity Preference

In Keynes analysis of the speculative demand for money, the individual made discrete decisions concerning his portfolio of financial assets i.e. he was motivated to hold either bonds or money. In his analysis, Tobin demonstrated that rational behaviour would dictate a portfolio comprising both bonds and money.

Assume that at the beginning of some period individual has a portfolio of a given size W an Also assume that individual prefers more wealth to less. Further assume that a wealth holder is uncertain about the future rate of interest and after many years his average capital gain is zero. So in any given period a capital loss or gain is determined by the amount of uncertainty concerning the future rate of interest. Tobin showed that for a given uncertainty concerning the future rate of interest, as a greater proportion of the wealth holder's portfolio is placed in consols the individual assumes a greater risk.

It follows that if a wealth holder puts his entire portfolio in consols, he would be maximising his expected growth of wealth assuming the maximum risk of a possible capital loss or gain. On the other hand, if all of his wealth were in money, he would have a portfolio with zero risk and zero gain as well .If we now assume that the wealth holder is a risk averter then his decision as to what fraction of his portfolio should be placed in consols depends on his attitude towards the trade-off between certainty with no growth and risk with growth.

The individuals attitude towards risk and portfolio growth is illustrated in the figure using indifference curves where i_2 is preferred to i_1 and i_1 is preferred to i_0. The vertical axis measures the expected value of the portfolio at the end of the time period in question and the horizontal axis measures the amount of portfolio risk. Increasing portfolio risk means that an increase in fraction of the portfolio is being held in consols and less in money. The slope of the indifference curves is positive as a result of our assumption that for a given level of wealth at the end of the period, increased risk is not desired and for a given level of portfolio risk, greater growth of wealth is preferred. The curves are concave from above as a result. of the plausible assumption that as the wealth of the individual increases, the marginal utility of wealth declines and hence he will be less willing to bear greater risk to increase his stock of wealth.

If an individual took a zero risk position and kept all of his initial stock of wealth, Wo, in money, at the end of the time period his stock of wealth would remain same as shown in the figure and he remains on the indifference curve i0. Had he placed all the wealth in consols, his expected wealth at the end of the time period would be Wo(1+i) where i is the

rate of return on consols. For a given amount of uncertainty about the rate of interest., the individual has the maximum risk when he puts his whole amount Wo in consols and this maximum amount of risk is designated as PRm. The expected value of the portfolio at the end of the time period and portfolio risk are simultaneously maximized as shown by point A in the figure 14.2 (A).

For a given rate of interest the expected gain in wealth from all possible portfolio combinations between holding only money (point Wo) and hold only consols (Point A) can be represented by the straight line drawn between the points Wo and A. It is linear the expected gain in wealth is proportional to the amount of consols held. This line may be called the budget constraint line. Now the wealth holder wants to obtain the highest level of indifference subject to the constraint that he remains on the budget line Wo A achieved at point E, where indifference i_1 just tangent to the line WoA and the portfolio wealth holder is diversified between money and consols.

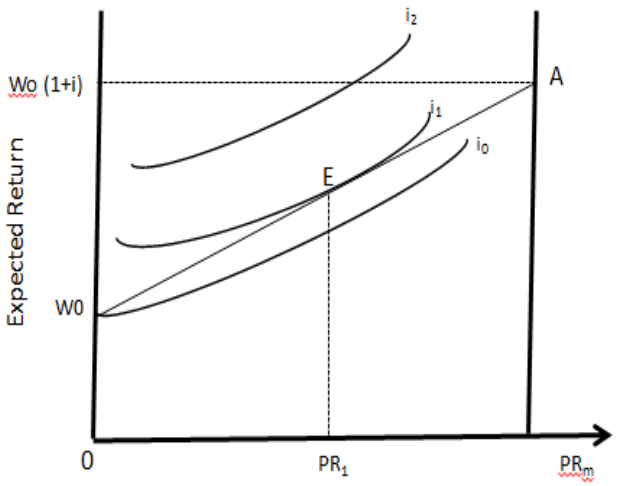

Figure 14.2 (A)

Tobin's liquidity preference function as an individual wealth holder can now be derived analysing the effect that varying the rate of interest will have on his portfolio. In figure 14.2 (B) as before it is assumed that the individual has the same wealth Wo and the same uncertainty about the future rate of interest as before, giving us the same portfolio risk, PRm. Now with Wo wealth, the vertical intercept of any constraint line is Wo, and its slope is given by

$$\frac{W0\ (1+i) - W0}{PRm}$$

Wo, PRm being constants, the slope of any budget constraint will increase as the rate of interest expected to be paid on consols increases.

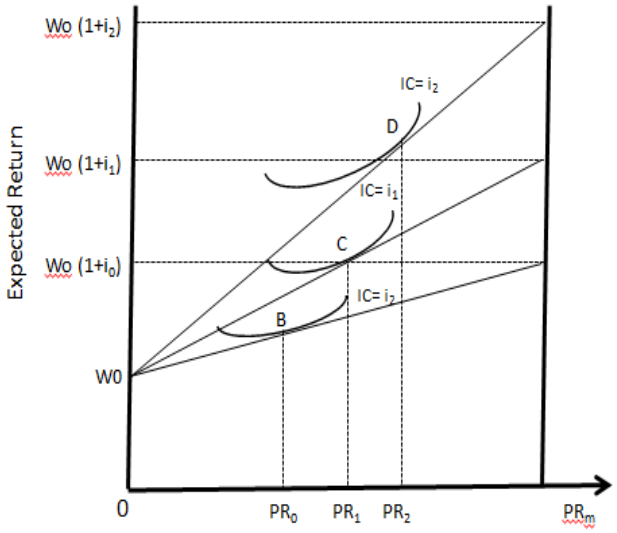

Figure 14.2 (B)

In figure 14.2 (B), three budget constraint lines are drawn for three rates of interest i_0 i_1 and i_2 where $i_0 < i_1 <$ to i_2. Increasing portfolio risk implies that a greater fraction of Wo is being held in the form of consols. Thus as the rate of interest increases from i_0 to i_1 to i_2 the individual wealth holder maximises utility under these various alternatives and moves from tendency point B to C to D as his welfare increases and increase in the welfare is accompanied by increased portfolio risk. Therefore as the rate of interest increases, wealth holder's demand for money decreases.

The liquidity preference curve for the individual is a continuous downward sloping curve as shown in Figure 14.3. The horizontal axis measures the demand for money as an asset.

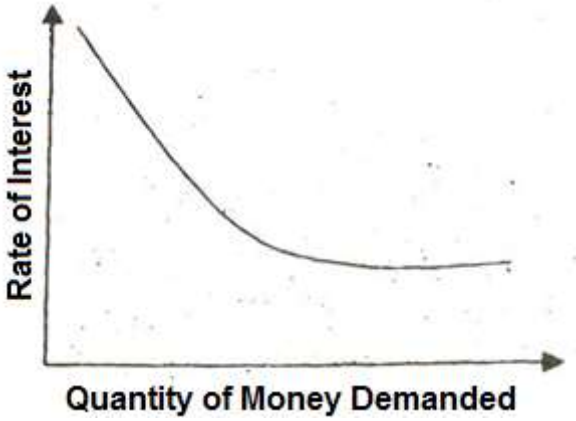

Figure 14.3

The portfolio's preference of cash may increase as the interest rate rises or the liquidity preference curve is upward sloping as shown in Figure 14.4. Whether the liquidity preference curve is upwardly sloping or downwardly sloping is determined only by empirical research.

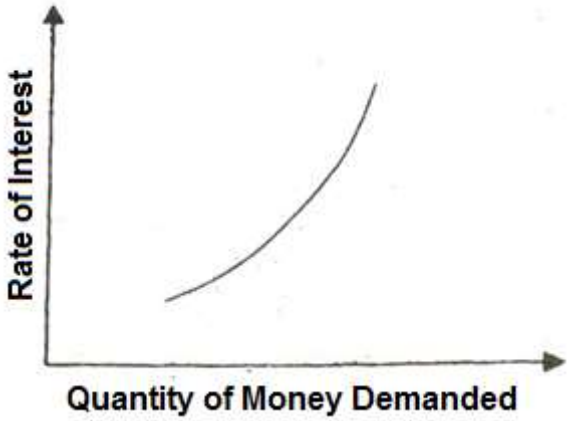

Figure 14.4

The conclusion is thus the same as in Keynes's theory but the approach or explanation is different. However, there is an additional and important implication of Tobin's Portfolio Balance Theory. It also considers the wealth effect which was absent in Keynes's theory. The wealth effect is like the income effect so that when wealth increases, the wealth holder tends to distribute the increase in his wealth over all types of assets unless any particular asset is considered to be "inferior". Don Patinkin, in his demand for money will also increase and decrease with an increase and decrease in wealth, all other things remaining the same.

The above analysis leads to the conclusion that the demand for money is a function not only of the level of income and the rate of interest but also of the size of wealth. Hence, a more complete demand function of money will be written as follows:

$M = f(y, r, w)$

Where M, as usual, is demand for money balances, y is income, r is the rate of interest and w is wealth.

SELF-CHECK EXERCISE-14.1

Q1. Write a short note on the Post Keynesian approach.

Q2. What is meant by Baumol-Tobin Thesis.

Q3. Explain Portfolio Balance Approach

14.4 FRIEDMAN'S THEORY OF DEMAND FOR MONEY

The asset of portfolio balance approach to the analysis of demand for money which truly started with the cash balances approach to the Quantity theory of money of the Cambridge School appears in a much more elaborate and refined form in Friedman's restatement of the Quantity Theory, Friedman himself has observed that the Quantity Theory is neither theory of price level nor a theory of income but it is "in the first instance a theory of the demand for money".

Friedman analyzes the demand for money in terms of the capital theory by making use of the tools of micro economic theory of demand- According to him, the demand of a wealth owning unit for money depends, like the demand for any ordinary commodity, on the following factors (1) The total wealth(human and non-human) of the wealth owning unit which is similar to the budget constraint of the individual customer in the micro economic theory of customer's demand: (2) the, relative prices of the alternative assets in the form a of which wealth can be held and the relative yields from these alternative assets which are substitutes of one another and (3) the preference scale of the wealth owning unit. He, of course, adopts the usual assumption of maximizing behavior on the part of the wealth owning units who are supposed to be shuffling and reshuffling their portfolios of assets in the light of the market forces so as to get the maximum utility.

Friedman considers only five alternative) forms of assets which he considers enough to raise all essential analytical points in this context. These five forms of assets are: money (M), bonds (B). equities (E), physical non-human goods (G) and human capital (H). Since maximizing "utility requires" equalizing the "utility" from each form, of asset at the margin. It leads Friedman to explain the meaning of utility of each form of these assets.

Friedman assumes that the "utility" of each form of asset lies in the return expected from it. The return from money is in the form of convenience, security etc., provided by its perfect liquidity. However, the value of this return in real terms depends on the purchasing power of the monetary unit, that is, on the price level (P).

In the case of a bond, the return has two components: (1) The annual income promised on it, r_b, that is, the bond rate of interest, and (2) the capital gain, positive or negative, due to change in its price over time. Thus a bond with face value of $1.00 will yield a return quelling r_b (0) + r_b (o). d/dt $1/r_b$ (t).The first term in this expression denotes the annual return promised on it or the bond rate of interest, and the second term denotes the expected change in its price over time or the expected capital gain or loss. Through mathematical manipulation and the method of approximation, the above measure of the return from a bond of face value $ 1.00 is reduced to the form r_b - $1/r_b$ dr_b/dt.

The return from an equity is similar to the return from a bond except in that the perpetual annual yield promised on it in real terms and not in the money terms as is the case with bonds. Therefore, the return from an equity of face value $ 1.00 will have an additional component determined by change in the price level. The total return expected from it will equal to—r_e +1/P.dP/dt - $1/r_e$ dr_e/dt. The first term in this expression r_e is the promised annual return on it in money terms or The equity rate of interest. The second term represents the escalator clause compensating for any change in the purchasing power of the monetary unit, and the third term refers to the capital gain or loss.

Physical goods are similar to equities except that the annual yield from them is not in money form but in kind. In nominal terms this return automatically changes with changes in the general price level. Moreover they also promise an additional return in the form of appreciation or depreciation in their market money value. The measure of the nominal return from $1.00 worth of physical goods will be thus:

1/P. dP/dt

Friedman acknowledges that human capital as an asset form creates problems as there is only a limited market in human capital in a modern society. In the absence of such a

market it is not possible to define in market prices the terms of substitution of human capital for other types of capital. Nor, due to the same factor, is it possible to define at any given time, the physical unit of capital corresponding to S 1.00 worth of human capital. Friedman removes this analytical difficulty by assuming that the ratio between non-human wealth and human wealth in the portfolio of assets of an individual wealth owing unit at any given point of time will take care of this variable. This ratio, or its surrogate, the ratio between the income from non- human wealth and the income from human wealth is denoted by the symbol, W.

The preference or "tastes" of the individuals also influence demand for money. However, they are generally assumed to remain constant over a reasonable stretch of time. But, in the case of demand for money, there may be certain objective circumstances which may influence the preference scale of a wealth owning unit. For example, people generally prefer to keep a larger proportion of their wealth in the form of money when they are moving about from place to place or when they are subject to abnormal situations of uncertainty. Therefore, all such factors which can be expected to influence the preferences of the wealth owning units will also have determining effect on the demand for money. Friedman uses the symbol m for all such factors.

Combining all the above factors, Friedman deduces the following demand function for money:

(1) $M = f(P, r_b - 1/r_b\ dr_b/dt, r_e + 1/\ dP/dt - 1/r_e\ dP/dt.\ W.\ Y/r, m)$

The general rate of interest, r is a weighted average of two specific rates, r and r, and the rates applicable to human wealth and physical goods. Since the rates applicable to human wealth and physical goods cannot be observed directly in the market, they are assumed to change in a systematic manner with r_b and r_e. On these assumptions, r becomes redundant as its influence is taken care of by r_b and r_e. Therefore, we can drop r out of this function. Friedman makes another simplifying assumption, namely, that r_b and r_e remain stable over time. This permits us to substitute the cumbersome variables.

(r_b - $1/r_b\ dr_b/dt$) and (r_e + $1/P\ dP/dt$ - $1/r\ dr_e/dt$) with plain r_b, r_e and the factor $1/P\ dPe/dt$, the money demand function of equation (1) above can be written as follows:

(2) $M = f(P, r_b, r_e, 1/PdP/dt, W, Y, m)$

This is Friedman's money demand function.

Some special attributes of this function must be noted. Firstly, like all types of demand analysis based on the utility maximizing behavior and absence of "money illusion" and expressed in real magnitudes, this function too is unaffected by any change in the monetary unit as regards the real magnitudes. This means that the demand for real balances (M/P) will remain unaffected by a change in the monetary unit. In other words, the demand for nominal balances will change in the same proportion and in the same direction in which the monetary unit changes. This implies than Friedman's money demand function is homogeneous of the first degree in money prices and money income.

In the light of the afore said, the above equation (2) can be written as follows:

(3) $M/P = f(r_b, r_e, 1/P.dP/dt, W.\ Y/P, m)$

which is the demand function for real cash balances.

14.4.1 Friedman's Empirical Approach

Friedman claimed rich empirical content in his theory. In his paper "The demand for Money: Some Theoretical and Empirical Results" published in 1959, he tested the proposition that the demand for money varies directly in proportion to changes in the price level, and that it changes directly but more than in proportion with changes in income. In particular, he tested the money demand function, $M^d = a\ PY^b$. M^d in this money demand function is the demand for nominal cash balances; P is the general price level, Y is the real

income; a is positive constant showing that M^d changes in the same direction as P and Y, and b is a constant greater than one signifying that demand for money, M^d, changes more than proportionately with changes in money income. If we divide the above equation by P, we get $M^d/Pa\ Y^b$. IN this equation, the left hand side represents the demand for real cash balances which is shown to have more than unit elasticity with respect to real income. b-the income elasticity of demand for money to be greater than one has been termed as that holding of cash balances is a 'luxury good' by Friedman. d indicates interest elasticity of demand for money which, though negative does not play significant role as considered by Friedman. This result clearly contradicts the classical theory of demand for money, according to which the demand for money changes directly in proportion to changes in real income. An implication of the above empirical finding of Friedman is that money is a luxury good.

14.4.2 A Critique of Friedman's Theory

In spite of the sophistication of Friedman's theory, it has certain limitations. Firstly, it takes an explicit note of the asset demand for money only the transaction demand for money has not been adequately analyzed in it. In other words, it ignores the function of .money as means of payment. Secondly, as pointed out by Miles Fleming, "the nature of services provided by money balances is not enquired into closely" This has made the analysis in Friedman's theory too abstract. Thirdly, Friedman's argument implies the assumption that the different forms of assets considered by him are close substitutes of one another. But he has not spelt out the basis of this assumption. Fourthly, the variable 1/P. dP/dt in Friedman's money demand function refers to the expected rate of change in prices. But his theory throws no light on how these expectations are formed. Fifthly, the theory has been stated in a static form. It takes no note of the time lags involved and their implications for the demand for money. Sixthly, even Friedman's empirical finding that the demand for money changes more than in proportion with changes in income is misleading based as it is on a definition of money which includes not only demand deposits but also time deposits of the banking system. If the time deposits are excluded from the definition of money, the demand for money may turn out to have a proportionate relation with changes in income stipulated in the traditional Quantity, theory.

However it was Friedman, who initiated the empirical estimation of demand for money function. It is upto the investigator to choose between the narrow or broader definition of money and conclude accordingly i.e. whether holding of cash balances is a luxury good or there are economies of scale as advocated by Tobin.

SELF-CHECK EXERCISE-14.2

Q1. Explain in short the Friedman's theory of Demand for money.

14.5 SUMMARY

Despite above mentioned criticism, this fact cannot be denied that Friedman has restated the classical Quantity theory with important implications. In the long run, all real magnitudes reach their normal levels. This calls for a growth in money supply to influence economic activity. It is in this sense said that the traditional Quality theory is revised by the Friedman.

14.6 GLOSSARY

- **Bond:** is a fixed-income instrument and investment product where individuals lend money to a government or company at a certain interest rate for an amount of time.
- **Portfolio Risk**: is a chance that the combination of assets or units, within the investments that you own, fail to meet financial objectives. Each investment within a portfolio carries its own risk, with higher potential return typically meaning higher risk.
- **Interest elasticity:** means that demand for a financial product changes with changes in the interest rate.

- **Real Balance:** is the real value of the money balances held by an individual or by the economy as a whole, as the case may be.
- **Liquidity Preference:** in Keynesian theory) the preference of investors for holding liquid assets rather than securities or long-term interest-bearing investments.
- **Speculative Demand:** is a term from Keynesian economics which describes the desire to have money for the purpose of investing in assets.

14.7 ANSWERS TO SELF-CHECK EXERCISES

Self-Check Exercise-14.1

Ans. Q1. Refer to Section 14.3

Ans. Q2. Refer to Section 14.3.1

Ans. Q3. Refer to Section 14.3.2

Self-Check Exercise-14.2

Ans. Q1. Refer to Section 14.4

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14.9 TERMINAL QUESTIONS

Q1. Graphically explain Tobin's theory of Liquidity Preference.

Q2. What is Friedman's theory of Demand for money? Explain in detail.

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THEORY OF MONEY SUPPLY

STRUCTURE

15.1 INTRODUCTION

Money supply includes all money in the economy. Money supply may include demand deposits, time deposits, currency and different types of liquid assets. Bank deposits constitute nearly 80 per cent of total supply in advanced countries. The stock of money is to

be in a spendable form. There is no reason why the liabilities of the saving institutions should also not be included as money, as some economists say of course, some are of the opinion that monetary gold stock should be Excluded from money, because gold serves as on international money. Friedman and Schwartz considered all market able government securities as money. In a narrow but practical sense, money supply will include currency and demand deposits. Currency (notes) and coins are issued by the central bank and also by treasury and demand deposits are created by commercial banks through the credit multiplier on the basis of primary and derivative deposits.

15.2 LEARNING OBJECTIVES

After going through this Unit, you will be able to

- understand process of Money Multiplier
- discuss the Reserve Bank of India's analysis of money supply
- know the concept of neutrality of money

15.3 MONEY MULTIPLIER PROCESS

In the previous units, we explained the money multiplier process with certain assumptions and the money multiplier was found to be 1/Rd. Below follows the process of money multiplier when the assumptions imposed on the (i) public constant choice of currency and (ii) Banks 'excess reserves being zero are relaxed.

Writing money supply as :

$Ms = C + D$ ..... (1)

and $H = C + R$ ..... (2)

where H is the high powered money and R is nominal reserves of the commercial banks

Dividing both sides of (2) by Ms, we have

$$\frac{H}{Ms} = \frac{C}{Ms} + \frac{R}{Ms} \quad \text{..... (3)}$$

Writing $\frac{R}{Ms} = \frac{R}{D} - \frac{R}{D} + \frac{R}{Ms}$

Again $\frac{R}{Ms} = \frac{R}{D} - \frac{R}{D} \cdot \frac{Ms}{Ms} + \frac{R.D}{Ms.D}$

$$= \frac{R}{D} - \frac{R\,Ms + RD}{Ms.D}$$

$$= \frac{R}{D} - \frac{R\,(Ms - D)}{Ms.D} \quad \text{..... (4)}$$

$$= \frac{R}{D} - \frac{R.C}{Ms.D} \quad \text{..... (5) [using (3)]}$$

Substituting for $\frac{R}{Ms}$ from (5) into (3), we get

$$\frac{H}{Ms} = \frac{C}{Ms} + \frac{R}{D} - \frac{R.C}{Ms.D} \quad \text{..... (6)}$$

Now writing

$\frac{C}{Ms}$ = Cr - Currency ratio

$\frac{R}{D}$ = Rd- Reserve Deposit ratio

Then (6) becomes

$\frac{H}{Ms}$ = Cr + Rd –Cr -Rd

Taking reciprocals of both the sides, we get

$\frac{Ms}{H} = \frac{1}{Cr-Rd-Cr+Rd}$ ..... (7)

Or Ms = $\frac{H}{Cr-Rd-Cr+Rd}$ ..... (8)

Now Cr, Rd are both ratios

So, Cr Rd <1

Or Ms = m. H

Or Money Multiplier (m)= $\frac{1}{Cr-Rd-Cr+Rd}$

It implies that H high powered money remaining constant, nominal money supply varies directly with m- the money multiplier. Further m = $\frac{1}{Cr-Rd-Cr+Rd}$, the money multiplier varies inversely with the currency and reserve ratios.

SELF-CHECK EXERCISE-15.1

Q1. Explain the Money Multiplier Process.

15.4 COMMERCIAL BANK BEHAVIOUR

Commercial banks being profit maximizing business maximize the profit as long as

XR = R - RR = 0

i.e. XR, excess reserves are fully exhausted. As regard the choice of different assets by the banks, They have to keep in mind the degree of liquidity, yield and risk. A bank faced with the decision of acquiring assets will not place all its excess reserves into those assets that yield the highest rate of return, because those assets will also be the least -liquid and most risky. Instead a bank will diversify its portfolio of investments taking into consideration yield, liquidity and risk. A bank need liquidity because it lacks perfect knowledge of the future. If a bank has zero excess reserves and due to some unforeseen event loses reserves, then it can borrow money from other commercial banks or from the central bank at some rate of interest. It means bank has increased it costs and so decreased the profits. So in order to maximize it profits a bank will have to keep some excess reserves with some of its assets in the form of highly liquid, low-risk and relatively low-yield Treasury bills.

As the cost of acquiring reserves falls relative to the return on the portfolio of bank assets, the bank will shift the distribution of assets in its portfolio toward the less liquid, higher yielding assets. This means that the reserve ratio will be reduced and the nominal money supply will expand given that the nominal stock of high- powered money and the currency ratio remain constant.

To show this behaviour, we have

XR = R - RR

Or R = XR + RR ..... (1)

Dividing both sides by D, we get

R/D=XR/D + RR/D ..... (2)

Or Rd = Er + RRd

Where Er is the excess reserve ratio

Substituting this into

Ms = H/ (Cr+ Rd –Cr- Rd), we get

Ms = H/ [Cr+ Er + RRd - Cr (Er + RR)]

Or Ms = H [Cr + Er + RRd - Cr (Er + RR)]

Since Cr and Er are both less than unity.

Cr Er < either of both. Hence the money stock is inversely related to either of them.

From the above explanation it follows that the excess reserve ratio will decline as the cost of acquiring reserves declines relative to the return on bank loans or investment. And with other determinants remaining constant nominal stock of money will increase.

SELF-CHECK EXERCISE-15.2

Q1. What is excess reserve ratio?

15.5 FACTORS DETERMINING EXCESS RESERVES

There are two important factors determining the relative cost of acquiring deposits:

1. Market rate of interest, and
2. Central Govt. Discount Rate.

When the market rate of interest increases with discount rate remaining same, the relative cost of obtaining deposits falls. When the discount rate falls, with market rate of interest remaining constant, the relative cost of obtaining deposit decreases. With the market rate of interest and directly with the discount rate.

Or symbolically we have

$ER = f(i, i_d)$ 5

where ER = excess reserves

= market rate of interest

and id = discount rate

where $\Delta Er / \Delta D < 0$ and $\Delta Er / \Delta Di_d > O$

Equation 4 gives us that money supply varies inversely with the excess reserve ratio. Therefore, as the relative cost of making loans decreases, the excess reserve ratio falls and the quantity of nominal money supplied will increase. Since the desired amount of excess reserves is determined by the market rate of interest and the central govt. discount rate, the nominal money supply is a function of these variables in addition to high powered money, the currency ration and the required reserve ratio based on these assumptions.

SELF-CHECK EXERCISE-15.3

Q1. What are the factors that determine the excess reserve.

15.6 HIGH-POWERED MONEY

High powered money represents the total amount of money in an economy that serves as the foundation for broader money supply. High powered money consists of two main components :

i. Currency in circulation with policy. This includes all physical money in the form of bank notes and coins that is held by public and not deposited in banks. It is the most liquid form of money, readily available for transactions.

ii. Reserves held by banks at the Central Bank : Commercial banks are required to hold a portion of their deposits as reserves with the Central Bank (RBI). These reserves serve as a net for the banking system and are used to settle interbank transactions.

High powered money is called high powered because it has a powerful impact on the money supply in economy. The central bank, through its monetary policy tools, can influence the growth of high powered money. High powered money in the base upon which the entire money supply of an economy built. Understanding its dynamic and the central bank's control over it is a crucial for comprehending how changes in the money supply can affect economic activity, inflation and the interest rates.

Accordingly high-powered money in India is the sum total of currency with the public and bankers deposits with the Reserve Bank, cash with banks and other deposit with RBI which are liabilities of the RBI to the non-bank sector. In India high-Powered money consists predominantly of currency with the public.

15.6.1 Importance of High Powered Money:

High powered money is of significant importance in India for several key reasons :-

i. High powered money is crucial tool for the RBI to implement monetary policy. RBI can influence the money supply and interest rate which are vital for achieving the central bank objectives, including price stability and economic growth.

ii. Reserves held by commercial banks at RBI, which form part of high power money, serve as a source of stability and confidence in the banking system.

iii. Managing high power money is instrumental in controlling inflation. RBI can influence the money supply, which in turn affects inflationary pressures in economy.

iv. The RBI may use its foreign exchange reserves a component of monetary base, to stabilize or manage the value of the Indian rupee in international currency markets.

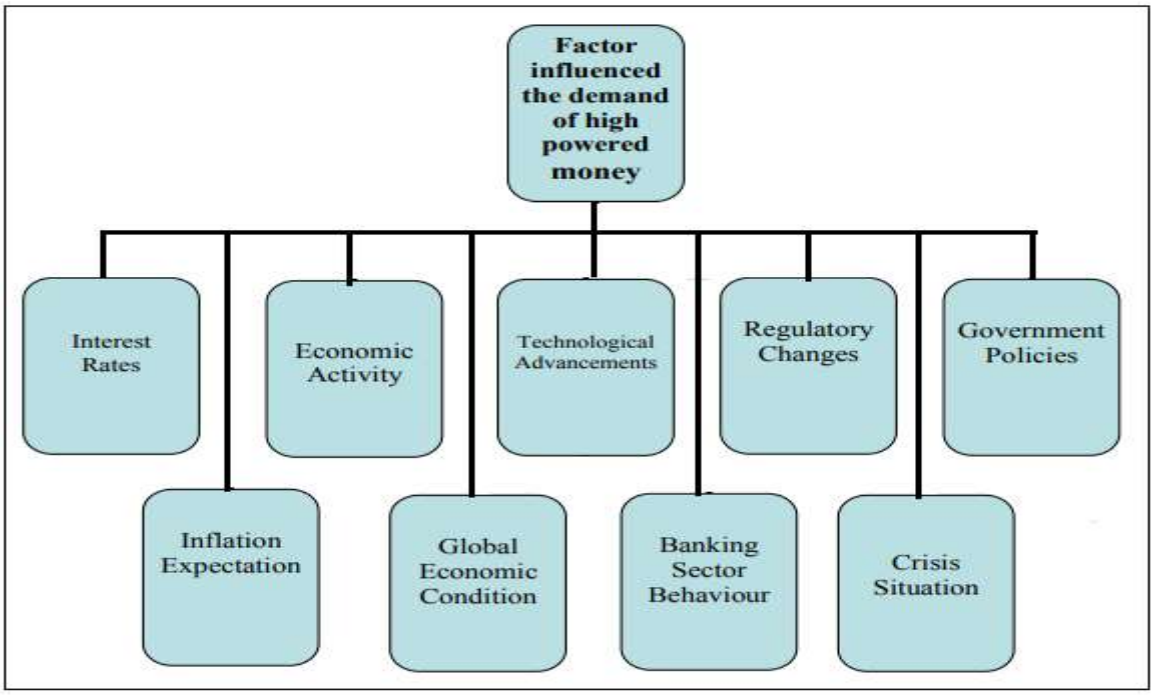
v. High powered money contribution to overall economic stability by ensuring the availability of liquid assets for transactions and maintaining confidence in Indian banking and financial system. Economic stability is essential for attracting investments and fostering economic growth.

vi. The RBI conducts open market operations to influence the level of high powered money in the economy these operations have direct impact on liquidity conditions in financial markets and can effect short term interest rates.

vii. High powered money can indirectly impact government financing. When the RBI buys the government securities in open market that can be used to finance public spending.

viii. Monitoring high powered money is essential for macro prudential regulation, ensuring the stability of financial system and protecting against systemic risks.

15.6.2 Factors affecting High Powered Money



SELF-CHECK EXERCISE-15.4

Q1. What is high powered money?

Q2. Write the importance of high powered money.

15.7 SOURCES OF RESERVE MONEY IN INDIA

In India, the main sources of reserve money as represented by the assets acquired by the RBI and by the government's currency liabilities to the public are the following:

Reserve Money = Net RBI credit to Govt.

+ RBI credit to Bank

+ RBI credit to commercial sector

+ Net foreign exchange Assets of RBI

+ Govt. currency liabilities to the public

- Net non-monetary liabilities of RBI

In recent years RBI's net credit to government has been the main source of reserve money. Net RBI credit to government as a proportion of reserve money was 83 percent in 1970-701 and 85 percent in 1980- 81 and rose to 92 percent in 1983-84 it increased as high as that it exceeded total reserve money and have now decreased a bit. The fall was 94 in 1992 and it rapidly decreased to 0.51 by March 2001.

Reserve Bank credit to commercial sector grew at an average annual rate of Rs.117 crores during the seventies against the average annual increase of Rs 7 crores in the sixties and less than one crore rupees per year on the average in the fifties. The net foreign exchange assets of RBI showed a notable increase only during the second half of seventies and exhibited considerable variation on a year to year basis. Net foreign exchange assets (NFEA) of RBI were 9.09 per cent of total reserve money and they increased sharply with shares of 53 per cent in 1998 to 65 per cent in March 2001.

SELF-CHECK EXERCISE-15.5

Q1. What are the sources of Reserve Money in India?

15.8 RESERVE BANK OF INDIA'S ANALYSIS OF MONEY SUPPLY

RBI's analysis of money supply is derived in a simple manner from a couple of accounting equations as follows:

By definition, M, that is, money stock, equals the monetary liabilities (ML) of the total banking sector comprising the RBI and other banks plus the quantity of government currency (GC) with the public. This gives the following definitional equation (1):

(1) M = ML + GC.

The balance-sheet accounting equations or identity (2) below is added to it:

(2) ML + NML = FA + OA

That is, the sum of monetary liabilities (ML) and non-monetary liabilities (NML) of the banking sector equals the sum of the financial assets (FA) and non-financial or other assets of the banking sector.

The equation (2) above can be rearranged to give the following equation (3):

(3) ML = FA - (NML - OA)

If the difference between NML (non- monetary liabilities) and OA (other assets) is defined as net non-monetary liabilities (NNML) of the banking sector, then the equation (3) can be rewritten as follows:

(4) MLFA-NNML

By substituting equation (4) into equation (1)

(5) M = FA - NNML + GC

The financial assets (FA) of the banking sector are comprised of the following components:

1. Net bank credit to the government;
2. Bank credit to the commercial sector; and
3. Net foreign exchange assets of the banking sector

Using this split-up of, the financial assets (FA) of the banking sector in equation (5), the RBI arrives at its analysis of the "Factors Affecting Money Supply" or of the "Sources of Change in Money Supply". This is detailed in the relevant RBI table as follows:

1. Net bank credit to government (a+b) is comprised of
    a. RBI's net credit to government which itself is comprised of.
        i. Claims on government, and
        ii. Government deposits with RBI and
    b. Other Bank's credit to government.
2. Bank credit to commercial sector (a+b) comprising
    a. RBI's credit to commercial sector, and
    b. Other banks' credit to commercial sector.
3. Net foreign exchange assets of the banking sector (a+b) comprising
    a. RBI's net foreign exchange assets, and

b. Other banks' net foreign exchange assets.

4. Government's currency liabilities to the public

5. Net non-monetary liabilities of banking sector (a + b + c) comprising

   a. Time deposits with banks

   b. Net non-monetary liabilities of RBI

   c. Other non-monetary liabilities of banks (comprising mainly capitals and reserves of banks, other liabilities (like bills payable) over other assets, (like premises, furniture, etc.) of banks, errors and omissions, etc.

Taking note of the above details, the money supply (M) by definition, equals the sum:

(1 + 2 + 3 + 4 - 5)

RBI's so-called analysis of money supply as explained above has been rightly criticized as meaningless. Since the whole of it consists of a set of definitional or accounting equations; it has no explanatory value of its own. In other words, the RBI analysis of money supply does not explain the. consequences, for money supply, of various policy and non-policy autonomous changes, such as the open-market operations of the RBI, or changes in the statutory reserve requirements for banks or changes in net foreign aid, etc. not to speak of its ability to explain how and why such autonomous changes come to affect the supply of money. It simply helps in measuring the changes in the stock of money after they have occurred and splitting up these changes into its components or sub-totals. It does not predict the changes before which is the real test of a genuine analysis or theory.

SELF-CHECK EXERCISE-15.6

Q1. Discuss Reserve Bank of India's Analysis of Money Supply.

15.9 CONTROL OF MONEY STOCK

A theory which explains the factors affecting money supply also provides suggestions for controlling the money stock. The 'H' theory of money supply, for example, tells us that the supply of money is determined by two factors, namely, the volume of high-powered money (H), which is also known as the monetary base, and the value of the money multiplier to which the former is subject, that is, (c+1)/(c+r) where c is the public's preferred ratio between currency and bank deposits as regards its assets holdings, and r is the statutory minimum cash reserve ratio of the banks. Therefore, any policy aiming to control money stock must, in the first instance, control the stock of high-powered money (H). The central monetary authority of a country, that is, the central bank cannot, most probably, influence c as it depends on the preferences of the people. But it can control because it has statutory power to vary this ratio.

Since H or the monetary base is comprised of currency held by the public plus cash reserves of the banks and other deposits with the central bank of a country, the central bank can use appropriate instruments to control the cash reserves of the banks and thus influence the stock of money. The appropriate instruments of central banking control have been already explained in Unit 09 and Unit 11 on credit creation and Central Banking. Therefore, we are not repeating these details here.

SELF-CHECK EXERCISE-15.7

Q1. How to control of Money Stock in the economy.

15.10 NEUTRALITY OF MONEY

The analysis of relation between money and level of economic activity is a matter of great operational significance. The significant issue is whether changes in money supply do or do not influence the level of economic activity as reflected in the volume of employment

and output and other real variables like saving, investment, etc. If it is incapable of influencing the level of economic activity, that is, if money is "neutral", the monetary policy as a means of controlling the level of economic activity will be ineffective. On the other hand, if money is non-neutral and is capable of influencing, the level of economic activity, then monetary policy will be effective and useful. In this connection, we shall consider here three views on this subject, the classical, which includes the neoclassical view also, the Keynesian and the monetarist view.

15.10.1 The Classical View

The general views regarding the classical view on this subject is that, according to it, money is neutral: it cannot influence the level of output and employment. Changes in money supply influence only the monetary values of the real variables; they do not influence the real variables measured in their physical units. This can be easily shown with the help of a simple text-book geometrical representation of the classical theory of income and employment as follow:-

In the following set of six diagrams we have the essentials of the classical theory of the determination of the level of employment, output and prices, according to which the level of output or real income is determined by the real factors like the quantity and quality of factors of production and the technique of production. We make the simplifying assumption that there are only two factors, labour and capital, both of which are homogeneous. We also assume that the capital stock is given and constant and the technique of production is also given and constant. We further assume, that the initial money stock is M_o.

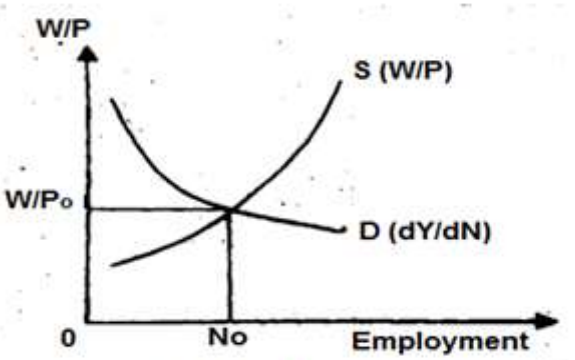


Figure 15.1

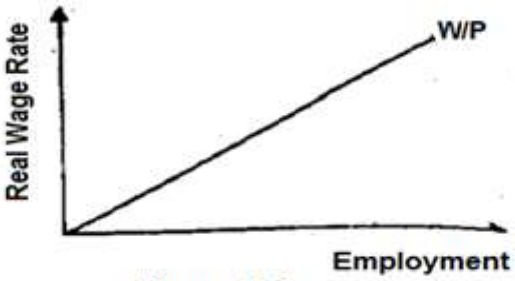


Figure 15.2

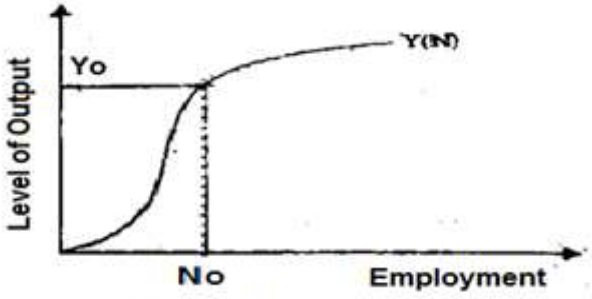


Figure 15.3

Figure 15.1 above shows the equilibrium in the labour market at the point where the demand function for labour, D(dY/dN), and the supply function of labour, S(W/P), intersect. The demand function is negatively sloping as behind it lies the marginal productivity of labour (dY/dN) which decreases with increase in employment of labour (N). The supply function is positively sloped as supply of labour is a direct function of the real wage rate (W/P). Thus, N_o is the equilibrium level of employment and $(W/P)_0$ is the real wage rate (Figure 15.2). Figure 15.3 shows the production function Y(N) and from it we find that at the equilibrium employment level N_o, the equilibrium level of output is Y_o.

Figure 15.4 depicts two curves M_0V and M_1V, both of which are rectangular hyperbolas with output (Y) represented along the vertical axis and price level (P) represented along the horizontal axis. Their being rectangular hyperbolas means that PY under a given curve remains constant. Each relates to a given money stock. When money stock is M_0 the relatable curve is M_0V. Since we know from Figure 15.4 what the equilibrium level of output is, we can know from M_0V curve in Figure 15.4 what the equilibrium price level is at Y_0 the equilibrium price level is P_0.

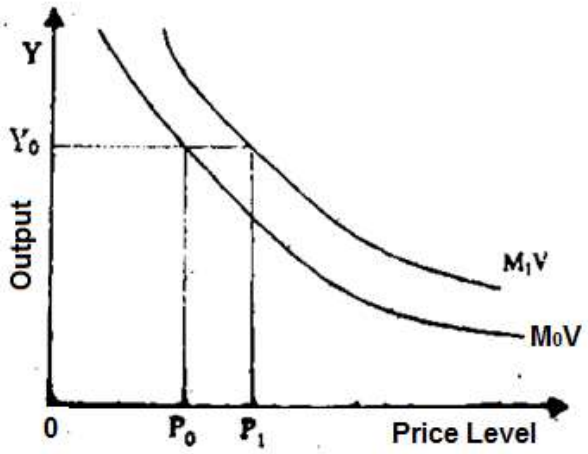


Figure 15.4

In Figure 15.4 the straight line (W/P) passing through the origin has the slope equaling the equilibrium wage rate $(W/P)_0$ and it relates the money wage rate (W) with the price level (P). From this we know that at the equilibrium price level P_0 the equilibrium money wage rate is W_0. Similarly, Figure 15.5 shows the equilibrium level of investment (OQ) and the equilibrium real rate of interest, when real income is Y_0. In Figure 15.6 shows a straight line passing through the origin with its slope equaling the equilibrium real rate of interest $(i/P)_0$ From this we can find that at price level P_0 associated with M_0 the equilibrium money rate of interest is i_0.

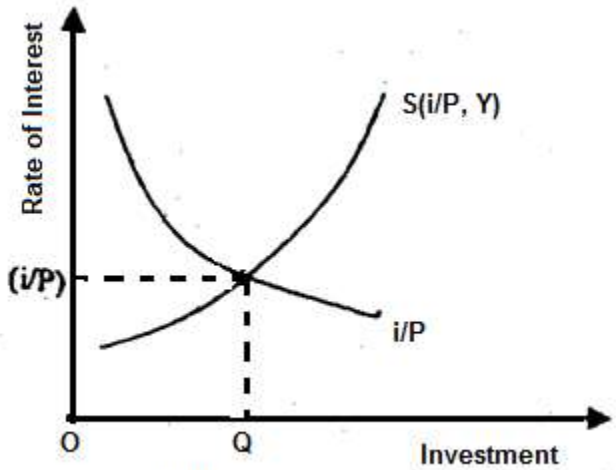


Figure 15.5

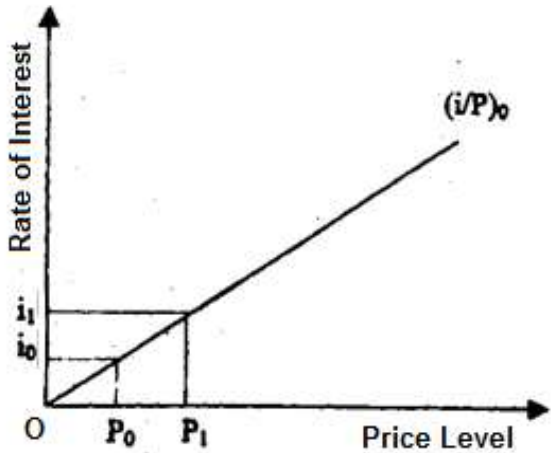


Figure 15.6

Now, if the stock of money is increased from M_0, it has no effect in the above set of diagrams which show the parts of real equilibrium, that is, in Figures 15.1, 15.2 and 15.5. Levels of output and employment remain the same, and the rates of saving and investment also remain the same. But there is change in those parts (Figures 15.3, 15.4 & 15.6) which depict price level and the money values of the real variables of the system. Due to increase of money from M_0 to M_1, the MV curve shifts to the right at position M_1V in Figure 15.3. At the same level of real output (Y_0), now the price level is higher at P_1 which has increased in the same proportion as the money stock (M). In Figure 15.4, we see that at the same real wage rate, the money wage rate has increased from W_0 to W_1, and in Figure 15.6, we see that the

money rate of interest at the new price level P_1 has also increased in the same proportion as the price level(P).

Thus we find that in the classical model, the level of economic activity (real variables) remains unaffected by changes in the money supply. Hence, money in the classical theory is neutral in the long run. However, there are observations to be found in the various version of the Classical Quantity Theory of money ever since the times of Cantillon and Hume which point to the classical belief that money was not neutral in the short run.

15.10.1.1 Conditions of Neutrality of Money

The above classical conclusion about the neutrality of money is based on a number of implicit assumptions. Firstly, it is based on the assumption that all prices inclusive of factor prices are perfectly flexible. If some price or prices are rigid, real output will be affected by changes in money supply. Secondly, the analysis also assumes the absence of "money illusion", that is, the economic agents are assumed to be guided in their behaviour by the real variables and not their nominal value as such. If "money illusion" exists, a rise in the nominal value of the real income may, for example, shift the saving function and thus cause a change in the real rate of interest. Money will not be neutral then. Thirdly, the change in money supply itself should be neutral in the sense that it should not cause any change in distribution, for otherwise, it will also cause a shift in the saving function and consequently a change in real rate of interest. It will also change the structure of demand for the final products and thus the relative prices will also change. Lastly, it assumes perfect knowledge of markets on the part of economic agents. If the information available to them about the demand and supply conditions and prices prevailing in different markets is imperfect, real magnitudes of the variables are likely to be affected by changes in money supply.

15.10.2 The Keynesian View

The view of Keynes and his followers on the relationship between money and the level of economic activity is opposed to the classical view. Money in the Keynesian model is, in general, not neutral it affects the real variables. An increase in the money stock leads to a decrease in the money rate of interest which in turn, will affect the volume of both investment and consumption expenditure. This leads to an increase in aggregate expenditure. Aggregate effective demand rises and with it rise the level of employment and real output. Increase in employment changes the marginal productivity of labour also. Thus money in Keynes's model is not neutral.

But, this does not mean that Keynes and his followers assigned great importance to monetary policy as a means of controlling the level of economic activity. According to Keynes, the elasticity of both investment and consumption expenditure is rather very low. Therefore, in spite of their view that money is not neutral, they did not have much confidence in the effectiveness of monetary policy in controlling the level of economic activity.

Moreover, even within the Keynesian model, money is neutral in the "liquidity trap" case. So long as the economy is within the liquidity trap, no change in money supply can cause a change in the rate of interest. Consequently, the aggregate expenditure remains unaffected and the levels of employment and real income also continue to remain the same in spite of the change in the money supply. Therefore monetary policy in completely ineffective in this case

15.10.3 The Monetarist View

The monetarists led by Milton Friedman have revived the Fisherian view that money in the short run is non-neutral. It is on the basis of their short- run analysis of the relation between money supply and the level of economic activity as reflected in the levels of employment and real income that the monetarists sometimes claim themselves to be more genuine disciples of Keynes than the popularly acclaimed Keynesians.

However, there is one basic difference between the monetarist approach, on the one side, and the Keynesian approach, on the other While the Keynesian approach emphasizes the indirect mechanism through which changes in money supply influence the level of economic activity, the. monetarists emphasize the direct mechanism. The indirect mechanism works through the effects of changes in the money supply on the financial markets which result in changes in interest rates which, in turn, influence aggregate expenditure and subsequently the level of income activity. The direct mechanism on the other hand, works directly through a direct effect of changes in money supply on aggregate expenditure and level of economic activity in the economy.

According to the monetarists, therefore, increase in the money supply results in an imbalance in the portfolios of assets of the people. They find that they have more money in their asset portfolios than they desire to hold. Consequently, they try to get rid of their undesired excess holdings of money by spending them directly on goods and services or by converting them into other types of financial assets. This raises the aggregate demand for goods and services. If there is Keynesian unemployment prevailing in the economy, it will tend to decrease in response to the increase in the aggregate demand for goods and services and employment and output will tend to increase. Money, thus, is not neutral in the short run.

However, once the full-employment consistent with what the monetarists describe as the "natural" rate of unemployment is attained, further increase in money supply has no scope for influencing the real output and employment. The whole impact will be on prices. Friedman put it very succinctly in his 1967 Presidential address to the American Economic Association as follows: The monetary policy, that is changes in money supply ".....cannot peg interest rates for more than very limited periods and it cannot peg the rate of unemployment for more than very limited period."

Like the Keynesians, the monetarists also believe that a more rapid rate of growth of money supply drives done the rates of interest, the money rate as well as the real rate, due to what they describe as the liquidity effect. But they differ from the Keynesians in their assertion that this effect and, consequently, the non-neutrality of money is only transitory. Another point of difference between the two is that the monetarists do not attach much importance to the rate of interest, their primary interest been the long-run link between money and prices, rather than the relation between money supply and output, as, in their view, the long-run output is determined by the quantity and quality of real resources of the economy.

SELF-CHECK EXERCISE-15.8

Q1. What is meant by neutrality of money.

Q2. Discuss the classical view on neutrality of money

Q3. Discuss the Keynesian view on neutrality of money

Q4. Discuss the Monetarists view on neutrality of money

15.11 SUMMARY

After the above discussion it can be summarized that money supply influences economic activity in a number of ways. There may be a direct relation between the money and expenditure. Money supply may change the rate of interest and financial situation of the economy. Money supply is an important instrument of monetary mechanism. There is strong relationship between money supply and national income. It is the rapid rate of growth of money that is responsible for initiation. Money supply should be consistent with the supply of output. About 4 per cent rate of growth of money supply may be consistent with stable price level.

15.12 GLOSSARY

- **Money Multiplier:** refers to the increase in money supply in an economy resulting from an initial injection of funds into the system.
- **Excess Reserve:** are the additional amount of money a bank keeps on handover the reserve requirement.
- **High Powered Money:** refers to the aggregate of the total currency (coins and notes) that are held by the public and the reserves of commercial banks.
- **Neutrality of Money:** implies that the central bank does not affect the real (or major variables with an economy.

15.13 ANSWERS TO SELF-CHECK EXERCISES

Self-Check Exercise-15.1

Ans. Q1. Refer to Section 15.3

Self-Check Exercise-15.2

Ans. Q1. Refer to Section 15.4

Self-Check Exercise-15.3

Ans. Q1. Refer to Section 15.5

Self-Check Exercise-15.4

Ans. Q1. Refer to Section 15.6

Ans. Q2. Refer to Section 15.6.1

Self-Check Exercise-15.5

Ans. Q1. Refer to Section 15.7

Self-Check Exercise-15.6

Ans. Q1. Refer to Section 15.8

Self-Check Exercise-15.7

Ans. Q1. Refer to Section 15.9

Self-Check Exercise-15.8

Ans. Q1. Refer to Section 15.10

Ans. Q2. Refer to Section 15.10.1

Ans. Q3. Refer to Section 15.10.2

Ans. Q4. Refer to Section 15.10.3

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15.15 TERMINAL QUESTIONS

Q.1 Discuss Reserve Bank of India's Analysis of Money Supply.

Q.2 What do you mean by Neutrality of money. Discuss the classical view and the Keynesian view on it.

*****

MONETARY EQUILIBRIUM

STRUCTURE

16.1 INTRODUCTION

We have explained in the previous units the alternative theories of demand for money and also the theory of supply of money. Now we shall take up the analysis of monetary equilibrium or equilibrium in the money market. The concept of monetary equilibrium is the fundamental feature of the macroeconomic theory originally formulated by Knut Wicksell and corrected, clarified and improved in the 1930s by Erik Lindahl and Gunnar Myrdal. Wicksell's approach was the first attempt to link the analysis of relative prices with the analysis of money prices.

16.2 LEARNING OBJECTIVES

After going through this Unit, you will be able to understand

- Classical theory and Monetary equilibrium
- Keynes theory and Monetary equilibrium
- Hicks Hansen general equilibrium approach
- External Equilibrium
- Money stock and Interest rate

16.3 MONETARY EQUILIBRIUM

16.3.1 Keynesian Approach

Monetary Equilibrium refers to the equilibrium in the money market and to a situation in which the contending forces of demand for and supply of money are exactly balanced. The demand for money, as we have seen, depends on what Keynes described as the liquidity preference of the people. We have seen that as regards the liquidity preference of the people, that it, there preference to hold their wealth in the form of money rather than in any other form of assets, it depends on the people's wealth and income on the one hand, and the rate of interest, on the other. If we take income as representative of wealth also then the demand for money at any given level of income will be determined by the rate of interest. We have also seen in Keynes's theory of the demand for money that there is an inverse relationship between the demand for money and the rate of interest as shown by the LL function in the following figure 16.1:

The horizontal portion of the LL function represents the infinite elasticity of the money demand function at a critically minimum rate of interest which is also referred to as the liquidity trap. Given the demand function for money which relates to a given level of real income, the equilibrium is determined by the supply of money which is determined exogenously by the central monetary authority. Supposing this supply of money to be M_0 the money supply function will be vertical like M_0S_0 in the above diagram, because the money supply is determined independently of the rate of interest by the central monetary authority.

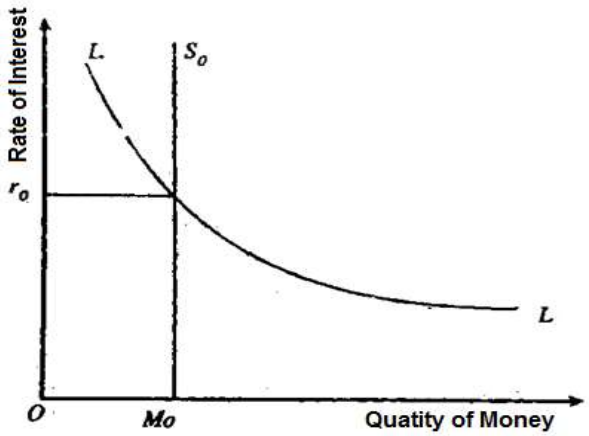

Figure 16.1

The equilibrium takes place at E where the money demand function LL and the money supply function M_0S_0 intersect. The monetary equilibrium in this Keynesian model is brought about through changes in the rate of interest. The rate of interest r_0 at which the demand for money equals the supply of money is said to be the equilibrium rate of interest. At any rate of interest higher than it, the demand for money is less than its supply. So people will find that they are holding more money than they desire and consequently they will get rid of their excess holding of money by investing it is bonds. The bond prices will rise and therefore, the rate of interest, which has an inverse relationship with bond prices, will fall. The bond prices will go on rising and the rate of interest will go on falling till it equals the equilibrium rate r_0 at which there are no excess money holdings. If the rate of interest is less than the equilibrium rate ro. the demand for holding money will exceed the money supply. Therefore, in order to bring the money holdings to the desired level, people will sell bonds to realize money. Bond prices will fall and the rate of interest will rise till the rate of interest equals the equilibrium rate r_0. Thus the monetary equilibrium depicted in the above diagram is a stable equilibrium.

However, there is one basic flaw in the above explanation of monetary equilibrium. if assumes the level of income to be given and constant, entering into the system, as it were, exogenously, uninfluenced by the endogenous variable, the rate of interest. The assumption is unrealistic, because the level of income is influenced by the rate of interest. The level of income is determined by investment which, in turn, is determined by the rate of interest. Therefore, unless we know the equilibrium rate of interest. Thus, we are moving in a circle. On account of this, the equilibrium in this simple Keynesian model is indeterminate.

16.3.2 Classical Approach: Monetary Equilibrium

In the classical theory the monetary equilibrium refers to equilibrium in the market for loanable funds. This equilibrium is determined by the interaction of the forces of demand for and supply of loanable funds. A distinctive feature of the classical theory is that it assumes only a single source of the supply of loanable funds and that single source is saving which in this theory is determined by the real rate of interest on an additional assumption that there is a unique macroeconomic equilibrium at the full- employment level. There is, though, an implicitly recognition that saving is influenced by the level of income also. The demand for loanable funds, on the other hand, comes from investment. The saving schedule is positively sloping as shown by the curve SS' in Figure 16.2 (1) below, because saving is a direct function of the real rate of interest. Therefore, the supply schedule of loanable funds is also positively sloping as shown by the curve SL in Figure 16.2 (ii). The investment schedule that lies behind the demand for loanable funds is negatively slopping as shown by the curve II in Figure 16.2 (1) below. This is due to the diminishing returns. As investment increases, capital stock increases and consequently, the marginal productivity of capital and investment falls. What lies behind the negatively sloping investment schedule II in Figure16.2(i) is the diminishing marginal productivity of capital or investment. Therefore, the demand schedule of loanable funds is also negatively sloping as shown by the curve DL in Figure 16.2 (ii). The equilibrium in the real or product market takes place at the real rate of interest, r, as shown in Figure 16.2 (i) above. The part of the full-employment income that is not consumed (savings) is assumed to be spent on the production of investment goods, the demand for which is indicated by the curve II in Figure 16.2 (i). At the real rate of interest, r, the demand for investment goods equals their supply in the state of full-employment equilibrium.

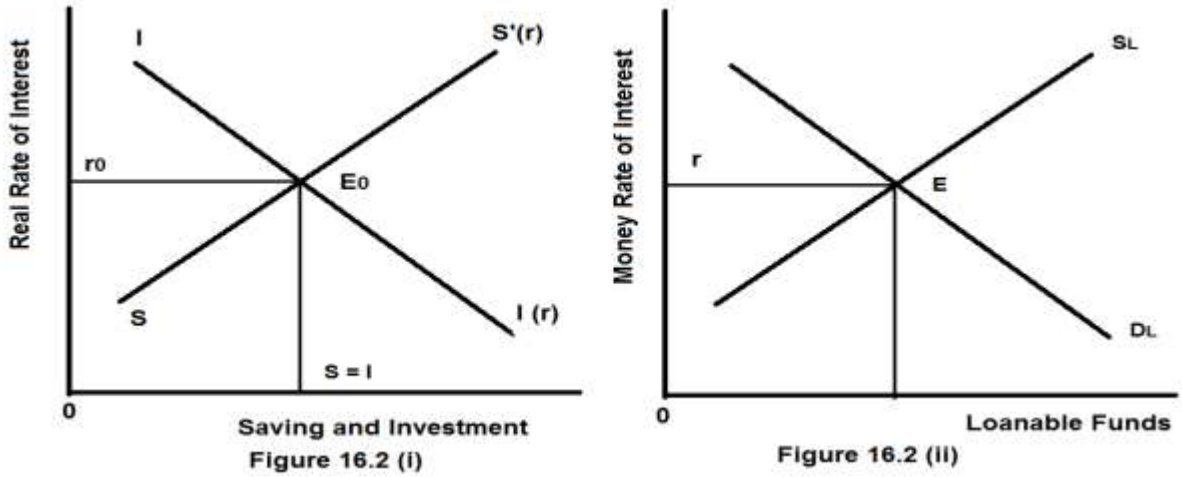

Figure 16.2 (i)

Figure 16.2 (ii)

The above real equilibrium that is, equilibrium in the product market, is translated into equilibrium in the money market of Figure 16.2(ii) where in the supply of loanable funds schedule SL is derived from the saving schedule SS of Figure 16.2 (i) and the demand for loanable funds schedule DL. is derived from the investment schedule II of Figure 16.2(i). In the money market, thus, the equilibrium takes place where the demand for loanable funds equals the supply of loanable funds, that is, where the DL curve and the SL curve intersect each other. At this point of equilibrium in the money market, the equilibrium money rate of interest is i.

In the above abstract classical model, the equilibrium in the money market is ensured by the equilibrium in the product market, because the only source of the supply of loanable funds is assumed to be saving. In equilibrium, then, the money rate of interest equals the real rate of interest. The flaws of this theory lie in its rather unrealistic assumptions related to a unique full- employment equilibrium, on the one hand, and a unique source of supply of

loanable funds, on the other. If we drop the assumption of a unique full-employment equilibrium; the equilibrium in the money market would become indeterminate.

16.3.3 Neoclassical Approach: Monetary Equilibrium

The neoclassical theory of monetary equilibrium is also a loanable funds theory with the difference that it does not assume that saving is the only source of the supply of loanable funds and investment is the only source of demand for loanable funds. On the contrary, it traces the supply of loanable funds to (i) saving, (ii) dishoarding, (iii) Dis-investment, and (iv) bank money. The supply of loanable funds from each of these source is directly related to the rate of interest as shown by the rising curves S, DH, DI and BM in Figure 16.3 below. The aggregate supply schedule of loanable funds, SL, is derived by adding these three supply schedules laterally. Therefore, the aggregate supply of loanable funds, SL is also rising upwards towards the right indicating a direct relation between the rate of interest and the supply of loanable funds.

The demand for loanable funds in this theory is also traced to more than one source. The sources of demand for loanable funds in this theory are (i) investment, (ii) dis-saving, and (iii) boarding, all of which are sloping downwards to the right like I. DS and H curves in Figure 16.3. The aggregate demand for loanable funds schedule DL is derived by adding the I., DS and DH curves, laterally. The equilibrium in the money market takes place where the demand for loanable funds schedule DL intersects with the supply of loanable funds schedule SL as shown by the point E in Figure 16.3. The equilibrium rate of interest.

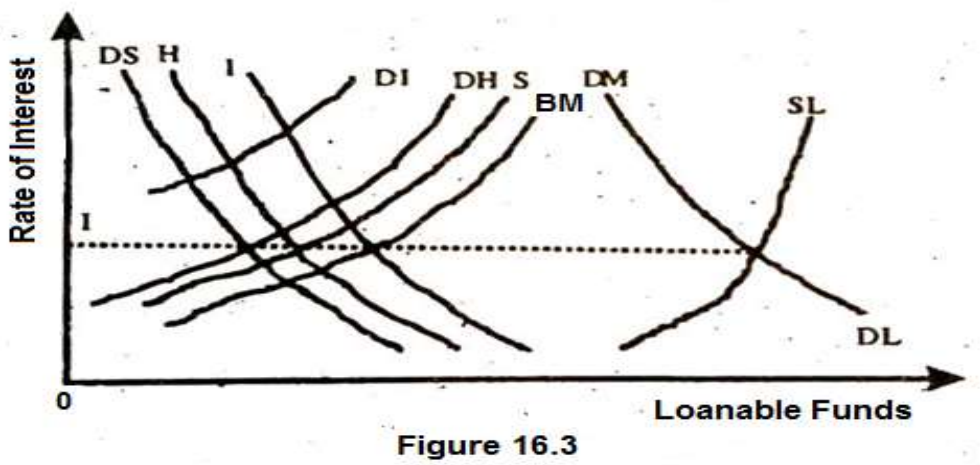

Figure 16.3

The flaw in this theory is that the equality between the DL and SL functions need not ensure the equality between saving and investment also. If investment does not equal saving, income will not be in equilibrium and will be changing. Since saving is a function of income also the S function will be shifting and, therefore, SL curve will also be shifting and indeterminate. Hence the monetary. equilibrium in this theory also is indeterminate

16.3.4 Hicks-Hansen General Approach: Monetary Equilibrium

Hicks was the first to suggest a way out of the indeterminateness of all three theories, the classical real theory, the neoclassical theory and the Keynesian monetary theory of the rate of interest. He suggested this way out in his classic paper, "Mr. Keynes and the Classics: A Suggested Interpretation" published in 1937. The substance of his argument is that the real equilibrium and monetary equilibrium are determined simultaneously in a state of general equilibrium of the economy. In order to demonstrate this proposition he integrated the classical and the Keynesian theories giving birth to what is now popularly known as the IS-LM model. Since the American Keynesian economist, Alvin Hansen, also argued along similar lines, this model of general equilibrium has also been known as Hicks-Hansen model.

Hicks has argued that saving is a function of both the rate of interest and the level of income in the classical theory. Therefore, we can have a family of saving schedules from this theory, each one of which is related to a given level of income. The saving schedules S_1, S_2, S_3. S_4, in the following diagram represent such a family of saving schedules. The higher is the level of income, the farther to the right in the saving schedule related to it, because at any given rate of interest, there will be a larger amount of savings at a higher income level. We can superimpose on it the investment function II' which has a negative slope because of an inverse relationship between investment and rate of interest. This relationship conforms to both the classical and the Keynesian theory. The only difference of opinion is about the degree of steepness of this slope or the degree of interest-elasticity of the investment function. Behind this function lies hidden a given Marginal Efficiency-of-Capital (MEC) schedule which itself reflects a given rate of business expectations which, according to Keynes, determine the MEC.

E_1, E_2. E_3. E_4. ... are different points of equilibrium between the desired saving and the desired investment. Each one of them relates a given level of income and a particular rate of interest. It is because an equilibrium point shows what the equilibrium level of income would be at a particular rate of interest. For example, if the saving schedules S_1, S_2, S_3, S_4, in the above figure relate to the income levels Y_1, Y_2, Y_3, Y_4,... the equilibrium income level at r_2, interest rate is Y at r, it is Y; and so on. If we plot all these combinations of rate of interest and the corresponding equilibrium level of income, we shall get another schedule or function like the IS function in the following diagram.

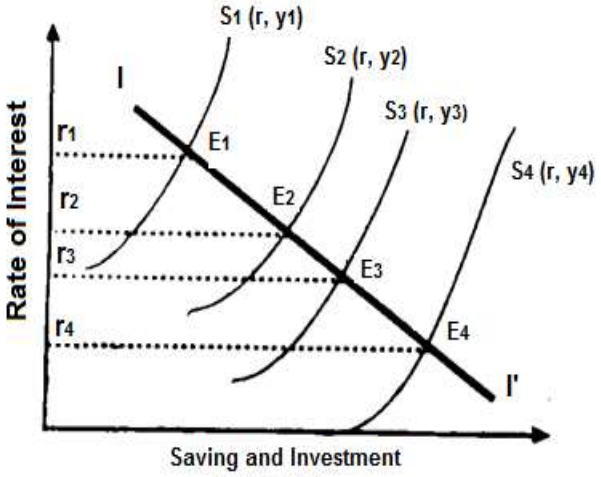

Figure 16.4

This is the locus of all such combinations of interest rate and income level at which the desired investment equals the desired saving. Therefore, each point on it is a possible position of real equilibrium, i.e., of equilibrium level of real income. But we cannot know from it the actual equilibrium level of income unless we, first, know what the equilibrium rate of interest is, and this we cannot know from this schedule.

It should be noted that in this model, the economy is divided into two markets: the real or the product market where the equilibrium level of real income (Y) is supposed to be determined and the money market where the equilibrium rate of interest is supposed to be determined. The above two figures, thus, relate to the real or the product market. Since we cannot know from this the equilibrium rate of interest, the real equilibrium is indeterminate on the IS function as such.

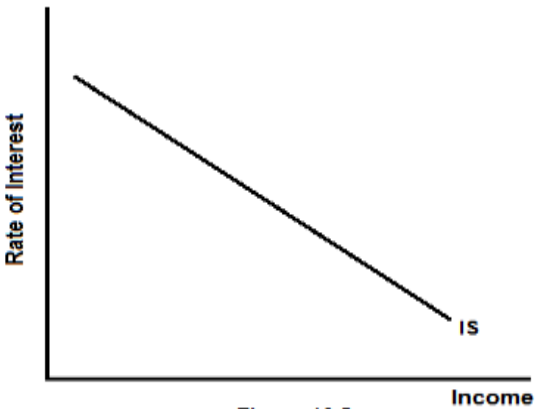

Figure 16.5

Let us now see if we now the equilibrium rate of interest from the money market by itself. In the Fig. L_1, L_2, L_3, L_4 ... are a family of liquidity preference schedules derived from be Keynesian liquidity preference theory of demand for money. Each one of these relates to a particular level of income. We know that the Keynesian money demand function is L=L(r,y), that is, demand for money is determined by both the rate of interest and level of income. At any given rate of interest, more money will be desired to be held at a higher level of income. Therefore, the money demand or liquidity preference functions L_1, L_2, L_3, L_4, ... relate to different income levels Y_1, Y_2, Y_3, Y_4,... such that Y_1, $<Y_2$ $<Y_3$, $<Y_4$,... The supply of money is determined exogenously by the central monetary authority and we suppose it to be M_0 in the above figure 16.6.

The points E_1, E_2, E_3, E_4 ... are the points at which the money supply line M_0S_0 cut the various liquidity preference curves, L_1, L_2, L_3, L_4 ... These are the points at which the amount of money desired to be held equals the given money stock M_0. Hence, each, one of these points is a potential position of monetary equilibrium, but which one of them will be the actual position of monetary equilibrium cannot be known unless we first know what the equilibrium level of income is. But we can see that each one of these points is on a particular L-curve related to a particular level of income and it also corresponds to a particular rate of interest.

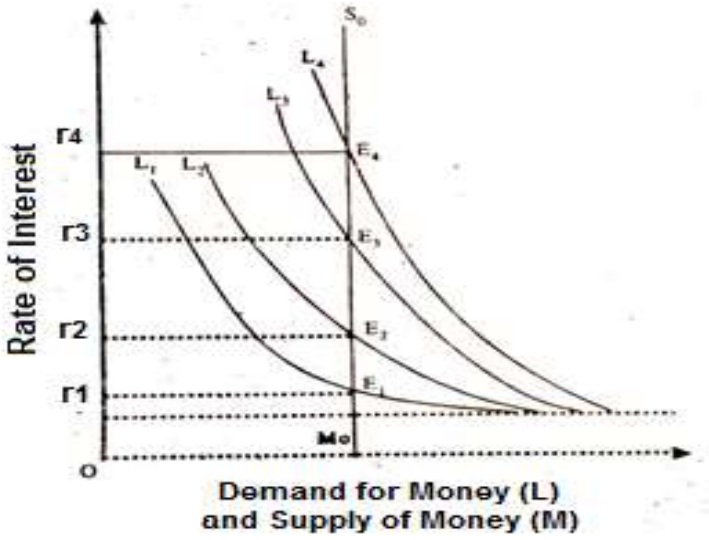

Figure 16.6

Therefore, we can plot a curve joining all such combinations of rate of interest and level of income at which the desired amount of money to be held equals the given stock of money M. Such a curve will be like the LM-curve in the figure 16.7.

The LM-function is the locus of all those combinations of income level and rate of interest at which the demand for money equals the given supply of money. This function can tell us what the equilibrium rate of interest will be, provided we know what the equilibrium level of income is. The equilibrium in the money market by itself is also indeterminate. But, if we superimpose on LM-function of Figure 16.7 the IS-function of Figure 16.5 above, we will have a diagram like the one depicted in Figure 16.7 below :

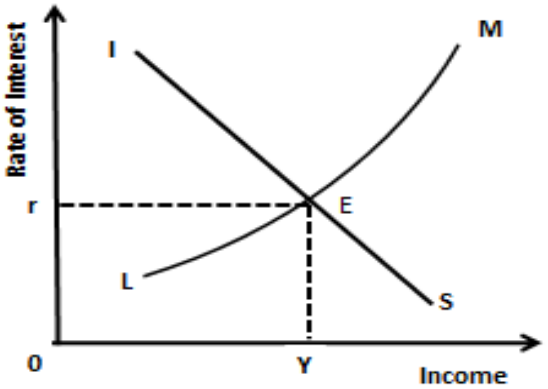

Figure 16.7

The LM-function is the locus of all those combinations of income level and rate of interest at which the demand for money equals the given supply of money. This function can tell us what the equilibrium rate of interest will be, provided we know what the equilibrium level of income is. The equilibrium in the money market by itself is also indeterminate. But, if we superimpose on LM-function of Figure 16.7 the IS-function of Figure 16.5 above, we will have a diagram like the one depicted in Figure 16.7.

In Figure 16.7, the position equilibrium where IS and LM functions intersect represents the position of general equilibrium where the real or the product market and the money market are in a simultaneous equilibrium. Thus the monetary equilibrium and the equilibrium rate of interest in this model are determined no; independently of the real equilibrium and the equilibrium level of income. Both the sets of equilibrium are determined simultaneously in conjunction with each other in a state of general equilibrium. As shown in Fig. 16.7, the equilibrium rate of interest is r, and the equilibrium level of income is Y.

SELF-CHECK EXERCISE-16.1

Q1. Discuss Keynesian theory of monetary equilibrium.

Q2. Discuss classical theory of monetary equilibrium.

Q3. Discuss Neo-classical theory of monetary equilibrium.

Q4. Discuss Hicks Hansen general monetary equilibrium approach.

16.4 EXTERNAL MONETARY EQUILIBRIUM

The equilibrium we have been discussing so far was based on the implicit assumption that the economy is a closed one having no economic relations with the outside world. Therefore, this equilibrium was internal equilibrium. But, when an economy is open to the outside world and there are economic relations with it in the form of imports and exports, the problems of external equilibrium or balance also arises. While internal disequilibrium results in fluctuating internal price level an. external disequilibrium results in fluctuating foreign exchange rate of the national currency. What complicates the matter is that the internal equilibrium and the external equilibrium are not isolated from each other. Moreover, sometimes policies aiming to attain one of these equilibrium may directly or indirectly disturb the other equilibrium. We shall discuss it in more detail in the unit on monetary policy. Here we would simply try to familiarize you with the nature of external equilibrium.

External equilibrium refers to a position of an economy in which it balance of payments is actually balanced, that is, when the value of its exports, both visible and invisible, equals the value of its exports, both visible and invisible. In such a situation, the demand for the national currency of the country in the foreign exchange market exactly equals the supply of it and, consequently, the foreign exchange rate of the currency is in equilibrium. If the two do not balance, that is, if either the demand exceeds supply of falls short of it in the foreign exchange market, the foreign exchange rate of the national currency will either rise or fall.

Foreign exchange rate of the currency of a country is the rate at which a unit of it exchanges for a foreign currency, In other words, it is the price of national currency expressed in terms of a foreign currency. For example if Rs. 16 exchange for one American dollar, $1=Rs.16 or Rs.1/-=$1/16 is the exchange rate between the two countries, India and the U.S.A.

Like any other price, exchange rate too is determined by the interaction of the forces of demand and supply. The demand for the currency of a particular country arises from its exports. Exporters who earn foreign exchange have to convert it into their national currency and this constitutes the demand for the national currency and the supply of foreign exchange. On the other hand, the supply of national currency in the foreign exchange market arises from its imports because those who want to imports goods and services from

abroad have to convert their national currency into foreign exchange market. When the value of the exports of a country is greater than the value of its imports, the country is said to have a favorable balance of payments. As a result of it the demand for its currency exceeds its supply in the foreign exchange market and, consequently, its price in terms of a foreign currency rises. The exchange rate of the currency of the country having a favorable balance of payments rises. The inverse happens, when the value of its exports are less than the value of its imports, as a result of which it has an unfavorable balance of payments.

Before the 1930's when most of the countries were on the some form or the other of Gold Standard and the exchange rate between any pair of national currencies was determined by their relative values in terms of gold, the external equilibrium, if disturbed, tended to be restored automatically, provided the countries observed the rules of the game of the Gold Standard. One basic rule of the game was free flow of goods as well as species (gold and silver) between the countries. Another rule was that the central monetary authority of a country will increase and decrease the money supply when its gold reserves increased or decreased. These rules of the game imparted an automat city to the monetary system as regards the external equilibrium. A favorable balance of payments for a country led to an inflow of gold which in turn, led to increase in money supply. The increase in money supply led to a rise in prices which made the exports costlier and imports cheaper. Thus exports were discouraged, while imports were encouraged. The favorable balance in the balance of payments automatically tended to disappear and reverse movements took place, when a country had an unfavorable balance of payments. Gold flowed out depleting the gold reserves of the Central Bank which was thus constrained to decrease the supply of money. This resulted in falling prices, in consequence of which exports became cheaper and imports costlier. Thus exports were encouraged and imports discouraged. The unfavorable gap tended to disappear automatically.

In view of it, the foreign exchange rates under gold standard remained fixed and stable fluctuating only within narrow limits known as the specie points beyond which gold movements took place and corrected the fluctuations automatically. However, this is also obvious from the above brief analysis that under the gold standard, which exchange rates remained more or less stable, the internal price level was subject to fluctuation and instability due to disturbances in the balance of payments. During the Great Depression of the 1930's and ever since then a debate on internal versus external stability has been raging. Any way no country now exactly follows the classical gold standard, not to speak of observing the rules of the game as enjoined by it. In any case, for a country which has a very large domestic market compared to its foreign market, domestic price stability is much more important than exchange rate stability. For those economies whose mainstay is foreign trade, the stability of foreign exchange rate may be relatively more important.

SELF-CHECK EXERCISE-16.2

Q1. Write a short note on external monetary equilibrium.

16.5 MONEY STOCK AND INTEREST RATE

The rate of interest is correlated with the size of the money stock. In the classical theory, any increase in the money stock, first, leads to an increase in aggregate expenditure. Since, in equilibrium the public is satisfied will their holdings of nominal-money balances, any increase in money stock in this situation will result in the people's holding more nominal money as well as real money balances. They would seek to get back to their desired level of real money balances by spending their excess money holding on goods and services. As the aggregate expenditure in the economy increases, this leads to rising prices, because there is already full-employment output in the economy and, therefore, the supplies are perfectly inelastic. Consequently, as postulated in the classical Quantity Theory of money, the prices I will go on rising till they rise proportionately as much as there was the increase in money stock. Since the money rate of interest is also a sort of price-the price paid and charged for

the services of money capital or loanable funds-it will also rise proportionately with the increase in money stock. If the money stock. If the money stock, for example, was doubled, the money rate of interest will also double, while the general price level will also double. Since the real rate of interest is money rate of interest divided by the price level, doubling of money stock doubles both the numerator, that is, the rate of interest, and the denominator, that is, the general price level. Thus, the real rate of interest remain the same as it was in the equilibrium state of the economy before the increase in the money stock.

Thus, in the classical model, changes in the money stock influence only the money rate of interest, an increase in money stock increasing it and a decrease in money stock decreasing it. The real fate of interest which is determined by the real factors, saving and investment, remains unaffected by changes in the money stock which shows that money in the classical model is neutral money.

The above process wet in motion by a change in money stock is referred to as direct mechanism as we have already pointed out elsewhere also. However, the classical like Ricardo and Thornton, and, later on, the neoclassical like Mnut Wicksell explained an indirect mechanism also which too results is the same conclusion with regard to the functional relationship between the rate of interest and money stock. As increase in money stock shifts the supply curve of loanable funds to the right and thus causes a fall in the money or the bank rate of interest, while the real rate of interest which reflects the marginal productivity of investment remains the same and, therefore, higher than the new prevailing money rate of interest. This makes additional investments profitable. The demand for investment goods rises. There being already full employment, the prices of investment goods rises. The factors of production required to produce additional supplies of investment goods can be had only by diverting them from consumer goods industries to the investment goods industries. This can be done only by offering for them higher prices. This, in turn, increases the incomes of the suppliers of these factors which leads to an increase in the demand and, consequently, the prices of consumer goods also. This results in an all-round competition among the employers of factor services, pushing up factor prices, incomes, expenditures and prices. Thus there results a cumulative process of rising prices. The increasing demand for loanable funds raises their price, this is, the money rate of interest also. The new equilibrium is established when the prices and the money rate of interest rise to the same proportion as the money stock. Thus the money rate of interest, initially, fails with as increase in money stock but in the long-run equilibrium, it rises and falls in proportion with an increase and decrease in the money stock. The real rate of interest, however, remains unaffected by changes in the money stock.

The above classical and neoclassical conclusion, however, is based on the classical assumption of a unique full-employment equilibrium. In the Keynesian theory, however, equilibrium can take place at any level of income. In this theory, any increase in money stock will result in the people holding more money than they prefer to hold. So, they will try to get rid of the excess money holdings by exchanging it for bonds in the bond market. The bond prices will go on rising and the rate of interest will go on falling under the increased pressure of increased demand for boons till there is new equilibrium at a lower rate of interest. This can be seen by shifting the money-stock line, M_0, S_0, in Fig. 10.0 above to the right, as the result of which the new equilibrium will take place at a lower rate of interest.

However, the above explanation is based on the implicit assumption that the income level remains constant. This can happen only if investment is perfectly inelastic with respect to the rate of interest which is highly improbable. If there is some interest-elasticity greater than zero of the investment function, a fall in the rate of interest consequent upon an increase in money stock will cause rise in investment which, through the multiplier effect, will increase the income level also. This will shift the liquidity preference function to the right thus causing a further change in the rate of interest, investment, income and the liquidity preference schedule. Where the ultimate equilibrium will at place cannot be explained and

determined within the simple Keynesian model depicted in Fig. 10.1 above. For determination and explaining it, we need the help of Hicks- Hansen or the IS-LM model.

In the Hicks-Hansen or the IS-LM model explained in section 10.4 above and summarily capture in Fig. 10.8 above, an increase in money stock will shift the LM curve to the right but the horizontal portion of it will not change its position. As the result of it, the shifted LM curve will interact the IS function at a higher level of income but a lower rate of interest as shown in Fig. 10.9 below. But, if the IS function is positioned to intersect the LM function in the horizontal portion of the latter, the increase or decrease in the money stock will have no effect on either income or the rate of interest which is already at the critical minimum level at which the demand for holding money is infinitely elastic.

The above explanation shows that an increase in the money stock will normally lower the rate of interest and increase the level of income. A decrease in money stock will normally raise the rate of interest and lower the income level. But in the abnormal case of the liquidity trap when the IS function intersects the LM function in the horizontal portion of the latter as does the IS function in Fig. 10.9, changes in money stock will have no effect on either the rate of intersect on the income level. The monetary policy is ineffective is such a situation which is typical of deep economic depressions.

On the other hand, changes in money stock will have no effect on the level of income, if the IS function is vertical showing zero interest-elasticity of investment, though the rate of interest will all or rise with an increase of decrease in money stock. Assuming real rate of interest to be the full- employment equilibrium rate of interest at which the full-employment level of saving equals the desired investment, Modigiliani demonstrated that an increase in money stock, when there is already full employment, will initially lower the rate of interest leading increased investment to expenditure. But since there is already full-employment equilibrium and supplies of goods are perfectly inelastic, the multiplier effect will be on prices and hot production. Prices will start rising and the shifted LM curve like the LM, of Fig 10.9 above will start shifting to the left in consequence of rise in prices Ultimately, this LM curve will come back to interest the IS curve at the full-employment level of output and the original full-employment rate of interest, though in the new equilibrium position the price level will be higher. This implies the classical conclusion that the real rate of interest remains unaffected by changes in the money stock.

SELF-CHECK EXERCISE-16.3

Q1. Write a short note on money stock and interest rate.

16.6 SUMMARY

The modern theory of interest, proposed by Hicks and Hansen, explains the determination of interest rate by integrating by Monetary and real rulers. The determination of interest rate is considered by means of equilibrium in the goods market and also equilibrium in the money market. According to the Modern theory of interest, the rate of interest is both a real as well as a monetary phenomenon. The rate of interest is determined by the intersection of IS and LM curves.

16.7 GLOSSARY

- **Monetary Equilibrium:** refers to the equilibrium in the money market and to a situation in which the contending forces of demand for and supply of money are exactly balanced

- **Loanable Funds:** are defined as the aggregate amount of money that economic participants decide to invest instead of spending on consumption

- **Marginal Efficiency of Capital**: refers to the expected rate of return on investment, at a particular given time

- **IS-LM Model:** which stands for 'investment-saving' (IS) and 'liquidity preference-money supply' (LM), shows how the market for economic goods interacts with the loanable funds market, or money market. It is represented as a graph in which the IS and LM curves intersect to show the short-run equilibrium between interest rates and output.

16.8 ANSWERS TO SELF CHECK EXERCISES

Self-Check Exercise-16.1

Ans. Q1. Refer to Section 16.3.1
Ans. Q2. Refer to Section 16.3.2
Ans. Q3. Refer to Section 16.3.3
Ans. Q4. Refer to Section 16.3.4

Self-Check Exercise-16.2

Ans. Q1. Refer to Section 16.4

Self-Check Exercise-16.3

Ans. Q1. Refer to Section 16.5

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16.10 TERMINAL QUESTIONS

Q.1 Discuss in detail Hicks Hansen General Monetary Equilibrium approach.

Q.2 Write a detailed note on Money stock and interest rate.

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MONETARY POLICY (I)

STRUCTURE

17.1 INTRODUCTION

The traditional definition of monetary policy is that it refers to those measures of central monetary of a country which is aim at altering the aggregate supply of money with a view to rate of interest. This definition of monetary policy, however, has been found to be definition in certain respects. Firstly, it is said that definition is vague, as it does not recognize that there is not one unique rate of interest but, instead, there is, in an economy, a whole structure of interest rates. And, it fails to specify the rate or rates of interest which are sought to be influenced: Moreover, this definition is also a misleading definition, for it carries the wrong impression that influencing the rate of interest is the objective of monetary policy, while in fact, it is only an instruments of monetary policy through which the central monetary authority of a country tries to attain some objective or objectives like, for example, full employment or a stable price level or both.

The monetarists have a definition of monetary policy of their own which is rather restrictive in its scope. Friedman has defined monetary policy as referring to only those measures of the central monetary authority of a country which aim at changing the stock of money in the economy. He distinguishes monetary policy from credit policy and does not regard the latter as a part of the former. According to him, while the credit policy refers to measures which aim at influencing the interest rate or rates, the monetary policy refers to those measures which aim at simply changing the money stock in the economy.

However, the usually accepted meaning of monetary policy is broader than what is implied in Friedman's definition. The generally accepted definition of monetary policy is that it refers to those measures of the central monetary authority of a country which aim at changing the money stock and/ or the rates of interest in the economy with a view to achieving some economic objective or objectives.

17.2 LEARNING OBJECTIVES

After going through this Unit, you will be able to:

- Understand the objectives of Monetary Policy
- Discuss the framework of Monetary Policy
- Understand the need of Monetary Policy

17.3 OBJECTIVES OF MONETARY POLICY

Initially, monetary policy used to have the sole objective of stabilizing the rate value of purchasing power of the national currency or money of a country. Thus, obviously, implied stabilizing the price level. This was, more or less, the situation till the end of the third decade of the current century. But, after, it particularly after the publication of Keynes's General Theory of Employment, Interest and Money and the so-called Keynes's revolution in economic theory, monetary policy was assigned another important objective also. The second objective of monetary policy was maintaining a full or a near full employment in the economic. In the post- Second World war period, the ever growing interest of economic theories as well as governments of develop countries in problems of long-run growth led to investing monetary policy with still another objective, namely the attainment of some satisfactory ore desirable rate of economic growth. The counterpart of this objectives of monetary policy in the underdeveloped countries emerging from colonialism was the starting and accelerating of the process of economic development. In more recent times, the balance-of payments problem, particularly in the developing countries, has helped in admitting another objective of monetary policy namely, attaining and maintaining of international balance and, thus, stabilizing the exchange rate too.

Accordingly, monetary policy in modern times has come to have the following objectives:

(1) Attaining the internal or domestic price stability;

(2) Attaining full of near-full employment;

(3) Attaining some satisfactory or desirable rate of economic growth in developed economics, and, in undeveloped developing or economics, initiating and accelerating the process of economic development; and

(4) Attaining international balance and foreign-exchange rate stability.

The multiplicity of objectives, as indicated by the above list, introduces the possibility of a conflict of objectives which requires its resolution by a compromise. This possibility was explicitly admitted in the Radcliff Committee report in the U.K. thought it was sought, to be evaded, rather than negated, by its counterpart in the United States, the report of the Commission on Money and Credit. However, all the objectives listed above need not be necessarily contradictory: that is, the attainment of one need not necessarily exclude the attainment of all other. On the other hand, in some cases, the attainment of one may also assure, or at least, facilitate the attainments of some other objective also. For example, if the monetary policy succeeds in attaining the full-employment objectives over time, it may automatically ensure, to a great extent, the attainment of the growth objectives also. But this, of course not imply that all the objectives are mutually compatible. For example, the full-employment objectives and the price stability objectives are generally incompatibles as forcefully brought out in the Phillips Curve hypothesis as well as other dilemma models of inflation. Similarly, the internal versus external stability debate of the inter-war period, which in fact, has not ceased to erupt now and then, is another example for different objectives of monetary policy becoming incompatible.

Where there is conflict of objectives. a compromise can be arranged by giving priority to one objective and defining the other objectives as "constrains" As A.D. Bain observes, "In the short run these are all seen as objectives but in the long run price stability and balance in

foreign payments are usually regarded as constrains which influence in themselves." It is because most governments are generally willing to allow a moderate price inflation, if this permits them to achieve other objectives." Moreover, if some objectives become incompatible, a choice has to be made. This choice is generally determined politically and the monetary authority forms its policy to attain the politically and the monetary authority objectives would, then, be defined as constrains". The politically determined choice does not imply that economic considerations are not taken into account while making political choice.

At present, it is generally accepted that the main objective of monetary policy is the promotion of economic growth with price stability. So monetary policy has to be directed towards attaining a high rate of growth, while maintaining reasonable stability of the internal purchasing power of money. The central bank attempts to ensure an adequate level of liquidity to support the rate of economic growth envisaged and to assist in the fullest possible utilization of resources without resulting inflation. Though there is no rule for the rate of increase of money supply, it has to be somewhat higher than the projected rate of growth of real national income to meet the demand for money likely arise as income grows and to corresponding the savings component after taking into account the degree of monetization in the economy.

For the central bank if the dominant emphasis is on planned development, as in a country like India, monetary policy has in addition to take care of promotional aspects such as monetary integration of the country, directing credit flow according to policy priorities, assisting in mobilization of the savings of the community, and promotion of capital formation and above all, extend support to the authorities in task of allocation of resources, while maintaining structure of relative prices.

SELF-CHECK EXERCISE-17.1

Q1. Discuss the main objectives of monetary policy

17.4 FRAMEWORK OF MONETARY POLICY

Monetary Policy, if it has to achieve its objective or objectives, must decide upon the "indicators" which would inform the monetary authority whether the prevailing is judged to be necessary by the monetary authority, it has to decide upon the "targets" hitting which the desired objective or objectives can be attained. Not only that it has also to think of the proper instruments" by using which it can hit the required targets. All this requires a theoretical frame of reference which can guide the monetary authority in making effective choices. This is what is meant by the framework monetary policy.

Alternative frame work for monetary policy are available in the form of the Keynesian and monetarist models. Some recent development as shown in the Radcliff Committee Report have added to the insights provided by the above basic models describing the impact of changes in money stock on the level of economic activity and prices. The new insights provided by these development in modern economics and the resulting developments in monetary theory and the general economic theory also help as a framework for monetary policy.

The Keynesian framework for monetary policy emphasizes the indirect mechanism through which changes it money stock affect aggregate expenditure in the economy which, it turn, affects the levels of output and prices. This indirect mechanism, which we have referred to in some of our earlier Units too works through the effects of changes in money stock on the financial sector of the economy. Any change in money stock is believed to, first influence the financial conditions, particularly the interest rates in the economy. The change in the interest rates, in turn, influence both the investment expenditure and the consumption expenditure which, along with the government expenditure, make up the aggregate expenditure in the economy. Depending upon the elasticity of output with respect to

aggregate demand of expenditure, a change in money stock will, ultimately, affect output or prices or both.

The Keynesian and neo-Keynesian theories, thus, argue that the main direct impact of a change in money stock of supply is no observations interest rates. Therefore, these theories emphasis the effect of changes in money stock on the costs and availability of credit. A fall in interest rates expenditure and consumption expenditure. Even if the interest rates are not lowered, the increased supply of money would induce the financial institutions to relax their lending conditions and thus to make funds more readily available to the borrowers. Usually, an increase in money supply would cause both a fall in interest rates and easing of lending conditions. This enables the borrowers, the entrepreneurs as well as the consumers, to get the low-cost funds. On the other hand, relaxing of lending conditions may enable some borrowers to get loans for investment and consumption expenditure which they, otherwise, could not have. This relatively cheap and greater availability of finance stimulates aggregate expenditure in the economy which, in turn, stimulates economics activity, increasing output and employment which, in the long run, influences the per capita growth of the economy also.

The above analytical framework provided by the Keynesian and the neo-Keynesian. theories implies that the primary effect of the monetary policy is on economic activity. But this does not imply that it has no effect on prices. Whether monetary policy, within this analytical framework, influence prices or not depends upon the elasticity of analytical with respect to aggregate expenditure in the economy. If the elasticity is infinite, as it may be during deep depressions, the whole impact would be on output and employment and price would remain unaffected. On the other hand, if the elasticity of output is less than infinity but greater than unity, an increase in money supply would raise both output and prices but it would raise output more than the prices. But, as economy approaches near-full employment, various bottlenecks would appear and diminishing returns in production would become predominant which would reduce the elasticity of output and employment to below unity. Consequently, an increased money stock would have a greater impact on prices and a smaller impact on output: Once full- employment output is achieved, any further rise in money stock would have its impact on prices alone, as the output elasticity becomes zero. It is at this stage that the Classical Quantity Theory comes into its own and pure inflation takes over.

The above, in bare outlines is the Keynesian analytical framework available for formulation of monetary policy. The monetarists both classical and neo- monetarists of the Chicago School-emphasis on the other hand, the direct mechanism through which changes in money stock affect economic activity and prices. They argue that a change in money stock leads to a change in money holdings in the asset port-folios of some, if not a asset holders. If there is an - increase in money, stock, it will show up in "excess" money holdings in the asset portfolios of some asset- holders. They would seek to get rid of these "excess" money holdings by spreading their money on goods and services. Thus the aggregate expenditure in the economy increases directly as the result of rates and financial conditions as stipulated in the Keynesian model. The analytical framework of this school of thought shows that the pressure of aggregate demand that results directly from increase in money stock would cause rising. output as well as rising prices till the normal value of output rises in proportion to the increase in money stock. The monetarists lay no special emphasis on the interest rates yielded by the common types of financial assets. This school of thought and the analytical framework provide by it is concerned more about the long run link between money and prices than with the effects of changes in money stock on the level of output and employment, since, in the long run, the output is determined by the availability and productivity of the productive resources.

The monetarists do not lay much store by the effect of increase money stock on interest rates. According to them, the measured in rates of interest are poor indicators of the

wide range of implicit rates which are likely to be relevant. Most probably, they do not deny that when assets-holders try to get rid of the their "excess" holdings of money, they buy not only more goods and services but also more financial assets. While purchase of financial assets may effect measured rates of interest immediately, they may also influence credit conditions other than interest rates. For example, the non- banking financial institution (NBFI) may services more deposits and they may, therefore, decide to lend to more borrowers and advance loans upto a higher proportion of the value of the properly rather than reduce the rate of interest. The borrows who get more money are likely to spend more on new furnishings and equipment for their properly. Thus aggregate expenditure rises without there being any change in measured interest rates. The increased expenditure, moreover, results in "excess" money holdings for some other who also get rid of it by spending these on goods and services. This cumulative process may go on until the nominal income flows are brought back into balance with the increased stock of money so that people are satisfied with holding the money, which has been created. Thus, in the analytical framework provided by the monetarist model, a change in money stock is eventually reflected in a direct and proportional change in the nominal value of income.

To cut the long story, the monetarist analytical framework attaches next to no importance to changes in what Friedman and his monetarist school describe as the measured rates of interest. Before we end this description of the two alternative theoretical framework, we would like to highlight another important difference between these two alternative models. While elaborating on the process through which changes in money stock influence aggregate expenditure, the Keynesian model relies upon the working of the investment multiplier which is based upon the assumption of investment being autonomous and the consumption function being stable. The monetarists, on the other hand, rely upon the working of the money multiplier which is based upon the assumptions of the supply of money stock being autonomous and the demand-for- money function or, which means the same thing, the velocity- of money-function -being stable.

Before we end this section on the framework of monetary policy, we would like to explain the recent developments highlighted in the Radcliffe Committee Report, to which we referred in the beginning of this section and which have a bearing on the analytical framework for monetary policy. These developments rest on the emergence and increasing role of what have come to be known as non- banking financial institutions or intermediaries (NBFI) Their emergence has affected the relationship between money and economic activity, which is the essence of an analytical framework for monetary policy, in three ways. First, their presence changes the equilibrium relationship between money holdings and the level of income; secondly: they affect the interest- elasticity of the demand for money; and, thirdly; their activities influence the time- response of economic activity of monetary impulses.

Insofar as liabilities (deposits) of the NBFI are close substitutes of money, their existence reduces the demand for money as an asset. This means that the ratio of money to national income is also reduced and the size of the money multiplier is increased which means that if money stock is increased, national income in nominal terms has to increase by a sufficiently larger amount to absorb the additional money into people's desired nominal money balances than what would have been necessary in the absence of NBFI. Secondly, the existence of NBFI does not eliminate the impact of changes in the money stock upon the rate of interest, though it reduces this impact. Moreover, as observed in the Radciliffe Committee Report, an important implication of it for monetary policy is that it will have to operate upon not any single strategic rate of interest like the Bank Rate but upon the whole structure of interest rates. Thirdly, the NBFI through their effects upon the availability of credit, influence the time-response of the economy to monetary action. For example, if the mortgage-lending institutions are show to spend when interest will decrease. Moreover, if the banks are able to change their interest rates flexibly but lending practices prevent other specialized financial agencies, that is NBFI from following suit, the effect of credit restriction

or case may be much more fully in the areas financed by these specialized institutions than in the rest of the economy.

SELF-CHECK EXERCISE-17.2

Q1. Discuss in short the framework of monetary policy

17.5 NEED OF MONETARY POLICY

A very relevant question with regard to theory of monetary policy is why do we need monetary policy? The simple answer to this question is that if the forecasts, of the exogenous components final demand; such as exports, private investment, known public of expenditure programmes, which are thought to be autonomous of the current level of economic activity, could be known with precision and if they were also unaffected by monetary conditions, and if the structural relations in the economy which determine the level of the endogenous components were also well understand and fixed, there would be hardly anything for monetary policy to do. Under" these conditions, the governments could effectively use fiscal policy to achieve any level of demand and thus could rely solely on fiscal policy for stabilizing the economy. But the "ifs" of the above postulate are too big to be fulfilled in real life. Some of the exogenous elements of demand are affected by monetary conditions. It is because monetary variables appear as arguments in the structural relations which link the exogenous and the endogenous variables and also because the forecasts of the exogenous components of final demand and also because the forecasts of the exogenous components of final demand and estimates of structural relation are not at all certain. When these source of error are present, we require some much instruments of control which can be adjusted frequently. The fiscal adjustments are not practicable and adequate for the purpose because they cannot be made frequently (because national budges are made annually. and they are not frequently modified) and, moreover, they are not also relatively too large. It is against this background that monetary policy enters the picture Monetary policy is relatively flexible instruments of controlling economic activity monetary policy as adjustments can be made rather very rapidly and frequently also, while at the same time, these adjustment can be made in both large and small doses. Thus, monetary policy serves eminently the need for a more flexible tool for maintaining balance in periods between changes in fiscal measures.

Moreover, while fiscal policy may not be successful on its own under all circumstances, it can become more effective, if it a supplemented with a reinforcing monetary policy. For example, fiscal policy may not work or be effective when there is pure inflation associated with beyond -full employment situation. In such a situation monetary policy may prove to be much more effective on its own as well as supplementary and reinforcing measure of control.

SELF-CHECK EXERCISE-17.3

Q1. Write a note on the need of monetary policy

17.6 SUMMARY

Monetary Policy is that which relates to the deliberate and conscious management of monetary variables in order to attain certain objectives. It involves the manipulation of monetary instruments like open market operations, bank rate, reverse ratio and so on for the attainment of the objectives of economic policy. Monetary Policy influences the supply, cost, and availability of money. Monetary Policy includes all monetary fields of economic activities and the problems of monetary management. In a narrow sense, Monetary Policy means the control and regulation of money supply and credit. However, the broad definition of Monetary Policy includes debt-management Policy which is also the subject matter of Fiscal Policy.

17.7 GLOSSARY

- **Monetary Policy**: is the control of the quantity of money available in an economy and the channels by which new money is supplied.

- **Radcliffe Committee**: The Report of the Committee on the Working of the Monetary System (commonly known as The Radcliffe Report) is a report published in 1959 about monetary policy and the workings of the Bank of England. It is named after its chairman, Cyril Radcliffe, The report started collecting evidence in 1957 and was the result of dissatisfaction with the workings of monetary policy in the 1950s. It is still an important reference document on the Bank of England.

- **Non-banking Financial Intermediaries (NBFIs)**: are financial institutions that do not have a full banking license and, therefore, cannot accept deposits from the public in the same way traditional banks do.

- **Fiscal Policy**: refers to the use of government spending and tax policies to influence economic conditions, especially macroeconomic conditions.

17.8 ANSWERS OF SELF-CHECK EXERCISES

Self-Check Exercise-17.1

Ans. Q1. Refer to Section 17.3

Self-Check Exercise-17.2

Ans. Q1. Refer to Section 17.4

Self-Check Exercise-17.3

Ans. Q1. Refer to Section 17.5

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17.10 TERMINAL QUESTIONS

Q1. Discuss the various objectives of Monetary Policy. Also discuss the need of it.

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MONETARY POLICY (II)

STRUCTURE

18.1 INTRODUCTION

In the previous Unit, we had referred to the need for indicators of monetary policy. The indicators of monetary policy refer to those variables which reflect the level of economic activity and which can, therefore guide the monetary authority in recognizing whether the economy is going through an uncontrolled expansionary contractionary phase, and can thus help it in determining the need of monetary policy intervention.

The indicators of monetary policy are useful not only as signals calling for a suitable monetary policy intervention but also as guide to determining the progress and success of a monetary policy. These indicators are normally in the form of financial aggregates or interest rates. An expansionary monetary policy, for example, will be reflected in a rapid monetary growth or a fall in interest rates. A restrictive or contractionary monetary policy, on the other hand, will be reflected in a decreasing money stock or rising interest rates. Thus changes in money stock and interest rates are two prominent examples of indicators of monetary policy.

The use of financial aggregates as indicators of the state of balance in the economy is justified on the basis that variations in liquid assets are a consequence of unanticipated discrepancies between receipts and spreading. In this context it is useful to make a distinction between. long-term assets and liquid assets, although the transaction demand for all types of financial assets is determined in the same manner as the transaction demand for money. It is also true that it is hard to draw and fast line between long-term assets and liquid assets. Nevertheless, the permanent savings are much more likely to be kept in the form of

long-term assets like life assurance policies, provident fund schemes, accrued pension rights, portfolios of equity shares and long-term bonds than in the form of cash or bank demand deposits. However, the transitory or unanticipated savings, on the other hand, are most likely to take the form of liquid assets like cash balance, demand deposits and even time deposits, short-term loans to local bodies, etc. But, when total income and wealth are rising.. and, therefore, the total assets of the asset- holders are also rising, some part of the increase in total assets will take the form of liquid assets also.

18.2 LEANING OBJECTIVES

After going through this Unit, you will be able to:

- understand the targets of monetary policy.
- know about the transmission mechanism of monetary policy.
- discuss the restrictive versus accommodating monetary policy.

18.3 TARGETS OF MONETARY POLICY

Monetary policy targets refer to specific economic variables that, when influenced, help achieve policy objectives effectively. The selection of these targets depends on the theoretical perspective regarding how monetary changes impact economic activity. In other words, the choice of targets is shaped by the framework explaining the transmission of monetary effects on the economy. An ideal target should play a crucial role in the transmission mechanism. The effectiveness of monetary policy relies on policymakers' clear understanding of how different instruments influence the target variable and, in turn, how the target impacts broader economic objectives.

There is an ongoing debate between Monetarists and Keynesians regarding the role of the money supply as a target variable. Non-monetarists argue that central banks should base their policies on market variables and implement them through operations on instrument variables. Conversely, Monetarists contend that central banks should define their objectives in terms of the money supply and frame policies accordingly. While interest rates hold significant importance in monetary theory, Monetarists recognize their role in the transmission mechanism. In a perfectly informed financial and economic system, both money supply and interest rates would provide equivalent insights into monetary influences on the economy (Burns & Meltzer, 1969).

It is widely accepted that real interest rate fluctuations impact economic activity. However, nominal interest rates are the ones that are measured and reported. The distinction between real and nominal interest rates arises from expected price changes over the maturity period of financial instruments. Measuring these expected changes is complex and prone to errors. If nominal interest rates rise due to anticipated inflation, the real interest rate may remain unchanged or even decline. Consequently, assessing monetary policy effectiveness based solely on nominal interest rates, especially during inflation or deflation, can be misleading. This issue does not arise with the money supply, as its nominal values directly influence nominal economic activity.

Historically, governments have imposed interest rate ceilings, limiting their use as indicators of monetary policy effectiveness. When interest rates are artificially constrained and do not reflect market forces, they can provide inaccurate information. Thus, when using interest rates to gauge monetary influence, economists prefer those not directly regulated by the government.

Empirical research suggests that the money supply is a more reliable and predictable indicator of monetary influence compared to interest rates. This disparity arises due to multiple factors:

1. Reported interest rates do not cover all financial markets through which monetary effects propagate.
2. Data on interest rates typically reflect nominal values, whereas real interest rates are what drive economic activity.
3. It is difficult to differentiate between interest rate fluctuations caused by public demand pressures and those resulting from central bank interventions.
4. Uncertainty in the demand for goods relative to money complicates the relationship between interest rates and economic activity.
5. Government-imposed interest rate ceilings in some markets can create distortions in other markets due to arbitrage flows.

Choosing an appropriate monetary aggregate as an indicator involves addressing several factors. First, policymakers must assess how effectively a given aggregate responds to monetary actions in a predictable manner. Second, they must evaluate how well the aggregate explains changes in nominal Gross National Product (GNP), a key measure of economic activity. Lastly, it is important to consider whether the chosen indicator is influenced by other economic variables that policymakers aim to manage.

Friedman (1982) explores three potential strategies for utilizing monetary instruments and targets:

1. Using money market conditions (such as interest rates) as both the target and the instrument.
2. Setting monetary aggregates as the target while using money market conditions or interest rates as instruments to achieve that target.
3. Establishing monetary aggregates as the target and exercising control over the monetary base (the liabilities of the central bank) as the primary instrument.

SELF-CHECK EXERCISE-18.1

Q.1 What are main targets of the monetary policy.

18.4 TRANSMISSION MECHANISM OF MONETARY POLICY

In the previous section, we discussed the objectives, indicators, and targets of monetary policy. Indicators serve as signals that help assess whether the economy is on track to meet its objectives or if imbalances exist that could hinder progress, thereby necessitating policy intervention. Targets, on the other hand, are strategic variables that monetary authorities regulate to restore economic stability and ensure steady progress toward policy goals.

The transmission mechanism describes how changes in the money supply influence key economic variables such as nominal GDP, price levels, and output (Carlson, 1974). The Income-Expenditure theory, as proposed by Fiscalists, outlines a specific transmission process through which variations in the money supply (or its growth rate) impact the real economy. This approach assumes that monetary fluctuations primarily affect output and prices through changes in market interest rates on a select group of financial instruments, such as government or corporate bonds. Based on the liquidity preference theory, a shift in the money supply alters interest rates, which then influence investment expenditures, income, and consumption.

Keynesian economic theory explains the transmission of monetary changes through the IS-LM model, where money acts as a substitute for bonds rather than existing assets or output. In Keynesian income-expenditure models, real capital goods are not explicitly considered as part of an asset portfolio because they are treated as perfect substitutes for long-term bonds. Due to this assumption, the direct relationship between money and real

capital is not explicitly recognized. Some economists misinterpret Keynesian theory as suggesting that money serves as a substitute for financial assets but not for real assets. In response, recent arguments propose that money closely substitutes not only bonds but also real assets, thereby extending the framework of monetary policy beyond financial markets to include real asset considerations.

Monetarists, adhering to the quantity theory of money, challenge the transmission mechanism based on liquidity preference for several reasons. First, they argue that an increase in the money supply can directly influence expenditures, prices, and returns on a broad range of physical assets, rather than being confined to conventional financial assets. Second, they emphasize that the demand for money determines the desired level of real balances rather than the prevailing interest rates. Most importantly, they reject the notion that policymakers can permanently influence interest rates by altering the stock of real balances, which they consider an endogenous variable.

SELF-CHECK EXERCISE-18.2

Q2. Discuss the transmission mechanism of monetary policy.

18.5 MONETARY POLICY AND IS-LM MODEL

The government can influence the level of economic activity by implementing appropriate changes in monetary policy. Depending on the prevailing economic conditions, monetary policy can be either expansionary or contractionary. The IS-LM model is a useful framework for illustrating the impact of such policies. A change in the money supply causes a shift in the LM curve: an increase in money supply shifts the LM curve to the right, while a decrease shifts it to the left. For example, if the economy is experiencing a recession, the government, through its central bank, may adopt an expansionary monetary policy to stimulate economic recovery. This involves increasing the money supply in the economy. Assuming the liquidity preference (or demand for money) remains constant, an increase in money supply leads to a reduction in the interest rate. A lower interest rate encourages businesses to invest more, which, in turn, increases aggregate demand and national income.

This relationship is reflected in the IS-LM model, where an increase in money supply shifts the LM curve to the right, as illustrated in Figure 18.1. The equilibrium point shifts from E to D, resulting in a decline in the interest rate from r_1 to r_2 and national income will increase from Y_1 to Y_2. The IS-LM model also demonstrates the monetary transmission mechanism, showing how an expansion in money supply boosts aggregate demand for goods and services. As the money supply increases, the interest rate decreases, which stimulates investment demand. Through the multiplier effect, this leads to a larger increase in aggregate demand and national income.

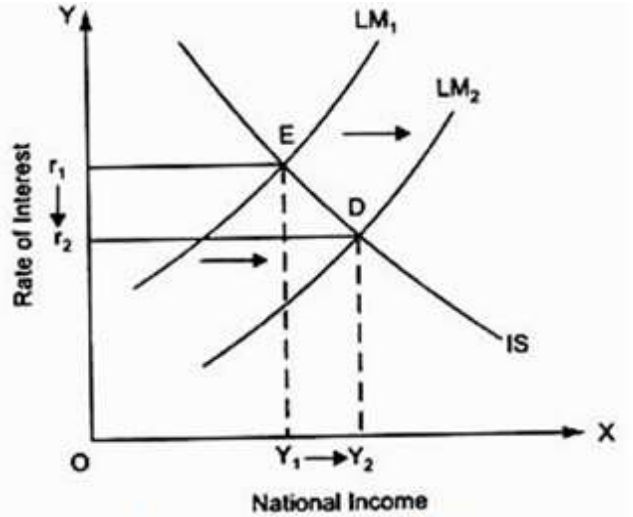

Figure 18.1 Effect of Expansion in Money Supply on Interest Rate and Income

Conversely, if the economy is facing inflation, the government may implement a contractionary monetary policy to curb it. In this case, the central bank can reduce the money supply by conducting open market operations, such as selling government bonds to the public. This withdraws currency from circulation, reducing liquidity in the banking system. Additionally, the central bank may raise the cash reserve ratio for banks, requiring them to hold a higher proportion of their deposits as reserves. This reduces the banks' ability to extend credit, thereby decreasing the money supply in the economy.

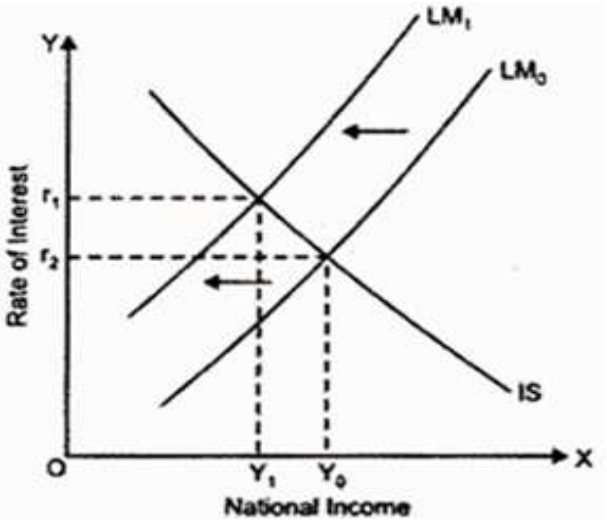

Figure 18.2 Contractionary Monetray Policy to fight Inflation

Using the IS-LM model, a reduction in money supply is shown as a leftward shift in the LM curve, as illustrated in Figure 18.2. This leads to an increase in the interest rate and a decline in the level of income. Higher interest rates reduce investment and consumption demand, which helps in controlling inflation.

SELF-CHECK EXERCISE-18.3

Q1. Discuss the working of monetary policy through IS-LM Model

18.6 IS-LM FRAMEWORK: ATTACK IN RECENT YEARS

The IS-LM model has faced several critiques over the years. One of the earliest criticisms relates to its failure to account for the impact of money creation in cases of fiscal deficits. Carl Christ (1969) highlighted the government's budget constraint, noting that government spending not financed by taxation or public borrowing must be funded through borrowing from the banking system. This borrowing, he observed, leads to money creation, which in turn affects the composition of private sector portfolios.

Brunner and Meltzer (1976) extended Christ’s analysis by examining the effects of both money- and bond-financed fiscal policies. Their model treated government debt, like money, as an imperfect substitute for private capital. They argued that shifts in the IS curve induced by policy changes inevitably lead to corresponding shifts in the LM curve—except in cases where government spending is fully offset by taxation. This holds even if government-issued interest-bearing debt is not considered net wealth.

Another limitation of the IS-LM framework is its omission of the expected rate of inflation and the role of past experiences in shaping the aggregate supply curve. Recent modifications incorporating Pigou’s real balance effect attempt to address this gap by allowing shifts in the IS function in response to changes in the LM function.

Additionally, the model has been criticized for its highly aggregated nature. Leijonhufvud (1968) proposed an alternative structure, grouping long-term bonds with real assets and short-term financial assets with money. In this approach, portfolio allocation depends on bond yields relative to both real asset yields and money yields. However, Goodhart (1975) challenged this aggregation, arguing that real assets have uncertain future capital values and running yields, whereas bonds provide fixed nominal yields and maturity values. According to Goodhart, investment expenditure should be analyzed by explicitly considering the distribution between real assets and bonds.

Brunner and Meltzer (1972a, 1972b, 1973) also critiqued the IS-LM model for treating bonds and real capital as a single asset. In their view, money substitutes only for bonds, not for existing assets or output, failing to account for persistent unemployment. In response, Tobin (1972) expanded the Hicksian model to include substitution between money and real capital.

Another significant drawback of the IS-LM model is that it determines price levels and real output only under full employment conditions. It does not provide an explanation for persistent unemployment. Furthermore, its predictive accuracy remains questionable.

Brunner and Meltzer sought to improve upon the traditional IS-LM framework by introducing markets for existing and new capital. Their approach differentiates between money markets and credit markets, offering insights distinct from conventional IS-LM analysis. By applying Walras' Law, they eliminate the market for existing real capital and instead focus on the credit-money relationship. Their research highlights various factors influencing economic responses to monetary and fiscal policies.

Their findings suggest that interest rate elasticities alone are neither necessary nor sufficient to determine the effect of monetary and fiscal policy on aggregate demand. Moreover, aggregate demand responses to monetary changes do not necessarily depend on wealth effects or the interest elasticity of IS and LM curves. They also argue that a sustained government deficit, financed through debt issuance, raises both interest rates and the price of existing real capital. Consequently, fiscal multipliers depend on factors beyond interest elasticities and wealth effects. Their work challenges the traditional monetarist view that fiscal multipliers are zero when money has zero interest elasticity.

Monetarists generally assume a high degree of substitutability between money and real assets, meaning that changes in the money supply influence spending on real assets through portfolio adjustments. However, it remains unclear whether such changes primarily impact spending on goods and services (flows) or the acquisition of second-hand real capital goods such as machinery and real estate (stocks). The initial effect of open market operations does not directly influence income but instead alters the prices of existing assets, which then transmit to the real economy over time.

When monetary authorities purchase treasury bills in the open market, they increase the funds available for the public to invest in financial and real assets. The key question is which assets the public prioritizes. If investors view real assets as close substitutes for treasury bills, they may purchase real assets directly. However, if they regard financial assets as better substitutes, they may first acquire financial securities and only shift to real assets once financial asset prices rise sufficiently. In such a case, the impact of open market operations on real asset demand would be minimal.

The crucial factor in this process is not just the substitutability between money and real assets but also the relationship between the assets involved in open market transactions and other non-monetary assets. If money and real assets were perfect substitutes, wealth owners would have little incentive to shift their portfolios toward real assets following an open market operation. Instead, they would seek to reduce overall portfolio risk through diversification.

There are two competing views on asset substitutability. Tobin argued that all types of government debt (such as money, treasury bills, and long-term bonds) are good substitutes for each other due to their similar risk characteristics, but they are poor substitutes for equities and other forms of real capital. This implies that open market operations may not be a highly effective stabilization tool unless interest rates change significantly to impact equity yields.

Conversely, Friedman and Meiselman contended that there is a high degree of substitutability among financial and real assets, suggesting that changes in the money supply have a more pronounced effect than Tobin's framework would predict.

Park (1972) noted that both monetarists and non-monetarists rely on some version of the portfolio adjustment process to describe the impact of monetary policy on the real economy. However, their disagreement centers on the range of assets and interest rates considered. Non-monetarists typically focus on a narrower set of assets and rates, while monetarists emphasize a broader range of financial and real assets, along with their associated expenditures.

SELF-CHECK EXERCISE-18.4

Q1. Discuss why IS-LM framework has been subjected to attack in recent years.

18.7 RESTRICTIVE VERSUS ACCOMMODATING MONETARY POLICY

Restrictive monetary policy refers to such as use of instruments of monetary control which aims at restricting and decreasing the supply of bank credit as well as the aggregate supply of money in the economy. It also involves tightening the conditions for bank credit. Such as policy works in the manner described in the preceding section in the case of a bloom period when the supply of money is increasing at a rate greater than the rate at which real output is growing with the consequence that there is a sustained process-of rising price as too much money is chasing too few goods. WE need not repeat that explanation here. However, it may be mentioned that a restrictive monetary policy which involves raising of the Bank Rate as well as the over-all interest structure, making credit conditions more and more stringent, raising statutory minimum cash-reserve requirement and selling. securities in the open market by the central bank in order to deplete the cash reserves of the banks so that their power to create credit is diminished is appropriate to only those situations when the economy is deviating from the steady path of growth such that desired investment is exceeding saving and aggregate expenditure or demand is continuously keeping appreciably ahead of the aggregate supply of goods thus giving rise to cumulative rise in prices which go out of control.

The accommodative monetary policy, on the other hand refers to such a use of instruments of monetary control which aims at facilitating the supply of bank credit and thus at increasing the aggregate supply of money in order to accommodate more and more the needs for financing a growing production and commerce a well as of consumption. The accommodative monetary policy, therefore, involves lowering the Bank Rate as well as the overall interest-rate structure, liberalizing the credit conditions for both production and consumption, lowering the statutory minimum cash-reserve requirements so that banks are able to create more credit with any given amount of cash reserves, and purchase of securities in the open market by the central bank so that the cash reserves of the banks are increased enabling them to increase the volume of credit to the public. As the result of these measures which describe the nature of accommodative monetary policy, the aggregate money supply in the economy increases which, through both the direct and indirect mechanisms increases the aggregate expenditure and demand in the economy with the result that the level of economic activity- production and employment-in the economy increases.

While a restrictive monetary policy is appropriate for boom periods when output being already at full or near-full employment becomes inelastic, an accommodative monetary policy is suitable for periods of depression and recessions when production and employment are falling due to the aggregate effective demand jagging behind the aggregate supply. Such a policy as explained above, would tend to increase the aggregate effective demand and expenditure in the economy such that it remains ahead of the aggregate supply till near-full employment is reached. When this happens, the accommodative monetary policy can be abandoned in favour of a relatively restrictive monetary policy.

However, there is one serious limitation on the practical effectiveness of accommodative monetary policy. If the economy is in a deep economic depression which has generated pessimistic business expectations, no extent of accommodative monetary policy can help... Moreover, in terms of the Keynesian and neo- Keynesian models, the rate of interest might have already fallen to that critically minimum rate of interest at which the Keynesian liquidity preference function becomes perfectly elastic causing the Keynesian liquidity trap and when, in terms of the neo-Keynesian IS-LM model the economy is situated in the horizontal region of the LM curve. The rate of interest cannot be lowered below it, whatever be the extent of accommodations that the monetary policy makes are willing to grant. Moreover, as it is observed, "you can take the horse to water but you cannot make him drink." Similarly, during depressions when business expectations are generally pessimistic, the banking system might be too generous to lend but if the frightened businessmen are too shy to come forward to take advantage of the accommodative monetary policy of the authorities, the bank credit and aggregate affective supply of money may not increase.

SELF-CHECK EXERCISE-18.5

Q1. Distinguish between restrictive versus accommodating monetary policy.

18.8 SUMMARY

On the whole, a restrictive monetary policy is much more likely to succeed in attaining its objective than an accommodating monetary policy can in attaining its objective, particularly during deep, depressions when there is a serve crisis of business expectations. It should, however, he noted that there is no conflict between these two types of monetary policies as might be suggested in the statement of the form, "restrictive versus accommodative monetary policy", for one-the restrictive monetary policy-is suited to boom and inflationary situations while the other-the accommodative monetary policy-is suitable for situations of precessions and depressions. Conflict between them would have arisen, if they were alternative policies for dealing with one and the same situation. But they are, in fact, two complementary adjuncts of the contra cyclical policy of "fine-turning" which requires a restrictive policy when aggregative effective demand is desired to be reduced and an accommodative policy when it is required to be increased.

18.9 GLOSSARY

- **Accommodative Monetary Policy**: It is loose credit or easy monetary policy, occurs when a central bank attempts to expand the overall money supply to boost the economy when growth is slowing.
- **Restrictive Monetary Policy:** refers to the monetary policy of slowing the money supply's growth to decelerate the economy.
- **Transmission Mechanism of Monetary Policy**: describes to changes made by the Reserve Bank to its monetary policy setting flow through to economic activity and inflation.
- **IS-LM Model:** which stands for ‘Investment-Saving’ (IS) and ‘Liquidity Preference-Money Supply’ (LM), shows how the market for economic goods interacts with the loanable funds market, or money market. It is represented as a graph in which the IS and LM curves intersect to show the short-run equilibrium between interest rates and output.

18.10 ANSWERS TO SELF-CHECK Exercises.

Self-Check Exercise-18.1

Ans. Q1. Refer to Section 18.3

Self-Check Exercise-18.2

Ans. Q1. Refer to Section 18.4

Self-Check Exercise-18.3

Ans. Q1. Refer to Section 18.5

Self-Check Exercise-18.4

Ans. Q1. Refer to Section 18.6

Self-Check Exercise-18.5

Ans. Q1. Refer to Section 18.7

18.11 REFERENCES/SUGGESTED READINGS

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18.12 TERMINAL QUESTIONS

Q1. Discuss Monetary Policy and IS-LM curve Model. Also discuss why IS-LM frame work has been subjected to attack in recent years.

Q2. Discuss in detail restrictive versus Accommodating Monetary Policy.

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MONETARY POLICY-(III)

STRUCTURE

19.1 INTRODUCTION

In a simple model of monetary policy, an implicit assumption is that the policy works instantaneously; that is to say, monetary policy measures are undertaken as soon as information about the economic situation requiring monetary policy intervention is received, and. similarly, the effect of the particular policy enforced also takes place instantaneously. This implicit assumption, thus, rules out the existence of time lags in the operation of monetary policy. Such a simple model is static in character and in abstraction from reality.

19.2 LEARNING OBJECTIVES

After going through this Unit, you will be able to

- understand lags in monetary policy
- know the effectiveness of monetary policy
- know the Keynesian view and Monetarist view regarding effectiveness of monetary policy

19.3 LAGS IN MONETARY POLICY

The real world is dynamic in character and the operation of the monetary policy in the real dynamic world is beset with lags of different kinds. In the first place, there is a time lag between the change in situation and the change in policy. Then, there is a second time lag between the change in policy and its effect on the economy. If we go further into the details of the process through which the effects of a change in monetary policy are transmitted, we may discover still more time lags involved in the working of monetary policy between the time a policy change is decided and the time when its final effect on the economy takes place. For example, there might be a lag between the deciding of a policy change and putting it into effect. Supposing, the Bank Rate policy is made use of and, accordingly, the Bank Rate is changed. But there is bound to be some time lag between the change in the

Bank Rate by the central bank and the subsequent change in other interest rates by the banks and other financial institutions. There is also a time lag between the change in the interest rates and the consequent change in investment expenditure, and consumption expenditure.) There is a further lag between the change in investment and consumption expenditures and the ultimate effect of the multiplier and the accelerator on the economy.

These lags are important consideration in the determining of the proper "timing" of a policy change, if it sis to be effective. In fact, the effectiveness of monetary policy crucially depends on the understanding of these lags and taking account of them to determine the timing of a policy change. As a means of controlling the economy, what is important is not the direction of influence of the monetary policy as such on the economy, but the timing and the lags involved in the timing of the influence. The neglect of these lags in the formulation of an appropriate policy might have even perverse results. When the time lags between the change in economic situation and the formulation of the policy and putting it into operation and its ultimate influence on the economy are many and large, the ultimate effect of the monetary policy on the economy may take place at a time when it was least needed. For example, a monetary policy seeking to increase the aggregate effective demand may have its actual ultimate effect on the economy at a time when the shortage of the aggregate supply relatively to the aggregate effective demand. Thus, due to the time lags, a policy adopted with the best intentions of stabilizing the economy may, in fact, destabilize the economy. Milton Friedman had particularly called attention to this perverse effect caused by lags in monetary policy in his essay. "The Effects of a Full-Employment Policy on Economic Stability : A Formal Analysis", in his essays in Positive Economics.

Some calculations with regard to the effects of lags in monetary policy have been attempted, a calculation attempted by Thomas Mayer suggests that monetary policy could stabilize economy only by about ten per cent of the actual variation because of these lags (cf. his "The Inflexibility of Monetary Policy". Review of Economics and Statistics, Nov. 1958). According to calculations made by Harry G. Johnson on the lag involved between a change in the situation and a change in monetary policy and its influence on the effectiveness of monetary policy for Canada during 1858-62, monetary policy was doing more good than harm for about only one month in twelve. A.W. Philips ("Stabilization Policy in a Closed Economy". Economic Journal, June, 1954) and W.J. Baumol ("Pitfalls in Contra cyclical Policies: Some Tools and Results", Review of Economics and Statistics, Feb., 1976) also show that what seem like sensible procedures for changing a policy variable in response to changing conditions may well aggravate instability.

It is due to these perverse destabilizing effects of lags in monetary policy that Milton Friedman and his monetarist followers have advised against monetary policy of "fine- tuning" which is intended and expected to smoothen out cyclical fluctuations but which, in fact, according to them, aggravates these fluctuations. They, therefore, recommend to 1 have a rather long-run monetary policy which should follow a set rule of increasing money supply at some average annual rate which is not significantly greater than the rate of growth in the national output of a country.

SELF-CHECK EXERCISE-19.1

Q1. Discuss the lags in monetary policy.

19.4 EFFECTIVENESS OF MONETARY POLICY

Although in a simple textbook model of monetary policy based upon a number of unstated assumptions, the monetary policy is shown to be an effective tool of stabilizing economic activity, yet, in practice, its effectiveness is limited because the unstated assumptions underlying the theory of monetary policy are not likely to be fulfilled in real-world economies.

Its effectiveness during depressions particularly limited on theoretical grounds as well as on empirical evidence. During the Great Depression of the early thirties of the current century the accommodating monetary policy in no way helped in putting the economies of the capitalist world out of the depression. There are at least, two powerful theoretical arguments contained in the Keynesian monetary theory which explain the ineffectiveness of monetary policy in curing economic depressions. In the first place, this theory argues that there is a minimum rate below which the rate of interest cannot be pushed, whatever be the increase in money supply. It is because at this critically minimum rate of interest, the demand for money becomes perfectly elastic so that any increase in the supply of money is just caught into the "liquidity trap". Insofar as the monetary theory is beloved to affect the aggregate effective demand indirectly through the effect of increased money supply on the rate of interest which, in turn, influences the investment and consumption expenditures in the economy, the mechanism simply does not work during depressions when the ruling rates of interest rates are already at the more-or-less critically minimum levels. Secondly, the investment is a function not simply of the rate of interest but also of the marginal efficiency of capital or the expected rate of profit. According to Keynes, during depression there is sudden collapse of the marginal efficiency of capital. It is because the marginal efficiency of capital depends on business expectations which become highly pessimistic during such period. In such an environment, no amount of softening the credit conditions and increasing the availability of credit are able to persuade the businessmen of take up new investment projects. Moreover, since there is widespread unemployment among the working and salaried classes and the incomes of even those who are luckily enough not to have lost their jobs are very low, there are hardly any takers of consumer's credit, howsoever cheap it may be and howsoever soft be the conditions attacked to such credit. As the old adage goes, "you can lead a horse to water, but you cannot make, him, drink."

Although earlier it was believed that the monetary policy, though ineffective during depressions, could be used effectively to check inflationary conditions during booms; yet, in recent times, its effectiveness even during boom periods has come under doubt. In the first place, when business expectations are boomingly optimistic, the marginal efficiency of capitals high. It is so high that increasing interest rates are unable to check investment expenditure. Since employment and incomes are also rising, even the consumers are encouraged to increase their consumption expenditure. The ever-rising prices cause such expectations with regard to future prices that both investors and consumers propone rather than postpone their expenditures. Neither rising interest rates not decreasing the money supply works, because any fall in the supply of money stock is more than matched by an increase in the velocity of money.

Apart from the above reasons that account for the ineffectiveness of monetary policy during booms, Gurley and Shaw as well as the Radcliff Committee have called attention to the emergence and development of non-bank financial intermediaries (NBFI) whose liabilities are a close substitute of money. A restrictive monetary policy may prove ineffective to check boom conditions, when the borrowers have alternative sources of credit in the form of NBFIs. It is due to this that the Radcliffe. Committee had observed in its Report that what matters is not the supply of bank credit or even money as such but the degree of liquidity in the economy. Since the central banks are unable to control the operations of the NBFI's with means of their traditional instruments of credit, the monetary policy becomes ineffective to control even inflationary situations.

Since there has not been since the Second World War any depression of the magnitude of the Great Depression of the 1930's and whatever cyclical fluctuations have taken place since then have all been of a moderate variety, it is said that the recent experience of monetary policy during these moderate business cycles has revived confidence in the effectiveness of monetary policy. Nevertheless, even this recent experience tells that monetary policy-might be effective in fighting mild recession rather than in checking inflation.

A serious practical limitation on the effectiveness of monetary policy arises from the existence of various types of lags to which we referred in the preceding section. There is a time lag between a change in situation requiring monetary policy intervention and the actual recognition of this need by the monetary authorities. This is known as the recognition lag. Sometime will also lapse between the recognition of the need for a policy intervention and the actual formulation of an appropriate policy there would be a further time lag between the formulation of an appropriate policy action and the actual implementation of the policy action. These last two lags may be described as action lags. All these lags that we have described so far are sometimes characterized as inside lags. In addition to these inside lags there is an outside lag that intervenes between the enforcement of the chosen monetary policy action and its final effect on the economy. Researches made into the working of these lags show that they may not only be long but also variable which undermines the effectiveness of monetary policy. The greatest danger arising from the existence of these lags is that the final effect of a policy action on the economy may appear at a time when it is final effect of a policy action on the economy may appear at a time when it is no longer needed, As we explained it in the preceding section above, this may thus end in destabilizing instead of stabilizing the economy. It is due to this that the monetarists generally warm against any monetary policy intervention during the short period. They rather recommend a fixed rule of increasing the supply of money stock over a long period at a fixed average annual rate which is consistent with the long-run average growth of real output.

The efficacy of monetary policy depends on the prevailing economic situations and structural factors like public's preference for currency size of public debt, non-monetized sector in the economy, presence of developed financial markets etc.

19.4.1 The Keynesian View

The implications of the Keynesian theory for monetary policy are that the monetary policy would be ineffective in two special cases, namely, the cases of the liquidity trap when the liquidity preference function is infinitely elastic and so is also the LM curve of the IS-LM model and secondly, the case when the investment function perfectly inelastic with respect to the rate of interest and, therefore, the IS curve is vertical. This is shown in the diagram of Fig. 19.1. If the LM curve is horizontal, monetary policy is completely ineffective because the demand for money is perfectly interest elastic. This is the case of “liquidity trap” shown in Fig. 19.1, where the increase in the money supply has no effect on the interest rate OR and the income level OY.

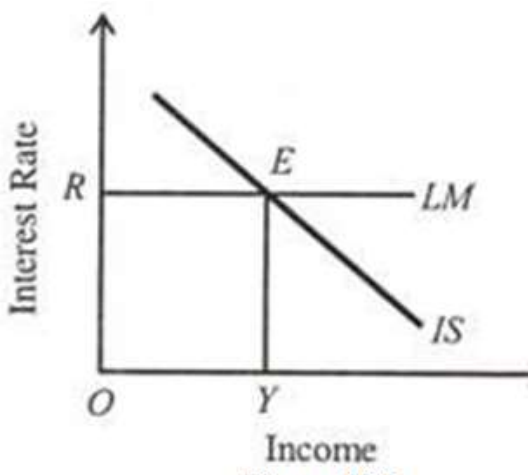

Figure 19.1

On the other hand, if the LM curve is vertical, monetary policy is highly effective because the demand for money is perfectly interest inelastic. Figure 19.2 shows that when the vertical LM curve shifts to the right to LM with the Increase in the money supply, the interest rate falls from OR to OR_1 which has no effect on the demand for money and the entire increase in the money supply has the effect of raising the income level from OY to OY_1.

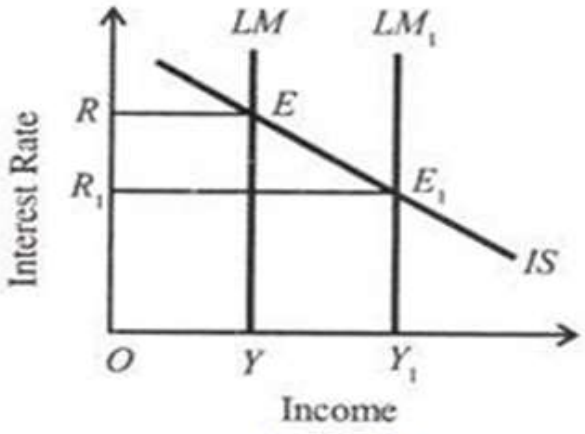

Figure 19.2

Now take the slope of the IS curve. The flatter is the IS curve, the more effective is the monetary' policy. The flatter IS curve means that the investment expenditure is highly interest elastic. When an increase in the money supply lowers the interest rate even slightly, private investment also increases, by a large amount, thereby raising income much.

There are reasons to believe that Keynes, in his General Theory, had assumed that investment was interest- inelastic even though it was not perfectly interest inelastic. In other words, although Keynes did not believe the interest -investment function to be vertical, yet he believed it to be quite steep. In this case, the monetary policy could be effective in the case than an increase in money supply would increase the level of income and employment but its quantitative effect would be rather small. A proportionately very large increase in money supply would be associated with a proportionately small increase in income and employment.

It was due to this that Keynesian approach assigned to monetary policy a subsidiary and auxiliary role in relation to the fiscal policy which was assigned the major role in a programme of stabilizing economic activity and preventing cyclical fluctuations.

19.4.2 The Monetarist view

The monetarist approach relies on the direct mechanism through which changes in money supply affect the level of expenditure in the economy, and therefore, the level of income and employment. Therefore, to the monetarists the rate of change of money supply is the best available indication a well as target of monetary policy. As opposed to the Keynesians, they are advocates of monetary policy as a tool of stabilization.

Their empirical researches into the relationship between the changes in money stock and changes in money income (cf. Friedman and Schwartz, "Money and Business Cycles", Revise of Economics and Statistics. Feb, 1963) Show that peaks in the rate of change of money, stock (M) are followed, with a log of an average of sixteen months, by peaks in rate of change in money income. In gives them confidence in the effectiveness of monetary policy.

However, like the classical, the monetarists too have long-run perspective apart from their over-all preference for minimum government interference. They acknowledge that the lag between changes in money stock and changes in money income is not only long but also variable. Therefore, they argue that although there is a strong correlation between changes in money stock and change in money income in the long run, yet it is too difficult to predict this relationship accurately over short periods. Hence the do not have confidence in the effectiveness of monetary policy over short periods and, therefore, they hold that money

policy cannot be effectively used as a tool of "fine-tuning" the economy. In other words, their view is that monetary policy cannot be used effectively to off-short- run fluctuations in economic activity. In fact, in view of long and variable lags involved in the working out of effect of changes in money stock on money income, attempts to use monetary policy as a tool of short-run stabilization may have, according to them, the perverse effect of further destabilizing the economy instead of stabilizing it.

SELF-CHECK EXERCISE-19.2

Q1. Discuss the Keynesian view about effectiveness of monetary policy.

Q2. Discuss the Monetarist view regarding effectiveness of monetary policy.

19.5 SUMMARY

In view of the above, the monetarists monetary policy recommendation is that monetary authorities should avoid tinkering with sharp policy changes associated with the policy of "fine turning They, instead insist that best way of using monetary policy for stabilizing economic activity is to have a long run average growth and to adopt a fixed rule of attaining a steady long-term average growth rate of money stock which is equal to rate of growth in real income. The monetarists are thus as much against the use of discretionary monetary policy as they are against the use of discretionary fiscal policy. In their view, monetary policy, as much as the fiscal policy, should aim at providing a stable environment within which a free market economy can flourish and attain a high level of economic growth and should avoid discretionary use of these policies. In this conclusion, they seem rather to betray their deep-rooted ideological bias in favour of minimum government intervention and following maximum possible room for free play of market forces.

19.7 ANSWERS TO SELF-CHECK EXERCISE

Self-Check Exercise-19.1

Ans. Q1. Refer to Section 19.3

Self-Check Exercise-19.2

Ans. Q1. Refer to Section 19.4.1

Ans. Q2. Refer to Section 19.4.2

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19.9 TERMINAL QUESTIONS

Q. 1 Discuss effectiveness of Monetary Policy. Also discuss the Keynesian view and the Monetarist view regarding effectiveness of Monetary Policy.

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MONETARY POLICY (IV)

STRUCTURE

20.1 INTRODUCTION

The views regarding the role of monetary policy have been changing from time to time. Before the Second World War, monetary policy was generally expected to iron out the cyclical- fluctuations in economic activity. This implied relaxing of credit conditions and lowering of interest rates in situations of falling economic activity and tightening of credit conditions and raising of interest rates during booms in order to prevent the boom conditions developing into uncontrolled inflation. In other words, stabilizing the economic activity at full employment and also stabilizing the domestic price level through 'fine-turning' was considered the most preferred objective. This preference bore the impress of the Great Depression of the thirties.

20.2 LEARNING OBJECTIVES

After going through this Unit, you will be able to:

- understand the role of monetary policy in general
- know the role of monetary policy in developing countries
- discuss the Radcliffe Committee Report
- understand the monetary and credit planning

20.3 ROLE OF MONETARY POLICY IN GENERAL

Prior to the Great Depression, the role assigned to monetary policy was even more restricted. Most of the countries being on some kind or the other of Gold Standard, the role assigned to monetary policy in general was simply to observe what were referred to as the "rules on the game" of Gold Standard. These rules implied increasing the money supply and lowering the interest balance of payments, and decreasing the money supply and increasing the rates of interest, when there was an outflow of gold from the country due to its

unfavorable balance of payments. This ensured the automaticity of the system and the stability of exchange rates. However, sticking to the goal of stability of exchange rate throws the whole burden of adjustment on the domestic price which they are unable to cope with in modern economics due to various types of rigidities. In consequence of it, there are serious adverse effects on output and employment. This truth was only too forcefully brought out during the Great Depression on account of which country after country-went off the Gold Standard.

The modern theory of monetary policy as contained in the Radcliffe Committee Report prescribes two roles for monetary policy-a long-term or "background" role and a short- term or "emergency" role. The former role is linked to the objective of steady-state growth which requires a dynamic equilibrium between saving and investment. It is argues that while investment may not be sensitive to short-term interest rates, it is definitely sensitive to long- term interest rates. Therefore, it is suggested that the long-term interest rates should not be allowed to fluctuate too much, otherwise the dynamic balance between saving and investment necessary for steady-state growth cannot be achieved.

The "emergency" role of monetary policy is linked to the controlling of situations of severe deflation of inflation. The Radcliffe Committee recommended a package of both fiscal and monetary policies in such situations. The Commission on Money and Credit in the U.S.A. also made, more or less, similar recommendations, though it appeared to give a little more importance to the monetary policy.

The neo-monetarist theory of monetary policy as developed by Friedman and his followers is based on their basic hypothesis that money stock determines the nominal variables and not the real variables. Therefore, they argue, there are certain objectives which monetary policy cannot achieve and, therefore, it should not be employed to achieve those ends. Important among these ends are the fixing of the real rate of interest and the level of unemployment or employment. In other words, like the classical and neoclassical monetarists they too recommend a "neutral" role for monetary policy.

The equilibrium rate of interest, neo-monetarists argue, is determined by the balance between saving and investment which are real forces. Monetary policy, through change in money stock, may influence the short-run rate of interest but, in the long run. the money rate of interest will change in the same direction and in the same proportion as prices. Thus, the real rate of interest will not be affected by the monetary policy. Similarly, level of unemployment may be pegged at a level less than what they describe as the "natural" rate of unemployment in the short run by a suitable monetary policy, that is, by increasing the stock of money which leads to rise in prices. In the short run the money wages do not rise as rise in prices is unanticipated. So profits rise and consequently output and employment rise. But, in the long run the rise in prices will be fully anticipated by workers and provided for in the wage bargains so that, in the long period, money wages will rise in proportion with money prices and there will be no change in the real wage rates. The rate of unemployment will fall back to the "natural" rate.

In view of the above arguments, the neo: monetarists advocate a monetary policy which simply aims at increasing the stock of money more or less at the same rate at which the national output is increasing. According to them, only this way is it possible to prevent money from becoming a major cause of economic disturbance.

SELF-CHECK EXERCISE-20.1

Q1. What is the role of monetary policy in general?

20.4 ROLE OF MONETARY POLICY IN DEVELOPING COUNTRIES

What are the challenges for monetary policy in the developing countries? Are these challenges different from those that monetary policy has to face in developed countries? These are pertinent questions which can be raised in the context of developing countries.

There is no reason to suppose that the basic problems of monetary policy in a developing country are different from the problems that monetary policy faces in development countries. However, there might be certain aspects of monetary policy which, in its context of developing countries, need a greater emphasis than they would need in developed countries. The most important concern of developing countries is the attainment of an accelerated rate of growth through planned economic development. Monetary policy in these countries must sub serve this objective.

Planned economic development requires a stable economic environment in the sense of a stable internal price level and stable exchange value of the national currency. The objectives of monetary policy in the developing countries are, therefore related to money and credit control, price stabilization, exchange rate stabilization and, above all, economic development. Price stabilization, however, does not imply absolute price stability. On the contrary, many economists are of the opinion that price stabilization objective should permit modest rise in the price level, say, around 5 per cent or so per annum on the average. As a matter of fact in a developing economy, the growth of money supply must keep pace with the growth of output, otherwise there is bound to arise deflationary pressure which, by reducing profits and causing losses, can. block economic development. Thus an appropriate monetary policy in a developing economy can help in achieving the objective of accelerated economic growth.

By helping to achieve an accelerated rate of growth the monetary policy in a developing economy can also facilitate the attainment of another important allied objective, namely, increasing employment and decreasing unemployment. In most of the developing countries the existence of unemployment and underemployment is a major problem. It is true that neo-monetarists led by Friedman do not set a great store by monetary policy in order to increase employment and reduce unemployment beyond what they describe as the natural rate of unemployment: But the concept of natural rate of unemployment is neither precise nor fixed.

An almost universal phenomenon in the developing countries is the phenomenon of external disequilibrium. There is chronic deficit in their balance of payments. This deficit is a natural corollary of their growing import requirements, and their inability to increase exports adequately. Monetary policy in developing countries, must, therefore, be related to the objective of attaining external balance also. Since the developing, countries generally suffer from balance-of-payment deficits this will call for a monetary policy that would raise the rates of interest which could attract foreign funds into the country. Mundell, Sodeisten and others have argued that monetary policy could be used to achieve external balance while fiscal policy could be more effective to achieve internal balance.

Insofar as the monetary policy in developing countries is related to the objectives of internal stability and external stability, it may carry the false impression that there is no difference between the role of monetary policy in a developed country and its role in a developing country. In fact, it is not so. Firstly, monetary policy in developed countries is primarily concerned with maintaining full employment and "fine-tuning" the economy in order to prevent cyclical ups and downs. On the other hand monetary policy in developing countries is primarily concerned with accelerating the rate of economic development. The objectives of internal and external stability, important though they are, are subservient to the objective of rapid economic development.

There are other aspects which monetary policy in developing countries must take care of, while they hardly come into the picture in developed countries. For example, the process of economic development in developing countries is accompanied by the process of progressive magnetization of the subsistence sector. In consequence of it, the demand for money increases. Moreover, economic development requires increased savings and this can be facilitated by expanding the use of money. In the absence of money, people keep their savings in the form of real assets such as gold, ornaments, jewellery and real estate which

are not productive employment of savings. Saving in the form of money, on the other hand, can not only bring in income to those who save but also acts as a conduit pipe which brings these savings to those who invest these funds productively, thus helping in the process of economic development. Monetary policy in developing countries must take care of these aspects. It should, among other things, aim at bringing the traditional subsistence sector of the economy within the sphere of money economy. This will require an expansionary monetary policy. An expansionary monetary policy, as we observed in the beginning also, is necessary in developing economies for mobilising resources for rapid economic development. A mildly rising price level which is almost unnoticed provides more resources through "forced" savings. Moreover, it changes the distribution in favour of those who save and invest and against those whose propensity to consume is high. All this helps in economic development.

As regards external stability a mildly rising price level need not imply that monetary policy in developing countries should match it with lowering the exchange rate. Monetary policy in developing countries should normally avoid devaluation. It is because they require to import highly valued capital goods for economic development. Devaluation is bound to inflate their import bills while there is little change that it will increase their exports. The exports of developing countries mostly consist of goods with low elasticity of demand which result in unfavourable terms of trade for them.

SELF-CHECK EXERCISE-20.2

Q1. Discuss the role of monetary policy for the developing countries.

20.5 RADCLIFFE COMMITTEE REPORT

The British government appointed in May, 1957, a committee under the chairmanship of Lord Radcliffe to enquire into the working of the monetary and credit system of the country and to make recommendations theorem. The report presented by this committee in August, 1959, is referred to as the Radciliffe Committee Report.

The Radciliffe Committee Report basically impinges on the connection between money supply and the level of economic activity. On the premise that the important variable determining level of employment and income and the rate of rise in general prices is the level of aggregate demand, the committee investigated how money supply was supposed to influence the aggregate demand.

The Committee examined both the direct and the indirect mechanism. The direct mechanism which is emphasis and in the classical quantity theory approach was rejected by the committee as an explanation of the relation between money supply and economic activity because it found no strict relationship between supply of money and level of economic activity Moreover, it argued that in a highly developed financial system with money and financial intermediaries, serious difficulties arise in identifying some quantity as "the supply of money". In addition and more importantly, the committee rejected the concept for supposing that there is any limit to velocity of circulation, "it is a static concept that tells nothing directly of the motivation that influences the level of total demand." According to it, in a modern monetary system with highly developed financial intermediates providing substitutes for narrowly defined money, the velocity the growth of aggregate demand (MV) by reducing the money supply (M), the Non- Bank Financial Intermediates (NBFI) could activate idle demand deposits and currency thus raising velocity (V) sufficiency to offset the restrictions on the money supply, with the result that the aggregate demand (MV) will be unaffected. Furthermore the volume of trade credit could also be lengthened, thus providing an effective offset to monetary stringency.

Hence, the committee rejected the direct mechanism and along with it the quantity theory approach to monetary theory and policy. The committee, however, rejected the indirect mechanism also which emphasis the effect of change in money supply on aggregate demand through change in the rate of interest. It should no evidence that higher interest

rates, by themselves reduced consumption. Nor did if find any evidence that interest rates were important for investment expenditure decisions of large firms. Expenditure decisions of nationalised enterprises were also intensive to changes in interest rates. The same was true local bodies expenditure also. Even the representative of smaller firms were skeptical about the effect of interest rate change on their expenditure decisions. So, the Committee concluded that "as the system works at present, changes in the area of interest only very exceptionally have direct effects on the level of demand."

But, what is liquidly ? It is hard to come by a precise definition of liquidity in the Radcliffe Committee Report .R.S. Sayers one of the member of the Committee, seems to define it elsewhere as follows "...we must interpret it widely enough to include credit that can be brought into existence concurrently with a decision to exercise demand." The Radcliffe 'Report itself mentions that "... spending is not limited by the amount of money is existence : but is related to the amount of money-people think they can get hold of, whether by receipt to income, for instance from sales), by disposal of capital assets or by borrowing.

Thus, liquidly seems to refer to the amount of money people think they can get hold of from (1) their own resources and (2) from unused borrowing power. If liquidly in this sense is reduce. The reverse effect takes place when liquidly in increased. This is one element in the transmission mechanism suggested in the Radcliffe Report.

The other important element in this mechanism bears upon the policy aspect It is concerned with the way in which the monetary authority can influence the overall level of liquidly and hence the level of aggregate expenditure. The policy recommendations is that the liquidly can be influenced not by changing the general of interest as such but by changing the whole structure of interest rates. Rising interest rates reduce liquidly because the reduce the capital value of assets held by individuals and financial institutions. The former reduces the "old" liquidly of individual on spenders which depends their own individual resources. The latter, that is, reduction in the capital value of assets held by financial institutions reduces "new" liquidly which depends on unused borrowing power of individuals and firms or the lending powers of the financial institutions. Thus, the argument seems to imply that while rising interests may not influence significantly the demand for loanable funds, they would significantly reduce the available supply of loanable funds by reducing the overall liquidly in the system. This, is turn, is bound to reduce aggregate expenditure as the public cannot get hold of adequate due to reduced liquidly.

The above line of reasoning puts the entire structure of interest rates at the center of monetary, action in the scheme of suggested in the Radcliffe Report.

But the Committee did not put too much faith in the efficacy of monetary policy even in this sense. "But, says the report" "when all has been said on the possibility of monetary action and of its efficacy, our conclusion is that monetary measures cannot alone be relied upon to keep in nice balance an economy subject to major strains from both without and within." The report does not envisage the use of monetary as playing other than subordinate role in ordinary times. It recommendations greater reliance on fiscal policy and, in extra-ordinary times, measures that strike directly at the overall liquidly, viz., control of capital issues, bank advances or loans and consumer credit.

SELF-CHECK EXERCISE-20.3

Q1. Write a note on the Radcliffe Committee Report in connection with monetary policy

20.6 MONETARY AND CREDIT PLANNING

Monetary and credit planning refers to controlling of the growth of money supply and credit in an economy in order to achieve some pre-determined objective or objectives. In fact, in a planned economy as distinct from a free- market economy, the planning of the growth of money supply and credit becomes indispensable, if the over-all economic planning is to be meaningful and effective.

The nature and contours of monetary and credit planning in a planned economy like India will depend on the objectives of economic planning in the country concerned. In theory, monetary and credit planning may have one or more of the following objectives:

a. maximizing output from the existing productive capacity of economy.
b. maximizing employment or minimizing unemployment over-time;
c. attaining a stable price level;
d. attaining a targeted rate of growth in national income;
e. reduction of inequalities between regions, sectors and classes of people, and
f. acquiring a favourable balance of payment

In less developed economies seeking to accelerate the pace of economic development through economic planning, the most general objective of economic planning is the attainment of a targeted rate of growth in national income. However, no less important are the allied objectives of eliminating income. inter-regional and inter-sectoral imbalances in development, on the one hand, and attaining growth with stability, on, the other. Monetary and credit planning becomes essential because the productive activities cannot be carried on without the assistance of adequate supply of money and credit.

Coming to the technique of monetary credit planning, it has to be rooted in the relevant monetary theory. If we took the quantity theory of money as our theoretical frame of reference, there e two variables which are of strategic importance in determining the planned rate of growth of money supply in the economy. One of these two is planned rate of growth of the national output (Y) and the other is the parametric variable, K, or its reciprocal V. You can well recognizes that K is the institutional constant of the Cambridge version of the Quantity Theory which is the reciprocal of the Fisher's income velocity of money. It (i.e. K) refers to the friction of national output which people to hold in the form of money. It should also be remembered that it is assumed to be constant because the demand for money in this version is assumed to be merely a transaction demand. But in a planned developing economy wherein institutional changes are taking place at rather a forced pace, the value of K cannot be assumed to be constant. The penetration of the institution of money itself into a larger and larger segment of the economy increases the value of K, especially when we also take note of the fact that money has an asset demand also. The asset demand for money in a planned developing economy has an increasing tendency. On these considerations a monetary plan which is consistent with the planned growth in the national income (Y) and a stable price level must be linked to the targeted rate of growth in national income and the estimate of the value of the K variable. Since stable price level does not imply absolute growth, the monetary plan will have to take care of that too in order to determine the volume of demand for money over the plan period and to prepare a plan of money supply to meet that demand.

In view of the basic principles stated above, the time rate of growth in the demand for money is determined by the following equation:

$$\frac{dM}{dt} = \frac{dK}{dt} + \frac{dP}{dt} + \frac{dY}{dt}$$

However, the above equation implicitly assumes the income-elasticity of demand for money to be unity which may not be a valid assumption. The exact value of income elasticity of demand for money has to be discovered empirically. This equation can help in preparing a macro-monetary plan for the economy.

Once we determine the macro-monetary plan consistent with the objectives of the overall economic plan, it can be further split up into cash component (c) and a demand deposits component (DD) by finding out empirically the average ratio of currency to the money supply (m-currency with the public plus demand deposits). From this we can form as idea of required bank deposits. After allowing for the portion of these deposits which would

be required for statutory cash reserves and investment in government securities, we can make an estimate of the value of credit which can be made available by banking system to the business sector comprising both the private and the public sector. Thus monetary planning and credit planning are intertwined.

SELF-CHECK EXERCISE-20.4

Q.1 Discuss monetary and credit planning.

20.7 SUMMARY

Having thus determined the total available. credit, it can be apportioned between different sectors and regions of the economy according to the priorities laid down in the over-all economic plan. Since the principles of monetary and credit planning explained above suggest that the growth in total money supply should be linked to the planned growth of national income, therefore a valid criterion for apportioning total credit between different sectors and the regions to the national income. Other considerations may also become relevant depending upon the professed objectives of the overall economic plan, such as correcting regional imbalances and alleviating uneven distribution of facilities between the big and small producers, etc.

20.8 GLOSSARY

- **Monetary Policy**: is the control of the quantity of money available in an economy and the channels by which new money is supplied.
- **Radcliffe Committee**: The Report of the Committee on the Working of the Monetary System (commonly known as The Radcliffe Report) is a report published in 1959 about monetary policy and the workings of the Bank of England. It is named after its chairman, Cyril Radcliffe, The report started collecting evidence in 1957 and was the result of dissatisfaction with the workings of monetary policy in the 1950s. It is still an important reference document on the Bank of England.
- **Non-banking Financial Intermediaries (NBFIs)**: are financial institutions that do not have a full banking license and, therefore, cannot accept deposits from the public in the same way traditional banks do.
- **Velocity of Money:** is a measurement of the rate at which consumers and businesses exchange money in an economy.

20.9 ANSWERS TO SELF-CHECK EXERCISE

Self-Check Exercise-20.1

Ans. Q1. Refer to Section 20.3

Self-Check Exercise-20.2

Ans. Q1. Refer to Section 20.4

Self-Check Exercise-20.3

Ans. Q1. Refer to Section 20.5

Self-Check Exercise-20.4

Ans. Q1. Refer to Section 20.6

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20.11 TERMINAL QUESTIONS

Q1. What is the role of Monetary Policy in General?

Q2. Discuss the role of Monetary Policy with special reference to the Developing Countries.

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INDIAN MONEY MARKET

STRUCTURE

21.1 INTRODUCTION

The money market in India is a crucial segment of the financial system where short-term borrowing and lending take place. The maturity period for money market instruments ranges from one day to one year. This market operates under the regulation of both the Reserve Bank of India (RBI) and the Securities and Exchange Board of India (SEBI). Due to the high volume and large transaction sizes, the market is primarily controlled by a limited number of major participants. In this unit, we will explore the structure of the Indian money market, its prevailing conditions, and the challenges it faces within the financial system.

21.1 LEARNING OBJECTIVES

By the end of this unit, you will gain an understanding of:

- The structure and key features of the Indian money market
- The strengths, weaknesses, and challenges faced by the Indian money market
- The strategies and reforms implemented to enhance the efficiency of the Indian money market
- The role, functions, and operational framework of NABARD (National Bank for Agriculture and Rural Development)

21.3 INDIAN MONEY MARKET

Money market refers to a mechanism whereby on one hand borrowers manage to obtain short term loanable funds and on the other, lenders succeed in getting creditworthy borrowers for their money. In any money market, commercial banks are the most important lenders. These banks are, however, not merely the lenders of money, they also create credit. The central bank's role is important as the controller of credit.

According to Y. Venugopal Reddy, “The money market is expected to perform three broad functions: First, it should provide an equilibrating mechanism to even out demand for and supply of short-term funds. Second, it should provide a focal point for central bank intervention for influencing liquidity and the general level of interest rates in the economy. Third, it should provide reasonable access to providers and users of short-term funds to fulfill their borrowing and investment requirements at an efficient and market clearing price”.

SELF-CHECK EXERCISE-21.1

Q1. What is meant by money market?

21.4 OBJECTIVES OF THE INDIAN MONEY MARKET

The key objectives of the Indian money market are as follows:

- Provide a platform for efficiently utilizing surplus short-term funds.
- Offer a mechanism to address temporary financial shortages.
- Enable the Central Bank to regulate liquidity in the economy through market interventions.
- Ensure convenient access to short-term funds for borrowers, allowing them to meet their financial needs promptly, sufficiently, and at competitive costs.

SELF-CHECK EXERCISE-21.2

Q1. What are the main objectives of money market?

21.5 STRUCTURE OF THE INDIAN MONEY MARKET

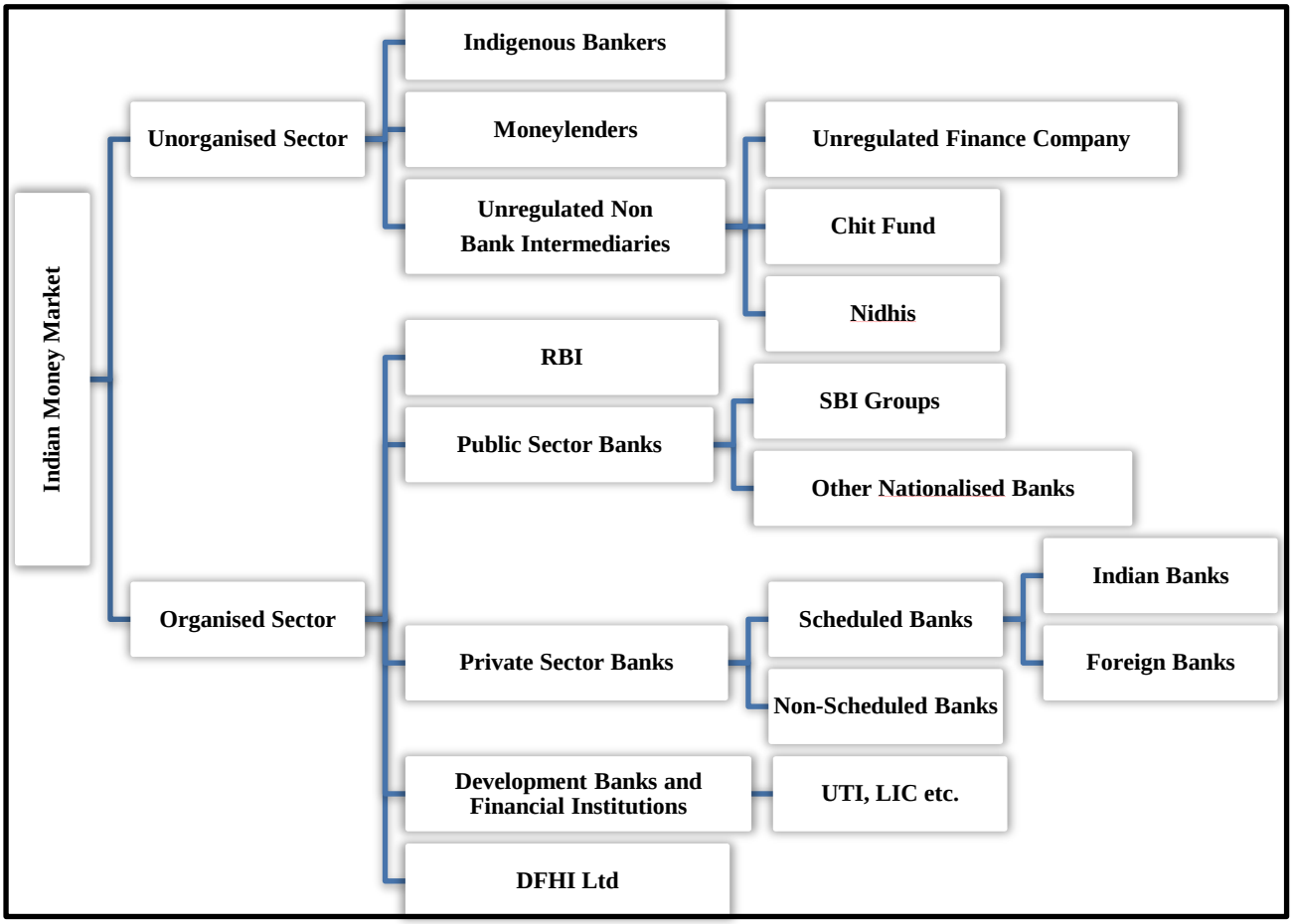
The Indian money market remains relatively underdeveloped compared to advanced financial markets such as those in New York and London. Unlike these well-integrated markets, the Indian money market functions as a fragmented entity, broadly classified into two segments:

21.5.1 Unorganised Money Market in India

21.5.2 Organised Money Market in India

There are significant differences between these two sectors. The **unorganised money market** primarily consists of money lenders and indigenous bankers, operating independently without a structured regulatory framework. In contrast, the **organised money**

market comprises nationalised and private commercial banks, foreign banks, co-operative banks, and the Reserve Bank of India (RBI). While the unorganised sector lacks uniformity and integration, the organised sector operates as a well-structured and cohesive system. The Reserve Bank of India serves as the apex authority, regulating and overseeing the organised money market.



21.5.1 Unorganised Money Market in India

The unorganized segment of the Indian money market consists of indigenous bankers, moneylenders, and unregulated non-bank financial intermediaries such as chit funds and Nidhis. While moneylenders generally provide small-scale loans, certain financial companies, chit funds, and indigenous bankers conduct significant business operations. These entities follow traditional banking practices and primarily serve small towns and rural areas. The borrowers in this sector typically include farmers, artisans, small traders, and small-scale producers who lack access to formal banking institutions. The key components of India's unorganized money market are as follows:

i) **Indigenous Bankers:** Indigenous bankers are individuals or private firms that accept deposits and provide loans, functioning as informal banks. Their operations remain largely unregulated. Historically, these bankers played a crucial role in India's financial system, particularly during the ancient and medieval periods. However, the emergence of modern banking, especially during British rule, led to a decline in their influence. With the expansion of commercial and cooperative banks, their scope has further diminished. Despite this, thousands of indigenous bankers still operate, particularly in the western and southern regions of India, continuing their traditional banking activities. These bankers often engage in both financial and non-financial

businesses, keeping them intertwined. Their lending practices are not subject to supervision or regulation, allowing them to charge exorbitant interest rates and operate independently of the Reserve Bank of India's monetary policies.

ii) Moneylenders: Moneylenders provide credit to small borrowers such as marginal and small farmers, agricultural laborers, artisans, factory and mine workers, low-income employees, and small traders. They often impose excessively high interest rates and employ exploitative practices, such as manipulating loan records to the disadvantage of borrowers. Moneylenders can be classified into two categories:

- **Professional Moneylenders** – Those whose primary occupation is lending money.
- **Non-Professional Moneylenders** – Those who lend money as a secondary activity, with their primary income derived from other sources.

The operations of moneylenders are highly localized and lack uniformity in their methods. Since their lending activities are neither regulated nor supervised, borrowers—especially from disadvantaged backgrounds—are frequently subjected to severe financial exploitation. In the absence of adequate institutional credit facilities, moneylenders continue to be a necessary but problematic source of finance. Although several measures have been introduced to regulate their activities, weak enforcement due to political constraints allows exploitative practices to persist. Strengthening institutional credit sources is widely considered the best way to protect small borrowers from such exploitation.

iii). Unregulated Non-Bank Financial Intermediaries: India's unregulated non-bank financial intermediaries include various finance companies, chit funds, and Nidhis. Many finance companies raise substantial funds through deposits, borrowings, and other means, offering loans primarily to wholesale traders, retailers, artisans, and self-employed individuals. However, the interest rates charged by these companies are extremely high, often ranging from 36% to 48%.

Chit funds operate across various Indian states, with a significant concentration in Tamil Nadu and Kerala. These funds function as savings and credit associations, pooling money from members to provide periodic payouts. Additionally, Nidhis, which are mutual benefit funds, operate mainly in South India, offering financial services exclusively to their registered members.

21.5.2 Organised Money Market in India

The structured segment of India's money market comprises several key financial institutions, including the Reserve Bank of India (RBI), the State Bank of India, commercial banks, cooperative banks, foreign banks, financial corporations, mutual funds, and the Discount and Finance House of India Limited (DFHI). This segment is well-regulated and highly integrated. Major financial hubs of the organised money market include Mumbai, Kolkata, Chennai, Delhi, Bangalore, and Ahmedabad, with Mumbai serving as the most significant center. The city's prominence stems from the presence of the RBI's headquarters, various commercial banks, two major stock exchanges, a bullion exchange, and a well-structured market for government securities. The key components of India's organised money market include:

(i) The Call Money Market,
(ii) The Treasury Bill Market,
(iii) The Commercial Bill Market,
(iv) The Certificates of Deposits Market,
(v) Money Market for Mutual Funds and
(vi) The Commercial Paper Market.

(i) The Call Money Market : The call money market is one of the most developed segments of the money market and serves as a crucial indicator of changes in the financial system. In India, this market is primarily concentrated in Mumbai, Chennai, and Kolkata, with Mumbai being the most significant hub. The call money market, also known as the inter-bank call money market, facilitates short-term borrowing and lending transactions, typically for a single day. Scheduled commercial banks, cooperative banks, and the Discount and Finance House of India (DFHI) are the primary participants in this market. Additionally, in specific circumstances, institutions such as the Life Insurance Corporation (LIC), Unit Trust of India (UTI), General Insurance Corporation (GIC), Industrial Development Bank of India (IDBI), and the National Bank for Agriculture and Rural Development (NABARD) are allowed to act as lenders. Brokers also play a vital role in facilitating transactions within this market.

(ii) The Treasury Bill Market: Treasury bill markets are markets for treasury bills. These bills, also known as T-bills, are short term money market instruments. The RBI on behalf of the government tries to curb liquidity shortfalls. It is a promissory note with a guarantee of payment at a later date. Normally, the treasury bills should be issued so as to meet temporary revenue deficit over expenditure of a Government at some point of time. But, in India, the treasury bills are, nowadays, considered as a permanent source of funds for the Central Government. Treasury bills or T-bills have zero-coupon rates, i.e. no interest is earned on them. Individuals can purchase T-bills at a discount to the face/value. Later, they are redeemed at a nominal value, thereby allowing the investors to earn the difference. For example, an individual purchase a 91-day T-bill which has a face value of Rs.100, which is discounted at Rs.95. At the time of maturity, the T-bill holder gets Rs.100, thus resulting in a profit of Rs.5 for the individual. The following four types of treasury bills are auctioned in India:

1) **14-Day Treasury Bills**: With the discontinuance of tap treasury bills, the Central government had introduced the scheme of 14-day treasury bills to provide the State governments, foreign central banks and specified bodies with an alternative arrangement to invest their surplus funds. The first auction of these bills was held on June 6, 1997. The auction of these treasury bills was discontinued from May 14, 2001.

2) **91-Day Treasury Bills:** Earlier there were two types of 91-clay treasury bills — ordinary and ad hoc. With effect from April 1, 1997 ad hoc treasury bills were discontinued. In 1992-93, a scheme for the issue of 91-day treasury bills with the RBI participation was introduced.

3) **182-Day Treasury Bills:** Government of India introduced these bills in November 1986 with the recommendations of Sukhomoy Chakarvarty Committee. Although, with the introduction of 364 days treasury bills, the auction of 182 day treasury bills was discontinued in 1994. But, these bills were reintroduced with effect from May 26, 1999. Auction of these treasury bills was discontinued from May 14, 2001 and reintroduced from April 6, 2005.

4) **364-Day Treasury Bills.** 364-dny treasury bills were introduced in April 1992. Since then these treasury bills are auctioned on a fortnightly basis in a regular manner. These treasury bills are not discountable with the RBI. However, they offer short-term investment opportunities to banks and other financial institutions. Since 364-dny treasury bills constitute a safe avenue for investment, the auctions of these treasury bills have evoked good response.

During 2011-12, the total amounts raised through 91day, 182-day and 364-day treasury bills were Rs. 33,22,193 crore, Rs. 65,601 crore and Rs. 66,371 crore respectively (upto December 2011).

(iii) The Commercial Bill Market: The commercial bill market is a specialized segment of the financial market that primarily deals with trade or commercial bills. These bills are typically drawn by one merchant firm on another and originate from commercial transactions. Their primary purpose is to provide financial support to sellers when buyers delay payments. However, in India, this market remains underdeveloped due to the dominance of the cash credit system in bank lending, buyers' reluctance to commit to fixed payment schedules, and inconsistencies in the drafting of bills. Despite these challenges, commercial bills serve as a valuable credit instrument for both businesses and banks.

(iv) The Certificate of Deposit (CD) Market: A Certificate of Deposit (CD) is a financial instrument issued by banks to acknowledge the receipt of funds deposited for a predetermined period. The Reserve Bank of India (RBI) introduced CDs in March 1989 to diversify money market instruments and enhance flexibility in managing short-term surplus funds for investors. Initially, scheduled commercial banks issued CDs in multiples of ₹25 lakh, later reduced to ₹10 lakh, with a minimum issue size of ₹1 crore. The maturity period for CDs ranges from three months to one year. In 1993, six financial institutions—IDBI, ICICI, IFCI, IRBI, SIDBI, and the Export-Import Bank of India—were authorized to issue CDs with tenures between one and three years. Banks typically offer attractive interest rates on CDs, making them a preferred investment until maturity. As of March 2011, the total outstanding amount of CDs issued by commercial banks stood at ₹3,41,054 crore, with an effective interest rate of 9.47% as of November 2011.

(v) The Commercial Paper Market : The Commercial Paper (CP) is a short term instrument of raising funds by cooperates. It is essentially a short of unsecured promissory note sold by the issuer to a banker or a security house. Following the recommendations of the Vaghual Committee, the CP was introduced in the money market in January 1990. A listed company having working capital not less than Rs 5 crore can issue CP. Again the CP can be issued in multiples of Rs 25 lakhs subject to a minimum of Rs 1 crore for a maturity period varying between three to six months. CPs would be again freely transferable by endorsement and delivery.

vi) Money Market for Mutual Funds: In April 1992, the Reserve Bank of India (RBI) launched the Money Market Mutual Funds (MMMFs) scheme to provide individual investors with an additional short-term investment option. However, the scheme initially failed to gain traction due to unattractive guidelines. To address this, the RBI introduced revisions in November 1995, making the scheme more appealing and flexible. The updated guidelines permitted banks, public financial institutions, and private financial institutions to establish MMMFs. Additionally, restrictions on investments in individual instruments were lifted. Since April 1996, the RBI has allowed MMMFs to issue units to corporate enterprises and other investors on par with previously introduced mutual funds.

SELF-CHECK EXERCISE-21.3

Q1. Explain the unorganised money market in India

Q2. What are the main constituents of the organised money market in India

21.6 CHARACTERISTICS AND DEFECTS OF INDIAN MONEY MARKET

The Indian money market has several unique characteristics, but it also faces significant challenges. These include inadequate integration, inconsistencies in interest rates, seasonal fluctuations, fund shortages, the absence of a well-developed bill market, and inefficient management. The major shortcomings are outlined below:

i) **Inadequate Integration:** The Indian money market lacks sufficient integration, as its organized and unorganized sectors function independently with minimal interaction. This separation weakens the overall financial system, making it difficult to establish a cohesive national money market. Although Mumbai has emerged as a strong

financial hub, competition among commercial banks, cooperative banks, and foreign banks—especially in rural areas—remains intense. Furthermore, the Reserve Bank of India's (RBI) monetary policies have not been entirely effective in bridging these gaps.

ii) **Fund Shortages:** A persistent issue in the Indian money market is the shortage of funds, with demand for loans exceeding supply. Several factors contribute to this imbalance. Low per capita income leads to limited savings, and inadequate banking infrastructure, along with a lack of financial awareness, further restricts fund mobilization. In rural areas, limited banking access compels people to hold onto their savings rather than invest them. Additionally, the prevalence of black money and an expanding parallel economy exacerbate the scarcity of financial resources. While the expansion of commercial and cooperative bank branches has improved fund mobilization to some extent, acute poverty remains a key barrier to addressing this issue fully.

iii) **Insufficient Banking Facilities:** Despite the widespread expansion of commercial banks, banking services remain inadequate, particularly in rural areas. Low income levels hinder the mobilization of small savings, making it difficult for financial institutions to operate effectively. Furthermore, banking frauds and financial scams have exposed weaknesses in the regulatory framework, highlighting the sector's need for better governance and oversight.

iv) **Fragmented Interest Rate Structure:** The Indian money market is characterized by multiple interest rates across different sectors. In the unorganized rural sector, interest rates tend to be significantly higher and vary depending on the borrower and purpose of the loan. Even within the organized sector, inconsistencies in interest rates persist, affecting overall efficiency. While some progress has been made in narrowing these gaps, disparities in lending rates continue to hinder financial stability.

v) **Underdeveloped Bill Market:** A well-functioning bill market enables businesses to secure short-term funds by discounting bills of exchange with banks. However, in India, the bill market remains underdeveloped due to an overreliance on cash transactions, high discount rates, and concerns over bill dishonor. These factors discourage businesses from utilizing this financial instrument, limiting liquidity in the market.

vi) **Presence of an Unorganized Money Market:** The Indian financial system operates with a dual structure, consisting of both organized and unorganized money markets. While the organized sector includes institutions like the RBI, commercial banks, and financial institutions, the unorganized sector comprises moneylenders, indigenous bankers, chit funds, and Nidhis. The RBI has attempted to regulate indigenous banking activities, but these efforts have largely been unsuccessful, restricting its overall control over the financial system.

vii) **Seasonal Liquidity Constraints and Interest Rate Volatility:** Due to India's agrarian economy, demand for funds fluctuates seasonally. From October to June, agricultural and trading activities create a high demand for credit, leading to liquidity shortages and rising interest rates. Conversely, during the monsoon and slack seasons, demand declines, causing interest rates to drop. These cyclical fluctuations create instability, which is detrimental to long-term economic growth.

viii) **Inefficient and Corrupt Management:** Another critical issue in the Indian money market is inefficiency and corruption in financial institutions. Poor recruitment practices, inadequate training, weak performance evaluations, and flawed promotion systems contribute to managerial inefficiency. Moreover, instances of corruption among banking officials undermine trust and hamper the sector's overall efficiency. A

well-trained, ethical workforce is essential for the money market's smooth functioning and growth.

The Indian money market, despite its gradual progress, still faces several structural deficiencies. While policy interventions by the RBI have helped address some of these issues over time, there is a need for continued reforms to enhance market depth, improve financial integration, and ensure greater stability in the system.

SELF-CHECK EXERCISE-21.4

Q1. Write the characteristics of Indian money market.

Q2. Highlight the drawbacks of Indian money market

21.7 UNDERDEVELOPMENT OF INDIAN MONEY MARKET

The Indian money market, despite some progress, remains relatively underdeveloped compared to the advanced money markets of London and New York, particularly in terms of resources, organizational stability, and flexibility. However, India boasts the most developed banking system among developing countries. Yet, the overall structure of the money market remains lacking in several areas. The underdevelopment of the Indian money market can be attributed to several key factors:

Firstly, there is an insufficient and inconsistent supply of short-term assets such as treasury bills, bills of exchange, and short-term government bonds.

Secondly, the market suffers from the absence of a well-organized banking system, which is essential for the effective functioning of a money market.

Thirdly, sub-markets like the acceptance market and the commercial bill market are virtually nonexistent in India's money market.

Fourthly, there is a failure to develop a market for short-term assets, resulting in a lack of dealers who could act as intermediaries between the government and the banking sector.

Fifthly, the Indian money market faces a significant lack of coordination among its various components.

Sixthly, it has struggled to attract foreign capital.

Finally, considering its fund supply and liquidity position, the Indian money market cannot be considered fully developed.

SELF-CHECK EXERCISE-21.5

Q2. Why is the Indian money market termed an underdeveloped money market?

21.8 MEASURES TO STRENGTHEN THE INDIAN MONEY MARKET

In recent years, serious efforts have been made by the Government of India and the Reserve Bank of India (RBI) to remove the shortcomings of Indian money market. The major money market reforms came after the recommendations of S. Chakravarty Committee and Narsimham Committee. These were major changes which helped unfold the banking potential of India and shape our financial institutions to world class standards. It was soundness of these reforms which helped our economy to easily tide over the economic crisis which had gripped the world in 2008. These are discussed below:

i. **Deregulation of Interest Rates:** Interest rates are now subject to market conditions as the ceiling limit on them have been removed by RBI after 1989.The important interest rates in India are-Bank rate, Medium-term lending rate, Prime Lending rate, Bank Deposit rate, Call rate, Certificate of Deposit rate, Commercial paper rate etc. This deregulation got a major push after the economic liberalisation of 1991.

Chakravarty Committee was a strong proponent of free and flexible interest rates to promote savings, investments, government financial system and stability. RBI removed the upper ceiling of 16.5 per cent and instead fixed a minimum of 16 per cent per annum. The rates were further relaxed after the Narasimhan Committee report in 1991.

ii. **Remitting the Stamp Duty:** In August 1989, the government remitted the stamp duty on usance bills which was considered a major administrative constraint in the use of bill system. This measure has failed to induce use of commercial bills. Unless effective measures are undertaken to discourage cash credit system, the government's decision to remit the stamp duty alone would not change the situation in favour of the use of bill system.

iii. **Reforms in Call and Term Money Market**: It was mainly an inter-bank market until 1990. Only the Unit Trust of India and the Life Insurance Corporations were allowed to operate as lenders since 1971. During the 1990s, the RBI's policy relating to entry into the Call Money Market was liberalized to provide more liquidity. Now, banks and primary dealers are operating as both lenders and borrowers, while a number of non-bank financial institutions and mutual funds are operating only as lenders.

iv. **Introduction of new Money Market Instruments:** RBI introduced many new market instruments to diversify the market. These were 182-day treasury bills, 364-day treasury bills, certificates of deposits and commercial paper. 182-day treasury bills were systematically promoted by the discount and finance House of India and were the first security sold by auction for financing the fiscal deficit of the central government. It also developed a secondary market in these bills and they became popular with the banks. Like 182-day treasury bills 364-day treasury bills can be held by the commercial banks for meeting Statutory Liquidity Ratio. Certificate of Deposit (CDs) gained a considerable market in 1996-97. The Commercial Papers (CPs) as money market instrument are now more than twenty years old. The Indians' market is driven by the demand for CP by scheduled commercial banks which, in turn is determined by bank liquidity. The secondary activity is subdued in the Indian CP market due to most investors' preference to hold the instrument on account of higher risk-adjusted return relative to those of other instruments.

v. **Introducing Money Market Mutual Funds**: They were introduced in India in April 1991 to provide an additional short-term avenue to investors and bring money market instruments within the reach of individuals.

vi. **Setting up Discount and Finance House of India**: Discount and Finance House of India was set up in 1988 to impart more liquidity and also further develop the secondary market instruments. However, maturities of existing instruments like CDs and CPs were gradually shortened to encourage wider participation. Likewise ad hoc treasury bills were abolished in 1997 to stop automatic monetisation of fiscal deficit.

vii. **Introducing Liquidity Adjustment Facility:** The RBI introduced Liquidity Adjustment Facility (LAF) in June 2000 which was operated through fixed repo rate and reverse repo rate. This helped in the establishment of interest rate as an important monetary instrument and granted greater flexibility to the RBI to respond to the market needs and suitably adjust liquidity in the market. Repo and Reverse Repo rates were introduced in 1992 and 1996 respectively.

viii. **Regulation of Non-Banking Financial Companies (NBFCs):** The RBI Act was amended in 1997 to bring the NBFCs under its regulatory framework. A NBFC is a company registered under Companies Act, 1956 and is involved in making loans and advances, acquisition of shares, stocks, bonds, securities issued by government etc. They are similar to banks but are different from the latter as they cannot accept

demand deposits and cannot issue cheques. They have to be registered with the RBI to operate within India. There are a host of regulations which NBFCs have to follow to smoothly operate within India like accept deposit for a minimum period, cannot accept interest rate beyond the prescribed rate given by the RBI.

ix. **Debt Recovery:** The RBI has set up special Recovery Tribunals which provide legal assistance to banks for recovery of dues.

SELF-CHECK EXERCISE-21.6

Q1. Outline the measures to improve the functioning of the Indian money market.

21.9 NATIONAL BANK FOR AGRICULTURE AND RURAL DEVELOPMENT (NABARD)

It is the apex banking institution providing finance for agriculture and rural development. NABARD was established on July 12, 1982 with paid-up capital of Rs. 100 crore having 50:50 contribution of Indian Government and RBI. Set up with an initial capital of Rs.100 crore, its' paid up capital stood at Rs.15080 crore as on March 31, 2021. Consequent to the revision in the composition of share capital between Government of India and RBI, NABARD today is fully owned by Government of India.

NABARD was established with the aim for providing credit for promotion of agriculture, small scale industries, cottage and village industries, handicrafts and other allied economic activities in rural areas with to promote integrated rural development and securing prosperity in rural areas.As an apex institution in rural credit structure, NABARD provides refinance facilities to various such financial institutions which provide loans to promote productive activities in rural areas. To meet its loan requirements, NABARD obtains funds from Government of India, World Bank and other agencies. The most important source of NABARD’s funds are now Rural Infrastructure Development Fund (RIDF) deposits, followed by market borrowings. Besides, it also utilises the funds of National Rural Credit Fund.

21.9.1 Functions of NABARD

The following are some of the important functions performed by NABARD:

i. The National Bank is working as an apex body for meeting the credit requirements of the rural sector in the form of production and investment credit to agricultural, small scale and village industries, rural crafts, artisans and other allied economic activities.

ii. The Bank provides short-term, medium-term and long term credit to state co-operative banks, RRBs, Land Development Banks and Commercial Banks for its investment in agricultural and other allied sectors.

iii. The Bank gives long-term assistance to State Governments (up to 20 years) for subscribing to the share capital of co-operative credit institutions.

iv. The Bank has the responsibility of inspecting State Co-operative Banks and RRBs.

v. It provides long term loans to the institutions which are approved by the Central Government or may contribute to the share capital or invest in securities of any type of institution connected with agriculture and rural development.

vi. The Bank has the responsibility of co-ordinating the activities of Central and State Governments, the Planning Commission and all other all-India and State level institutions which are entrusted with the development of small scale, village and cottage industries, rural crafts and other industries in the tiny and unorganised sector.

vii. The Bank also maintains a Research and Development Fund in order to promote research in agriculture and rural development, and also to formulate and design projects and programmes to suit the requirements of different areas.

21.9.2 Working of NABARD

NABARD is playing an important role in augmenting the flow of credit for the promotion of agriculture, small scale and cottage industries, handicrafts and other rural crafts and various other allied activities in rural areas of the country. NABARD does not help the farmers and other rural people directly rather it flows the credit to these people through co-operative banks, commercial banks, RRBs, etc. It is thus working as an apex body dealing with policy, planning and other operational aspects of rural credit for the all-round development of rural economy.

According to the Annual Report (2019-20) of NABARD, during 2019-20, short-term credit of Rs. 1,00,382 crore was disbursed to the RRBs and the Co-operative Banks, which was 7.8 per cent more than the previous year. Long-Term refinance of Rs. 8,180 crore was disbursed to the various rural financial institutions during the year. Among the different agencies, Scheduled Commercial Banks (SCBs) availed two-thirds of total Long-Term refinance disbursements, followed by RRBs, Co-Operative Banks and other eligible entities.

a) Short-Term (ST) Loans: The total outstanding under Short Term-Seasonal Agricultural Operations (ST-SAO) as on 31st March 2020 stood at Rs. 68,693 crore, as against Rs. 66,737 crore at the end of the previous year, registering a marginal increase of 2.9 per cent. The total disbursements and repayments during the year stood at Rs.1,00,660 crore and Rs. 98,704 crore respectively. The outstanding under ST-SAO stood at Rs. 51,043 crore, Rs. 12,950 crore, and Rs. 157 crore towards refinance to State Cooperative Banks (StCBs), Regional Rural Banks (RRBs) and State Cooperative Agriculture and Rural Development Banks (SCARDBs) respectively, of which Additional ST-SAO to StCBs and RRBs comprised of Rs. 8,412.30 crore and Rs. 2,996.95 crore respectively. The outstanding under ST-OSAO of StCBs and RRBs stood at Rs. 3,953 crore and Rs. 590 crore respectively.

b) **Medium-Term (MT) Conversion Loans:** The outstanding loans under MT Conversion as on 31 March 2020 was Rs. 92.00 crore as against Rs. 137.35 crore as at the end of the previous year.

c) **Medium-Term and Long-Term Loans** :The disbursements and repayments during the year in respect of medium and long-term investment credit were Rs.78,180 crore and Rs. 62,870 crore respectively. Refinance assistance aggregating Rs.1,65,980 crore was outstanding as on 31 March 2020 as against Rs.1,50,670 crore at the end of 31 March 2019, registering an increase of 10.2 per cent.

During 2019-20, ground level credit flow to agriculture sector reached Rs. 13.68 lakh crore, 8.8 per cent more than the previous year. This was backed by refinance support of Rs. 2.25 lakh crore during the year. NABARD has been actively participating in the Government of India drive to achieve saturation with Kisan Credit Cards to all eligible farmers for enabling them to access institutional credit at ease. Initiatives have been taken through suitable district level banking plans for credit penetration in watershed areas, climate resilient and drought proofing the treatment areas, backward districts, and benefitted areas of infrastructure projects developed under RIDF, LTIF, etc. Since we envisage increased food production from watershed and wadi areas, plans are afoot for promoting in situ micro-food processing therein to encourage value addition.

NABARD had sanctioned Rs. 65,838 crore as loan during 2019-20 for various infrastructure projects under agriculture and irrigation, roads and bridges, social sectors, etc. Disbursement against ongoing projects was Rs. 56,432 crore during the year. Additionally, irrigation potential was augmented by 34.63 lakh ha through 99 projects under the Long-Term Irrigation Fund (LTIF). Committing to promote water use efficiency, NABARD operationalised the Micro Irrigation Fund (MIF) in 2019-20 with a corpus of Rs. 5000 crore. In the first year itself, it benefited 9.13 lakh farmers covering 11.27 lakh ha of cultivated area, of which 77 per cent were small and marginal farmers. NABARD had also financed projects

under PM Awas Yojana (PMAY), Dairy Processing and Infrastructure Development Fund (DIDF), Warehouse Infrastructure Fund (WIF), NABARD Infrastructure Development Assistance (NIDA) and Swachh Bharat Mission-Gramin (SBM-G). I am happy to inform that we have kept up our efforts and continued to empower women, reaching out to financially excluded areas and people, and organising farmers into Farmer Producers' Organisations (FPOs). Taking the agenda of Government of India to form more FPOs, NABARD has introduced a new scheme for the promotion and nurturing of 3,000 more FPOs. We also played an active role in finalising the detailed guidelines on FPOs issued by the government recently.

SELF-CHECK EXERCISE-21.7

Q1. Write a note on NABARB

Q2. What are the main functions of NABARD

21.10 SUMMARY

The money market is one of the most important institutions in a modern economy. The industrial growth and expansion of trade, particularly foreign trade, are greatly facilitated by the existence of a developed money market. The usefulness of the money market is not limited to business and industrial sectors but is available also to the state and the central bank authorities to implement their policies effectively for realising desired goals of economic activity.

Money market may be distinguished from the capital market. The money market is the collective name given to various firms and institutions which deal in short-term credit, i.e., near money assets. The capital market is concerned with the supply of long-term investable funds. The Indian money market is composed of two segments- organised and unorgnnised. The organised segment comprises call money market, bill market, commercial hanks, cooperative and rural banks, post office savings banks and registered chit funds. The RBI is the leader of the organised money market. The unorgnnised segment includes indigenous banks and the money-lenders.

The Indian money market cannot be termed as a developed money market like the London and New York money markets are. The presence of large unorganised sector, lack of developed bill market, lack of banking facilities in the rural areas and stringency of funds specially in busy season have resulted in keeping Indian money market underdeveloped. In order to tide over this difficulty, the RBI introduced a New Bill Scheme in the year 1970. The Government also nationalised 20 major commercial banks to help RBI to tighten its control on the money market. Though various steps initiated so far have definitely helped in improving the performance of the money market, a lot more remains to be done.

21.11 GLOSSARY

- **Money Market**: refers to the institutional arrangements facilitating borrowing and lending of short-term funds.
- **Capital Market**: concerned with the supply of and demand for long-term investible funds.
- **Acceptance Market**: refers to the market for banker's acceptances involved in trade transactions.
- **Call Money**: credit facility for a very short duration, not exceeding seven days.
- **Collateral Loan**: a loan offered against securities like stocks, bonds, merchandise, etc.
- **Indigenous Bankers**: those dealing in hundis and promissory notes.
- **Treasury Bills**: bills issued by RBI on behalf of the Government.
- **Usance Bills**: bills with a time specified maturity.

21.12 ANSWERS TO SELF-CHECK EXERCISES

Self-Check Exercise-21.1

Ans. Q1. Refer to Section 21.3

Self-Check Exercise-21.2

Ans. Q1. Refer to Section 21.4

Self-Check Exercise-21.3

Ans. Q1. Refer to Section 21.5.1

Ans. Q2. Refer to Section 21.5.2

Self-Check Exercise-21.4

Ans. Q1. Refer to Section 21.6

Ans. Q2. Refer to Section 21.6

Self-Check Exercise-21.5

Ans. Q1. Refer to Section 21.7

Self-Check Exercise-21.6

Ans. Q1. Refer to Section 21.8

Self-Check Exercise-21.7

Ans. Q1. Refer to Section 21.9

Ans. Q2. Refer to Section 21.9.1

21.13 REFERENCES/SUGGESTED READINGS

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21.14 TERMINAL QUESTIONS

Q1. What is meant by money market? Discuss the significance of money market in a modem economy.

Q2. Discuss various constituents of money market and their functioning in India.

Q3. Discuss various characteristics of a developed money market. Can Indian money market be termed as developed money market?

Q4. Distinguish between money market and capital market. Highlight the drawbacks of Indian money market which make it an underdeveloped money market.

Q5. Write the characteristics of Indian money market. Outline the measures to improve the functioning of Indian money market.

Q6. Discuss the role of NABARD in the development of rural areas in India.

Unit- 22

RESERVE BANK OF INDIA

STRUCTURE

22.1 INTRODUCTION

The Reserve Bank of India (RBI) is the Central Bank of the country. It has been established as a body corporate under the Reserve Bank of India Act, which came into effect from 1st April,1935. The Reserve Bank was started as share-holders bank with a paid-up capital of Rs.5 crores. On establishment it took over the function of management of currency from the Government of India and power of credit control from the then Imperial Bank of India. The Reserve Bank was nationalized in 1949 soon after the country's independence. The basic reasons for nationalization were as follows:

a) There was a trend towards nationalization of Central Banks of the country in all parts of the world after the end of the Second World War. Even the Bank of England was nationalized in the year 1946.

b) The inflationary tendencies have started right from the beginning of the Second World War, i.e., 1939. In order to control these tendencies effectively, it was thought proper to nationalize the Reserve Bank of India– the Central Bank of the country, responsible for credit and currency management.

c) The country had embarked upon a planned economic programme after independence. Nationalization of the Reserve Bank of India was necessary to use it as an effective instrument for economic development of the country.

The Reserve Bank of India carries on its operations according to the provisions of the Reserve Bank of India Act, 1934. The act has been amended from time to time.

22.1 LEARNING OBJECTIVES

After studying this Unit, you will be able to:

- understand the organizational structure of RBI
- discuss the role and main functions of RBI
- explain Monetary Policy of the Reserve Bank of India
- discuss the achievements of RBI

22.3 FEATURES OF RBI

i) RBI formulates implements and monitors the monetary policy.

ii) RBI maintains public confidence in the system, protect depositors' interest and provide cost-effective banking services to the public.

iii) To facilitate external trade and payment and promote orderly development and maintenance of foreign exchange market in India.

iv) To give the public adequate quantity of supplies of currency notes and coins and in good quality.

SELF-CHECK EXERCISE-22.1

Q1. Write a note on RBI.

22.4 OBJECTIVES OF THE RBI

The primary goals of the RBI according to the Preamble of the same are as follows.

- To regulate the issue of Bank notes.
- To secure monetary stability in the country.
- To meet the economic challenges by modernising the monetary policy framework.

The primary focus of the RBI is to supervise and undertake initiatives on behalf of the financial sector which consists of financial institutions, commercial banks, non-banking financial companies. A few critical efforts of the RBI are to restructure bank inspections and fortifying the role of statutory auditors in the banking system.

SELF-CHECK EXERCISE-22.2

Q1. Write the main objectives of RBI.

22.5 ORGANIZATIONAL STRUCTURE OF RBI

The organizational structure of RBI consists of the Central Board and the Local Boards.

1) Central Board: The general superintendence and direction of the bank's affairs is vested in the Central Board of Directors. It comprises of a Governor, not more than four Deputy Governors, and fifteen Directors. All these persons are appointed/ nominated by the Central Government. The Governor and Deputy Governors hold office for such periods not exceeding five years as may be fixed by the Central Government at the time of their appointed and are eligible for reappointment. As a matter of practical convenience the Board has delegated some of its functions to a committee called the Committee of the Central Board, consisting of the Governor, Deputy Governors, the Directors representing or resident in the area in which the meeting is held, the Director representing the government and other Directors as may be present at the place at the

2) Local Board: For each of the regional areas of the country viz. Western, Eastern, Northern and Southern, there is a Local with headquarters at Mumbai, Kolkata, New Delhi and Chennai. Local Boards consist of five members each, appointed by the Central Government. The functions of the Local Boards are to advise the Central Board on such matters as may generally be referred to them and to perform such duties as the Central Board may delegate to them.

There are sixteen departments of the Reserve Bank of India. These are:

i) Issue Department: This department undertakes the job of issuing paper currency and therefore it also makes arrangement for the distribution of paper currency. It maintains regular accounts of the notes printed at Nasik Press. Its branches are at Bangalore, Mumbai, Kolkata, Hyderabad, Kanpur, Chennai, Nagpur, New Delhi and Patna.

ii) Banking Department: This department performs two primary functions, one of dealing with Government transactions and floating of loans on behalf of the Central and State Governments and arranging remittances of government funds from one place to another and the other regarding the maintenance of cash reserves of scheduled banks, extending financial assistance to them, whenever required and functioning as the clearing house for the scheduled banks.

iii) Banking Development: This department is concerned with the expansion of banking facilities in the rural and semi-urban areas. It also imparts training to the scheduled banks.

iv) Banking Operations: This department undertakes periodical inspections of the scheduled banks, analyzes their balance sheets, issues licenses for opening of new banks, considers requests for opening new branches, examines the requests of scheduled banks for increasing the paid-up capital, examines the possibilities for the amalgamation of existing banks and tenders advice to the scheduled banks in their day-to-day functioning.

v) Agricultural Credit: This department studies the problems connected with

agricultural credit, conducts research on rural credit problems, formulates rural credit policy of the Reserve Bank, grants rural credit to State Governments and State Cooperative Banks and publishes reports on agricultural credit.

vi) **Exchange Control:** This department regulates and controls the sale and purchase of foreign exchange.

vii) **Industrial Finance:** This department extends financial assistance to small scale and medium scale industries and also tenders advice to various industrial financial corporations for their day-to-day working.

viii) **Non-Banking Companies:** The headquarters of this department is at Kolkata and it is chiefly concerned with the supervision of the non-banking companies and financial institutions in the country.

ix) **Legal Department:** This department tenders advice to the various departments of the Bank on legal matters, prepares directives and communiqués of the Bank and gives advice to the Bank on the proper implementation of legal matters relating to banking in the country.

x) **Research and Statistics:** This department undertakes research on problems in the areas of money, credit, finance, production, etc., collects statistics about the various sectors of the economy and publishes them; and tenders advice to the Government for the solution of various economic problems and in the formulation of its economic and financial policies.

xi) **Department of Planning and Reorganization:** The department formulates new plans and reorganizes existing policies so as to make them more effective.

xii) **Economic Department:** This department formulates banking policies for better implementation of economic policies of the Government.

xiii) **Inspection Department:** This department undertakes inspection of various offices of the commercial banks.

xiv) **Department of Accounts and Expenditure:** This department maintains proper records of all receipts and expenditures of the Reserve Bank of India.

xv) **RBI Services Board:** The Board deals with the selection of new employees for different posts in the Reserve Bank of India.

xvi) **Department of Supervision:** This department was set up on 22 December, 1993, for conducting proper supervision of commercial banks.

SELF-CHECK EXERCISE-22.3

Q1. Discuss the organization and structure of RBI.

22.6 ROLE OF RESERVE BANK OF INDIA

Since its inception in 1935, the Reserve Bank of India has functioned with great success, not only as the apex financial institution in the country but also as the promoter of economic development. With the introduction of planning in India since 1951, the Reserve Bank formulated a new monetary policy to aid and speed up economic development. The Reserve Bank has undertaken several new functions to promote economic development in the country. The major contributions of the Reserve Bank to economic development are as follows:

1) **Promotion of Commercial Banking:** A well-developed banking system is a

precondition for economic development. The Reserve Bank has taken several steps to strengthen the banking system. The Banking Regulation Act, 1949 has given the Reserve Bank vast powers of supervision and control of commercial banks in the country. The Reserve Bank has been using these powers:

i) To strengthen the commercial banking structure through liquidation and amalgamation of banks and through improvement in their operational standards,

ii) To extend the banking facilities in the semi-urban and rural areas; and

ii) To promote the allocation of credit in favor of priority sectors, such as agriculture, small-scale industries, exports, etc.

The Reserve Bank is also making valuable contribution to the development of banking system by extending training facilities, to the supervisory staff of the banks through its Banker's training colleges.

2) Promotion of Rural Credit: Defective rural credit system and deficient rural credit facilities are one of the major causes of backwardness of Indian agriculture. In view of this, the Reserve Bank, ever since its establishment, has been assigned the responsibility of reforming rural credit system and making provision of adequate institutional finance for agriculture and other rural activities. The Reserve Bank has taken the following steps to promote rural credit:

i) It has set up Agricultural Credit Department to expand and co-ordinate credit facilities to the rural areas.

ii) It has taking all necessary measures to strengthen the co-operative credit system with a view to meet the financial needs of the rural people.

iii) In 1956, the Reserve Bank set up two funds. Namely, the National Agriculture Credit (long-term operations) Fund and the National Agricultural Credit (stabilization) Fund, for providing medium-term and long-term loans to the state co-operative banks.

iv) Regional rural banks have been established to promote agricultural credit.

v) Some commercial banks have been nationalized mainly to expand bank credit facilities in rural areas.

vi) The National Bank for Agriculture and Rural Development has been established in 1982 as the apex institution for agricultural finance.

vii) The Reserve Bank has helped the establishment of many warehouses in the country.

As a result of the efforts made by the Reserve Bank, the institutional finance for agriculture has been increasing considerably over the years. The agricultural output has increased by leaps and bounds. Probably no other central bank in the world is doing so much to help, develop and finance agricultural credit.

3) Promotion of Co-operative Credit: Promotion of co-operative credit movement is also the special function of the Reserve Bank. On the recommendations of the Rural Credit Survey Committee, the Reserve Bank has taken a number of measures to strengthen the structure of co-operative credit institutions throughout the country. The Reserve Bank provides financial assistance to the agriculturists through the co- operative institutions. The Reserve Bank has, thus, infused a new life into the co- operative credit movement of the country.

4) Promotion of Industrial Finance: Credit or finance is the pillar to industrial development. The Reserve Bank has been playing an active role in the field of industrial finance also. In 1957, it has set up a separate Industrial Finance Department which has

rendered useful service in extending financial and organizational assistance to the institutions providing long-term finance. It made commendable efforts for broadening the domestic capital market for providing the medium and long-term finance to the sector. In this regard the Reserve Bank took initiative in the establishment of a number of statutory corporations for the purpose of providing finance, especially and long-term finance, to industries; Industrial Development Bank of India, Industrial Finance Corporation of India, State Finance Corporations, State Industrial Development Corporations and the Industrial Credit and Investment Corporation of India are some of the important corporations established in the country with the initiative of the Reserve Bank.

Thus, Reserve Bank has contributed to the share capital of these institutions and providing short-term advances also to some of them. The role of these corporations in providing financial help to industries is commendable. The Reserve Bank has played an active role in the establishment of the Unit Trust of India. The Unit Trust of India mobilizes the savings of people belonging to middle and lower income groups and uses these funds for investment in industries. By mobilizing the small savings of the people, the Unit Trust has been promoting capital formation which is the most important determinant of economic development. The Reserve Bank also has been encouraging commercial banks to provide credit to the small-scale industries. It has been encouraging credit for small industries through its "Credit Guarantee Scheme". Small-scale industries have been recognized as a priority sector. The Reserve Bank has also been, acting as a "developmental agency" for planning, promoting and developing industries to fill in the gaps in the industrial structure of the country.

5) Promotion of Export Credit: "Export or Perish" has become a slogan for the developing economies, including India. In recent years, India is keen on expanding exports. Growth of exports needs liberal and adequate export credit. The Reserve Bank has undertaken a number of measures for increasing credit to the export sector. For promoting export financing by the banks, the Reserve Bank has introduced certain export credit schemes. The Export Bills Credit Scheme and the Pre-shipment Credit Scheme are the two important schemes introduced by the Reserve Bank. The Reserve Bank has been stipulating concessional interest rates on various types of export credit granted by commercial banks. The Reserve Bank has been instrumental in the establishment of Export-Import Bank. The EXIM Bank is to provide financial assistance to exporters and importers. The Reserve Bank has authority to grant loans and advances to the EXIM Bank, under certain conditions.

6) Regulation of Credit: The Reserve Bank has been extensively using various credit control weapons to regulate the cost of credit, the amount of credit and the purpose of credit. For regulating the cost and amount of credit the Reserve Bank has been using the quantitative weapons. For influencing the purpose and direction of credit, it has been using various selective credit controls. By regulating credit, the Reserve Bank has been able:

i) To promote economic growth in the country.

ii) To check inflationary trends in the country,

iii) To prevent the financial resources from being used for speculative purposes,

iv) To make financial resources available for productive purposes keeping in view the priorities of the plans, and

v) To encourage savings in the country.

7) Credit to Weaker Sections: The Reserve Bank has taken certain measures to encourage adequate and cheaper credit to the weaker sections of the society. The "Differential Rate of Interest Scheme" was started in 1972. Under this scheme, concessional credit is provided to economically and socially backward persons engaged in productive activities. The Reserve Bank has been encouraging the commercial banks to give liberal credit to the weaker sections and for self-employment schemes. The Insurance and Credit

Guarantee Corporation of India gives guarantee for loans given to weaker sections.

8) Development of Bill Market: The Reserve Bank introduced the "Bill Market Scheme" in 1952, with a view to extend loans to the commercial banks against their demand promissory notes. The scheme, however, was not based on the genuine trade bills. In 1970, the Reserve Bank introduced "New Bill Market Scheme" which covered the genuine trade bills representing sale or dispatch of goods. The bill market scheme has helped a lot in developing the bill market in the country. The bill market scheme has increased the liquidity of the money market in India.

9) Exchange Controls: The Reserve Bank has been able to maintain the stability of the exchange value of the "Rupee even under heavy strains and pressure. It has also managed "exchange controls" successfully. Inspite of the limitations under which it has to function in a developing country like India, the overall performance of the Reserve Bank quite satisfactory. It has been able to develop the financial structure of the country consistent with the national socio-economic objectives and priorities. It has discharged its promotional and developmental functions satisfactorily and acted as the leader in economic development of the country.

SELF-CHECK EXERCISE-22.4

Q1. Discuss the role of RBI.

22.7 FUNCTIONS OF THE RESERVE BANKS OF INDIA

The Reserve Bank of India is the Central Bank of India and therefore, it performs all those functions which a central bank is required to perform in a country. The function of central banks are broadly the same all over the world, but the scope and content of policy objectives vary from country to country and from period to period depending upon a of factors like development and the structure of the economy, goals to which the government is committed and the general economic situation. The functions performed by the Reserve Bank can be classified into three categories:

22.7.1 Central banking functions.

22.7.2 Supervisory functions.

22.7.3 Promotional functions.

22.7.1 Central Banking Functions

1) Issue of Bank Notes: The Reserve Bank has the sole right to issue bank notes of all denominations one rupee notes which are issued only by the Government of India). This has been done to give the Reserve Bank the complete and uniform control over the currency and the credit system of the country. The Bank has a separate "Issue Department for this purpose. The Bank follows the "Minimum Reserve System" for issue of bank notes.

The Reserve Bank has made adequate arrangements for holding and distributing of currency notes and coins. The Issue Department of the Reserve Bank has its offices in seventeen important cities of the country. Moreover it is maintaining currency chests all over the country.

2) Banker to Government: The Reserve Bank of India (RBI) serves as the banker to both the central and state governments. It manages their accounts, processes payments on their behalf, facilitates remittances, and conducts various banking transactions, including foreign exchange operations. Additionally, the RBI is responsible for managing public debt and providing short-term financial assistance to the government through Ways and Means Advances for a period of up to 90 days. It also offers expert advice on monetary and banking policies.

3) Bankers' Bank: The RBI functions as the central bank for all scheduled banks in India. It mandates these banks to maintain a specific cash reserve ratio (CRR) as a percentage of their total demand and time liabilities. Initially, scheduled banks were required to maintain 5% of demand liabilities and 2% of time liabilities as cash reserves with the RBI. However, following an amendment in 1962, the distinction between demand and time liabilities was eliminated, and banks were required to hold a minimum cash reserve of 3% of their aggregate deposits. Additionally, the RBI acts as the lender of last resort, offering financial support to banks in distress. Scheduled banks can borrow funds from the RBI against eligible securities or rediscount their bills of exchange during times of financial difficulty. Since commercial banks rely on the RBI for support during financial crises, it plays a crucial role as both the "bankers' bank" and the ultimate lender in the banking system.

4) Custodian of Foreign Exchange Reserves: The Reserve Bank of India is responsible for maintaining the stability of the Indian rupee in global markets. It manages the country's foreign exchange reserves and regulates exchange rates to ensure financial stability. As India is a member of the International Monetary Fund (IMF), the RBI maintains fixed exchange rates with other IMF member nations and facilitates the buying and selling of foreign currency through authorized entities at rates determined by the government.

5) Controller of Credit: One of the primary roles of the RBI is to regulate credit creation by commercial banks to maintain economic stability. It employs several monetary policy tools to achieve this:

- **Bank Rate & Open Market Operations**: The RBI influences credit supply by adjusting the bank rate and conducting open market operations.
- **Selective Credit Controls**: Since 1956, the RBI has increasingly implemented selective credit controls to regulate lending to specific sectors or entities.
- **Regulation of Banking Activities**: Under the Banking Regulation Act of 1949, the RBI has the authority to direct banks regarding lending practices and restrict loans to certain borrowers or against specific securities.
- **Licensing and Expansion Control**: Every bank must obtain a license from the RBI to operate, and failure to comply with regulatory conditions may result in license cancellation. Additionally, banks must seek approval from the RBI before opening new branches.
- **Monitoring and Supervision**: Scheduled banks are required to submit weekly reports to the RBI, detailing their financial position, including assets and liabilities. This enables the RBI to monitor the credit system effectively. The RBI also has the authority to inspect the accounts of any commercial bank to ensure compliance with regulations.

Through these functions, the Reserve Bank of India plays a pivotal role in maintaining financial stability, regulating monetary policy, and overseeing the banking sector in India.

22.7.2 Supervisory Functions

In order to promote and develop a sound and efficient system of banking in India, the Reserve Bank has been given several supervisory powers over different banking institutions. These powers relate to licensing and establishment, branch expansion, liquidity of assets, management, working, amalgamation, reconstruction and liquidation of commercial and co-operative banks. The Reserve Bank carries out periodical inspections of these banks and calls for such information, which it considers necessary for effective performance of its functions.

The various powers vested in the R.B.I. are as follows:

1) Obtain License: Every bank wishing to commence banking business in India

is required to obtain a license from the Reserve Bank of India. The Reserve Bank, after being satisfied that it will be in a position to pay claims of the deposits as and when they accrue and that its affairs are being conducted in a manner not detrimental to the interests of its depositors, will grant the license to the bank to commence banking business in India.

2) Coverage of Bank Operations: To ensure that banks are organized and conduct their business on sound financial footings of the banking. Regulation Act has prescribed the minimum paid up capital, reserves, cash reserves and other liquid assets depending the geographical coverage of a bank's operations. The Reserve bank is to see the fulfillment of these requirements.

3) Liquidation of Weak Banks: To strengthen the commercial banking structure in the country, the R.B.I. is empowered to order the compulsory liquidation of weak banks or their merger with the stronger one. It is empowered to inspect, make an enquiry and may take necessary action in order to improve the operational efficiency of the bank. It may also order for the suspension of business.

4) Branch Expansion: Every bank in the country is required to obtain permission from R.B.I. for its branch expansion programme. The R.B.I. can also direct a bank to open branches in a particular area especially in small towns and rural areas so as to improve the geographical coverage.

5) Issue Directions on Credit Control: To improve the functional coverage of banks, in order to improve the sectoral distribution of bank credit in favor of the priority sectors such as agriculture, small scale industries, self-employed persons etc. and make more of it to the small borrowers. The R.B.I. can issue directions to commercial banks through its credit control measures.

6) Training of Bank Personnel: The R.B.I. has arranged for the education and training of different categories of bank personnel by setting up a number of training institutes in the country. The principal training institutes are Bankers Training College (Mumbai), the National Institute of Bank Management (Mumbai), the cooperative Bankers Training College Pune, the College of Agricultural Banking. Pune, Staff Training College, Chennai, and zonal training centres for Staff at Mumbai, Kolkata, Chennai and New Delhi.

7) Restrict Loans and Advances: By an amendment effective from February 1,1964, the R.B.I. is empowered to restrain control exercised by particular groups of persons over the affairs of banks and to restrict loans and advances as well guarantees given by banks to and on behalf of any one company, firm, association of persons or individual. The Act endorsed greater powers to the R.B.I. in the matters of appointment and removal of bank's executive personnel.

8) Collect and Supply Information: The Reserve Bank of India has been empowered to collect information in regard to credit facilities advanced by banks and other financial institutions to their constituents and to supply these banks and institutions such information, on application, in a consolidated form.

9) Spreading Banking Habits: In order to inspire greater public confidence, and spread thereby banking habits in the country especially the lower section of the society. the R.B.I. has set up a Deposit Insurance Corporation in 1962 as a subsidiary of the R.B.I. In later year the scheme of deposit insurance was extended to cooperative and regional rural banks. The amount eligible for insurance cover has been revised from time to time. On 1 July, 1980, it was fixed at Rs.30,000 for each depositor in each bank.

With the nationalization of 20 major commercial banks in India (14 in July 1969 and 6 in April 1980), the Reserve Bank of India has been in a position to exercise better control over commercial banks. In recent years, with the establishment of regional rural banks the banking system in India has made a commendable progress both functionally and geographically because it is now easier for the R.B.I. to steer and direct the growth of banks

in desired direction.

22.7.3 Promotional Functional

The Reserve Bank of India as a Central Bank of the country has assumed greater responsibilities as developmental and promotional agency as compared to a merely monetary authority. It not only controls the credit and currency in the economy or maintains internal/external value of the rupee for ensuring price stability but also acts as a promoter of financial institutions, required for meeting specific financial requirements of the developing economy. At the time of establishment of the Reserve Bank of India in the Year 1935, the country lacked a well-developed money market and a well-developed commercial banking system. Moreover, it was industrially a backward country. After independence, the country embarked upon a well-organized and planned economic development. The process is still continuing. All this made necessary for the Reserve Bank of India to pursue appropriate monetary and credit policy and take all necessary steps required for a fast growth and development of all sectors of the economy, keeping in view the guidelines and policies formulated by the Government. The promotional steps taken by the RBI in this direction can be summarized as follows:

i) **Established the Bill Market Scheme:** It established the Bill Market Scheme in 1952.

ii) **Development of Specialized Financial Institutions:** It has taken up keen interest in setting up and development of specialized financial institutions. The number of such institutions in whose setting up the RBI is directly or indirectly involved is steadily growing. They include Industrial Finance Corporation of India (IFCI), State Financial Corporations (SFCs), Industrial Development Bank of India (IDBI), Unit Trust of India (UTI), Deposit Insurance and Credit Guarantee Corporation of India (DICGC), and National Bank for agriculture and Rural Development (NABARD), etc.

iii) **Promote Regional Rural Banks:** It has promoted Regional Rural Banks (RRBs) with the cooperation of the commercial banks to extend banking facilities to the rural areas.

iv) **Promote National Housing Bank:** It promoted in July, 1988, the National Housing Bank, its wholly owned subsidiary to organize and argument resources for housing. The National Housing Bank besides providing refinance to institutions engaged in housing finance will also extend full support to industries that augment supplies of building materials and/or leading to construction at lower cost.

v) **Establishment of Export Import Bank of India:** It has helped in establishment of Export Import Bank of India (EXIM) to provide finance to exporters. It also helps the commercial banks in opening their branches in the foreign countries for helping in the foreign trade of the country.

vi) **Promotes Research:** The RBI also encourages and promotes research in the areas of banking.

SELF-CHECK EXERCISE-22.5

Q1. Discuss the central functions of RBI.

Q2. Explain the supervisory functions of RBI.

Q3. What are the promotional functions of RBI.

22.8 MONETARY POLICY OF THE RESERVE BANK OF INDIA

The monetary policy refers to a regulatory policy whereby the central bank maintains its control over the supply of money for the realisation of general economic goals. This concept of monetary policy may be right in the context of developed economies, but in less developed countries like India, monetary policy cannot remain confined only to controlling

the supply of money. Viewing the Reserve Bank's monetary policy in this framework we find that it has been designed to meet the particular requirements of India's developing economy. Aptly summarising the RBI's monetary policy, S.L.N. Simha has stated, "The Reserve Bank's responsibility is not merely one of credit restriction. In a growing economy there has to be a continuous expansion of money supply and bank credit and the central bank has the duty to see that legitimate credit requirements are met. The Bank's responsibility in the circumstances is mainly to moderate the expansion of credit and money supply, in such a way as to ensure the legitimate requirements of industry and trade and curb the use of credit for unproductive and speculative purposes. That is why the Bank has rightly called its credit policy in recent years as one of controlled expansion."

In order to ensure RBI's complete control over the supply of money and credit, it has been given exclusive power to issue currency notes. For judging how far the RBI has succeeded in achieving this objective, one has to know the relative importance of various types of money in circulation in the country. In certain countries, the legal tender money (coins and paper money) is the predominant medium of exchange. In other countries, the place of legal tender money is relatively secondary and most payments are made through cheques. Whereas the former type of monetary system is to be found in France, the latter is to be found in England and the United States. The nature of the monetary system in India due to predominance of legal tender money thus resembles the French monetary system rather than the British or the American.

22.8.1 Money Supply in India

In India, presently both currency notes and cheques are used for payment purposes-coins constitute a very small part of money supply in the country and they are now used for making small payments. As on March 31, 2020, the total money supply (M,) in the country was Rs. 41,25,915 crore. M_1 is money supply in the narrow sense. It includes (1) currency with the public, (ii) demand deposits with banks, and (iii) other deposits with the Reserve Bank of India. The last one is a very small component of M_1 and is thus not considered in any monetary analysis. As on March 31, 2020, the amount of currency with the public was Rs. 23,49,715 crore and demand deposits had amounted to Rs. 17,37,692 crore. The currency with the public and the demand deposits with the banks thus accounted for 57.0 per cent and 42.1 per cent of the money supply (M_1) respectively. Other deposits with the RBI were only 0.9 per cent of M_1. Nowadays a broader concept of money supply, that is, M_3 is used. M_3 includes $M_1$and time deposits with banks. As on March 31, 2020, the amount of $M_3$was Rs. 1,67,99,930 crore of which time deposits with the banks were 1,26,74,016 crore. In monetary economics, control of money supply usually refers to control of the supply of currency and deposit money.

22.8.2 Control of Currency by the Reserve Bank of India

The control of currency primarily refers to regulating the supply of currency notes and coins. Since coins make up a negligible portion of the money supply, specific regulatory measures are not required for them. However, managing the volume of currency notes is crucial, and the Reserve Bank of India (RBI) holds exclusive authority over their issuance. A dedicated Issue Department within the RBI is responsible for this function. The RBI can issue currency notes based on reserves maintained in the form of gold bullion, foreign securities, rupee coins, rupee securities, and Treasury bills. However, the total gold and foreign exchange reserves must not fall below ₹200 crore at any time, with a mandatory gold reserve of at least ₹115 crore. This system of note issuance has an inherent inflationary tendency.

The process of issuing currency notes is relatively straightforward. When the RBI intends to introduce new currency into circulation, it transfers foreign or rupee securities (or both) from the Banking Department to the Issue Department. The amount of currency issued must be equivalent to the value of securities received by the Issue Department. Additionally,

the RBI has the authority to issue notes backed by Treasury bill reserves. Conversely, during a contractionary monetary policy, this process is reversed—the securities move from the Issue Department back to the Banking Department, and an equal amount of currency is withdrawn from circulation.

Despite these mechanisms, the RBI's effectiveness in regulating currency supply has been questioned. Many argue that persistent inflation over the years reflects its failure in this role. Others, however, attribute inflation to government policies, particularly deficit financing under various economic plans. Since the RBI operates under government directives, it lacks full autonomy in implementing independent monetary policies.

In contrast, the U.S. Federal Reserve functions as an independent monetary authority, free from government control. The situation in India is different, as the RBI is legally bound to lend money whenever the central government requires it. Although state governments are not authorized to borrow directly from the RBI, they often resort to unauthorized overdrafts. This has diminished the RBI's authority as a monetary regulator. Effectively, India has two monetary authorities—the RBI and the central government—with the latter holding greater power in decision-making.

22.8.3 Reserve Money and Money Multiplier

To comprehend the influence of various monetary institutions and the government on money supply, it is essential to understand the concepts of reserve money and the money multiplier process. Reserve money, often termed high-powered money, base money, primary money, or the monetary base, plays a crucial role in deposit money creation. The capacity of the banking system to generate deposit money depends on the availability of reserve money and the proportion held by the public in the form of currency.

In the Indian context, reserve money consists of the liabilities of the Reserve Bank of India (RBI) and the government that serve as reserves for banks, facilitating deposit money creation. Typically, the currency liabilities of the RBI and the central government qualify as bank reserves. The RBI’s currency liabilities include currency notes (excluding one-rupee notes), whereas the central government’s currency liabilities consist of rupee coins, one-rupee notes, and small coins. Coins, however, are not RBI liabilities; the central bank only issues them on behalf of the government. Reserve money in India comprises three key components: (i) currency in circulation, (ii) bankers' deposits with the RBI, and (iii) other deposits with the RBI.

Among these, currency in circulation is the largest component, accounting for 63.0% of total reserve money as of March 31, 1991, increasing to 80.8% by March 31, 2020. Bankers' deposits with the RBI, another crucial component, constituted 36.2% of reserve money in 1991 but declined to 18.0% in 2020. Meanwhile, other deposits with the RBI remained a minor share, comprising 1.2% of reserve money in 2020.

A closer examination of reserve money and its evolution highlights the roles of various monetary institutions in its creation. Currency in India includes both notes and coins, with the RBI responsible for issuing currency notes, while coins and one-rupee notes are issued by the central government. Although the RBI appears to be the primary monetary authority due to its role in currency issuance, the central government holds significant monetary influence. This is because the RBI is legally bound to purchase all Treasury bills offered by the government, making the latter the actual monetary authority.

Bankers' deposits with the RBI are not discretionary but are dictated by statutory cash reserve ratio (CRR) requirements and banks’ demand and time liabilities. Consequently, banks play a passive role in reserve money creation but remain central to the

financial system due to their role in deposit money creation. The ability of banks to generate deposit money depends on the amount of reserve money and the proportion held as currency by the public. This results in a residual nature of bank reserves. Additionally, the deposit multiplier, influenced by the currency-deposit ratio and the reserve-deposit ratio, determines the banking system's capacity to expand deposits.

In India, the currency-deposit ratio was 1.35 at the end of March 1956, gradually declining to 0.16 in 2019-20. This decline reflects the expansion of banking facilities and the increasing preference for bank deposits. The money multiplier, defined as the ratio of broad money (M3) to reserve money (M0), rose from 1.60 in 1956 to 6.3 in 2017, before settling at 5.5 in 2020. This trend illustrates the evolving dynamics of money supply and the expanding role of the banking system in financial intermediation.

22.8.4 Control of Credit by the Reserve Bank of India

In India, the Reserve Bank of India's (RBI) authority over the credit system is established through two key legislations: the Reserve Bank of India Act, 1934, and the Banking Regulation Act, 1949. The former grants the RBI access to traditional credit control instruments, while the latter expands its regulatory capabilities with additional direct credit control measures. Collectively, these laws provide the RBI with extensive powers to oversee the banking sector. Like other central banks, the RBI employs various monetary tools such as bank rate adjustments, open market operations, reserve requirements, direct intervention, credit rationing, and moral suasion. Beyond these conventional methods, it also influences commercial banks' lending policies, interest rates, the nature of collateral for loans, and portfolio composition.

Despite its broad regulatory powers, the RBI faces limitations in controlling credit supply effectively. This challenge stems largely from the underdeveloped nature of India's money market. The traditional sector, which includes indigenous bankers and moneylenders, operates outside the RBI's purview. As a result, the RBI's influence is primarily limited to the modern segment of the financial system. The effectiveness of various credit regulation techniques in India is explored in the following sections.

a). Bank Rate Policy

The bank rate refers to the interest rate at which the RBI provides financial assistance to commercial banks by rediscounting bills of exchange, commercial papers, and other approved securities. The success of bank rate policy depends on three key conditions:

i) Commercial banks should be willing to utilize the rediscounting facility provided by the central bank.

ii) Banks should not maintain excessive cash reserves so that, in times of increased withdrawal demands, they must turn to the RBI for rediscounting.

iii) Banks should hold a sufficient volume of eligible credit instruments that can be rediscounted under existing regulations.

However, in India, the latter two conditions are not met. Indian commercial banks do not heavily rely on RBI funding, and the absence of a well-structured bill market limits the availability of rediscountable assets. This lack of proper market organization weakens the effectiveness of the RBI's bank rate policy. During the 1980s, the bank rate stood at 10%, increasing to 11% on July 4, 1991, and further to 12% on October 8, 1991, in an effort to curb inflation. However, experts frequently questioned its effectiveness in managing credit supply. Former RBI Governor B. Rama Rao remarked that while an increase in the bank rate served as a warning signal, minor rate hikes had minimal impact on inflation in the Indian context. At present, the bank rate stands at 4.25%, but it is no longer a key policy tool. The RBI now primarily relies on the repo rate as its main monetary policy instrument.

b). Open Market Operations (OMO)

The strategy of open market operations emerged later as a tool for credit control, particularly when the bank rate policy proved inadequate. Some economists argue that OMOs and bank rate adjustments work best when used together. While the bank rate policy has limited effectiveness due to India's underdeveloped money market, open market operations play a crucial role in monetary management.

Given the relatively developed government securities market, India provides a favorable environment for OMOs. The RBI, under the RBI Act, is authorized to engage in the buying and selling of government securities, treasury bills, and other approved financial instruments. Additionally, the RBI can deal with short-term commercial bills. Since government securities in India are primarily held by institutional investors, including banks and insurance companies, the RBI's OMO transactions largely involve these entities.

Compared to bank rate policy, OMOs offer several advantages. Unlike the bank rate, which requires cooperation from commercial banks, OMOs allow the central bank to directly influence banking reserves and credit supply. Furthermore, OMOs are more flexible and powerful than statutory reserve requirements (CRR and SLR), as they can be implemented at any time, whereas CRR and SLR adjustments occur during bi-monthly monetary policy reviews. The Federal Reserve Bank of New York has even described OMOs as the most effective and adaptable tool for monetary policy.

c). Cash Reserve Ratio (CRR)

The Cash Reserve Ratio (CRR) is a mandated proportion of a bank's net demand and time liabilities (NDTL) that must be kept in cash reserves with the RBI. This reserve earns no interest and is adjusted periodically to regulate liquidity and credit flow in the economy. A higher CRR reduces the lending capacity of banks, curbing liquidity, while a lower CRR has the opposite effect. The RBI (Amendment) Act of 1962 authorizes the central bank to set the CRR within a range of 3% to 15% of NDTL. This tool was frequently used in the 1970s and 1980s to control inflation. During the late 1980s, rapid liquidity growth led the RBI to raise the CRR from 10% to 15%, where it remained for four years.

The Narasimham Committee (1991) criticized the overuse of CRR, stating that high reserve requirements negatively impacted bank profitability and led to higher lending rates for businesses. Consequently, the CRR was progressively reduced from 15% in 1994-95 to 8% in 2000-01, and further to 5.5% in October 2001. It was subsequently lowered to 4.5% in June 2003, allowing banks greater flexibility in lending. However, to counter inflationary pressures, the CRR was gradually raised again, peaking at 9% in August 2008 before being reduced in stages. By February 9, 2013, the CRR stood at 4%, and it currently remains at 3%.

d) Statutory Liquidity Ratio (SLR)

In addition to maintaining a portion of their deposits as cash with the Reserve Bank of India (RBI), banks are also mandated to hold a minimum percentage of their total deposits in the form of gold, cash, government securities, or other approved financial assets at the end of each business day. This requirement is known as the Statutory Liquidity Ratio (SLR). In financial terms, SLR represents the percentage of Net Demand and Time Liabilities (NDTL), essentially referring to bank deposits, that must be invested in specific asset classes.

Currently, the SLR stands at 18.00%, meaning that for every ₹100 deposited in a bank, ₹18 must be allocated to approved investments as per RBI regulations. The Banking Regulation (Amendment) Act of 1962 mandated banks to maintain a minimum SLR of 25% against their NDTL. The amendment also granted the RBI the authority to increase the SLR up to 40% when deemed necessary for liquidity management. During the 1970s and 1980s, the RBI frequently exercised this power, eventually raising the SLR to 38.5% on September 22, 1990. This high SLR remained unchanged until March 31, 1992.

The RBI increased the SLR for two main reasons: first, to limit the credit-creating capacity of commercial banks and thereby control inflation, and second, to channel more financial resources toward government expenditure. However, the Narsimham Committee argued against maintaining a high SLR, contending that it primarily served as a tool for the government to mobilize funds for budgetary needs rather than for monetary regulation. Based on the committee's recommendations, the government decided to gradually reduce the SLR from 38.5% to 25%. By October 10, 1997, the SLR had been brought down to 25%, and further reductions followed, bringing it to the present level of 18.00%.

e) Selective Credit Control

Selective credit control (SCC) is a monetary policy tool used to regulate the availability of credit for specific purposes. In a developing economy, where broad-based monetary control measures might disrupt economic progress, SCC provides a targeted approach to prevent the misuse of borrowing facilities. Similar to other central banks, the RBI has the authority to employ selective credit control to regulate lending in certain economic sectors. This enables the central bank to curb speculative hoarding of essential goods and prevent excessive price increases.

Before May 1956, despite rising prices due to speculative hoarding of food grains and raw materials, the RBI had not implemented selective credit controls. Over time, it adopted three primary techniques for SCC: setting margin requirements on loans against specific securities, determining maximum limits for advances and other financial accommodations, and applying differentiated interest rates for certain types of loans. Additionally, the RBI can issue directives to banks regarding the purposes for which loans may or may not be extended. However, while implementing SCC, special care is taken to ensure that credit for production, commodity movement, and exports remains unaffected, as restrictions in these areas could negatively impact economic performance.

For over four decades, the RBI extensively relied on margin requirements to curb hoarding, which often created artificial shortages and led to price inflation. From 1973-74 onwards, strict SCC measures were in place for more than twenty years. The Credit Authorization Scheme, introduced in 1965, was another form of SCC that allowed the RBI to regulate not only the amount but also the terms of credit extended to large borrowers. However, as part of financial sector reforms, this scheme was eventually phased out. In 1996-97, selective credit controls on bank advances against several price-sensitive commodities were relaxed, and they have since been discontinued.

SELF-CHECK EXERCISE-22.6

Q1. Examine the monetary policy of the Reserve Bank of India

Q2. Discuss the role of RBI in controlling the currency.

22.9 ACHIEVEMENTS OF RESERVE BANK OF INDIA

Following are the main achievements of the Reserve Bank of India:

1) It has very successfully regulated credit to meet the requirements of trade, industry and agriculture.

2) As a partner to the government it has been admirably managing the public debt.

3) It has developed and promoted sound banking practices in the country. This has inspired public confidence in the banking system.

4) The Reserve Bank has successfully promoted the institutionalization of savings by:

- Promoting banking habits,
- Extending banking facilities all over the country, and

- Establishing specialized financial agencies.

5) It has achieved appreciable success in promoting co-operative credit and rural credit.

6) It has achieved great success in the field of industrial credit by promoting a number of institutions for providing medium and long-term credit.

7) The Reserve Bank has succeeded in providing credit facilities to exporters by extending concessional credit, refinance facilities and guarantee to commercial banks. It has been instrumental in setting up the Export-Import Bank for providing credit and other facilities to exporters.

8) As a guardian of the banking system the Reserve Bank has been providing deposit insurance and credit guarantee facilities to the banks through DICGC.

9) The Reserve Bank has played a crucial role in promoting social banking in the country.

10) The Reserve Bank has also been successful to a large extent in developing bill culture in the country.

11) The Reserve Bank has been rendering a very useful service in providing information and data on the different sectors of the economy through its publications.

12) The Reserve Bank has been successfully providing clearing house facilities through its 15 branches and 2 offices and the State Bank of India.

13) The management and control of foreign exchange by the Reserve Bank has been admirable.

14) The Reserve Bank has set up a number of training centres and colleges to impart training to the staff of co-operative banks, commercial banks, regional rural banks, NABARD, etc., and thus are contributing in a big way to the development of human resources in the sphere of banking.

15) Through its department of information technology the Reserve Bank has modernized its functioning by introducing advanced computer technology for inter-office communication and Internet technology for information collecting and sharing. It has also encouraged computerization of the branches of commercial banks.

SELF-CHECK EXERCISE-22.7

Q1. Discuss the achievements of Reserve Bank of India

22.10 SUMMARY

The Reserve Bank of India (RBI) is India's central bank. It controls the monetary policy concerning the national currency, the Indian rupee. The basic functions of the RBI are the issuance of currency, sustaining monetary stability in India, operating the currency, and maintaining the country's credit system. RBI is an institution of national importance and the pillar of the surging Indian economy. It is a member of the International Monetary Fund (IMF).

The RBI acts as a regulator and supervisor of the overall financial system. This injects public confidence into the national financial system, protects interest rates, and provides positive banking alternatives to the public. In India, RBI has efficiently operated the credit and currency system and achieved the fair degree of monetary stability. It has been able to develop the financial structure of the country on sound footing consistent with the national socio-economic objectives and priorities.

22.11 GLOSSARY

- **Central Bank**: a national bank that provides financial and banking services for its country's government and commercial banking system, as well as

implementing the government's monetary policy and issuing currency

- **Reserve Money**: is referred to in monetary economics as high powered money, basic money, primary money or monetary base.
- **Money Multiplier**: is the process by which the commercial banks create credit, based upon the reserve ratio and initial deposits
- **Bank Rate**: is the interest rate a nation's central bank charges to its domestic banks to borrow money.
- **Repo Rate**: the rate at which the central bank (RBI) lends money to the commercial banks for meeting short-term fund requirements in order to maintain liquidity and control inflation.
- ***Reserve Repo Rate:*** is said to be that rate of interest at which the central bank (RBI in India) borrows money from the commercial banks for a short term.
- **Statutory Liquidity Ratio (SLR):** is the minimum proportion of deposits that commercial banking institutions must keep in their own vaults as cash, gold assets, or securities approved by the government.
- **Cash Reserve Ratio (CRR):** is the share of a bank's total deposit to be maintained with the latter in the form liquid cash.
- **Open Market Operations:** are the buying and selling of securities by central banks in order to achieve monetary policy objectives.

22.12 ANSWERS TO SELF-CHECK EXERCISES

Self-Check Exercise-1

Ans. Q1. Refer to Section 22.3

Self-Check Exercise-2

Ans. Q1. Refer to Section 22.4

Self-Check Exercise-3

Ans. Q1. Refer to Section 22.5

Self-Check Exercise-4

Ans. Q1. Refer to Section 22.6

Self-Check Exercise-5

Ans. Q1. Refer to Section 22.7.1

Ans. Q2. Refer to Section 22.7.2

Ans. Q3. Refer to Section 22.7.3

Self-Check Exercise-6

Ans. Q1. Refer to Section 22.8

Ans. Q1. Refer to Section 22.8.2

Self-Check Exercise-7

Ans. Q1. Refer to Section 22.9

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22.14 TERMINAL QUESTIONS

Q1. Explain the main functions of the Reserve Bank of India.

Q2. How does the Reserve Bank of India regulate currency and credit in India?

Q3. Critically examine the monetary policy of the Reserve Bank of India?

Q4. Discuss the role of RBI in the development of Indian economy.

Q5. Evaluate the working of the Reserve Bank of India since 1949.

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INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT (IBRD)

STRUCTURE

23.1 INTRODUCTION

The International Bank for Reconstruction and Development (IBRD), commonly referred to as the World Bank, was conceived during the United Nations Monetary and Financial Conference held in Bretton Woods, New Hampshire. This conference, which took place from July 1 to July 22, 1944, aimed to finalize the Articles of Agreement for both the International Monetary Fund (IMF) and the IBRD. The Bank officially came into existence on December 25, 1944, following the ratification of its Articles of Agreement by the required number of member nations.

The devastation caused by World War II had severely disrupted global trade and resulted in immense loss of life and property. Many European economies, including that of England, were left in ruins. While the urgent need to rebuild war-torn nations was widely acknowledged, it was also recognized that long-term global stability was threatened by significant economic disparities between developed and underdeveloped countries. Addressing these disparities became crucial, highlighting the necessity of economic development in less affluent nations. As a result, the Bretton Woods Conference played a pivotal role in the creation of the International Bank for Reconstruction and Development.

The term 'World Bank' and 'Bank' refers to IBRD and IDA and 'World Bank Group' refers collectively to IBRD, IDA, IFC, MIGA and ICSID. As a true global community the World Bank comprises more than 10,000 staff from 168 countries. More than 38 per cent staff works in the Bank's 124 country offices with their Head quarter at Washington D.C., U.S.A.

23.2 LEARNING OBJECTIVES

After studying this Unit, you will be able to:

- describe the objectives and functions of the World Bank;
- explain the process of funding, financial operations and technical assistance programme of the world bank; and
- learn the role of World Bank in the development of Developing Countries.

23.3 PURPOSES OF IBRD

The World Bank, comprising the International Bank for Reconstruction and Development (IBRD) and the International Development Association (IDA), primarily aims to foster economic and social progress in developing member nations. By enhancing productivity, it seeks to improve the quality of life for people worldwide. As an international financial institution, the Bank's capital stock is collectively owned by its member countries.

The key objectives and functions of the IBRD include:

i. Supporting the reconstruction and development of member nations by facilitating capital investments for productive purposes.

ii. Encouraging foreign private investment by providing guarantees or participating in loans and other capital investments.

iii. Providing loans for productive activities when private capital is unavailable on reasonable terms, either from its own resources or borrowed funds.

iv. Promoting long-term international trade growth and maintaining balance of payments stability by encouraging global investment in productive resources.

v. Ensuring equitable and sustainable economic growth within national economies.

vi. Advancing global environmental sustainability.

vii. Reducing global poverty through financial assistance and risk management solutions.

The IBRD's loans are directed to help the members to build the foundation of sound economic growth. Loans made or guaranteed by the Bank are, except in special circumstances, for the purpose of specific projects of reconstruction and/or development. The Bank ensures that the proceeds of any loan are used only for the purpose for which the loan is granted. The Bank lends to only creditworthy borrowers. Loans are given for only those projects which promise high real rates of economic return to the country. About 14.5 per cent of IBRD's total cumulative loans have been made for the development of electric power and other energy; 15.0 per cent for the development of transportation; 15.0 per cent

for agriculture; 6.0 per cent for industry; 10.0 per cent for finance; 5.0 per cent for education; 4.4 per cent for urban development; 4.0 per cent for water supply and sanitation; 11.6 per cent for multi-sector; 3.0 per cent for oil and gas; 2.2 per cent for population, health and nutrition; 3.0 per cent for public sector management and the balance 6.2 per cent for social sector, telecommunications, environment and mining, other extractive and urban development projects.

SELF-CHECK EXERCISE-23.1

Q1. Write a note on International Bank for Reconstruction and Development

Q2. Discuss the objectives and functions of IBRD

23.4 MEMBERSHIP AND ORGANISATION OF IBRD

A country can become a member of the International Bank for Reconstruction and Development (IBRD) by subscribing to its Charter under the Bank's Articles of Agreement. However, only nations that are members of the International Monetary Fund (IMF) are eligible to join the IBRD. A country's financial contribution to the IBRD is linked to its IMF quota, which reflects its economic standing. As of the end of September 2016, the IBRD had a total of 189 member countries. Any member has the right to withdraw from the Bank at any time, but the withdrawal takes effect only upon the Bank's receipt of a formal written notice. A country failing to meet its obligations to the Bank may face suspension. Even if a government ceases to be a member, it remains responsible for repaying its share of any losses incurred by the Bank up to the date of withdrawal.

The governance structure of the IBRD consists of a Board of Governors, Executive Directors, a President, and other staff members. The Board of Governors, which holds the highest authority in the Bank, includes one governor and an alternate appointed by each member country for a term of five years. Alternates can vote only in the absence of their principals. Each governor's voting power is determined by the financial contribution of the country they represent. While all members are granted a minimum number of votes, major shareholders have significantly more influence. For example, as of the given period, the United States, with a capital subscription of $31,964.5 million, held 16.39% of the total votes, followed by Japan (7.86%), Germany (4.49%), and both France and the United Kingdom (4.30% each). The Board of Governors meets annually, mainly for formal decisions, but these meetings also serve as a platform for high-level discussions on key global financial and economic issues.

The IBRD's Executive Board consists of 24 Directors responsible for overseeing the Bank's general operations. Five of these Directors are appointed by the largest shareholders—the United States, the United Kingdom, Germany, Japan, and France—while the remaining 19 are elected by other member countries. Each Director's voting power corresponds to their government's financial share in the Bank. Although most responsibilities are delegated to the Executive Directors, certain decisions remain under the Board of Governors. The Executive Directors operate continuously and hold meetings at least once a month. A quorum requires the presence of Directors representing at least 50% of the total voting power.

The Bank's President serves as the Chair of the Board of Directors but does not have voting rights, except to cast a deciding vote in the case of a tie. The President is the head of the operating staff and is accountable to the Board of Governors for the Bank's day-to-day activities. Various departments, each headed by a department chief, assist in managing the Bank's functions.

The Executive Directors play a crucial role in decision-making, particularly regarding loan and guarantee approvals for the IBRD, as well as credit, grant, and guarantee proposals for the International Development Association (IDA). They also establish policies

guiding the Bank's general operations and present key reports, including audited financial statements, an administrative budget, and an annual report on the Bank's activities, to the Board of Governors during annual meetings.

SELF-CHECK EXERCISE-23.2

Q1. Discuss the membership and organization of IBRD

23.5 CAPITAL OF IBRD

When the World Bank was established in 1945, its authorized capital was set at US $10,000 million, divided into 100,000 shares of US $100,000 each. Out of this, US $9,400 million was subscribed. Over time, the Bank's authorized capital has been increased with the approval of its member countries. Currently, the authorized capital stands at US $280 billion. A member's total capital subscription is allocated into three categories:

i. **Two percent** is payable in gold or US dollars and is readily available for lending.

ii. **18 percent** is payable in the member's own currency and can be used for lending with the member's consent.

iii. **The remaining 8 percent** is not available for immediate lending but can be called upon when needed to meet the Bank's obligations.

The Bank's capital provides substantial resources for lending, with 20 percent of the subscribed capital being paid up, and an even larger portion serving as a guarantee to help mobilize private capital for international investment. This is achieved either by selling the Bank's obligations to private investors or by offering guarantees for private international credit.

Expanding the Bank's capital base enhances its ability to provide loans for economic development projects. According to its Articles of Agreement, the Bank's total disbursed and outstanding loans cannot exceed its combined subscribed capital and reserves. With a significant increase in capital resources, the Bank is now in a stronger position to expand its lending operations. This development has been widely welcomed, particularly by less developed nations, as it strengthens the Bank's capacity to support global economic growth.

SELF-CHECK EXERCISE-23.3

Q1. Write a note on capital assets of IBRD

23.6 ACTIVITIES OF IBRD

The fundamental aims underlying IBRD's activities are:

i. The Bank is not intended "to provide the external financing required for all meritorious projects of reconstruction and development (but) to provide a catalyst by which production may be generally stimulated and private investment encouraged..."

ii. "The Bank should encourage necessary action the member governments to ensure that the Bank's loans will actually prove productive. The promotion of sound financial programmes, the removal of unnecessary barriers, and the regional integration of production loans, where appropriate, are some of the fields in which the Bank may be able to exert a helpful influence", and

iii. "The Bank must play an active rather than a passive role (and take advantage of its international cooperative charter) to initiate and develop plans to the end that the Bank's resources are used not only prudently from the standpoint of its investors but wisely from the standpoint of the world."

The Bank functions beyond a conventional lending institution, focusing on maximizing the impact of its loans by boosting production, improving living standards in

borrowing member countries, and fostering further investment opportunities. As a policy, the IBRD does not reschedule payments. According to its Articles of Agreement, the Bank remains impartial to the political nature of any member country, considering only economic factors. It also ensures that borrowing nations derive maximum value from their loans, allowing them to procure goods and services from any member country without restrictions.

In recent years, the Bank's role in supporting economic development has significantly expanded. Initially, during the late 1940s and early 1950s, its assistance was centered on large-scale engineering projects. However, the traditional notion of 'bank projects' has evolved into more diverse, policy-oriented, and demonstrative initiatives. The initial focus on 'hardware' projects—such as infrastructure developments like dams, roads, and power plants—has shifted to encompass 'software' projects. These now include investments in education, healthcare, social services, legal and judicial reforms, population and nutrition programs, multi-sector initiatives, urban development, and essential utilities such as water supply, flood control, and sanitation.

23.6.1 Bank's Lending Operations

The International Bank for Reconstruction and Development (IBRD) provides loans to its member countries through the following methods:

i. Directly issuing loans from its own financial resources.

ii. Offering loans sourced from funds raised in the financial markets of member nations or other borrowed funds.

iii. Guaranteeing, either partially or fully, loans provided by private investors through investment channels.

The total outstanding loans, whether issued or guaranteed by the Bank, must not exceed 100% of its total unimpaired subscribed capital, reserves, and surpluses. Before approving or guaranteeing a loan for a member, the Bank ensures that:

- The proposed project undergoes thorough evaluation by a competent committee to assess its feasibility and merits.
- The borrower has a reasonable ability to repay the loan.
- The loan is intended for productive purposes.
- Except in exceptional cases, the loan is designated to cover the foreign exchange costs of specific reconstruction and development projects.

Typically, the IBRD provides medium- and long-term loans, with the duration aligned to the expected lifespan of the equipment or facility being financed. To monitor the projects it funds, the Bank relies on regular reports from borrowers and conducts on-site inspections through its representatives.

The interest rate on IBRD loans is determined based on the estimated cost of borrowing comparable funds from the financial market and remains uniform across all borrowers. In addition to interest, the Bank applies a 1% commission to establish a special reserve for potential losses and a 0.5% fee to cover administrative expenses.

The Bank has made loans for specific development projects in the fields of agriculture, electric power, energy and mining, industry and trade, oil and gas, environment, finance, transportation, health and other social services population and nutrition, water, sanitation and flood protection, social sector, urban development, education etc. In view of the fact that underdeveloped countries need basic transportation facilities to develop their domestic economies and to provide new incentives for production, the Bank has also made loans for the development of transport. Such lending includes the financing of highway construction, railway rehabilitation and development, power and port development.

IBRD lending generally falls into one of two categories: investment or adjustment lending. Investment lending is generally used to finance goods, works and services in support of economic and social development projects in a broad range of sectors. In contrast, adjustment lending generally supports social, structural and institutional reforms. In the past, majority of IBRD loans were for investment projects or programmes. However, the percentage of IBRD loans approved for structural adjustment lending over the past seven years occasionally exceeded 50 per cent. In FY 2004, new IBRD commitments for structural adjustment lending accounted 40.3% of total commitments. Its loans are long-term loans granted at conventional rate of interest for projects of high economic priority. The Bank has grown stronger by way of its lending activities year after year.

In addition to its financial assistance operations, IBRD provides technical assistance to its member countries, both in connection with, and independently of, the lending operations. To assist its developing member countries, IBRD-through the World Bank Institute and its partners-provides courses and other training activities related to economic policy development and administration for governments and organisations which work closely with the IBRD. The IBRD, alone or jointly with the IDA, administers on behalf of donors, funds for specific uses andheld in trust.

23.6.2 Technical Assistance and Other Activities

In addition to providing substantial financial support for various economic development initiatives, the International Bank for Reconstruction and Development (IBRD) offers technical assistance to its member nations, particularly in areas related to loan operations. This assistance includes:

i. Establishing priorities among different development projects.

ii. Adjusting technical plans to enhance efficiency or reduce costs.

iii. Offering guidance on administrative and organizational frameworks for project execution, including strategies for securing local financing.

The Bank has also contributed to development planning through specialized Survey Missions, which conduct in-depth evaluations of the natural resources of developing nations. These studies provide valuable, objective recommendations that serve as a foundation for long-term economic planning. Additionally, the Bank conducts surveys in member countries, offering impartial expert advice on economic development and policy formulation.

Technical assistance remains a vital aspect of the IBRD’s work, with the most significant contributions coming from its support in economic and sectoral analyses, as well as in the identification, preparation, evaluation, and supervision of Bank-backed projects. As a result, even countries that no longer require direct financial assistance from the Bank continue to seek its expertise in project lending, particularly for critical sectors that benefit from technical guidance and institution-building efforts.

Evolution of Technical Assistance

Between 1998 and 1999, the IBRD undertook a comprehensive review of its technical assistance programs due to concerns about their effectiveness. In its earlier years, and throughout the 1970s and 1980s, the Bank primarily focused on engineering assistance for infrastructure projects such as bridges, dams, highways, and telecommunications systems. However, in recent years, its approach has shifted towards capacity building, which involves a more intricate process of knowledge creation and dissemination for development at all societal levels. This shift acknowledges that technical assistance is not only process-driven but also culturally specific.

To further its commitment to capacity building, the Bank established the Institutional Development Fund (IDF) in 1993. This fund provides grants for strengthening institutions and developing skills, even when these activities are not directly connected to Bank-financed

projects. By 1999, the IDF had awarded over 380 grants to 108 member countries. Additionally, the Bank maintains a close partnership with the United Nations Development Programme (UNDP) to further its development objectives.

By 2004, the Economic Development Institute (EDI) had conducted numerous governance-related programs across multiple regions, while the World Bank Institute (WBI) delivered training and development initiatives focused on human capital, poverty reduction, economic management, environmental sustainability, and private sector growth.

Debt Relief Initiatives

During the late 1990s, the IBRD, in collaboration with the International Monetary Fund (IMF), launched a major initiative to reduce the external debt burden of heavily indebted poor countries (HIPCs). This effort led to the creation of the HIPC Debt Initiative Trust Fund, which helped assess eligibility and provide financial relief. Countries such as Uganda, Bolivia, Guyana, and Mozambique have already benefited from this initiative.

Over the past two decades, significant progress has been made in alleviating the debt burdens of the world's poorest nations. As part of a broader development strategy, the HIPC Initiative aims to provide a fresh economic start by reducing debt to manageable levels. At present, 26 of the eligible HIPCs—approximately two-thirds of them—are receiving financial relief amounting to over $40 billion from global creditors. Fourteen of these countries have successfully completed the program.

Dispute Resolution and Global Peace Efforts

Recognizing the importance of investor protection and international dispute resolution, the IBRD established a mechanism for settling conflicts between member states and foreign investors on March 29, 1965. This system, known as the **Convention on the Settlement of Disputes between States and Nationals of Other States**, became operational on October 14, 1966. Under this agreement, the **International Centre for Settlement of Investment Disputes (ICSID)** was created to facilitate arbitration and conciliation of investment-related disputes.

The Bank has also played a crucial role in fostering international peace by mediating complex disputes. Notable examples include resolving tensions between the United Kingdom and the United Arab Republic over the nationalization of the Suez Canal. Additionally, in September 1960, the IBRD successfully negotiated a settlement between India and Pakistan over the division of the Indus River system. This settlement resulted in the establishment of the **Indus Basin Development Fund**, demonstrating the Bank’s commitment to resolving geopolitical conflicts and ensuring long-term stability.

Encouraging Foreign Investment

To attract foreign direct investment (FDI) in developing nations, the **Multilateral Investment Guarantee Agency (MIGA)** was founded in 1988 through IBRD’s efforts. MIGA offers insurance against non-commercial risks such as expropriation, currency inconvertibility, transfer restrictions, war, civil unrest, and contract breaches. This initiative has significantly contributed to increasing investor confidence in emerging markets.

Expanding Development Efforts

Over time, the IBRD has expanded its focus beyond traditional economic development projects to include urban planning, population management, and tourism. To support these new areas, the Bank established a **Population Projects Development and Population Studies Division** within its Economic Department. The first official mission under this initiative took place in 1976–77, when a team of Bank staff and external experts visited Jamaica to help the government design a long-term family planning program.

Recognizing the potential of tourism as a source of foreign exchange for developing countries, the Bank also created a **Tourism Projects Department**. This department provides technical assistance to the International Finance Corporation (IFC) in identifying potential tourism investments. In line with these efforts, the Bank has conducted multiple tourism-related missions in various member nations.

23.6.3 IBRD and the Millennium Development Goals (MDGs)

Several advancements have brought some of the Millennium Development Goals (MDGs) for 2015 within reach. However, achieving these goals requires meeting six essential criteria: fostering stronger and more inclusive economic growth, particularly in Africa and fragile states; increasing efforts in health and education; integrating development and environmental sustainability; enhancing both the quantity and quality of aid; progressing in trade negotiations; and strengthening support from global institutions such as the World Bank.

i. **Eradicating Extreme Poverty and Hunger:** Between 1990 and 2004, the proportion of people living in extreme poverty declined from nearly one-third to less than one-fifth. While progress varies across regions and countries, the global trend suggests that halving poverty rates is achievable. However, poverty levels in Africa are projected to rise, and the continent is home to most of the 36 nations where 90% of the world's malnourished children reside. Less than 25% of countries are on track to achieve the goal of reducing under-nutrition by half.

ii. **Achieving Universal Primary Education:** The enrollment rate for children in developing nations rose from 80% in 1991 to 88% in 2005. Despite this progress, approximately 72 million children of primary school age—57% of whom are girls—were not receiving an education as of 2005.

iii. **Promoting Gender Equality:** Although there has been a gradual improvement in women's participation in the labor market, many remain unpaid family workers, with more than 60% of women worldwide contributing to the workforce without monetary compensation. The World Bank Group Gender Action Plan was launched to support women's economic empowerment and drive inclusive growth.

iv. **Reducing Child Mortality:** While global child survival rates have improved, significant progress is still needed, particularly in South Asia and Sub-Saharan Africa. In 2005 alone, over 10 million children under the age of five died, with most fatalities resulting from preventable causes.

v. **Improving Maternal Health:** Nearly all of the half-million maternal deaths occurring annually take place in Sub-Saharan Africa and Asia. These deaths result from multiple factors, underscoring the need for accessible and comprehensive healthcare interventions.

vi. **Combating HIV/AIDS, Malaria, and Other Diseases:** Although new HIV infections and AIDS-related deaths have declined, the number of individuals living with HIV continues to rise. In eight of the most affected southern African nations, prevalence exceeds 15%. While global access to HIV treatment has expanded, it still only meets 30% of the demand, with disparities across countries. AIDS remains the leading cause of death in Sub-Saharan Africa, accounting for 1.6 million fatalities in 2007. Additionally, malaria remains a severe health challenge, with 300 to 500 million cases annually leading to over a million deaths, predominantly in Sub-Saharan Africa.

vii. **Ensuring Environmental Sustainability:** Deforestation continues to threaten biodiversity, which is declining at an alarming rate. Furthermore, greenhouse gas emissions are increasing faster than advancements in energy technology, exacerbating environmental concerns.

viii. **Developing a Global Partnership for Development:** Donor countries have reaffirmed their commitment to supporting development initiatives. However, they must fulfill their financial pledges to sustain the current pace of core program advancements. Strengthened collaboration between the World Bank Group, multilateral institutions, and local partners is crucial to accelerating progress toward the MDGs.

SELF-CHECK EXERCISE-23.4

Q1. Discuss the lending operations of IBRD

Q2. Explain the Millennium Development Goals and discuss the performance of the IBRD in this respect.

23.7 IBRD AND THE DEVELOPING COUNTRIES

Apart from providing traditional loans for development projects, the International Bank for Reconstruction and Development (IBRD) has actively sought external financial support from developed nations to assist underdeveloped countries. Through the Bank's dedicated efforts, a consortium of 12 Western lending nations—known as the 'Aid India Club'—was established to help India address its foreign exchange challenges. This group, comprising the United Kingdom, the United States, West Germany, Japan, France, Canada, Italy, Sweden, Austria, Belgium, the Netherlands, and Holland, provided financial assistance of $5.472 billion during India's Third Five-Year Plan to support its economic growth.

Similarly, the Bank facilitated the creation of the 'Help Pakistan Club,' which included the United States, the United Kingdom, Japan, and several Western European nations. This initiative aimed to encourage these countries to mobilize financial resources for Pakistan's economic development. Additionally, at the request of both donor and recipient nations, the Bank has played a crucial role in organizing aid coordination mechanisms for various developing nations that receive financial support from multiple bilateral and multilateral sources.

Significant contributions by the World Bank include the establishment of the International Development Association (IDA), often referred to as the 'soft loan window.' This initiative allows underdeveloped countries to borrow funds in hard currencies without the obligation to repay in the same currency. Another key development was the amendment to the charter of the International Finance Corporation (IFC), enabling it to provide equity capital to private industrial enterprises in developing nations.

Over time, the Bank's lending priorities have increasingly shifted towards critical sectors such as agriculture, rural development, transportation, education, urban infrastructure, social development, and industry—areas essential for fostering economic growth in borrowing countries. Additionally, the Bank has undertaken notable poverty alleviation programs and collaborated with the International Monetary Fund (IMF) to ease the external debt burden of heavily indebted poor countries.

Since its inception in 1944, the IBRD has financed over 12,000 projects globally through a combination of low-interest, zero-interest, and conventional loans. Some of its recent initiatives include:

- **March 2022 (Africa)**: Supporting sustainable farming practices to reduce the use of harmful chemicals.
- **January 2022 (Cambodia)**: Launching an initiative to enhance education quality and ensure universal access to schooling.
- **December 2021 (Pakistan)**: Financing a power sector project to improve electricity distribution through selected companies.

- **February 2022 (Africa)**: Implementing measures to mitigate the socio-economic impact of COVID-19.
- **December 2021 (India)**: Funding a project in Karnataka to ensure the efficient delivery of clean and safe piped water.

These initiatives highlight the IBRD's ongoing commitment to fostering sustainable economic development and improving living standards worldwide.

SELF-CHECK EXERCISE-23.5

Q1. How does the IBRD help the Developing Countries?

23.8 IBRD AND INDIA

India was among the forty-four original signatories of the Bretton Woods agreements, which led to the establishment of the International Bank for Reconstruction and Development (IBRD) and the International Monetary Fund (IMF). Additionally, India became a founding member of the International Finance Corporation (IFC) in 1956 and the International Development Association (IDA) in 1960. Later, in January 1994, India joined the Multilateral Investment Guarantee Agency (MIGA). However, India is not a member of the International Centre for Settlement of Investment Disputes (ICSID), as it has raised concerns about the fairness of its arbitration process, arguing that the rules are skewed in favor of developed nations. In ICSID, the Chairman of the World Bank also serves as the Chairman of the Centre, with the authority to appoint arbitrators. Furthermore, if a party is dissatisfied with an arbitration award, it must appeal to a panel constituted by ICSID, without the possibility of review by Indian courts—even if the ruling conflicts with public interest.

India's association with IBRD began in 1949 with a loan for the Indian Railways. The first IFC investment in India occurred in 1959, followed by IDA's first loan in 1961 for a highway construction project. During the 1950s, IBRD was India's primary source of World Bank funding. However, by the decade's end, India's growing debt burden contributed to the creation of IDA, the World Bank's concessional lending arm. By the late 1960s, the United States—India's largest provider of external assistance—significantly reduced its bilateral aid. Consequently, the World Bank emerged as India's most crucial source of long-term financing.

Throughout the 1960s and 1970s, IDA accounted for nearly three-quarters of all World Bank lending to India, making the country its largest beneficiary, receiving over two-fifths of total IDA funds. However, in the 1980s, India's share of IDA assistance declined due to China's entry into the World Bank, the worsening economic conditions in Africa, and India's relatively stronger economic performance. Consequently, India's reliance on IBRD financing increased as its creditworthiness improved and the government became more open to non-concessional borrowing.

During the 1980s, the World Bank shifted its focus toward policy reforms and economic liberalization but continued financing inefficient public sector entities in India while refraining from strong criticism of its closed economy. However, this lending pattern changed significantly following India's 1991 macroeconomic crisis. In response, India became one of the last major borrowers to accept structural adjustment lending, which supported reforms in finance, taxation, and trade policies.

Currently, India is classified as a "blend" country, signifying its transition from a lower-middle-income to a middle-income economy, making it eligible for both IDA and IBRD funding. India is also the World Bank's largest IBRD borrower, receiving approximately $10.2 billion between 2015 and 2018. For the 2019-2022 period, the World Bank Group (WBG) approved a commitment plan ranging between $25 billion and $30 billion for India.

MIGA's Performance Standards include environmental and social criteria that guide the development of sustainable projects. One of the key risk-mitigation options MIGA offers

to investors in India is breach of contract insurance. Under this arrangement, if the Indian government fails to fulfill its contractual obligations, MIGA provides coverage to safeguard investments.

In July 2020, the World Bank and the Government of India signed a $750 million agreement for an Emergency Response Programme aimed at supporting Micro, Small, and Medium Enterprises (MSMEs). Additionally, in May 2020, the World Bank approved $1 billion for India's COVID-19 Social Protection Response Programme. In November 2021, India and the World Bank signed a $40 million agreement for the Meghalaya Health Systems Strengthening Project. This initiative seeks to enhance infection prevention and control measures, strengthen responses to pandemics and health emergencies, and improve biomedical waste management while ensuring environmental sustainability and patient safety.

Projects and Alliances supported by World Bank in India

Category	Project/Alliance	Launched Year	Details
Education	Sarva Shiksha Abhiyan (SSA)	2001	The program aimed to provide elementary education for around 200 million children across the country The program focuses on improving quality and developing learning indicators by the National Council for Education Research and Training in order to evaluate children's progress in acquiring educational knowledge
	Odisha Higher Education Program for Excellence and Equity	2017	The development objective of the Program is to improve the quality of and students' equitable access to selected institutions and enhance governance of the higher education system in Odisha
Agriculture	National Dairy Support Project	2012	The development objective is to increase the productivity of milch animals and improve market access of milk producers in project areas
	Atal Bhujal Yojana (Abhy)-National Groundwater Management Improvement	2018	This is an initiative for ensuring long term sustainability of ground water resources in the country
Health	Program Towards Elimination of Tuberculosis	2019	The objective of the programme is to improve the coverage and quality of TB control interventions in the private and public sector in targeted states of India.
	Innovate in India for Inclusiveness	2017	The development objective of Innovate in India for Inclusiveness is to facilitate innovation in biopharmaceutical products and medical devices that address public health priorities in India.
Food Security	National Nutrition Mission (also known as ICDS Systems	2018	The development objective of the National Nutrition Mission Project for India is to support the Government of India and participating states to

Category	Project/Alliance	Launched Year	Details
	Strengthening and Nutrition Improvement Project: Additional Financing)		strengthen the Integrated Child Development Services (ICDS) policy framework, systems and capacities, and facilitate community engagement, to ensure greater focus on children under three years of age; and strengthen convergent actions for improved nutrition outcomes
Infrastructure	Dam Rehabilitation & Improvement Project	2019	This is to improve the safety and operational performance of selected existing dams in the territory of the participating states
	Eastern Dedicated Freight Corridor Project	2016	The Government of India and the World Bank today signed a $650 million agreement for faster and more efficient movement of raw materials and finished goods between the north and eastern parts of India
	India Low-Income Housing Finance	2013	This is to provide access to sustainable housing finance for low income households, to purchase, build or upgrade their dwellings.
	IN National Ganga River Basin Project	2011	The objectives of the National Ganga River Basin Project for India are to support the National Ganga River Basin Authority (NGRBA) in: building capacity of its nascent operational-level institutions, so that they can manage the long-term Ganga clean-up and conservation program; and implementing a diverse set of demonstrative investments for reducing point-source pollution loads in a sustainable manner, at priority locations on the Ganga.
	Sustainable Urban Transport Project	2009	The objective is to promote environmentally sustainable urban transport in India and to improve the usage of environment-friendly transport modes through demonstration projects in selected cities
	The Pradhan Mantri Gram Sadak Yojana Project	2000	The project aims to connect unconnected habitations with all-weather roads. Key to the program is an all-weather access to the respective roads
Skill Development	Skill India Mission Operation	2017	The project has been developed to enhance institutional mechanisms for skill development and increase access to quality and market-relevant training for the workforce.
	NaiManzil – Education and Skills Training for Minorities	2016	The project aims to improve completion of secondary education and market-driven skills training for targeted youth from minority communities.

Category	Project/Alliance	Launched Year	Details
Climate Change	Innovation in Solar Power and Hybrid Technologies	2019	The Objectives are to demonstrate the operational and economic feasibility of utility-scale innovative renewable energy technologies and battery energy storage solutions, and to strengthen institutional capacity to facilitate scale-up of such technologies on a commercial basis in India.
Energy	India Energy Efficiency Scale-up Program	2018	The development objective of Energy Efficiency Scale-up Program Project for India are to scale up energy savings in residential and public sectors, strengthen Energy Efficiency Services Limited's (EESL) institutional capacity, and enhance its access to commercial financing
Disaster Management	Integrated Coastal Zone Management	2010	The project has been launched by World Bank to assist Government of India (GoI) in building national capacity for implementation of comprehensive coastal management approach in the country, and piloting the integrated coastal zone management approach in states of Gujarat, Orissa and West Bengal
Human Resource Development	Country Partnership Framework for India	2018	The partnership emphasizes an efficient and sustainable growth path and fosters competitiveness to create new job opportunities and investments in human capital. It is embedded in the Sustainable Development Goals of the United Nations and focuses on strengthening of public-sector institutions in order to create strong governance. The country partnership framework between the World Bank and India is the largest country partnership framework in the World Bank Group and it supports India's transition to a middle-income country
	North East Rural Livelihoods Project (NERLP)	2012	The development objective of the North East Rural Livelihoods Project for India is to improve rural livelihoods, especially that of women, unemployed youths and the most disadvantaged, in the participating North Eastern States.

SELF-CHECK EXERCISE-23.6

Q1. How far has been India benefited from her membership of the World Bank?

23.9 CRITICISMS OF IBRD

i. The International Bank for Reconstruction and Development (IBRD) has faced criticism on multiple fronts. One major concern is the high interest rates it charges on loans, even when these loans are backed by government guarantees, eliminating the risk of capital loss. This concern is valid, as India's recent loans from the Bank carry an interest rate exceeding seven percent, including a one percent commission

allocated to the Bank's special reserve fund. While it is reasonable for the Bank to follow sound financial practices, it should also uphold its mission of assisting borrowing nations. The institution was established to promote long-term international economic stability by enabling economically weaker countries to mobilize their resources. To fulfill this objective, the interest rates should be low enough to encourage frequent borrowing. Additionally, the one percent commission charged by the Bank appears unnecessary. However, in an attempt to adopt a more rational approach, the Bank introduced a revised formula for determining interest rates on loans issued after July 1, 1976. Under this system, the lending rate is reviewed quarterly and set at 0.5 percent above the weighted average cost of funds borrowed by the Bank over the preceding 12 months. This adjustment has made the Bank's lending rate more flexible, varying in response to global financial market conditions. For instance, the lending rate was recently reduced from 7.9 percent to 7.45 percent.

ii. Another point of criticism is the Bank's requirement that borrowing countries demonstrate sufficient transfer or repayment capacity before a loan is approved. This approach is flawed, as a country's transfer capacity is developed through the implementation of projects funded by these loans rather than existing beforehand. In developing nations, where untapped resources await investment and utilization, insisting on pre-existing transfer capacity before loan approval is an impractical and restrictive policy.

iii. Although the IBRD is intended to be a neutral and non-political institution that treats all member nations equally, loan allocations have not always been based purely on merit or economic considerations. Historically, many economically disadvantaged nations in Asia and Africa have struggled to secure adequate funding. Although the Bank claims to have increased loan disbursements to these regions over the last eight decades (since 1944), raising their share from 23 percent to over 80 percent, disparities persist. Given that Asia and Africa collectively account for the largest share of the global population and possess vast untapped economic resources, financial assistance to these regions remains insufficient. In contrast, Europe and the Western Hemisphere, which have smaller populations and land masses, have received significantly higher loan amounts. These allocations cannot be justified purely on economic grounds.

iv. While the IBRD has played a crucial role in shaping and strengthening the economies of borrowing nations, its financial support remains inadequate relative to the enormous funding requirements of various development projects. The assistance provided by the Bank is often insufficient to meet the large-scale investment needs of its member countries, limiting its overall impact on economic development.

SELF-CHECK EXERCISE-23.7

Q1. On which grounds has the functioning of IBRD been criticised?

23.10 SUMMARY

Although IBRD may have belied the expectations of some nations, in appraising the Bank's role we should not forget the limitations within which the Bank works. The Bank has been largely instrumental in accelerating the pace of economic development in different countries of the world. Although the IBRD has failed to finance all the development projects, it has nevertheless financed a large number of them which have proved a remarkable success. The Bank has also played a significant role outside the sphere of finance by serving as a mediator between different countries on major knotty issues, e.g., between the United Kingdom and the United Arab Republic on the nationalisation of Suez Canal and between India and Pakistan in resolving the Indus Basin water dispute. It can be hoped that in future IBRD will be in a stronger position to render financial assistance to the member

countries with its increased capital resources and with the active co-operation of its affiliates-International Development Association and the International Finance Corporation.

The Bank is actively engaged with global partners on climate change which threatens to erode development gains around the world. The Operation Evaluation Department (OED) is an independent unit in the World Bank that reports directly to the Bank's Board of Directors. It provided an objective basis for assessing the Bank work and allow the Bank staff to learn from past experiences. IBRD or the world bank have always been a helping hand for all countries, but still, there are many poor and middle-income countries that need the help of IBRD. For example, recently the Srilankan economy collapsed and now there is a huge shortage of basic necessities thus in such conditions a small help from IBRD can turn into great relief.

23.11 GLOSSARY

- **Bretton Woods:** A Town in New Hampshire at which in 1944 a conference launched the IMF and the World Bank. These, along with the GATT/WTO became known as Bretton Woods Institutions. All the three institutions together comprise the Bretton Woods System.
- **Structural Adjustment Program:** the list of budgetary and policy changes required by the IMF and World Bank in order for a developing country to qualify for a loan. This conditionality typically includes reducing barriers to trade and capital flows, tax increases, and cuts in government spending.
- **World Bank Group:** The World Bank Group is an international partnership comprising 189 countries and five constituent institutions that works towards eradicating poverty and creating prosperity. The five development institutions under the World Bank Group are a) International Bank for Reconstruction and Development (IBRD); b) International Development Association (IDA); c) International Finance Corporation (IFC); d) Multilateral Guarantee Agency (MIGA); and e) International Centre for the Settlement of Investment Disputes (ICSID)

23.12 ANSWERS TO SELF-CHECK EXERCISES

Self-Check Exercise-23.1

Ans. Q1. Refer to Section 23.3

Ans. Q2. Refer to Section 23.3

Self-Check Exercise-23.2

Ans. Q1. Refer to Section 23.4

Self-Check Exercise-23.3

Ans. Q1. Refer to Section 23.5

Self-Check Exercise-23.4

Ans. Q1. Refer to Section 23.6.1

Ans. Q2. Refer to Section 23.6.1

Self-Check Exercise-23.5

Ans. Q1. Refer to Section 23.7

Self-Check Exercise-23.6

Ans. Q1. Refer to Section 23.8

Self-Check Exercise-23.7

Ans. Q1. Refer to Section 23.9

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23.14 TERMINAL QUESTIONS

Q1. State the functions of the International Bank for Reconstruction and Development. How far has the World Bank been successful in performing these functions?

Q2. Explain the role which the World Bank has played in the economic development of its less developed countries. How far has been India benefited from her membership of the World Bank?

Q3. Explain the Millennium Development Goals and discuss the performance of the IBRD in this respect.

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INTERNATIONAL MONETARY FUND (IMF)

STRUCTURE

24.1 INTRODUCTION

The establishment of the International Monetary Fund (IMF) marked a significant milestone in global economic cooperation. The idea for its creation emerged from the Bretton Woods Conference held in the United States in 1944. This conference led to the formation of both the IMF and the International Bank for Reconstruction and Development (IBRD). The IMF was officially established in December 1945 and began facilitating exchange transactions by

March 1947. Currently, it has 189 member countries. The IMF serves as a repository of central bank reserves and national currencies, which are accessible to member nations under specific conditions. Essentially, it functions as an extension of the central bank reserves of its member states.

24.2 LEARNING OBJECTIVES

By the end of this Unit, you will be able to:

- describe the objectives and functions of the IMF;
- explain the process of funding, financial operations and technical assistance programme of the IMF; and
- discuss the role of IMF in the development of Developing Countries

24.3 OBJECTIVES OF IMF

The primary goals behind the establishment of the International Monetary Fund (IMF) are as follows:

i. **Fostering International Monetary Cooperation:** The IMF aims to promote global monetary cooperation by providing a permanent institutional framework for financial collaboration among nations.

ii. **Encouraging Balanced Growth of International Trade:** Another key objective is to facilitate the expansion and balanced development of international trade. This, in turn, helps in maintaining high levels of employment and economic stability among member nations.

iii. **Ensuring Exchange Rate Stability:** The IMF seeks to promote exchange rate stability by maintaining orderly exchange arrangements among its members and preventing competitive currency devaluation.

iv. **Facilitating Multilateral Payment Systems:** It assists in establishing a multilateral payment system for current account transactions among member countries while working to eliminate foreign exchange restrictions that hinder global trade.

v. **Addressing Balance of Payments Issues:** The IMF provides financial resources to member nations under appropriate safeguards, enabling them to rectify imbalances in their balance of payments without resorting to harmful economic measures. However, it does not interfere in the domestic economic policies of member countries.

vi. **Reducing the Severity and Duration of Economic Imbalances:** One of its objectives is to minimize the extent and duration of disequilibrium in the international balance of payments of member states.

vii. **Eliminating Foreign Exchange Restrictions:** The IMF works towards removing restrictions and controls imposed by member nations on foreign exchange transactions to promote free and fair global trade.

viii. **Facilitating International Payments:** By lending or selling foreign currencies to member countries, the IMF enables smoother international financial transactions.

ix. **Providing Emergency Financial Assistance:** The IMF extends short-term financial aid to member nations during economic crises, ensuring liquidity support in times of need.

SELF-CHECK EXERCISE-24.1

Q1. Write a note on International Monetary Fund

Q2. Discuss the objectives and functions of IMF

24.4 MEMBERSHIP AND CAPITAL ASSETS OF IMF

24.4.1 Membership of IMF

The IMF has two categories of members:

1. **Original Members:** These are the countries whose representatives participated in the Bretton Woods Conference and agreed to join the Fund before December 31, 1945.
2. **Ordinary Members:** Countries that joined the IMF after this date are considered ordinary members. A country may withdraw its membership by submitting a formal written notice. Additionally, the IMF has the authority to revoke the membership of any country that fails to comply with its regulations. Since its inception with 40 member countries in 1947, the IMF's membership has grown to 189 countries.

Organization and Governance

The IMF's operations are managed through the following administrative bodies:

1. **Board of Governors:** Each member country appoints one Governor and one Alternate Governor. The Board meets annually and is responsible for shaping the Fund's policies.
2. **Board of Directors:** This body oversees the IMF's daily operations. It comprises 21 directors—seven permanent and 14 elected members. The seven permanent directors represent countries with the largest financial contributions to the Fund, currently including the United States, Japan, Germany, France, China, Italy, and Saudi Arabia. The remaining directors are elected by other member nations, with India being one of the elected representatives. Since June 1994, the Managing Director has had the authority to appoint up to three Deputy Managing Directors instead of one.

24.4.2 Capital Assets of IMF

The financial resources of the fund are contributed by member countries through their designated quotas. Each member's quota is determined prior to its admission and is expressed in Special Drawing Rights (SDRs). Countries are required to contribute 25% of their quota in reserve assets, such as SDRs or other widely accepted currencies, while the remaining 75% is provided in their national currency. A country's interactions with the fund are influenced by its quota in the following ways:

(a) The voting power of a member country is linked to its quota. Every country is allotted a minimum of 250 votes, with an additional vote granted for every 100,000 SDRs.

(b) The maximum financial assistance a country can obtain from the fund to address balance of payments issues is determined by its quota.

(c) A country's allocation of SDRs is based on its quota. The fund reviews and adjusts quotas every five years. Over time, the fund has modified the quotas of its member countries. In 2010, the total quota allocation by the fund increased to approximately 238.4 billion SDRs.

The quota of a member country determines three key aspects:

i. Its share in the fund's capital.

ii. The amount of financial assistance it can receive.

iii. The number of votes it can exercise.

The United States holds the largest quota, accounting for 17.7% of the fund's total capital. As of the end of August 2009, the total quotas of the International Monetary Fund (IMF) amounted to SDR 217.4 billion, equivalent to approximately USD 325 billion.

SELF-CHECK EXERCISE-24.5

Q1. Write a note on membership of IMF

Q2. Discuss the capital assets of IMF

24.5 OPERATIONAL STRATEGY OF THE FUND

24.5.1 Borrowing Strategy of the Fund:

The Fund serves as a crucial financial institution, in addition to fulfilling regulatory and advisory roles. Its primary financial resources originate from quota contributions by member nations. Additionally, it has the ability to borrow from governments, central banks, private institutions in developed nations, the Bank for International Settlements, and even oil-exporting countries such as Saudi Arabia.

General Arrangements to Borrow (GAB) and New Arrangements to Borrow (NAB): The Fund can access financial resources from 20 industrialized member countries through the General Arrangements to Borrow (GAB) and the New Arrangements to Borrow (NAB). These mechanisms are credit agreements between the International Monetary Fund (IMF) and a select group of member states and institutions. Their purpose is to provide additional financial resources, up to SDR 34 billion (approximately US$50 billion), to safeguard the stability of the international monetary system or to address extraordinary circumstances that may threaten its integrity.

24.5.2 Lending Strategy of the Fund

Under the Fund's tranche policies, member countries can access financial assistance through the reserve tranche, four credit tranches, and three specialized lending facilities, each designed for distinct economic needs. These include:

- **Compensatory Financing Facility (CFF):** Established in 1963 and revised in 1975 and 1979 to help countries manage export fluctuations.
- **Buffer Stock Financing Facility:** Introduced in 1969 to support commodity price stabilization efforts.
- **Extended Fund Facility (EFF):** Initiated in 1974 to provide medium-term financial assistance.
- **Structural Adjustment Facility (SAF):** Launched in March 1986 to aid economic restructuring.

The Fund provides financial support to member countries experiencing temporary balance of payments imbalances. If a country's currency reserves fall below its allocated quota, the shortfall is termed the "reserve tranche." A member nation can withdraw up to 25% of its reserve tranche without conditions by presenting its balance of payments needs to the Fund. No interest is charged on such withdrawals, and repayment must be completed within three to five years.

24.5.3 Credit Strategy of the Fund

Credit Tranches: A member country can access up to 100% of its balance quota in phased installments through credit tranches. However, these withdrawals are conditional, requiring the borrowing country to implement a credible financial program that ensures economic stability.

To address severe balance of payments crises, the Fund has progressively increased borrowing limits for member countries. Currently, a member nation can obtain

financial assistance up to 300% of its newly revised quota in total net use of the Fund's resources. However, withdrawals made under specific programs such as the Compensatory and Contingency Financing Facility (CCFF), Buffer Stock Adjustment Facility (BSAF), Structural Adjustment Facility (SAF), Systemic Transformation Facility (STF), and Enhanced Structural Adjustment Facility (ESAF) are excluded from this borrowing cap.

24.5.4 Other Credit Facilities

Since 1960, the Fund has introduced several credit facilities beyond the conventional borrowing under credit tranches. These loans are designed for long-term financial assistance. The key credit facilities include:

i. **Buffer Stock Financing Facility (BSFF)** (1969): Established to assist member nations in financing commodity buffer stocks, this facility allows a country to withdraw up to 30% of its quota. Countries utilizing this facility must collaborate with the Fund to stabilize commodity prices domestically. Repayments are scheduled between 3¼ and 5 years.

ii. **Extended Fund Facility (EFF)** (1974): Created to address balance of payments deficits, this facility offers larger credit amounts compared to standard borrowing limits. Loans under EFF can extend up to 300% of a member's quota and are provided for a maximum period of 10 years. Disbursements are based on performance benchmarks and phased installments.

iii. **Supplementary Financing Facility (SFF)** (1977): Designed to offer additional financial support through extended or stand-by arrangements, SFF assists member nations facing significant balance of payments deficits relative to their economies and quotas. In 1980, the Fund introduced a Subsidy Account to lower borrowing costs for low-income developing nations by providing financial relief.

iv. **Structural Adjustment Facility (SAF)** (1986): This facility was introduced to support medium-term macroeconomic and structural adjustment programs in low-income countries. The loans, offered on highly concessional terms, charge an interest rate between 0.5% and 1%, with repayment periods ranging from 5½ to 10 years and a grace period of 5 years. Disbursements are made annually, with allocations equivalent to 15%, 20%, and 15% of the member's quota across three years. SAF was initially funded with SDR 2.7 billion, primarily sourced from Trust Fund loan repayments.

v. **Enhanced Structural Adjustment Facility (ESAF)** (1987): ESAF was introduced with SDR 6 billion in resources to meet the medium-term financing needs of low-income countries. It shares similar objectives and eligibility criteria with SAF, but offers greater financial assistance. Under this facility, members can access up to 100% of their quota over a three-year program, with a provision to extend up to 250% in exceptional cases. Unlike SAF, disbursements occur biannually instead of annually.

vi. **Compensatory and Contingency Financing Facility (CCFF)** (1988): This facility was designed to provide financial assistance to member nations experiencing temporary export shortfalls or unexpected increases in cereal import costs due to external factors. In 1990, the Fund expanded CCFF to help nations recovering from the Gulf War Crisis, allowing up to 95% of their quota. Additionally, the scope of compensatory financing was broadened to include revenue shortfalls from workers' remittances, tourism, shipping, construction, insurance, and other service-related earnings.

vii. **Systemic Transformation Facility (STF)** (1993): Created with a fund of $6 billion, STF aimed to assist Russia and the Central Asian Republics in addressing their balance of payments crises during economic transitions.

viii. **Emergency Structural Adjustment Loans (ESAL)** (1999): Introduced to support Asian and Latin American nations facing financial crises, ESAL provided short-term financial aid with interest rates 3% to 5% higher than the Fund's regular lending rates.

ix. **Contingency Credit Line (CCL)** (1999): Designed to shield economically stable nations from financial crises spreading from other countries, CCL was available to nations with a strong financial sector, healthy debt management, and the ability to manage medium-term balance of payments. However, no country has utilized this facility to date.

24.5.5 Other Facilities

The International Monetary Fund (IMF) provides guidance to its member countries on various economic challenges, including balance of payments issues, exchange rate fluctuations, and monetary and fiscal policies. To address banking and fiscal concerns, the IMF has established three specialized departments:

1. **Central Banking Service Department** – This department offers expert assistance to member countries in managing and operating their central banks. It primarily supports developing nations in implementing banking reforms.
2. **Fiscal Affairs Department** – This division provides advisory services on fiscal policies and financial management for member states.
3. **IMF Institute** – It organizes short-term training programs on fiscal, monetary, banking, and balance of payments policies for government officials from member countries.

Beyond these departments, the IMF's research division publishes numerous reports annually, covering various economic policies and developments. Some of its key publications include the *IMF Annual Report*, *IMF Staff Papers*, and the *Finance and Development Journal*.

SELF-CHECK EXERCISE-24.3

Q1. Discuss the borrowing strategy of the IMF

Q2. What is lending strategy of the Fund

Q3. Discuss that credit strategy of the Fund

24.6 STRATEGY REGARDING EXCHANGE RATES POLICY

According to Article I of the Articles of Agreement, member countries are required to cooperate with the International Monetary Fund (IMF) and other members to ensure an orderly exchange rate system and promote stability in global exchange arrangements. The Second Amendment to the Articles introduced a new framework under Article IV, emphasizing the following commitments:

i. **Economic and Financial Policy Direction**: Each member must guide its economic and financial policies toward fostering sustainable economic growth while maintaining reasonable price stability, considering its unique economic conditions.

ii. **Maintaining Stability**: Members should strive to uphold stable economic and financial conditions, ensuring that the global monetary system does not experience unnecessary disruptions.

iii. **Avoiding Exchange Rate Manipulation**: No member should manipulate exchange rates or the international monetary system to obstruct balance of payments adjustments or gain an unfair competitive advantage over other nations.

These principles were established to monitor compliance and ensure the effective functioning of the international monetary system. The Second Amendment mandates that members adhere to specific guidelines regarding exchange rate policies, outlined as follows:

- **Avoiding Exchange Rate Manipulation**: Countries should refrain from influencing exchange rates or the monetary system to prevent necessary balance of payments adjustments or to gain a competitive edge.
- **Market Intervention**: If required, members should intervene in the foreign exchange market to counteract disorderly conditions, particularly those involving disruptive short-term fluctuations in currency values.
- **Consideration for Other Members**: In implementing intervention policies, countries must take into account the interests of other members, including those whose currencies are involved in the intervention.

Initially, the IMF Agreement required that each country express its currency's value in terms of gold or the U.S. dollar to establish a stable exchange rate system. Adjustments within a ±1% margin of the initial par value were permitted, with additional changes requiring IMF approval. However, this fixed exchange rate system transitioned to a flexible exchange rate regime in 1971, eliminating IMF control over exchange rate adjustments by member states.

Under the current framework, a country can modify its currency's par value by up to 10% by simply notifying the IMF. For adjustments exceeding 10% but up to 20%, prior approval from the IMF is necessary, with a response required within 72 hours. Changes beyond 20% require further deliberation and must be approved by at least two-thirds of IMF members. Additionally, the IMF has the authority to alter the par values of all member countries collectively through a majority decision. Any country opposing such changes must notify the IMF within 72 hours.

A nation is permitted to adjust its currency’s par value only when facing a “fundamental disequilibrium” in its balance of payments, ensuring that such actions are taken in response to genuine economic challenges.

SELF-CHECK EXERCISE-24.4

Q1. Discuss the strategy of IMF regarding exchange rates policy.

24.7 MAIN FUNCTIONS OF IMF

Based on the overview provided, it is evident that the Fund carries out several essential functions. It interacts exclusively with a country's central bank or government and does not have the authority to interfere in the domestic economies of its member nations. Below are the primary roles of the Fund, though some of these have undergone modifications:

i. **Exchange Rate Determination**: When a country joins the Fund, it must establish the par value of its currency in relation to the U.S. dollar or gold. This system facilitates the multilateral convertibility of currencies.

ii. **Provision of Foreign Currency Loans**: If a country faces a balance of payments deficit, the Fund provides foreign currency loans at a predetermined exchange rate. These short-term loans help the borrowing nation meet its international financial obligations.

iii. **Regulation of Foreign Currency Transactions**: The Fund engages in the buying and selling of member countries' currencies. When a nation purchases foreign currency from the Fund, the latter acquires it from the issuing country. However, a member state can obtain foreign currency from the Fund only up to 15% of its quota within a single year.

iv. **Acting as a Central Bank for Central Banks**: The Fund functions as a global central bank, holding and managing the financial reserves of the central banks of its member states, much like how national central banks manage the reserves of commercial banks.

v. **Technical Assistance**: The Fund extends technical support to its members by deploying experts to advise on areas such as exchange control, foreign payments, credit management, central banking policies, and economic strategies. It also publishes research journals and reports to support economic policymaking.

vi. **Training Programs**: The Fund offers short-term training sessions to representatives of member countries, particularly senior officials from central banks and finance ministries. To enhance its training initiatives, a dedicated training center was established in 1975.

vii. **Emergency Support Mechanism**: While the Fund generally discourages trade and foreign exchange restrictions, it allows member nations to impose such controls temporarily during economic crises, with the expectation that these measures will be lifted once stability is restored.

viii. **Short-Term Credit Facility**: The Fund serves as a financial safety net for countries facing temporary balance of payments challenges. It acts as a secondary line of defense, supplementing a nation's own foreign exchange reserves to meet financial obligations.

ix. **Support for Balance of Payments Adjustments**: The Fund offers a structured approach to adjusting exchange rates. If a country deems its exchange rate misaligned with its economic conditions, it can modify it after consulting with Fund authorities.

x. **Platform for International Economic Consultations**: The Fund provides a structured forum where major economies can engage in discussions and resolve conflicting economic interests through diplomatic negotiations.

xi. **Promotion of Exchange Rate Stability**: By facilitating systematic exchange rate adjustments, the Fund contributes to global financial stability and reduces uncertainties in international trade and investment.

SELF-CHECK EXERCISE-24.5

Q1. Discuss the main two functions of IMF .

24.8 IMF AND INDIA

India has been a founding member of the International Monetary Fund (IMF) since its inception. The country's Finance Minister serves as an ex-officio Governor on the IMF's Board of Governors, while the Governor of the Reserve Bank of India (RBI) holds the position of Alternate Governor. The IMF has played a crucial role in global monetary regulation, significantly contributing to the expansion of international trade, from which India has benefitted.

In the aftermath of partition, India faced severe balance of payments deficits, particularly with nations dealing in the US dollar and other hard currencies. During this challenging period, the IMF extended financial assistance to India. The organization provided loans to help the country manage economic difficulties arising from the Indo-Pak conflicts of 1965 and 1971. Between the establishment of the IMF and March 31, 1971, India had borrowed foreign currencies worth ₹817.5 crores from the IMF, which were fully repaid.

With the introduction of Special Drawing Rights (SDRs) in 1969, IMF assistance to member nations, including India, increased. India had to seek financial support due to the rising costs of essential imports such as food, fuel, and fertilizers. In 1981, the country

received a significant loan of approximately ₹5,000 crores to address a persistent balance of payments crisis.

India required substantial foreign capital for large-scale infrastructure projects, including river management, land reclamation, and communication networks. Since private foreign investment was insufficient, the country sought funding from the International Bank for Reconstruction and Development (World Bank). Additionally, India utilized the expertise of IMF specialists for economic assessments, benefiting from their independent evaluation and recommendations.

Following the global oil price surge in 1973, India's balance of payments deteriorated significantly. To address this, the IMF established a special oil facility fund, providing financial support to affected countries, including India.

In the early 1990s, India's foreign exchange reserves dwindled to a critical level, barely sufficient for two weeks' worth of imports—far below the recommended minimum reserve of three months. In response, the Indian government secured an emergency loan of $2.2 billion from the IMF by pledging 67 tons of gold as collateral. As part of the agreement, India committed to implementing structural reforms, including currency devaluation, fiscal deficit reduction, expenditure control, subsidy cuts, trade liberalization, financial sector reforms, and privatization of public sector enterprises.

Following the adoption of liberalization policies, India's foreign exchange reserves began to recover. The country has held an influential position on the IMF's Board of Directors and has contributed significantly to shaping the organization's policies, enhancing its global standing. By May 31, 2000, India had repaid all loans taken from the IMF.

Currently, India holds an IMF quota of SDR 5,821.5 million, making it the 13th largest quota-holding nation with a 2.44% share. However, in terms of voting power, India, along with Bangladesh, Bhutan, and Sri Lanka (its constituency countries), ranks 17th among the 24 constituencies on the IMF's Executive Board.

SELF-CHECK EXERCISE-24.6

Q1. Evaluate the relationship of India with World Bank.

24.9 CRITICISM OF IMF

- The governance structure of the International Monetary Fund (IMF) has been a longstanding issue of debate. Traditionally, leadership positions at the IMF and the World Bank have been reserved for Europeans and Americans, respectively, limiting opportunities for emerging economies to have significant influence. Although some adjustments were made in 2015, the voting power of the United States and Europe remains disproportionately high.
- The conditions attached to IMF loans are often seen as excessively intrusive, undermining the economic and political sovereignty of recipient nations. These conditions, known as 'conditionality,' go beyond financial assistance and serve as policy enforcement tools. They frequently involve fiscal and monetary policies, such as banking regulations, government deficit management, and pension reforms. However, implementing these policies can be politically unfeasible due to strong domestic resistance.
- The IMF has been criticized for imposing standardized policies without adequately considering the unique socio-economic and political contexts of individual countries. This one-size-fits-all approach has often resulted in policies that are impractical, unnecessary, or even harmful to the borrowing nation.

- The organization has also been faulted for enforcing policy changes simultaneously, rather than in a gradual, strategically sequenced manner. One key example is the IMF's insistence on rapid privatization of government services. This approach reflects an overreliance on free-market principles without recognizing the need for proper groundwork before implementing such reforms.

SELF-CHECK EXERCISE-24.7

Q1. On which grounds has the functioning of IMF been criticised?

24.10 SUMMARY

The International Monetary Fund (IMF) is a global organization dedicated to fostering economic growth, ensuring financial stability, promoting international trade, and alleviating poverty. The voting power of member nations within the IMF is primarily determined by their quotas, with each country receiving one vote per 100,000 special drawing rights (SDR) of quota in addition to basic votes. SDRs serve as an international monetary reserve asset introduced by the IMF to complement the existing foreign exchange reserves of member states. The IMF supports its objectives through financial assistance, policy guidance, and capacity-building initiatives. Despite its efforts to collaborate with its 190 member countries, the organization has faced criticism, particularly regarding the potential adverse effects of its structural adjustment programs.

24.11 GLOSSARY

- **Bretton Woods System**: The system of stable exchange rates in the IMF framework as adopted at the conference held at Bretton Woods in 1944.
- **Devaluation:** Reduction in the external value of the currency in terms of gold and/or some foreign currency.
- **Adjustable-peg Regime**: A system of stable exchange rates with the provision for adjustments in cases of fundamental disequilibrium in balance of payments.
- **Exchange Control** : A system under which foreign exchange transactions are subject to government control.
- **Exchange Rate** : Value of a currency in terms of some other currency.
- **Fixed Exchange Rate:** Rate of exchange that does not change.
- **Flexible Exchange Rate** : Rate of exchange which continuously keeps on adjusting with changing conditions.
- **Free Float**: A system under which rate of exchange fluctuates freely.
- **International Liquidity**: Reserve assets position at the international level.
- **Managed Float**: A flexible system of exchange rate under which exchange rate adjustments are collectively made.
- **Multilateral Payments**: A payments system at the international level under which any country's currency can be used for making payments to all other countries.
- **Special Drawing Rights**: A reserve asset created within the framework of the IMF in an attempt to increase international liquidity, and now forming a part of countries official reserves among with gold, reserve positions in the IMF and convertible foreign currencies.

24.12 ANSWERS TO SELF-CHECK EXERCISES

Self-Check Exercise-24.1

Ans. Q1. Refer to Section 24.1

Ans. Q2. Refer to Section 24.3

Self-Check Exercise-24.2

Ans. Q1. Refer to Section 24.4.1

Ans. Q2. Refer to Section 24.4.2

Self-Check Exercise-24.3

Ans. Q1. Refer to Section 24.5.1

Ans. Q2. Refer to Section 24.5.2

Ans. Q3. Refer to Section 24.5.3

Self-Check Exercise-24.4

Ans. Q1. Refer to Section 24.6.2

Self-Check Exercise-24.5

Ans. Q1. Refer to Section 24.7

Self-Check Exercise-24.6

Ans. Q1. Refer to Section 24.8

Self-Check Exercise-24.7

Ans. Q1. Refer to Section 24.9

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24.14 TERMINAL QUESTIONS

Q1. Explain the purposes of the International Monetary Fund. How far has the IMF been successful in achieving these purposes? Discuss in details.

Q2. Discuss the role of International Monetary Fund in solving the problem of international liquidity.

Q3. Critically appraise the assistance provided by the IMF to India.

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ASIAN DEVELOPMENT BANK (ADB)

STRUCTURE

25.1 INTRODUCTION

Financial institutions play a crucial role in the development and stability of a nation's economy and markets. Among these institutions, the Asian Development Bank (ADB) holds significant importance on a broad scale. Established in 1966 and headquartered in Manila, Philippines, the ADB aims to promote economic growth and regional cooperation across the Asia-Pacific region. It supports its member countries and partners by offering financial assistance in the form of loans, grants, equity investments, and technical aid to facilitate social and economic progress. The ADB funds its operations through international bond markets, contributions from member nations, retained earnings, and loan repayments. This article explores the various functions, roles, and impact of the Asian Development Bank in fostering economic development.

25.2 LEARNING OBJECTIVES

After studying this Unit, you will be able to:

- Discuss the objectives and functions of the Asian Development Bank;
- Explain the process of funding, financial operations and technical assistance programme of the Asian Development Bank; and

- Describe the role of Asian Development Bank in the development of Developing Countries.

25.3 OBJECTIVES OF THE ASIAN DEVELOPMENT BANK

- Firstly, its objective is to help the member countries in countering poverty. Hence, it helps them in poverty reduction and country development.
- If both the social as well as the economic aspects of a country is rising, then it leads to economic growth. One of the objectives is to help the countries to go towards economic growth.
- Thirdly, their objective is to support human development.
- Moreover, they believe in preserving and protecting the environment.
- Lastly, they work and wish to continue working towards empowering women and improving their status in society.

SELF-CHECK EXERCISE-25.1

Q1. Discuss the objectives of the Asian Development Bank

25.4 ORGANIZATION & MANAGEMENT OF THE ASIAN DEVELOPMENT BANK

The Asian Development Bank (ADB) operates under the provisions of the ADB Charter, which grants authority to the Board of Governors as the institution's highest decision-making body. This board comprises representatives from all member countries, with each nation appointing one delegate. The Board of Governors convenes formally once a year during ADB's Annual Meeting. While the Board of Governors holds the primary authority, it delegates certain responsibilities to the Board of Directors (BoD) to ensure efficient functioning. Regional development banks, including ADB, collaborate closely with the International Monetary Fund (IMF) and the World Bank in their activities.

The ADB's organizational structure includes the Board of Governors (BoG), the Board of Directors (BoD), a President, six Vice-Presidents, and other essential officers and staff. As a member of the ADB, India is represented in the Board of Governors, with the Finance Minister of India serving as the designated Governor. The Board of Governors is responsible for key decisions such as approving the admission of new members, adjusting authorized capital stock, electing Directors and the President, determining remuneration for Directors and the President, authorizing agreements with other international organizations, and allocating income and profits.

To facilitate governance, the Board of Directors (BoD) assists the Board of Governors by handling delegated functions. The BoD oversees key operations such as sanctioning loans, guarantees, equity capital investments, borrowings, technical assistance programs, and financial statements. It also approves ADB's annual budget. India's representation in the BoD is through an Executive Director (ED), nominated by the Government of India (GOI), who is supported by two advisers and an executive assistant.

The Office of the Executive Director (ED) serves as a critical link between India and ADB. It provides updates on significant developments, schedules of upcoming discussions, board and committee papers, and brief analytical insights on issues that require India's input. The office also shares key reports and publications released by ADB and prepares approach papers for India's meaningful participation in Annual Meetings.

The Annual Meeting of the Board of Governors takes place in a member country each year, typically in late April or early May. These meetings offer a platform for Governors from ADB member countries to provide strategic guidance on administrative, financial, and operational matters. The event also facilitates interaction among government officials, ADB

staff, non-governmental organizations (NGOs), media, international organizations, academia, and private sector representatives.

India has been a founding member of the ADB since 1966 and plays an active role in its initiatives. The bank focuses on fostering economic and social development in its developing member countries (DMCs) across the Asia-Pacific region. Its core activities include providing loans and equity investments, offering technical assistance for project planning and implementation, facilitating policy dialogues, extending guarantees and grants, and delivering advisory services.

SELF-CHECK EXERCISE-25.2

Q1. Discuss the management of the Asian Development Bank

25.5 MEMBERSHIP AND VOTING RIGHTS OF THE ASIAN DEVELOPMENT BANK

The Asian Development Bank (ADB) was established in 1966 with an initial membership of 31 countries. Over the years, this number has expanded to 68, comprising 49 regional and 19 non-regional members. As of December 31, 2013, India held 672,030 shares in ADB, accounting for 6.357% of the total shares and 5.384% of the voting rights. Japan and the United States were the largest shareholders, each holding a 15.67% stake. China ranked third with a 6.47% share, followed closely by India as the fourth-largest shareholder with 6.357%.

SELF-CHECK EXERCISE-25.3

Q1. Explain the membership and voting rights of the Asian Development Bank.

25.6 FUNCTIONS OF THE ASIAN DEVELOPMENT BANK

The Asian Development Bank (ADB) supports its developing member countries, private sector entities, and public-private partnerships through financial aid, including grants, loans, technical assistance, and equity investments, all aimed at fostering economic and social development. Additionally, ADB engages in policy dialogues, offers advisory services, and utilizes co-financing mechanisms by leveraging official, commercial, and export credit sources.

ADB membership is available to member and associate members of the United Nations Economic Commission for Asia and the Far East, as well as other regional and non-regional developed countries that are members of the United Nations (U.N.) or its specialized agencies. The key functions of the Asian Development Bank include:

i. **Economic and Social Development:** ADB plays a crucial role in the economic and social progress of its member countries by offering loans and equity investments at concessional rates. These financial resources support infrastructure development, poverty reduction, and overall economic growth.

ii. **Technical Assistance:** Many countries require expert guidance and technical support to implement development initiatives effectively. ADB provides **technical assistance** to help with the planning, execution, and successful completion of development projects.

iii. **Investment Facilitation:** ADB promotes investment in its member countries by offering financial assistance for development projects. It also provides targeted investment support to encourage sustainable growth and economic stability.

iv. **Policy and Planning Support:** Effective policies and strategic plans are essential for national progress. While domestic agencies assist in policy formulation, international expertise is often required. ADB helps member countries in designing and implementing policies and development plans at the international level.

SELF-CHECK EXERCISE-25.4

Q1. Discuss the functions of the Asian Development Bank

25.7 FINANCING PROVIDED BY THE ASIAN DEVELOPMENT BANK

The Asian Development Bank (ADB) offers both private and public (sovereign) financing. Its private sector initiatives focus on supporting projects that encourage private investment in the region, fostering significant development impact and promoting accelerated, sustainable, and inclusive growth. Meanwhile, public-sector financing provides member countries with flexible funding options to help them achieve their development objectives.

In 2021, the ADB allocated approximately $13.5 billion to assist its developing member nations in addressing the effects of the COVID-19 pandemic, including vaccination efforts. Additionally, it secured $12.9 billion in co-financing from various partners. As part of the $9 billion Asia Pacific Vaccine Access Facility (APVAX), introduced in December 2020, the ADB supported vaccine procurement, logistics, and distribution.

By the end of 2021, the ADB's private financing portfolio reached $14.2 billion. In terms of sovereign financing, the total portfolio amounted to $104 billion, comprising 713 loans, 392 grants, 915 technical assistance projects, one guarantee, and one equity investment.

SELF-CHECK EXERCISE-25.5

Q1. Discuss the assistance provided by the Asian Development Bank.

25.8 ASIAN DEVELOPMENT BANK AND INDIA

1. Country Partnership Strategy (CPS)

CPS defines ADB’s medium-term development strategy for its operations in the Country. CPS for India covering five year period (2013 to 2017) has been approved by ADB Board in October 2013. CPS 2013-2017 aims to support government’s vision of faster, more inclusive, and sustainable growth envisaged under 12th Plan by emphasizing on (i) robust infrastructure development (ii) job creation and access to jobs—through investments in infrastructure, logistics, urban services, and skills etc. (iii) regional connectivity—through investments anchored on the South Asia Sub-regional Economic Cooperation (SASEC) program, with emphasis on lagging states; (iv) environmental sustainability—through investments in water resources management, introduction of new technologies and low-carbon solutions; and (v) synergies in infrastructure development, urbanization, and Regional Cooperation & Integration (RCI)—by supporting the government’s efforts in development of economic corridors as well as multimodal regional connectivity.

The indicative resource envelope for sovereign operations is around US$ 2 billion per annum. The TA program will amount to around US$8 million a year. Additional resources over and above the India country allocation- for example, from ADB’s Results Delivery Scheme- will be prioritized for projects that promote RCI. Around 75 per cent of the Program will be devoted to energy, transport and urban services, while balance 25 per cent will be spread out amongst Finance, Agriculture and Skill Development sectors. State’s share of program will be around 75 per cent, and 40-50 per cent of the total lending will be for lagging states. ADB’s non-sovereign operations will be in line with the CPS priority areas. ADB’s non-sovereign operations will continue to support the infrastructure and finance sectors.

2. Trend in Lending Program:

ADB assistance to India commenced in 1986. Average annual lending increased from $586 million between 1986-96 to US$905 million during 1997 to 2002, US$1.094 billion during 2003 to 2007 and $1.9 billion during 2008 to 2012. As of 30th November 2014, there

are 72 ongoing loans amounting to US$ 9343.92 million. The sector-wise break up of this loan is as under:

Sector-wise Break up of ADB's loan to India

Sector	No. of Loans	US$ Million	Percentage
Agriculture. Environment & Natural Resources	5	164.26	1.76
Education	1	100.0	1.07
Energy	25	3677.02	39.35
Finance and Public Sector Management	5	700.0	7.49
Transport and Communication	15	3085.64	33.02
Urban Development & Multi Sector	21	1617.00	17.31
Total	**72**	**9343.92**	**100.00**

3. Lending by Sector

During 1986 and 1996, ADB provided assistance mainly for national programs through central public utilities in the transport and energy sectors. Credit lines were also provided through national development finance institutions. Following the 1996 Country Operations Strategy, ADB began to shift focus to state level operations in the transport, power, and urban sectors. Public sector reform management programs were also undertaken to assist some states to pursue fiscal consolidation. ADB's India program has matured and expanded significantly under the Country Partnership Strategy (CPS) which is aligned with the Five Year Plans of India.

Over the past decade, ADB has expanded operations beyond the power, transport, and urban sectors into areas focusing on financial inclusion and generation of sustainable livelihoods (e.g. support for reform of the Rural Cooperatives sector, Khadi and Village Industries sector, and Micro-Small and Medium Enterprises); Skill development, Integrated Water Resources Management with a focus on Climate Change Adaptation (including support for Irrigation, Coastal Zone Management, and Flood Control); Agribusiness Infrastructure Development; and Tourism.

SELF-CHECK EXERCISE-25.6

Q1. How India has benefitted from the Asian Development Bank

25.9 SUMMARY

The Asian Development Bank (ADB) is dedicated to fostering economic growth and regional cooperation across the Asia-Pacific. Most of its member nations belong to this region. ADB supports the development of its member countries by offering financial assistance through grants, loans, technical aid, and equity investments. Additionally, it funds select private sector initiatives and public-private partnerships to drive progress. Governance of the ADB rests with its member countries, with Japan and the United States holding the largest shares.

25.10 GLOSSARY

- **Region:** denotes any of the five global grouping of countries (Africa, Asia and Pacific, Europe, North America, and South America);
- **Sub-region:** denotes any subgrouping of countries within a region; within these countries, this may include specific provinces or regions, but exclude others.
- **Interregional**: refers to interactions between and among regions;

- **Inter-sub-regional**: refers to interactions between and among subregions or subgroups of countries within a region: and
- **Sub-regional program:** covers any cooperation program irrespective of whether it uses the terms “regional” or “sub-regional” in its name (e.g., including Central Asia Regional Economic Cooperation, Greater Mekong Subregion, South Asia Subregional Economic Cooperation).

25.11 ANSWERS TO SELF-CHECK EXERCISES

Self-Check Exercise-25.1

Ans. Q1. Refer to Section 25.3

Self-Check Exercise-25.2

Ans. Q1. Refer to Section 25.4

Self-Check Exercise-25.3

Ans. Q1. Refer to Section 25.5

Self-Check Exercise-25.4

Ans. Q1. Refer to Section 25.6

Self-Check Exercise-25.5

Ans. Q1. Refer to Section 25.7

Self-Check Exercise-25.6

Ans. Q1. Refer to Section 25.8

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25.13 TERMINAL QUESTIONS

Q1. Discuss in details the purposes and functions of the Asian Development Bank.

Q2. Critically appraise the assistance provided by the Asian Development Bank to India.

Q3. How the Asian Development Bank is working for smaller or less developed countries?

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INTERNATIONAL DEVELOPMENT ASSOCIATION (IDA)

STRUCTURE

26.1 INTRODUCTION

The International Development Association (IDA) was established on 8th November 1960 as an affiliate and complementary institution of the World Bank. The idea to establish this institution was to provide loans to the less developed countries on more liberal or concessional terms than those applied by the World Bank. For this reason, IDA is sometimes referred as the “Soft Loan Window” of the World Bank.

26.2 LEARNING OBJECTIVES

After studying this Unit, you will be able to:

- Discuss the objectives and functions of the International Development Association;
- Explain the process of funding, financial operations and technical assistance programme of the International Development Association; and
- Describe the role of International Development Association in the development of Developing Countries.

26.3 OBJECTIVES OF THE IDA

(i) Provision of financial assistance to the less developed member countries on easy terms.

(ii) Promotion of economic development, increase in productivity and consequent improvement in the living standards in the less developed areas of the world.

The Articles of Agreement related to IDA sum up the aims and objectives of this institution in these words, "…to promote economic development, increase productivity and thus raise standard of living in the less developed areas of the world included within the Associations' membership, in particular by providing finance to meet their important development requirements on terms which are more flexible and bear less heavily on the balance of payments than those of conventional loans, thereby furthering the development objectives of International Bank for Reconstruction and Development and supplementing its activities".

The IDA assistance is concentrated upon the very poor countries primarily those with a per capita GNP of less than 520 dollars at 1975 prices.

SELF-CHECK EXERCISE-26.1

Q1. Discuss the objectives of the International Development Association

26.4 MEMBERSHIP AND CAPITAL STRUCTURE OF THE IDA

26.4.1 Membership of the IDA

All the member countries of the World Bank are eligible to become the member of the IDA, provided they are ready to subscribe to the IDA at the rate of 5 per cent of their existing World Bank share capital subscription quota. On June 30, 1992, only 142 countries were the members of this institution, out of them 24 were designated as the developed countries and the remaining as the less developed countries. During the recent years, China and several East European countries too have joined this institution. Presently 184 countries are the members of the IDA.

The organisational structure of the IDA is similar to that of the World Bank. It has a Board of Governors, Executive Directors and a President, all of whom are the holders of these positions in the IBRD. They serve as the ex-officio members at the IDA.

26.4.2 Capital Structure of the IDA

The International Development Association (IDA) acquires its financial resources primarily through member country subscriptions and additional contributions. Initially, member countries collectively subscribed a total of $1 billion (USD) to the IDA. For the purpose of subscriptions and voting rights, the IDA classifies its member countries into two groups:

- **Part I Member Countries** – These are developed nations that are required to pay their entire subscription in gold or freely convertible currencies. The IDA utilizes these funds to provide loans to less developed countries (LDCs).
- **Part II Member Countries** – These include developing nations, which need to contribute only 10% of their subscription in gold or freely convertible currencies, while the remaining 90% is paid in their local currencies. However, the IDA cannot use these local currency contributions for lending unless it receives prior approval from the respective country.

To expand its financial capacity and lending operations, the IDA periodically receives supplementary funds from Part I member countries. By June 30, 1992, the total subscriptions and resources from Part I countries had reached $69.75 billion, while those from Part II countries amounted to $2.95 billion.

Since its establishment, the IDA has undergone multiple replenishments of its funds, with Part I member nations providing additional contributions. By 1987, there had been seven such replenishments. Between 1961 and 1964, the United States and the United Kingdom were the primary donors, contributing 42% and 17% of IDA's total resources, respectively. However, in later years, their contributions declined.

During the period 1981-1983, the share of the U.S. and the U.K. in total IDA resources dropped to 27% and 10%, respectively. France's contribution also declined from 7% to 5%. Meanwhile, Germany, Japan, and the Organization of the Petroleum Exporting Countries (OPEC) increased their contributions. Germany's share rose from 7% to 13%, Japan's from 4% to 15%, and OPEC's from 1% to 6%.

In November 1998, 39 donor countries approved the twelfth replenishment of IDA funds, amounting to $20.5 billion for the three-year period starting July 1, 1999. By 2005, Part I member countries had subscribed $119.11 billion, while Part II members had contributed $3.92 billion.

The voting power of IDA member countries is not directly proportional to their financial contributions. Although Part I members provide 97% of IDA's total resources, they hold only 69% of the total voting power. For example, the U.S. and the U.K. initially contributed 37% of IDA's total financial resources but had only 33% of the total voting power. This system grants developing countries relatively greater influence in decision-making within the IDA.

SELF-CHECK EXERCISE-26.2

Q1. Discuss membership of the IDA

Q2. Write a note on capital structure of the IDA

26.5 CRITERIA FOR IDA ASSISTANCE

IDA credit is extended on the basis of the following three criteria:

(i) Poverty Test: The IDA credit is meant for those poor countries which are greatly handicapped by excessive dependence on primary products, heavy burden of debt servicing, and in case of which the growth rates of population outweigh the gains due to increased production and development.

(ii) Performance Test: The member countries seeking assistance from the IDA should have an adequate standard of performance in respect of overall economic policies and past success in the execution of projects.

(iii) Project Test: The project test requires that the proposed project should yield the financial and economic returns large enough to justify the use of scarce capital. It means the standard or criterion for the appraisal of the project for IDA assistance is the same as is applied in the case of the Bank projects. In other words, IDA no doubt advances soft loans but it does not finance the soft projects.

SELF-CHECK EXERCISE-26.3

Q1. On which criteria does the IDA extend credit?

26.6 WORLD BANK AND THE IDA

The World Bank and the International Development Association (IDA) are complementary financial institutions that support the economic development of member countries. While both aim to provide financial assistance, they differ significantly in their approaches and lending terms.

i. **Loan Terms and Conditions:** The IDA offers financial assistance on more concessional and flexible terms than the World Bank's standard lending operations. IDA loans typically have longer repayment periods, ranging from 5 to 15 years or

even more. In the case of the poorest nations, loan terms can extend up to 40 years. In contrast, World Bank loans have much shorter repayment periods. Additionally, IDA loans come with an extended grace period of about 10 years before repayment begins, whereas the World Bank grants a shorter grace period.

Interest rates on World Bank loans are aligned with prevailing market rates, whereas IDA loans carry significantly lower interest rates. In some cases, IDA loans are interest-free, covering only administrative costs. In recent years, IDA has provided loans to developing nations at an interest rate as low as 0.75%. Due to these highly concessional terms, IDA is often referred to as the "Soft Loan Window."

ii. **Repayment Flexibility:** While World Bank loans must be repaid in Special Drawing Rights (SDRs) or major international currencies, IDA loans offer more flexibility. Borrowers can repay their loans using local currency, reducing the pressure to arrange foreign exchange reserves.

iii. **Types of Assistance:** The World Bank primarily funds specific development projects, whereas IDA provides substantial financial assistance in the form of non-project aid. This enables recipient countries to allocate resources according to their broader developmental needs.

iv. **Loan Guarantees:** The World Bank provides loans either directly to member countries or through funds raised in international financial markets. Any loans extended to public or private entities within member countries must be backed by a government guarantee. Conversely, IDA loans do not require such government guarantees, making them more accessible to a wider range of borrowers.

v. **Creditworthiness Criteria:** Before approving a loan, the World Bank evaluates the borrowing country's creditworthiness to ensure its ability to repay. IDA, however, does not impose such requirements. As a result, even countries that do not qualify for loans from the International Bank for Reconstruction and Development (IBRD) can still receive funding from the IDA.

vi. **Project Financing Criteria:** The World Bank prioritizes financing projects that demonstrate financial viability, typically requiring a minimum profitability rate of 10%. On the other hand, IDA does not enforce such profitability conditions. Instead, it focuses on funding initiatives related to education, public health, nutrition, and other essential social services, thereby prioritizing broader social welfare over financial returns.

SELF-CHECK EXERCISE-26.4

Q1. What are the differences between the World Bank and the IDA

26.7 IDA AND LESS DEVELOPED COUNTRIES

IDA has been a powerful vehicle of development assistance to the LDC's. In fact, this arm of IBRD is meant essentially to cater to the capital requirements of the capital-famished poor countries and renders concessional financial aid to them. It extends both project and non-project aid to these countries for longer durations. The assessment of the IDA assistance to LDC's may be made on the basis of the following facts:

(i) Expansion in the Volume of Credit:

By the end of June 1975, the IDA had approved loans aggregating $ 8.43 billion mainly for the countries included in Part II. By the end of June 1992, the aggregate credit extended by IDA had raised upto $71.07 billion. Thus, the lending operations of this institution were expanded by 8.42 times during 1975 to 1992. Since its inception, this institution has extended credit for 2218 project and non-project proposals received from 86 member countries.

During the fiscal year ending 30th June 1992, IDA provided finance to 50 member countries for 110 projects and programmes involving an amount of $ 6.55 billion. According to World Bank Report, 1995, the concessional IDA assistance to the poorest countries with per capita GNP of $ 695 or less was of the amount of $ 4.7 billion. The IDA gross disbursements in financial year 2005 were $ 8.7 billion compared with $ 4.7 billion in the year 1995.

(ii) Region-Wise Distribution of Assistance:

Until the mid1980's, the major share of IDA assistance went to the LDC's of South Asia and Africa. But in the last decade or so, there has been a gradual shift in the region wise distribution of IDA assistance.

In the year 2005, the less developed African countries could obtain 45 per cent of the total credits of $ 3.92 billion provided by this institution. It was followed by 45 per cent and 12 per cent respectively advanced to the countries of South and East Asia respectively. The Latin America and Caribbean countries accounted for just 3 per cent of IDA assistance.

(iii) Distribution of Credit According to Purpose:

In the LDC's, the IDA assistance has promoted programmes related to agricultural and rural development, spread of literacy, development of backward regions, development of economic infrastructure, control of population, control over mortality rate through assisting health and nutritional programmes and improvement in the standard of living.

During 1977-82 periods, 42 per cent of IDA credits were meant for agriculture and rural development and 29 per cent were meant for strengthening of economic infrastructure including energy, transport and communications. In the fiscal year 2005, the largest allocation of 26 per cent went to law, justice and public administration, followed by 16 per cent, 12 per cent and 11 per cent for projects in health and other social services, transportation and energy and mining sectors respectively of 66 member countries.

The International Development Association (IDA) has played a crucial role in providing development assistance to less developed countries (LDCs). As an affiliate of the International Bank for Reconstruction and Development (IBRD), its primary objective is to meet the capital needs of economically struggling nations by offering concessional financial aid. The IDA extends both project-based and non-project-based financial assistance over extended periods. The effectiveness of IDA's support to LDCs can be analyzed through the following aspects:

1. Expansion of Credit Availability: By June 1975, the IDA had approved loans totaling $8.43 billion, primarily for countries classified under Part II. By June 1992, the cumulative credit extended by the organization had surged to $71.07 billion, reflecting an 8.42-fold increase in lending activities from 1975 to 1992. Since its inception, the IDA has provided financial support for 2,218 project and non-project proposals from 86 member countries.

In the fiscal year ending June 30, 1992, the IDA financed 110 projects and programs across 50 member nations, amounting to $6.55 billion. According to the 1995 World Bank Report, IDA's concessional aid to the world's poorest nations—those with a per capita Gross National Product (GNP) of $695 or lower—stood at $4.7 billion. The total IDA disbursements increased to $8.7 billion in 2005, compared to $4.7 billion in 1995.

2. Regional Distribution of Assistance: Until the mid-1980s, South Asia and Africa received the majority of IDA's assistance. However, in the following decades, there was a gradual shift in the regional distribution of funds. By 2005, African nations collectively secured 45% of the total credits, amounting to $3.92 billion. The same proportion—45%—was allocated to South Asian countries, while East Asian nations received 12%. In contrast, Latin American and Caribbean countries accounted for just 3% of IDA's total assistance.

3. Sectoral Allocation of Credit: IDA assistance in LDCs has been directed toward various sectors, including agriculture, rural development, education, economic infrastructure, healthcare, population control, and improvements in living standards. Between 1977 and 1982, agriculture and rural development accounted for 42% of total IDA credits, while 29% was allocated for infrastructure projects related to energy, transport, and communication. By 2005, the distribution of funds had shifted, with 26% of IDA resources allocated to law, justice, and public administration. The health and social services sector received 16%, while transportation and energy/mining sectors accounted for 12% and 11%, respectively, across 66 member countries.

4. Pattern of Official Development Assistance (ODA): The International Conference on Financing for Development, held in Monterrey, Mexico, in March 2002, acknowledged the need for a significant increase in Official Development Assistance (ODA) and other financial resources to achieve globally agreed development goals. Developed nations were urged to contribute up to 0.7% of their Gross National Product (GNP) as ODA to developing countries and allocate between 0.15% and 0.20% to the least developed countries, as recommended by the United Nations.

At the time, the UN Secretary-General emphasized that an additional $50 billion per year—essentially doubling the existing level of ODA—was necessary to meet these targets. However, ODA has witnessed a consistent decline, dropping from 0.35% in 1990 to 0.22% in 2002. In 2000, total ODA to less developed countries amounted to just $53.7 billion. During the Monterrey Summit, the European Union pledged to raise its ODA to 0.33% by 2006, and the United States committed to increasing its contribution by $5 billion over three years. These commitments, however, were considered insufficient and unimpressive.

A concerning aspect of ODA distribution is its political orientation. Since its inception, only 8.7% of International Development Association (IDA) assistance has been provided directly from government to government. A significant portion of this aid has been directed toward nations aligned with Western political interests, while countries with independent political stances have often been excluded. For instance, Senegal and Pakistan received $46.1 and $13.5 per capita, respectively, from IDA funds, whereas India and China received only $0.01 and $3.4 per capita, respectively.

Despite these disparities, IDA assistance remains crucial for less developed countries (LDCs). The availability of concessional aid over extended periods has played a key role in alleviating balance of payments deficits and accelerating development in recipient nations.

SELF-CHECK EXERCISE-26.5

Q1. How the Asian Development Bank is working for smaller or less developed countries?

26.8 IDA AND INDIA

India has been a member of the International Development Association (IDA) since its inception and has significantly benefited from its financial assistance. In fact, India has been the largest recipient of IDA support. By the end of March 2002, the total credit received by India from IDA amounted to $19.44 billion, with 186 credit proposals approved. This funding has played a crucial role in financing various development projects, including substantial non-project aid. By June 1975, India had secured $3.44 billion in loans for 70 projects. These funds were allocated to diverse sectors such as road infrastructure, irrigation, flood control, energy, telecommunications, port development, railway electrification, and the import of commercial and industrial machinery. Other areas of investment included agriculture, fertilizers, pesticides, dairy projects, cotton development, and environmental hygiene improvements.

Between 1975 and 1992, India received an additional $6.52 billion through 62 IDA credit agreements. These funds supported agriculture, rural development, forestry, power, flood control, irrigation, fisheries, research, transportation, water supply, public health, and fertilizer imports. IDA's concessional aid has significantly contributed to India's economic infrastructure and social development. Without this financial support, the country's progress would have been considerably slower. Despite India's need for soft loans from IDA to support its development programs in the 1990s, international challenges arose. The United States and other developed nations urged the World Bank to reduce concessional IDA loans to India. They argued that India had transitioned to a developed nation based on Gross National Product (GNP) criteria and should rely on market-based borrowing rather than IDA's concessional funding.

As part of this effort, advanced economies influenced the International Monetary Fund (IMF) to revise India's economic ranking. In May 1993, the IMF classified India as the world's sixth-largest economy, ranking it above countries such as the United Kingdom, Canada, Italy, Australia, Spain, and Brazil. This ranking was used as justification to limit India's access to IDA's concessional assistance. The argument that India had "graduated" from IDA eligibility was based on the GNP threshold. In 1982, the per capita income ceiling for IDA loans was set at $730 (at 1980 prices). However, even in 1993, India's per capita income remained below this threshold. Thus, India should not have been considered ineligible for concessional assistance from IDA.

India was the leading recipient of IDA soft loans until the mid-1980s. However, its share in IDA assistance began to decline in the latter half of the decade. By the end of June 1986, India's share in IDA concessional assistance stood at 19.9%, which further decreased to 19.4% in the following year. By June 1992, this proportion had declined further to 15.6%. The trend of diminishing shares continued in subsequent years due to growing demand for concessional assistance from China and East European nations, which posed a concern for India.

Despite this decline, India received $4.8 billion in IDA assistance between 1993 and 1998. From the 11th replenishment of IDA funds for the 1996–99 period, India's allocation was $3.2 billion. Under the 12th replenishment, which covered the three-year period starting from July 1, 1999, India received $3.5 billion out of a total allocation of $20.5 billion. Since IDA funding primarily supports basic human needs programs, these allocations were not affected by the economic sanctions imposed on India by the U.S. and other developed nations following its nuclear tests in May 1998.

During 1998-99 and 1999-2002, India received IDA assistance amounting to $3.65 billion and $3.60 billion, respectively. The interest and service charges paid by India on these loans totaled $1.65 billion over the three-year period from 1997 to 2000. In 2003, the World Bank approved a $54 million IDA credit to enhance the quality and safety of food and pharmaceuticals in India. The combined commitments from the IBRD and IDA for India in 2003 amounted to $1.52 billion, compared to $2.19 billion in 2002.

For the fiscal year ending June 2004, IDA extended four credits worth $1 billion to Andhra Pradesh, Maharashtra, Rajasthan, and Uttar Pradesh for projects related to health, sanitation, drinking water, and transportation. Between 2005 and 2009, India was authorized IDA assistance of $4.69 billion, comprising $4.68 billion in loans and $13.18 million in grants. In 2013-14, India received $2.135 billion in IDA assistance, followed by $1.73 billion in 2014-15.

Since its establishment, the IDA has played a crucial role in supporting India's social and economic development. Given its significance, developing countries, including India, continue to rely on this concessional funding window of the IBRD with high expectations.

SELF-CHECK EXERCISE-26.6

Q1. How has India benefitted from the IDA.

26.9 SUMMARY

The International Development Association (IDA), a branch of the World Bank Group, focuses on assisting the world's most impoverished nations. Its primary goal is to offer grants and concessional loans to countries with the lowest Gross National Income (GNI), weak creditworthiness, and minimal per capita income. The IDA operates in coordination with the International Bank for Reconstruction and Development (IBRD), commonly known as the World Bank. Although its financial resources are distinct from those of the IBRD, it does not have a separate staff. The projects it supports are similar to those financed by the IBRD but come with more favorable and flexible credit terms.

Traditionally, the World Bank and IDA have primarily supported infrastructure development. However, their current focus has shifted toward empowering low-income populations in developing nations by enhancing their productivity and fostering active participation in economic growth. There is now greater emphasis on improving urban living conditions and boosting the productivity of small-scale industries.

26.10 GLOSSARY

- **Soft loan:** is a loan with no interest or a below-market rate of interest. It is also known as "soft financing" or "concessional funding".
- **World Bank Group:** The World Bank Group is an international partnership comprising 189 countries and five constituent institutions that works towards eradicating poverty and creating prosperity. The five development institutions under the World Bank Group are- a) International Bank for Reconstruction and Development (IBRD); b) International Development Association (IDA); c) International Finance Corporation (IFC); d) Multilateral Guarantee Agency (MIGA); and e) International Centre for the Settlement of Investment Disputes (ICSID)

26.11 ANSWERS TO SELF-CHECK EXERCISES

Self-Check Exercise-26.1

Ans. Q1. Refer to Section 26.3

Self-Check Exercise-26.2

Ans. Q1. Refer to Section 26.4.1

Ans. Q2. Refer to Section 26.4.2

Self-Check Exercise-26.3

Ans. Q1. Refer to Section 26.5

Self-Check Exercise-26.4

Ans. Q1. Refer to Section 26.6

Self-Check Exercise-26.5

Ans. Q1. Refer to Section 26.7

Self-Check Exercise-26.6

Ans. Q1. Refer to Section 26.8

26.12 REFERENCES/SUGGESTED READINGS

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26.13 TERMINAL QUESTIONS

Q1. Discuss in details the purposes and functions of the International Development Association.

Q2. Critically appraise the assistance provided by the International Development Association to India.

Q. How the Asian Development Bank is working for smaller or less developed countries?

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