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THE CONCEPT OF MONEY

Money is an important concept in an economy. The role of money cannot be over emphasized. Before the introduction of money, exchange was done on the basis of direct exchange of goods and services. This known as trade by barter. Barter involves the direct exchange of one good for some quantity of another good. For exchange or transaction to take place, two people have to be brought together, each of who could offer the other something he wanted. For example, a horse may be exchanged for a cow, one sheep for 2(two) goats. Hence, for a transaction to take place, there must be a double coincidence of wants. That is, if the horse-owner wants a cow, he has to find out a person who not only possesses the cow but wants to exchange it for or with horse. Moreso, goods are exchanged for services. That is, a doctor may be paid a horse or cow for his services. Thus, a barter economy is a moneyless economy. It is also a simple economy where people produce goods either for self-consumptions or for exchange with other goods which they want.

Barter system is the most inconvenient method of exchange. It involves loss of much time and effort on the part of people in trying to exchange goods for goods or goods for services. The barter system has the following difficulties and disadvantages:

1. Costliness of transactions: Barter makes economic transactions time consuming because there must be what is popularly referred to as the "Double Coincidence of Wants". For example, if Mr. Tunde has some bags of garri, he wants to buy an agbada suit. He would have to look for

a tailor, let say Mr. Kunle, who is willing to make the suit because he wants garri. In this case there is coincidence of wants. Given the fact that, market information is imperfect, it will be time consuming for Mr. Tund to find out where Mr. Kunle lives so that the exchange can take place. This appreciate the slowness and inefficiency of barter system.

2. Limitations in market size: The geographical size of a barter market would be limited because of the physical burden of transporting goods to people who want them. Indeed, the volume of interstate and international trade would be extremely low. This in turn would limit the growth and development of the economy.
3. Hampering of specialization: According to Adam Smith, he emphasized the importance of specialization for achieving economic efficiency and progress. Any economy based on barter system is likely to loss this advantage because economic agents must necessarily be jack-of-all-trade for survival. They will produce as many different items as they can for themselves so as to limit the need for barter.
4. Lack of a common Measure of Value: Even if the two persons who want each other's goods meet by coincidence, the problem arises as to the proportion in which the two goods should be exchanged. There is no common measure of value, the rate of exchange will be arbitrarily fixed according to the intensity of demand for each other's goods. As a result, one party is at a disadvantage in the terms of trade between the two goods.
5. Indivisibility of Certain Goods: Barter system is based on the exchange goods with other goods. It is difficult to fix exchange rate for certain goods which are indivisible. Such indivisible goods cause a serious problem under barter system. Thus, indivisibility of certain goods makes the barter system inoperative.

6. Difficulty in Storing Value: Under barter system it is difficult to store value. Anyone wanting to save real capital over a long period would be faced with the difficulty that during the intervening period the stoned commodity may become obsolete or deteriorate in value. As people trade in cattle, grans and other perishable commodities, it is very expensive and often difficult to store and to prevent their deterioration and loss over long period.
7. Difficulty in making Deferred payments: In a barter economy, it is difficult to make payment in the future. As payments are made in goods and services. Debt contracts are not possible due to disagreements on the part of the two parties on the following grounds:
   - (a) It would often invite controversy as to the quality of the goods or services to be repaid.
   - (b) The two parties would often be unable to agree on the specific commodity to be used for payment.
   - (c) Both parties would run the risk that the commodities to be repaid would increase or decrease seriously in value over the duration of the contract.

Hence, there is need for something better than barter system, which led to the evolution of money. The word "Money" is derived from the Latin word "Moneta" which was the surname of the Roman Goddess of Juno in whose temple at Rome money was coined. The origin of money is lost in antiguity. Even the primitive man has some sort of money. The type of money in every age depends on the nature of its livelihood. In a hunting society, the skins of wild animals were used as money. The pastoral society used livestock while the agricultural society used grains and food stuffs as money. The Greeks used coins as money.

The Evolution of Money

The evolution of money has passed through the following five stages depending upon the progress of human civilization at different times and places. The different types of evolution of money include:

1) Commodity Money: Various types of commodities have been used as money from the beginning of human civilization. For instance, stones, spears, skins, bows, arrows, axes etc were used as money in the hunting society. The pastoral society used cattle as money. The agricultural society used grains as money. The Romans used cattle and salt as money at different times. The Mongolians used squirrel skins as money. Generally, precious stones, tobacco, tea, shells, fish hooks and many other commodities as money depending upon time, place and economic standard of the society.

2) Metallic Money: With the spread of civilization and trade relations by land and sea, metallic money took the place of commodity money. Many nations used silver, gold, copper, tin etc as money.

3) Paper Money: The development of paper money started with goldsmiths and kept strong safes to store their gold. As goldsmiths were thought to be honest merchants, people started keeping their gold with them for safe custody. In return, the goldsmiths gave the depositors a receipt promising to return the gold on demand. These receipts of the goldsmiths were given to the sellers of commodities by the buyers. Thus, receipts of the goldsmiths were a substitute for money. Such paper money was backed by gold and was convertible on demand into gold. This ultimately led to the development of bank notes.

4) Credit Money: Another stage in the evolution of money in the modern world is the use of the cheque as money. The cheque is like a bank note in that it performs the same function.

5) Near Money: The final stage in the evolution of money has been the use of bills of exchange, treasury bills, bods, debentures, savings certificates, etc

The Nature and Differnt Definition of Money

There has been lot of controversy and confusion over the meaning and nature of money. Scitovsky contented that "money is a difficult concept to define, partly because it fulfills not one but three functions, each of them providing a criterion of moneyness i.e unit of account, a medium of exchang and a store of value. Hence, Scitovsky points toward the difficulty of defining money due to moneyness but he gives a wide definition of money. According to professor Coulborn, he defines money as "the means of valuation and of payment: that is, as both the unit of account and the generally acceptable medium of exchange. Coulborn's definition is very wide because in his definition, money includes gold, cheques, coins, currency notes, bank draft etc and also abstract money which "is the vehicle of our thoughts of value, price and worth". While Sir John Hicks say that "money is defined by its functions: anything is money which is used as money: Money is what money does. These are the functional definitions of money because they define money in terms of the functions it performs.

Some economists define money in legal terms saying that "anything which the state declares as money is money". Therefore, money can be defined in four different ways. These are:

i. Functional definition
ii. Empirical definition
iii. Legal definition
iv. Liquidity definition

Functional Definition of Money:

This is definition of money as what money does. These functions are categorized as primary, secondary and other functions.

(a) **Primary Functions:** There are two primary functions of money. These are:

1. Money as a medium of Exchange: This is the primary function of money because it is out of this function that its other functions

developed. By serving as a medium of exchange, money removes the need for double coincidence of wants and the inconveniences and difficulties associated with barter. As a medium of exchange, money acts as an intermediary. It facilitates exchange. It helps production indirectly through specialization and division of labour which in turn increase efficiency and output. According to Professor Walters, money therefore serves as a factor of production enabling output to increase and diversify.

2. Money as a unit of value: The second primary function of money is to act as a unit of value. Money is the common denominator which determines the rate of exchange between goods and services which are priced in terms of the monetary unit. There can be no pricing process without a measure of value. The use of money as a standard of value eliminates the necessity of quoting the price of apples in terms of oranges, the price of oranges in terms of nuts and so on. According to Culbertson "prices quoted in terms of money become the focus of people's behavior. Their calculations, plans, expectations and contracts focus on money prices"

(b) **Secondary Functions**: Money performs three secondary functions. These are:

1. Money as a Standard of Deferred Payments: The third function of money is that it acts as a standard of deferred or postponed payments. All debts are taken in money
2. Money as a Store of Value: Another important function of money is that it act as a store of value. The good chosen as money is always something which can be kept for long periods without deterioration or wastage. It is a form in which wealth can be kept intact for many years. Money is a bridge from the present to the future. It is therefore essential that the money commodity should always be one which can

be easily and safely stored. Money as a store of value is meant to meet unforeseen emergences and to pay debts.

3. Money as a transfer of value: since money is a generally acceptable means of payment and acts as a store of value, it keeps on transferring values from person to person and place to place. A person who holds money in cash or assets can transfer that to any other person. Thus, money facilitates transfer of value between persons and places.

(c) **Other Functions:** Money also performs such functions which affect the decisions of consumers and governments such as:

1. Helpful in Making Decisions**:** Money is a means of store of value and the consumer meets his daily requirements on the basis of money held by him. If the consumer has a scooter and in the near future he needs a car, he can buy a car by selling his scooter and money accumulated by him. In this way, money helps in taking decisions.
2. Money as a Basis of Adjustment: To carry on trade in a proper manner, the adjustment between money market and capital market is done through money similarly, adjustments in foreign exchange are also made through money. Furthermore, international payments of various types are also adjusted and made through money.

Empirical Definitions of Money

According to Professor Johnson, he distinguishes four main schools of thought. These includes:

1. The Traditional Defination of Money: According to the traditional view, also known as the view of the currency school. Money is defined as currency and demand deposits. Keynes in his General Theory followed the traditional view and defined money as currency and demand deposits, and its most important function is to act as a medium of exchange. Hicks in his Critical Essays in Monetary Theory points towards a three fold traditional classification of the nature of money: "to act as a unit of

account (or measure of value as Wicksell put it), as a means of payment and as a store of value". The Banking school criticized the traditional definition of money as arbitrary. This view about the meaning of money is very narrow because there are other assets which are equally acceptable as medium of exchange. These include time deposits of commercial banks, commercial bills of exchange etc.

2. Friedman's Defination of Money: The monetarist (or Chicago) view is associated with Professor Friedman and his followers at the University of Chicago. By money Friedman means "literally the number of dollars people are carrying around in their pockets, the number of dollars they have to their credit at banks in the form of demand deposits and commercial bank time deposits. Thus, he defines money as "the sum of currency plus all adjusted deposits in commercial banks". This is the "working definition" of money which Friedman uses for the empirical study of the monetary trends of the US for selected years 1929, 1935, 1950, 1955 and 1960. This was a narrow definition of money and the adjustment in both demand and time deposits of commercial banks was devised to take into account the increasing financial sophistication of the commercial banks and the community. He also takes a broader view in his definition of money which includes bank deposits, non-bank deposits and any other type of assets through which the monetary authority influences the future level of income, prices, employment or any other important macro variable.
3. The Radcliffe Defination: The Raddcliffe Committee defined money as "note plus bank deposits". It includes as money only those assets which are commonly used as medium of exchange. Assets refer to liquid assets by which it means the monetary quantity influencing total effective demand for goods and services. This is interpreted widely to include credit. Thus the whole liquidity position is relevant to spending decisions.

Spending is not limited to cash or money in the bank but to the amount of money people think they can get hold of either by selling an asset or by borrowing or by receipts of income or sales.

4. The Gurley-Shaw Defination: Gurley and Shaw regard a substantial volume of liquid assets held by financial intermediaries and the liabilities of non-bank intermediaries as close substitutes for money. Intermediaries provide substitutes for money as a store of value. Money proper which is defined as equal to currency plus demand deposits is only one liquid asses. They have thus formulated a wider definition of money based upon liquidity which includes bonds, insurance reserves pension funds, savings and loan shares. They believe in the velocity of the money stock which is influenced by non-bank intermediaries. Their views on the definition of money are based on their own and Goldsmith's empirical findings.

Legal Defination of Money

The legal definition of money states that "anything which the state declares as money is money". Such money possesses general acceptability and has the legal power to discharge debts. But people may not accept legal money by refusing to sell goods and services against the payment of legal tender money. Moreso, they may accept some other things as money which are not legally defined as money in discharge of debts which may circulate freely. These are cheques and notes issued by commercial banks.

Liquidity Defination of Money

According to Professor David Kinley, liquidity definition of money includes:

1. Money as the Most Liquid of all Liquid Assets: Money is the most liquid of all liquid assets in which wealth is held. Individuals and firms may hold wealth infinitely varied forms. The wealth might be in currency, demand deposits, time deposits, savings bonds, treasury bills, short-term government securities, long-term government securities, debentures, preference shares, ordinary shares, stocks of consumers goods and

productive equipment. All these are liquid forms of wealth which can be converted into money, and vice-versa.

2. Basis of the Credit System: Money is the basis of the credit system. business transactions are either in cash or non credit. Credit economises the use of money. But money is a the back of all credit. A commercial bank cannot create credit without having sufficient money in reserve. The credit instruments drawn by businessmen have always a cash guarantee supported by their bankers.
3. Equalizer of Marginal Utilities and Productivities: Money acts as an equalizer of marginal utilities for the consumer. The main aim of a consumer is to maximize his satisfaction by spending a given sum of money on various goods which he wants to purchase. The main aim of the producer is to maximize his profits. Hence, he equalizes the marginal productivity of each factor with its price. The price of each factor is nothing but the money he receives for his work.
4. Measurement of National Income: It was not possible to measure the national income under the barter system. Money helps in measuring national income. This is done when the various goods and services produced in a country are assessed in money terms.
5. Distribution of National Income: Money also helps in the distribution of national income. Rewards of factors of production in the form of wages, rent, interest and profit are determined and paid in terms of money.

The Characteristics or Qualities of Money

The following are the characteristics or qualities of a good money:

1. General Acceptability: The chief quality of any form of money must be acceptable by the people in general. In fact, without such acceptability, the money will not function at all. Thus, if anything should destroy the confidence in money, it can no longer be considered as money. Paper

notes are accepted as money when they are issued by the Central Bank or the government and are legal tender.

2. Durability: Money should also be durable. Money should not easily wear away. Although bank notes are less durable but are relatively cheap to replace and are legal tender.
3. Portability: Money should be anything that could be easily recognizable and should be easily carried and transferred from one place to another. This is the main reason why Naira (₦) and Coins were been introduced.
4. Homogeneity: The material with which money is made should be of the same quality. All coins of one denomination must be of the same metal, weight, shape and size. Also, paper notes of one denomination must have the same quality of paper, design and size.
5. Divisibility: Money should also be divisible into small units and not consist only of high value units. For instance, cows cannot be use as money because it cannot be divided. Naira (₦) and Coins can be considered as money because it could be broken down into ₦5, ₦10, ₦20, ₦50, ₦100, ₦200, ₦ 500, 5k & 10k.
6. Stability: Another quality of a good monetary system is that the supply of whatever is being used as money should be reasonably stable. The consequences of using some seasonal fruit, such as apples or melon as money would be violent, fluctuations in prices.

Practice Questions

1) The institution of Money is an extremely valuable social instrument making a large contribution to economic welfare. Money is not merely a veil or a garment or a wrapper.

2) Discuss this statement in line with liquidity and empirical definations of Money.

3) Mention and discuss six (6) qualities of Money.

4) Write short, but self-explanatory notes on the following:

a) Money as a Medium Exchange and Money as a Store of Value .

b) Money as a Unit of Value and Money as a Standard of Deferred Payment.

c) Metallic Money and Paper Money .

d) Credit Money and Near Money.

THE CONCEPT OF CREDIT

The Meaning of Credit

The word "credit" is derived from Latin word creditum which means to believe or trust. In economics, the term credit refers to a promise by one party to pay another for money borrowed or goods or services received. It is a medium of exchange to receive money or goods on demand at some future date. According to R.P. Kent defines credit "as the right to receive payments or obligation to make payment on demand at some future time on account of the immediate transfer of goods".

The Features of Credit

The following are the essential features of credit:

1. Trust and Confidence: Trust is the fundamental element of credit. The lender will lend his money or goods on the trust and confidence that the borrower or buyer will pay back the money or price in time.
2. Time Element: All credit transactions involve time element. Money is borrowed or goods are bought with a promise to repay the money or pay the price on some future date.
3. Transfer of Goods and Services: Credit involves transfer of goods and services by the seller to the buyer on the pay-back promise of the buyer on some future date.
4. Willingness and Ability: Credit depends in a person's willingness and ability to pay the borrowed money. In fact, credit of a person depends on his character, capacity and capital. It is these three C's on which a man's credit depends. A person who is honest and fair in his dealings possesses

the capacity of making his business a success. Such a person can get credit easily.

5. Purpose of Credit: Banks and financial institutions give large amounts of credit for productive purposes rather than for consumption purposes.
6. Security: Security in the form of property, gold, silver, bonds or shares is an important element for raising credit.

The Credit Instruments

Some important credit instruments are:

1. Promissory Note: The promissory note is the earliest type of a credit instrument. It is an "I.O.U." (I Owe You). That is, a written promise by a debtor to pay to another person a specified sum of money by an agreed, given date usually within a year with three days of grace. Such notes are issued by individuals, corporations and government agencies.
2. Bill of Exchange or Commercial Bill: A bill of exchange is an order drawn by the creditor to the debtor instructing the latter to pay a specified sum of money to the former, or to the bearer, or to his nominee. The payment is to be made after some fixed date, usually 90 days with three days of grace. A bill of exchange is a negotiable instrument which can be bought and sold by the holder of the bill till the time of its maturity at the prevailing rate of discount (interest). The discount rate is the market price of the bill. The higher the discount rate, the lower the price of the bill at the time of discounting and vice versa. After the date of maturity, the holder of the bill presents it to the drawee who pays the amount written on the bill.
3. Bank Notes: The Central Bank of a country issues currency notes. All notes carry the promise of the governor of the central bank to pay on demand to the bearer of the note an amount mentioned on it. Generally speaking, a bank note is a currency and not a credit instrument.

4. Credit Cards: Another credit instrument is credit cards. Credit card holders are allowed credit facilities by the concerned bank for a specified period of time without any security from them. They can also purchase commodities like cloths, shoes, television etc and pay for services like hotel bills, railways and airways tickets without making cash payments. There are national and international credit cards.
5. Cheque: A cheque is an order on the bank, written by the drawer who has his deposit with the bank to pay on demand the stated sum of money to the person named in the cheque.
6. Draft: a draft is also called demand draft. It is in the form of a cheque and is an order of a bank to its branch in some other city for making payment of the amount specified in it to the person or firm or organization.
7. Hundi: A Hundi is an internal bill of exchange which has been in use in India from ancient times. It is written in an Indian language by a creditor to the debtor to pay the amount mentioned in the Hundi on the date noted on it. A Hundi is of two types:
   (a) Darshani Hundi: Darshani or sight Hundi which is payable on demand by the debtor.
   (b) Muddati Hundi: Muddati or Time Hundi which is payable after the period mentioned on the face of the Hundi.

   Discounting of Hundis is an important function of indigenous bankers. They write, buy and sell Hundis for trade purposes.

The Factors Affecting or Influencing Credit in an Economy

1. Boom and Recession: Under boom conditions when industry and trade are expanding, the demand for credit also increases. The creditors lend more because the interest rate is rising. They also know that the money will be returned due to high rate of profit in the industry. But when there is recession, the quantity of credit contracts. Businessmen are not prepared to borrow even though the interest rate is low.

2. Political Conditions: Credit expands when there is political stability in the country. It encourages investment which increases the demand for credit. Moreso, political instability and insecurity of life and property, business and investment are discouraged.
3. Currency Conditions: The volume of credit expands or contracts depending upon the currency condition of the country. If the currency system is stable, the quantity of credit will increase. While an unstable currency system which leads to depreciation or hyper-inflation will bring uncertainty. This leads to contraction of credit.
4. Banking System: If the banking system is fully developed with a large number of commercial, cooperative and non-banking financial institutions in the country, the quantity of credit expands. Such banking institutions provide large credit facilities to trade and industry. While an undeveloped banking system keeps the quantity of credit at a low level.
5. Speculation: Speculations and credit expansion or contraction go together. When speculative activity is high, credit expands. When speculators lose, credit contracts.
6. Credit Policy of the Central Bank: When the Central Bank follows a cheap credit policy, it lowers the interest rate and the demand for credit increases. On the contrary, a dear credit policy by raising the interest rate contracts the quantity of credit in the country.
7. Economic Development: Credit expands in a developing country in which new banks and financial institutions are being set up. Such institutions provide credit to tiny, small medium and large industries, to agriculture e.t.c. In a poor country which lacks financial institutions, the volume of credit is low because trade, business, industry, agriculture etc are backward.

The Advantages of Credit in an Economy

Modern economy is said to be a credit economy. Credit is of vital importance for the working of an economy. It is the oil of the wheel of trade and industry and helps in the economic prosperity of a country in the following ways:

1. Economical: Credit instruments economize the use of metallic currency. They are cheaper than coinage. The metal used in coins can be used for other productive purposes.
2. Increases Productivity of Capital: Credit increases the productivity of capital. People having idle money deposit it in banks and with non-bank financial institutions which is lent to trade and industry for productive uses.
3. Convenient: Credit instruments are a convenient mode of national and international payments. They help in transferring payment with little cost and without the use of actual money from one place to another quickly.
4. Internal and External Trade: Another advantage of credit is that, it helps in the expansion of internal and external trade of a country.
5. Encourages Investment: According to Keynes, credit is the payment along which production travels and that bankers provide facilities to manufactures to produce to full capacity. Credit encourages investment in the economy. Financial institution help mobilizing savings of the people through deposits, bonds etc. these are in turn, given as credit to trade, industry, agriculture etc. which lead to more production and employment
6. Increases Demand: Availability of cheap and easy credit increases the demand for goods and services in the country. This leads to increase in the production of such durable consumer goods as motor vehicles, refrigerators etc. these raise the standard of living of the people when they consume more goods and services.

7. Utilizes Resources: Credit helps in the proper utilization of a country manpower and other resources. Cheap and easy credit encourages people to start their own businesses which provide them employment.
8. Price Stability: Credit helps in maintaining price stability in the country. The Central bank controls price fluctuations through its credit control policy. It reduces the credit supply to control inflation and increases the supply of credit to control deflation.
9. Helpful to Government: Credit helps the government in meeting exigencies or emergencies when the usual fiscal measures fail to fill the financial needs of the government. Government resorts to deficit financing for economic development by crating excess credit.

The Disadvantages of Credit in an Economy

Credit is a dangerous tool if it is not properly controlled and managed. The following are some of the disadvantages of credit:

1. Harmful: Too much and too little of credit are harmful for the economy. Too much of credit leads to inflation which causes direct and immediate damage to creditors and consumers.
2. Growth of Monopolies: Too much of credit leads to the concentration of capital and wealth in the hands of a few capitalists. This leads to growth of monopolies which exploit both consumers and workers.
3. Wastage of Resources: When banks create excessive credit, it may be used for productive and unproductive purposes. If too much of credit is used for production, it leads to over capitalization and over production and consequently to wastage of resources. Moreso, if credit is given liberally for unproductive purposes, it also leads to wastage of resources.
4. Cyclical Fluctuations: When there is an excess supply of credit, it leads to a boom. When it contracts, there is a slump. In a boom, output, employment and income increase which lead to over production. On the contrary, they decline during a depression thereby leading to under

consumption. Such cyclical fluctuations bring about untold miseries to the people.

5. Extravagance: Easy availability of credit leads to extravagance on the part of people. People indulge in conspicuous consumption. They buy those goods which they do not need even. With borrowed money, they spend recklessly on luxury articles. This is also the same in case of businessmen and governments who invest in unproductive enterprises and schemes.
6. Speculation and Uncertainty: Over issue of credit encourages speculation which leads to abnormal rise in prices. The rise in prices in turn, brings an element of uncertainty into trade and business. Uncertainty hinders economic progress
7. Black Money: Excessive supply of credit encourages people to amass money and wealth. They tend to adopt underhand means and exploit others. To become rich, they evade taxes, conceal income and wealth and thus hoard black money.
8. Political Instability: Over issue of credit lead to hyper-inflation which also leads to political instability and even the downfall of government.

How Modern Banks Create Credit in an Economy

Commercial banks are the key institutional mechanism through which money performs its numerous functions in any economy. One of the major distinguishing characteristics of a commercial bank, among other financial institutions, is that it can create money. This implies that it can increase the supply of money by granting loans or credit.

Historically, this practice can be traced to the early goldsmith who learned that they could lend out part of the gold looks alike and one person's gold could be lent to another without it been identified. The amount of gold on deposit could be retrieved by the owner on the presentation of a receipt (certificate), but it did not have to be very same gold at the same time, the goldsmith realized they

could make money through prudent lending of a fraction of the gold they held for safe keeping.

Let us now work through carefully how a modern commercial banks creates money by an efficient adoption of the early goldsmith's principle of fractional lending. The following assumptions will enable us see without complications how this process of money creation works:

i. We assume that there are 10 commercial banks in a hypothetical economy named Nigeria. This assumption is to enable us to deal with a realistic situation where there can be many banks in an economy.

ii. All commercial banks in Nigeria are required by law to keep a certain percentage of the deposits with them as cash. This is the cash reserve ratio, which we shall specify to be 10%.

iii. It is also assumes that there is no leakage of currency either outside the economy or into non-bank savings institutions

iv. Assumed also that each commercial bank stands ready to make loans to its eligible customers.

With the above assumptions we are going to see what happens if customer A i.e Br Biggs deposit the sum of ₦5,000,000 in a bank i.e GTBank Plc. The table depicts the process of money creation in an hypothetical economy:

Multiple Expansion of Credit in Nigeria (Hypothetical);

Stage of Deposit	New Cash Deposited ₦	Required Cash Reserve Ratio (10%)	Potential Demand Deposit Created by New Loans
GT Bank	5,000,000	500,000	4,500,000
Zenith Bank	4,500,000	450,000	4,050,000
U.B.A.	4,050,000	405,000	3,645,000
Union Bank	3,645,000	364,500	3,280,500
Sterling Bank	3,280,500	328,050	2,952,450

Sky Bank	2,952,450	295,245	2,657,205
Fidelity Bank	2,657,205	265,720.52	2,391,484.5
First Bank	2,391,484.5	239,148.45	2,152,736.05
Diamond Bank	2,152,336.05	215,233.61	1,937,102.44
Wema Bank	1,937,102.44	193,710.24	1,743,302.20
Total	**32,566,077.99**	**3,256,607.82**	**29,309,470.19**

After Mr. Biggs has deposited the sum of ₦5,000,000 in G.T. Bank Plc, the bank will have to keep the required cash reserve on this amount as specified by law, which is ₦500,000 (i.e 10% of ₦5,000,000). What remains after the cash reserve has been met is an excess reserve of ₦4,500,000 (i.e ₦5,000,000 – ₦500,000). G.T. Bank can now make loans on the basis of this excess reserve.

It must be stressed at this point that the bank can only create credit if it has excess reserve. Without it, no credit is possible. When all the excess reserves has been used for lending, the bank is technically said to be loaned up.

Note that at this point, the process of credit creation has started, and with it an increase in supply of money. This is so because even though G.T Bank has given out ₦4,500,000 as loan, Mr. Biggs still owns his ₦5000,000. Indeed, the total money supply in the economy at this point has increased from ₦5000,000 to ₦9,500,000 (i.e. ₦5,000,000 + ₦4,500,000).

Let us assume that PZ Plc on receiving this credit from G.T. Bank spends it on materials by a wholesaler who banks with Zenith Bank Plc. Remember that Zenith Bank Plc is also subject to the 10% cash reserve ratio. It will therefore make sure that it puts this down before doingany thing else with its excess reserve.

The cash reserve on the ₦4,500,000 deposited with Zenith Bank Plc is ₦450,000. The excess reserve in Zenith Bank Plc is now ₦4,050,000 (i.e ₦4,500,000 - ₦450,000). Let this amount also be lent out to Unilever Plc who in turn purchases supplies from a wholesaler, who puts the cash into an account with U.B.A Plc located near the company. After U.B.A Bank has put away the

cash reserve (i.e 10% of ₦4,050,000), it will have the sum of ₦3,645,000 as excess reserve for lending. Suppose U.B.A Bank lends it to Julius Berge (an Engineering Firm) who intends to pay his workers. Julius Berger pays his workers who then deposits this amount with their bank i.e Union Bank Plc. The Union Bank Plc also put away the cash reserve (i.e 10% of ₦3,645,000) which is ₦364,500.

This process of lending, based on excess reserve, will continue through other banks in the economy in Nigeria. As the process continue through other banks, the total credit in the banking system expands. A limit is reached when total credit created is up to several times the original deposit.

The salient points to note in this process of credit creation are as follows:

i. The original deposits of ₦5,000,000 has ultimately increased money supply or credit up to ₦32,566,077.99. This is the total amount of all the new deposits made and the result is brought about by what is referred to as the Deposit Expansion Multiplier (DEM).

ii. DEM is a multiple by which new reserves or deposits increase the original stock of money. Its size is determined by the reserve ratio. More specifically, DEM is the reciprocal of the reserve ratio (R). For example, if R is 10%, DEM is the reciprocal of credit which can possibly be created in this banking system, given our assumption above, is ₦32,566,077.99 i.e (10 x ₦3,256,607.82).

iii. It is therefore obvious that the higher the reserve ratio, the lower the deposit expansion, hence, the amount that can be created in the banking system. For example, suppose R = 20% and the initial deposit is ₦5,000,000. Then, DEM will be 5 (i.e 100/20) and the potential credit that all banks can create will be $^{1}/_{2}$ x ₦3,256,607.82 x 5 = ₦8,141,519.55. Similarly, suppose R = 5% and the initial deposit is ₦5,000,000. Then, DEM will be 20 (i.e 100/5) and the potential credit

that all banks can create will be $^1/_2$ x ₦3,256,607.82 x 20 = ₦32,566,078.20.

iv. The ultimate expansion in credit or money supply is possible for a system of many banks because, which one ate credit while the rest do not, this bank would lose most of its deposits to other banks and the credit expansion process will be extremely limited.

Consequently, what one single bank cannot do i.e create credit up to the full multiple of the reserve ratio that a system of banks can do. Note that a monopoly bank having branches in the economic system is also capable of bringing about full multiple expansion of credit, potentially up to the multiple of the reserve ratio.

The Factors Affecting the Creation of Credit

In the real life, the deposit expansion multiplier will not yield the theoretical number suggested above. Chances are high that the number will be less than that obtained by the reciprocal of the reserve ratio. In effect, therefore, the actual credit created will be less than the potential limit because of the following main reasons:

i) Central Banks Control via the Reserve Ratio: One of the major functions of a central bank is to control money supply. The manipulation of the reserve ratio is one of the means of influencing the commercial bank's ability to create credit. Thus, if central bank lowers the reserve ratio, the bank's ability to increase credit is enhanced. Although, in general, the ability as opposed to the willingness to create credit varies inversely with the size of the ratio. For instance, suppose the reserve ratio is put at 25% and a commercial bank receives a deposit of ₦1,000,000. The bank will be left with a loanable excess of ₦750,000 after putting away ₦250,000 for the required cash reserve. If however, the reserve ratio is raised to 50%, the bank will now have ₦500,000 for lending. Moreso, if the reserve ratio is 100%, it means the bank cannot lend (create money) at all. This is because, its excess reserve is zero.

ii) Currency Drained From the Banking System: Strong willingness on the part of the public to hold money may cause a drain or leakage of currency from the banking system. such a cash drain may be caused by the need to hold money from carrying out economic transactions, unstained or unstable banking habits or fears that a particular bank may be broken or fold-up. Whatever the reasons for the currency drain, the ultimate effect is to reduce the credit creating potentials of the bank.

iii) Bank's Unwillingness to Lend: Even when banks have excess loanable funds, they may refuse to lend or create credit for several reasons such as;

- They may not be satisfied with the creditors collateral or personal integrity
- The business climate may be gloomy in general
- The purpose for which the loan may be unacceptable.

In any of the above circumstances, the bank may refuse to grant credit for fear of losing money.

iv) Government Credit Guidelines: Although government credit guidelines with respect to the floor and ceiling of permissible credit to certain sectors of the economy is basically intended to allocate the existing credits, it may reduce the bank's ability to create credit. If the credit guideline is directed to the sector preferred by government but considered risky by the banks, such a guideline may not be followed strictly. For example, Nigerian Federal Government wants commercial banks to increase their loans to agriculture to help increasing foods production, but the banks are unwilling since investment in this area is expected to be too risky.

v) Unwillingness on the Part of the Public to Borrow: Although credit may be available for lending, but people may not come forward to borrow. This unwillingness to borrow may be caused by business pessimism inadequate perception of viable projects worth financing, inability to fulfill borrowing requirements, and so on. With regard to this reason, most Nigerian businesses

cannot borrow such as providing acceptable collateral, a feasibility study of the intended project, etc. A general unwillingness to borrow would then mean that the excess reserves would lie idle or frozen in bank vaults. Credit or money supply expansion would therefore not be possible.

The Destruction of Money or Credit

Just as commercial banks literally create money, they can also destroy it. Credit destruction involves contraction or reduction of the credit in the banking system. The process is exactly the opposite of credit creation. Withdrawal of deposit from the bank will lead to multiple contraction of credit in the banking system.

Using our previous example, a withdrawal of ₦5,000,000 will initially cause the G.T Bank Plc a deposit loss of ₦5,000,000. G.T. Bank will have to make efforts to maintain its reserve position by either calling in the loan of ₦4,500,000 it made or selling assets for this amount. In selling assets, G.T Bank has drained ₦4,500,000 from the second bank (Zenith Bank Plc), which in turn will have to call in- and so drain- the ₦4,050,000 loan it made to the U.B.A Bank Plc.

This process of loan contraction will continue until a total of ₦32,566,077.99 in loans have cancelled in the system. Note that this chain destruction of ₦32,566,077.99 is also the limit to which the banking system will go, given a reserve ratio of 10%. Ordinarily, the process of money contraction or cancellation of loans and deposits may bring about a recession in the economy.

1) Given the following hypothetical assumption below, illustrates with table how a modern **Practice Questions**
commercial banks creates money;

Assumptions:

i) We assumed there are ten (10) commercial banks in hypothetical economy i.e Nigeria.

ii) All the banks in Nigeria are required to keep a certain percentage of their deposits with them as cash reserve ratio which is specify to be 5%..

iii) There is no leakage of currency either outside the economy or into non-bank saving institutions.

iv) Each commercial bank stands ready to make loans to its eligible customers.

With the above assumptions, show how money creation expansion will look in the economy if Mallam, Usman deposit ₦ 10,000,000 (Ten Million Naira) with the first bank.

2) Explain what you understand by the term Credit**.**

3) Discuss six (6) factors affecting or influencing credit in an economy.

4) Discuss the supply of money based on M1, M2 and M3 operational definations.

THE DEMAND AND REASONS FOR HOLDING MONEY

The Meaning of Demand for Holding Money

The demand for money refers to the willingness of people to hold money as cash balances. The demand for holding money arises from two important functions of money that is, as a medium of exchange and as a store of value. Hence, individuals, firms or organization wish to hold money partly in cash and partly in form of assets to fulfil these two basic functions of money. Moreso, such a demand for money can be viewed from the uses or advantages of money. J.M. Keynes articulated three fundamental motives for holding money. These are:

1) The Transactionary Motive: The transactionary motive refers to the desire to hold cash for purposes of current expenditure. It emphasizes the necessity for people to carry cash around for meeting day to day commitments ranging from buying food, to paying bus fares, shelter and other daily transactions. Business needs cash to run the daily affairs or administrative commitments while

commercial banks needs cash to meet its daily obligation to customers withdrawing money. Similarly, money as a medium of exchange is required by indivduals to pay for the goods and services i.e. food, cloth, transport etc on day-to-day basis. Moreso, firm or organization need money to pay wages, to buy raid materials, to run vehicles etc.

The transactionary demand for money from an individual's point of view is affected by the individual's level of income and the opportunity cost for holding money. The opportunity cost for holding money is the interest that could have been earned from interest yielding assets. Thus, the transactionary demand for money is directly related to income and inversely related to the rate of interest. Therefore, the higher the income, the higher for the demand for money for transactions purposes. While the higher the interest, the lower the transactions demand for money. For the economy as a whole, aggregate demand for money for transactions purposes will depend directly on money national income.

2) <u>The Precautionary Motive:</u> The precautionary motive relates to the desire to provide for contingencies requiring sudden expenditures and for unforeseen opportunities of advantageneous purchases. This demand for holding money arises from the need to take precautions against unforeseen occurrence, contingencies or circumstances. These include sudden sickness, an accident, a court case, death of a relation etc. People who are pessimistic tend to hold relatively larger amount of money as precaution. Indeed, in some parts of Africa, elderly people stuff money in their pillows to be sure as the Nigeria Civil War, people tended to hold more cash. In other words, precautionary motive refers to the desire to hold cash balances in order to meet expenditures which may arise due to unforeseen circumstances such as sickness and accidents. People also hold money as a precaution against unpredictable emergencies such as fire or flood disaster and so on. Moreso, firm or organization also hold money against unexpected transactions such as sudden break-down of equipments, machines, vehicles etc.

The demand for money for precautionary purposes will be directly influenced by a person's level of money income while aggregate demand will depend on national income

3) <u>The Speculative Motive:</u> There is a general belief that, people have to use money to make money. The speculative motive is a business motive. It refers to the desire to hold cash balances in order to make speculative dealings in the bond or securities market. Thus, they often hold cash balances in order to take advantages of profitable opportunities that might occur. Hence, people are also willing to hold money at home in cash or as demand deposits in the bank for speculatve reasons. For instance, if Nigerians expect the government to reduce the prices of low-income houses, people will tend to put more money into speculative savings in order to buy when the time comes. People can hold on to money in order to buy financial assets if and when their prices are low. Again, if a stock market speculator feels or gest the information that stock prices fall at the stock exchange in a month's time, he would likely sell his current stock holdings today, and keep the proceeds in his current account. By the time the stock price falls, he would be able to buy more stocks than he was holding before with the same amount of money. The speculative demand for money also depends directly on the level of income and inversely on the rate of interest. This would be when the rate of interest is high since there is an inverse relationship between the price of stocks, bonds etc. and the rate of interest. The speculative demand for money is an inverse function of the rate of interest i.e it increases when the rate of interest is low and falls when the rate of interest is high. This is because a high interest rate means the opportunity cost of holding money, as cash is high so, people tend to hold cash in order to minimize their losses.

THE SUPPLY OF MONEY

The Meaning of Supply of Money

The Central Bank issues notes and coins. At any one time the Bank will know how many notes it has issued. In this figure "the money supply"? it cannot be. We know that cash is deposited in banks, and banks can, through lending, create further deposit and so expands the supply of money. (Note that "supply" here is used to mean a stock of money, not a flow of money). Cash is generally acceptable as money, but so are cheques drawn on a commercial bank, to a slightly lesser extent. The middle class doctors looking at their financial assets would count funds in a time deposit and stocks and shares as part of their money supply. Given that it is difficult to think of money in a modern setting without thinking of a structure of different kinds of financial institutions, it is difficult to find one measure to represent the money supply.

The Operational Definitions of Money Supply

For operational purposes, economists adopt different definitions of money, depending on the context. Basically, supply of money includes items with different degrees of liquidity.

Three definitions are often used. These are M1, M2 and M3.

M1 Operational Definitions of Money Supply

This includes currency and deposits in current accounts, the latter of which are as actual cash because a valid cheque is usually paid on sight with the exact amount indicated. In Nigeria, demand deposits amounted to ₦4,664.3 million while currency outside banks totaled ₦3,797.8 million in 1982. Demand deposits therefore constitute about 55% of the total money supply (M1) in July 1982

M2 Operational Definitions of Money Supply

This includes not only currency and demand deposits, which make up M1 but also time and savings deposits. It is a broader monetary aggregate and is referred to by Professor Friedman as a "temporary abode of purchasing power"

since it can easily be converted into cash. In summary, M2 = M1 + Savings and time deposits of commercial banks. Note that time and savings deposits are referred to as quasi money. When M2 is taken into account, Nigerians kept about 75% of their money in banks in 1982. Note also that, in Nigeria, savings deposits refer to those which cannot be withdrawn with cheques, and time deposits refer to those, which require advance notice of a specific time for withdrawal. Such notice periods in Nigeria vary from 7 days to 12 months and carry different rates of interest.

M3 Operational Definition of Money Supply

This includes M2 + deposits in financial intermediaries such as mortgage banks, the post office, savings bank, insurance companies e.t.c. That is, M3 adds near monies to M2. Near monies are financial assets which have a high degree of liquidity and can easily be converted into money. For instance, a government bond worth ₦1,000,000 can easily be turned into money by selling it in stock exchange.

It should be noted that these operational money supply are important for analytical and policy purposes. For example, policy action may be designed to affect only M1 without affecting M2 or M3 or a certain policy thrust to increase M1 may be neutralized by the presence of M2 or M3.

The Determinants of Money Supply

The functioning of our economic system is greatly influenced by the amount of money in our economy, while changes in its volume affect the levels of output, employment, growth and prices.

There are two theories of the determination of the money supply. According to the first view, the money supply is determined exogenously by the central bank. While the second view holds that the money supply is determined endogenously by changes in the economic activity which affect people's desire to hold currency relative to deposits, the rate of interest etc.

Infact, the determinants of money supply are both exogenous and endogenous which can be described broadly as:

i) The Required Reserve Ratio: The required reserve ratio (or the minimum cash reserve ratio or the reserve deposit ratio) is an important determinant of the money supply. An increase in the required reserve ratio reduces the supply of money with commercial banks and a decrease in required reserve is the ratio of cash to current and time deposit liabilities which is determined by law. Every commercial bank is required to keep a certain percentage of these liabilities in the form of deposits with the central bank of the country. But notes or cash held by commercial banks in their tills are not included in the minimum required reserve ratio.

ii) The Level of Bank Reserves: The level of bank reserves is another determinant of the money supply. Commercial bank reserves consist of reserves on deposits with the central bank and currency in their tills or vaults. It is the central bank of the country that influences the reserves of commercial banks in order to determine the supply of money. The central bank requires all commercial banks to hold reserves equal to a fixed percentage of both time and demand deposits. These are level minimum or required reserves. Required reserves (RR) are determined by the required reserve ratio (RRr) and the level of deposits (D) of a commercial bank: that is, RR = RRr x D.

iii) Public's Desire to Hold Currency and Deposits: People's desire to hold currency (or cash) relative to deposits in commercial banks also determines the money supply. If people are in the habit of keeping less in cash and more in deposits with the commercial banks, the money supply will be large. This is because banks can create more money with larger deposits. On the contrary, if people do not have banking habits and prefer to keep their money holdings in cash, credit creation by banks will be less and the money supply will be at a low level.

iv) High Powered Money: The current practice is to explain the determinants of the money supply in terms of the monetary base or high-powered money. High powered money is the sum of commercial bank reserves and currency (notes and coins) held by the public. High-powered money is the base for the expansion of bank deposits and creation of the money supply. The supply of money varies directly with changes in the monetary base, and inversely with the currency and reserve ratios.

v) Other Factors: The money supply is a function not only of the high-powered money determined by the monetary authorities but also of interest rates, general income level and other factors. The latter factors changes the proportion of money balances in business activity can change the behavior of banks and the public and thus affect the money supply. Therefore, the money supply is not only an exogenous controllable item but also an endogenously determined item.

Practice Questions

i) Explain what you understand by motives for holding money

ii) Discuss the fundamental motives for holding money**.**

THE MONETARY POLICY

The Meaning of Monetary Policy

Monetary policy refers to the credit control measures adopted by the central bank of a country. According to Johnson defines monetary policy "as policy employing central bank's control of the supply of money as an instrument for achieving the objectives of general economic policy". While G.K. Shaw defines it as "any conscious action undertaken by the monetary authorities to change the quantity, availability or cost …… of money".

Objectives or Goals of Monetary Policy

The objectives or goals of monetary policy include the following:

i) **Full Employment:** According to Keynes, full employment means the absence of involuntary unemployment. That is to say, full employment is a situation in which everybody who wants to work, gets work. Therefore, full

employment so defined as consistent with frictional and voluntary unemployment. While Lord Beveridge defines full employment in a free society as a situation where there were more vacant jobs than unemployed men so that the normal lag between losing one job and finding another will be very short. Thus, by full employment that does not mean zero unemployment which means that full employment is not always full. There is always a certain amount of frictional unemployment in the economy even when there is full employment. Full employment has been ranked among the foremost objectives of monetary policy. It is an important goal not only because unemployment leads to wastage of potential output, but also because of the loss of social standing and self-respect and also increase poverty. Therefore, full employment can be achieved in an economy by following an expansionary monetary policy.

ii) **Price Stability:** Another objective or goal of monetary policy is to stabilize the price level because fluctuations in prices bring uncertainty and instability to the economy. One of the objective of controlling credit is to stabilize the price level in the economy. Continuous changes in prices adversely affect the economy. Hence inflationary or deflationary trends need to be prevented. This can be achieved by adopting a judicious policy of credit control

Therefore, a plicy of price stability keeps the value of money stable, eliminates cyclical fluctuations, brings economic stability, helps in reducing inequalities of income and wealth, secures social justice and promotes economic welfare. Hence, price stability can be maintained by following a counter-cyclical monetary policy: that is easy monetary policy during a recession and dear monetary policy during a boom.

iii) **Economic Growth:** Economic growth is defined as the process whereby the real per capital income of a country increases over a long period of time. That is economic growth is measured by the increase in the amount of goods and services produced in a country. Thus growth occurs when an economy's productive capacity increases which in turn is used to produce more goods and

services. Moreso, economic growth implies raising the standard of living of the people and reducing inequalities of income distribution. Economic growth can be influence by controlling the real interest rate which will reflect on the level of investment. That is, by following an easy credit policy and lowering interest rates, the level of investment can be raised which promotes economic growth. Monetary policy may also contribute towards growth by helping to maintain stability of income and prices. Therefore, monetary policy should be such that encourages investment and at the same time controls hyper-inflation so as to promote growth and control economic fluctuations.

iv) **Balance of Payments:** Another objective of monetary policy is to maintain equilibrium in the balance of payments. A state of disequilibrium occurs in the balance of payments when imports not equal exports. Thus, balance of payment disequilibrium becomes a major economic headaches facing the monetary authorities. Although, a balance of payments surplus may not give policy makers as much headache as a balance of payments deficit. It is equally important to note that only a fundamental disequilibrium or chronic deficit is considered a major goals of macro-economic policy. So the attainment of a balance of payments equilibrium becomes an imperative goal of monetary policy in an economy._These will achive the following :

i) Stabilize the rate of foreign exchange : With the change in the internal price level exports and imports of the country and affected when price fall, exports increase and imports decreases simultaneously, the demand for domestic currency increases in the foreign market and its exchange rate rises. Moreso, a rise in domestic prices leads to a decline in exports and an increase in imports. Therefor, the demand for foreign currency increases and that of domestic currency falls or decreases, thus, lowering the exchange rate or the domestic currency. Therefor since it is the volume of credit money that affects price, the central bank can starbilise the rate of foreign exchange by controlling bank credit

ii) Protect the outflow of gold: The central bank holds the gold reserves of the country in its vaults. Expension of bank credit leads to rise in prices which reduce exports and increase imports, hence, creating an unfavourable balance of payments. Therefor. Necessitates the export of gold to the other countries the central bank has to control credit in order to prevent such outflows of gold to other countries.

iii) Control business cycles: Business cycles are a common phenomenon of capitalist country which lead to periodic fluctrations in production employment and price. They are characterized by alternating period of prosperity and depression. During prosperity, there is large expansion in the volume of credit and production, employment and prices rise during depression credit contracts and production employment and prices fall. The central bank can counteract such cyclical fluctuation through contraction of bank credit during boom periods and expansion of bank credit during depression.

iv) Meet business needs : according to business, one of the important objectives of credit control is the "adjustment of the volume of credit control is the volume of business" credit is needed to meet the requirements of trade and industry. As business expands. Larger quantity of credit is needed and when business contracts less credit is needed. Hence it is the central bank which can meet the requirements of business by controlling credit.

The Instruments of Monetary Policy

The Central Bank of any country adopts two types of instruments of monetary policy. These are:

i) The Quantitative / General / Indirect Instruments

ii) The Qualitative / Selective / Direct Instruments

The Quantitative /General / Indirect / Instruments Methods

This methods aim of controlling the cost and quantity of credit by adopting the following techniques:

1) **Bank Rate or Discount / Rate Policy :** The bank rate is the minimum lending rate of the central bank at which it rediscounts first class bills of exchange and government securities held by the commercial banks. When the central bank finds that inflationary pressures have started emerging within the economy, it raises the bank rate. Borrowing from the central bank becomes costly and commercial banks in turn raise their lending rates to the businessmen and also businessmen borrow less from the commercial banks. On the contrary, when prices are depressed, the central bank lowers the bank rate. Hence, it is cheap to borrow from the central bank by the commercial banks. The commercial bank also lower their lending rates to borrowers. Thus, businessmen are encouraged to borrow more and leads to increase in output, employment, income and demand start rising and the downward movement of prices is checked.

The central bank controls credit by making variations in the bank rate. If the need of the economy is to expand credit the central bank lowers the bank rate Hence borrowing from the central bank becomes cheap and easy. Therefor the commercial bank will borrow more. This will in turn advance loans to customers at a lower rate. Thus the market rate of interest will be reduced, thereby encourages business activity and expansion of credit follows which encourages the rise in prices. But when credit is to be contracted in the economy, the central bank raises the bank rate which makes borrowing costly and difficult so the bank borrow less and increase their lending rates to customers. Moreso, the market rate of interest also rises because of the tight money market. Thus discourages fresh loans and puts pressure on borrowers to pay their past debts, hence, discourages business activity it can be put that lowering the bank rate offsets deflationary tendencies and raising the bank rate controls inflation.

Limitations of Bank or Discount Rate Policy : The efficacy of the bank rate policy as an instrument of controlling credit is limited by the following factors:

i) Market Rate do not Change with Bank Rate : The success of the bank rate policy depends upon the extent to which other market rates of internal change along with the bank rate . the theory of bank rate policy pre-supposes that other rates of interest prevailing in the money market change in the direction of the change in the back rate. If the condition is not satisfied the bank rate policy will be totally ineffective as an instrument of credit control.

ii) Wages, Costs and Prices not Elastic : The success of the bank rate policy requires elasticity not only in interest rates bit also in wages, costs and prices . it implies that when suppose the bank rate is raised , wages , costs and prices should automatically adjust themselves to a lower level.

iii) Banks do not Approach Central Bank **:**The effectiveness of the bank rate policy as a tool of credit control is also limited by the behaviour of the commercial banks, it is only if the commercial bank approach the central bank for rediscounting facilities that this policy can be a success. But the bank keep with them larger amounts of liquid assets and do not find it necessary to approach the central bank for financial help.

iv) Bills of Exchange not used:The effectiveness of the bank rate policy depends on the existence of eligible bills of exchange. In recent years, the bill of exchange as an instrument of financial commerce and trade has fallen into disuse. Businessman and banks prefer cash credit and overdrafts this makes the bank rate policy less effective for controlling credit in the country.

v) Pessimism or Optimism: The efficacy of the bank rate policy also depends on waves of pessimism or optimism among businessman. If the bank rate is raised, they will continue to borrow even at a higher rate of interest since there are boom conditions in the economy and prices are expected to rise further. Similarly, a reduction in the bank rate will not induce them to borrow during periods of falling prices. Thus businessmen are not very sensitive to changes in interest rates and they are influenced more by business expectations.

vi) Power to Control Deflation is limited**:** Another limitation of the bank rate policy is that the power of a central bank to force a reduction in the market rates of interest is limited. For instance, a lowering of bank rate will not lead to a decline in the market rates of interest. So the bank rate policy is ineffective in controlling deflation. It may however, control inflationary tendencies by forcing an increase in the market rates of interest.

vii) Level of Bank Rate in Relation to Market Rate: The efficacy of the discount rate policy as an instrument of credit control depends upon its level in relation to the market rate. If in a boom, the bank rate is not raised to such an extent as to make borrowing costly from the central bank, and it is not lowered during a recession so as to make borrowing cheaper from it, it would have a destabilizing effect on economic activity.

viii) Non-Discriminatory: The bank rate policy is non-discriminatory because it does not distinguish between productive and unproductive activities or the country.

ix) Not Successful in Controlling BOP Disequilibrium**:** The bank rate policy is not effective in controlling balance of payments disequilibrium in a country because it requires the removal of all restrictions on foreign exchange and movements of international capital.

2) Open Market Operations: The open market operations refer to sale and purchase of securities in the money market by the central bank. When prices are rising and there is need to control them, the central bank sells securities. The reserves of commercial banks are reduced and they are not in a position to lend money to businessmen. Hence, investment is discouraged and the rise in prices is checked. But when prices are falling, the central bank buys securities. The reserves of commercial banks are raised, they also lend more and investment, output, employment, income and demand increases and fall in prices are checked.

Open market operations are another method of quantitative credit control used by a central bank. This method refers to the sale and purchase of securities, bills and bonds of government as well as private financial institutions by the central bank. Infact, open market operations can be simply put as dealing of government securities and bonds.

There are two principal motives of open market operations. These are:

i. To influence the reserves of commercial banks in order to control their power of credit creation.

ii. To affect the market rates of interest so as to control the commercial bank credit.

Limitations of Open Market Operations

The effectiveness of open market operations as a method of credit control is dependent upon the existence of a number of conditions, the absence of which limits the full working of this policy. These include:

1. Lack of Securities Market: The first condition is the existence of a large and well-organised security market. This condition is very essential for open market operations because without a well developed security market the central bank will not be able to buy and sell securities on a large scale and thereby influence the reserves of the commercial banks.
2. Cash Reserve Ratio not Stable: The success of open market operations also requires the maintenance of a stable cash-reserve ratio by the commercial bank. This means that when the central bank sells or buys securities, the reserves of the commercial banks decrease or increase accordingly to maintain the fixed ratio. In most cases, the commercial banks do not stick to the legal minimum reserve ratio and keep a higher ratio than this. This makes open market operations less effective in controlling the volume of credit.
3. Penal Bank Rate: According to Professor Aschheim, one of the necessary conditions for the success of open market operations is a penal bank rate.

If there is no penal discount rate fixed by the central bank, the commercial banks can increase their borrowings from it when the demand for credit is strong on the part of the latter. Hence, the sale of securities by the central bank to restrict monetary expansion will be unsuccessful. But with a penal rate of discount, which is a rate higher than the market rates of interest, the banks will be reluctant to approach the central bank for additional financial help easily.

4. Banks Act Differently: Open market operations are successful only if the people also act the way the central bank expects them. When the central bank sells securities, it expects the business community and financial institutions to restrict the use of credit. If they simultaneously start dishoarding money, the act of selling securities by the central banks will not be a success in restricting credit. Similarly, the purchase of securities by the central bank will not be effective if people start hoarding money.
5. Pessimistic or Optimistic Attitude: Pessimistic or optimistic attitude of the business community also limits the operation of open market policy. When the central bank purchases securities and increases the supply of bank money, business-men may be unwilling to take loans during a depression because of the prevailing pessimism among them. If businessmen are optimistic during a boom, the sale of securities by the central bank to contract the supply of bank money and even the rise in market rates cannot discourage them from getting loans from the banks. In fact, this policy is more successful in controlling booms than depressions.
6. Velocity of Credit Money is not Constant: The success of open market operations depends upon a constant velocity of circulation of bank money. But the velocity of credit money is not constant. It increases during periods of business activity and decreases in periods of falling prices. Therefore, a policy of contracting credit by the sale of securities

by the central bank may not be successful by increased velocity of circulation of bank credit.

In conclusion, open market operations are more effective than other instruments of credit control available with the central bank. This method is being successfully used for controlling credit in developed countries where the securities market is highly developed despite the above mentioned limitations.

3) <u>Changes / Variable Reserve Ratio:</u> This refer to a situation where every bank is required by law to keep a certain percentage of its total deposits in the form of a reserve fund in its vaults and also a certain percentage with the central bank. When prices are rising, the central bank raises the reserve ratio. Banks are required to keep more with the central bank. Hence, their reserves are reduced and they lend less. The volume of investment, output and employment are adversely affected. But when the reserve ratio is lowered, the reserves of commercial banks are raised. Thus, the lend more and the economic activity is favourably affected.

Variable reserve ratio or required reserve ratio or legal minimum requirements as a method of credit control suggested that every commercial bank is required by law to maintain a minimum percentage of its deposits with the central bank. The minimum amount of reserve with the central bank may be either a percentage of its time and demand deposits separately or of total deposits. Therefore, whatever the amount of money remains with the commercial bank over and above these minimum reserves is known as the excess reserves. It is on the basis of these excess reserves that the commercial bank is able to create credit. The larger the size of the excess reserves, the greater is the power of a bank to create credit and vice-versa. Similarly, it can also be put that the larger the required reserve ratio, the lower the power of a bank to create credit and vice versa. Thus, if the central bank wants to expand credit, it lowers the reserve ratio so as to increase the credit creation power of the commercial banks, thereby varying the reserve ratio of the commercial banks, the central

bank influences their power of credit creation and therefore controls credit in the economy.

Limitations of Changes / Variable Reserve Ratio

The variable reserve ratio as a method of credit control has a number of limitations. These include:

1. Excess Reserves: The commercial banks usually possess large excessive reserves which make the policy of variable reserve ratio ineffective. When the banks keep excessive reserves, an increase in the reserve ratio will not affect their lending operations. They will stick to the legal minimum requirements of cash to deposits and at the same time continue to create credit on the strength of the excessive reserves.
2. Clumsy Method: It is a clumsy method of credit control as compared with open market operations. This is because it lacks definiteness in the sense that it is inexact and uncertain as regards changes not only in the amount of reserves but also the place where these changes can be made effective. Furthermore, the changes in reserves involve far larger sums than in the case of open market operations.
3. Discriminatory: It is discriminatory and affects different banks differently. For instance, a rise in the required reserve ratio will not affect those banks which have large excess reserves. On the other hand, it will hit hard the banks with little or no excess reserves. Again, the policy is also discriminatory in the sense that non-banking financial intermediaries like co-operative societies, insurance companies, building societies, development banks etc are not affected by variations in reserve requirements. Though the compete with the commercial banks for lending purposes.
4. Inflexibility: This policy is inflexible because the minimum reserve ratio fixed by the central banks is applicable to banks located in all regions of the country. More credit may be needed in one region where there is

monetary stringency and it may be superfluous in the other region. Raising the reserve ratio for all banks is not justified in the former region though it is appropriate for the latter region

5. Business Climate: The success of the method of credit control also depends on the business climate in the economy. If the businessmen are pessimistic about the future, as under a depression, even a sizable lowering of the reserve ratio will not encourage them to ask for loan. Moreso, if they are optimistic about profit expectations, a considerable rise in the variable ratio will not prevent them from asking for more loans from the banks.
6. Stability of Reserve Ratio: The effectiveness of this technique depends upon the degree of stability of the reserve ratio. If the commercial banks are authorized to keep widely fluctuating ratio, say between 8 percent to 15 percent and change in the upper or lower limit will have no effect on the credit creation power of the banks.
7. Depressive Effect: The variable reserve ratio has been criticized for exercising a depressive effect on the securities market. When the central bank suddenly directs the commercial banks to increase their reserve ratios, they may be forced to sell securities to maintain that ratio. This widespread selling of securities will bring down the prices of securities and may even lead to an utter collapse of the bond market.
8. Rigidity: It is rigid in its operations because it does not distinguish between desired and undesired credit flows and can affect them equally.
9. Not for Small Changes: This method cannot be used for day-to-day and week-to-week adjustments but can be used to bring about large changes in the reserve positions of the commercial banks. Hence, it cannot help in "fine tuning" of the money and credit systems by making small changes.
10. Other Factors: The reserve ratio held by the commercial banks is determined not only by legal requirements but also by how much they

want to hold in relation to their deposits in addition to such requirements. This will therefore depend upon their expectations with other banks and so on.

Qualitative / Selective or Indirect Instruments

The Qualitative / Selective or Indirect Instruments credit controls are used to influence specific types of credit for particular purposes. This will take the form of changing margin requirements to control speculative activities within the economy. For instance, when there is recession in a particular sector, the central bank encourages borrowing by lowering margin requirements but when there is boom, prices start rising, the central bank raises the margin requirements.

This methods control the use and direction of credit. These control are meant to regulate and control the supply of credit among its possible users and uses. These methods include:

1) Regulation of margin Requirements: This method is employed to prevent excessive us of credit to purchase or carry securities by speculators. The central bank fixes minimum margin requirements on loans for purchasing or carrying securities. They are the percentage of the value of the security that cannot be borrowed or lent. Infact, it is the maximum value of loan which a borrower can have from the banks on the basis of the security or collateral. For instance, if the central bank fixes a 10% margin on the value of a security that worth ₦10m, then the commercial bank can lend only ₦9m to the holder of the security and keep ₦1m with it. But if the central bank raises the margin to 25%, the commercial bank can lend only ₦7.5m against a security of ₦10m. Thus, if the central bank wants to curb speculative activities, it will raise the margin requirements. But if it wants to expand credit, it reduces the margin requirements.

Advantages:

1. It is non-discriminatory because it applies equally to borrowers and lenders. It therefore limits both the supply and demand for credit simultaneously.
2. It is equally applicable to commercial banks and non-banking financial intermediaries.
3. It increases the supply of credit for more productive uses.
4. It is a very effective anti-inflationary device because it controls the expansion of credit in those sectors of the economy which breed inflation.
5. It is simple and easy to administer since this device is meant to regulate the use of credit for specific purposes.

Disadvantages

1. A borrower may not show any intention of purchasing stocks with his borrowed funds and pledge other assets as security for the loan. But it may purchase stocks through some other source.
2. The borrower may purchase stocks with cash which he would normally use to purchase materials and supplies and then borrow money to finance the materials and supplies already purchased, pledging the stocks he already has as security for the loan.
3. Lenders other than commercial banks and brokers who are not subject to margin requirements may increase their security loans when commercial banks and brokers are being controlled by high margin requirements. Again, some of these non-regulated lenders may be getting the funds they lent to finance the purchase of securities from commercial banks themselves.

2) <u>Regulation of Consumer Credit:</u> This is another method of selective credit control which aims at regulating consumer installment credit or hire-purchase finance. The main objective of this instrument is to regulate the demand for durable consumer goods in the interest of economic stability. The central bank regulates the use of bank credit by consumers in order to

buy durable consumer goods on installments and hire-purchase. The central bank therefore employs two devices called: minimum down payments and maximum periods of repayment. For instance, suppose a car costs ₦500,000 and credit is available from the commercial bank for its purchase. The central bank may fix the minimum down payment to 50% of the costs price, and the maximum period of repayment to 10 months. This ₦250,000 will be the minimum which the consumer will have to pay to the bank at the time of purchase of the car and the remaining, amount in ten equal installments of ₦25,000 each month. This facility will create demand for cars. Similarly, the car industry would expand along with the related industries such as tyres, tubes, spare parts etc and thus lead to growth in the industry and other sectors of the economy.

Advantages:

1. The regulation of consumer credit is more effective in controlling credit in the case of durable consumer goods both booms and slumps whereas general credit controls fail in this area.
2. Consumers are highly motivated to buy such goods under the influence of the demonstration effect and the rate of interest has little consideration for them.

Disadvantages:

1. It is cumbersome, technically defective and difficult to administer because it has a narrow base. That is, it is applicable to a particular class of borrowers whose demand for credit forms an insignificant part of the total credit requirements. It therefore discriminates between different types of borrowers.
2. This method affects only persons with limited incomes and leaves out higher income groups.

3. It tends to mal-allocate resources by shifting them away from industries which are covered by credit regulations and lead to the expansion of other industries which do not have any credit restrictions.

3) <u>Rationing of Credit:</u> Rationing of credit is another selective method of controlling and regulating the purpose for which credit is granted by the commercial banks. It can be grouped into four types, namely:

i. <u>Variable Portfolio Ceiling:</u> This is a situation where the central bank fixes a ceiling on the aggregate portfolios of the commercial banks and they cannot advance loans beyond this ceiling.

ii. <u>Variable Capital Assets Ratio:</u> This is the ratio which the central bank fixes in relation to the capital of a commercial bank to its total assets. The central bank may raise or lower the portfolio ceiling and also vary the capital assets ratio.

iii. It is a logical concomitant of the intensive and extensive planning adopted is regimented economies. The technique also involves discrimination against larger banks because it restricts their lending power more than the smaller banks

iv. By rationing of credit for selective purposes, the central bank ceases to be the lender of the last resort. Therefore, central banks in mixed economies do not use this technique except under extreme inflationary situations and emergencies.

4) <u>Direct Action</u>: Central banks in all countries frequently resort to direct action against commercial banks. Direct action is in the form of "directives" issued from time to the commercial banks to follow a particular policy which the central bank wants to enforce immediately. This policy may not be used against all banks but against erring banks. For instance, the central bank refuses rediscounting facilities to certain banks which may be granting too much credit for speculative purposes, or in excess of their capital and reserves or restrains them from granting advances against the collateral of certain commodities. It

may also charge a penal rate of interest from these banks which want to borrow from it beyond the prescribed limit. The central bank may even threaten a commercial bank to be taken over by it in case it fails to follow its policies and instructions.

5) Moral Suasion: Moral suasion is the method of persuasion; request, suggestion and advice to the commercial bank usually adopted by the central bank. The executive head of the central bank calls a meeting with the head of the commercial banks where he explains to them the need for the adoption of a particular monetary policy in the context of the current economic situation and appeals to them to follow it.

Limitations of Moral Suasion

1. Its success depends upon the extent to which the commercial banks accept the central bank as their leader and need accommodation from it.
2. If the banks possess excessive reserves they may not follow the advice of central bank.
3. Moral Suasion may not be successful during booms and depressions when the economy is passing through waves of optimism and pessimism respectively. The bank may not heed to the advice of the central bank in such a situation.
4. In fact, moral suasion is not a control device at all, as it involves cooperation by the commercial banks rather than their coercion.

6) Publicity: The central bank also uses publicity as an instrument of credit control. It publishes weekly or monthly statements of the assets and liabilities of the commercial bank for the information of the public. It also publishes statistical data relating to money supply, prices, production and employment, and of capital and money market e.t.c. The aim is to make the public aware of the policies being adopted by the commercial bank and the central bank in the light of the prevailing economic conditions in the country.

The Limitations of Monetary Policy

The following are some of the limitations of monetary policy:

i) Increase in the Velocity of Money: One of the important limitations on the effectiveness of monetary policy in controlling inflation is the increase in the velocity of money held by the public. The central bank can control the money supply and the cost of money by a tight monetary policy but it does not possess any power to control the velocity of money. The public can make an effective use of the money supply help by them thereby making a restrictive monetary policy ineffective. This is possible in the following ways:

a) Commercial Bank Portfolio Adjustments: In the face of a restrictive monetary policy, commercial banks meet the borrowers demand for loans by selling government securities to the central bank. Such a policy simply converts idle deposits held by the banks in the form of securities into active deposits. Government securities lying in the bank's portfolios are substituted for loans. But there is no change in either the total deposits or the money with the banks. However, this leads to increase in total spending when the banks lend money to borrowers. Thus the restrictive monetary policy of the central bank becomes ineffective. Thus the commercial bank's policy of portfolio adjustment raise the velocity of total monetary or money supply even in the face of a tight monetary policy whereby making the latter ineffective.

b) The Role of Non-Bank Financial Intermediaries: Non-bank financial intermediaries act as a restraint on the effectiveness of monetary policy to restrict the money supply in two ways:

i) They sell securities for advancing loans, and thus increases velocity in the same manner as commercial banks do;

ii) As interest rates on securities rise in a tight monetary policy, financial intermediaries raise the interest rates on deposits with them to attract more idle money to the intermediaries which increases their lending power further.

Hence, they are able to raise the velocity of money thereby making tight restrictive monetary policy ineffective.

iii) Methods to Make Better Use of Available Money Supply: The private sector has evolved many ways to make better us of available supply of money which make a restrictive monetary policy ineffective. Some of the methods are the evolvement of improved methods of collecting funds by sales finance companies, borrowing funds by companies from the public at higher rates than offered by commercial banks etc. By getting funds from sources other than the commercial banks, such institutions are able to increase the velocity of the available supply of money even under restrictive monetary policy.

iv) Discriminatory: A restrictive monetary policy is discriminatory in its effects on particular sectors of the economy. It is argued that firms that depend upon internal sources of financing are not affected by a restrictive monetary policy. Hence, only those firms are affected that depend for funds on the banking system. a tight monetary policy is thought to work against small businessmen because they are poorer credit risks, and against residential construction and some types of state and local government spending, because they are most sensitive to changes in credit cost". It may slow down or even halt spending by them.

v) Threat to Credit Market: If the central bank rigorously tightens the credit market and investors expect continued increases in interest rates, this may lead to the drying up of loanable funds to the credit market. As a result, securities may not be sold and the credit market may cease to function.

vi) Threatens solvency of Non-Banks Financial Intermediaries: A vigorous restrictive monetary policy by swiftly raising interest rates may threaten the solvency of such non-banks financial intermediaries as savings banks and savings and loans associations. This is because unlike the commercial banks, they are not in a position to adjust themselves to rapidly increasing interest rates.

vii) Alter Expectations of Borrowers and Lenders: A very tight monetary policy may alter the expectations of borrowers and lenders. They bring irreversible changes in credit market conditions. A rapid rise in interest rates may also change expectations that even when this policy is abandoned and an expansionary policy is started, lenders may be reluctant to make long-term loans in anticipation of rise in interest rates again. Moreso, borrowers may borrow long-term funds even if they do not need them immediately in anticipation of rise in interest rates in the future.

viii) Time Lags: Another important limitation of a tight monetary policy is the existence of time lags which are related to the need of action, its recognition and the decision and operation of actions in time. As the monetary authority is not able to adapt restrictive monetary measures in time due to these time lags, monetary policy works very slowly and not very effective in controlling inflation.

The Limitations of Monetary Policy in less Developed Countries

The following are the limitations of monetary policy in less developed countries:

i) Large Non-Monetized Sector: There is a large non-monetized sector which hinders the success of monetary policy in such countries. People mostly live in rural areas where barter system in practiced. Thus, monetary policy fails to influence this large segment of the economy.

ii) Undeveloped Money and Capital Markets: The money and capital markets are undeveloped. These markets lack in bills, stocks and shares which limit the success of monetary policy.

iii) Large Number of NBFIs: Non-bank financial intermediaries like the indigenous bankers operate on a large scale in such countries but they are not under the control of the monetary authority. This factor limits the effectiveness of monetary policy in such countries.

iv High Liquidity: The majority of commercial banks possess high liquidity so that they are not influenced by the credit policy of the central bank. This also makes monetary policy less effective.

v) Foreign Banks: In most underdeveloped country foreign owned commercial banks exist. They also render monetary policy less effective by setting foreign assets and drawing money from their head offices which the central bank of the country is following a tight monetary policy.

vi) Small Bank Money: Monetary policy is also not successful in such countries because bank money comprises a small proportion of the total money supply in the country. Hence, the central bank is not in a position to control credit effectively.

vii) Money not Deposited with Banks: Money do not deposit with banks but use in buying jewelry, gold, real estate, in speculation, in conspicuous consumption etc. Such activities encourage inflationary pressures because they lie outside the control of the monetary authority.

The Role of Monetary Policy in Developing Economy

Monetary policy in an underdeveloped country plays an important role in increasing the growth rate of the economy by influencing the cost and availability of credit by controlling inflation and maintaining equilibrium in the balance of payments. Therefore, the principal objectives of monetary policy in such a country are to control credit for controlling inflation and to stabilize the price level, to stabilize the exchange rate, to achieve equilibrium in the balance of payments and to promote economic development.

1. **To Control Inflationary Pressures:** To control inflationary pressures arising in the process of development, monetary policy requires the use of both quantitative and qualitative methods of credit control. The open market operations are not successful in controlling inflation in underdeveloped countries because the bill market is small and undeveloped. Commercial banks keep and elastic cash-deposit ratio

because the central bank's control over them is not complete. They are also reluctant to invest in government securities due to their relatively low interest rates. Moreso, instead of investing in government securities, they prefer to keep their reserves in liquid form such as gold, foreign exchange and cash. Commercial banks are also not in the habit of rediscounting or borrowing from the central bank.

2. **To Achieve Price Stability:** Monetary policy is an important instrument for achieving price stability. It brings a proper adjustment between the demand for and supply of money. An imbalance between the two will be reflected in the price level. A shortage of money supply will retard growth while an excess of it will lead to inflation. As the economy develops, the demand for money increases due to the gradual monetization of the non-monetized sector and the increase in agricultural and industrial production. These will lead to increase in the demand for transactions and speculative motives so the monetary authority will have to raise the money supply more than proportionate to the demand for money in order to avoid inflation.
3. **To Bridge Balance of Payment Deficit:** Monetary policy in the form of interest rate policy plays an important role in bridging the balance of payments deficit. Underdeveloped countries develop serious balance of payments difficulties to fulfill the planned targets of development. To establish infrastructure like power, irrigation, transport etc and directly productive activities like iron and steel, chemicals, electricals, fertilizers etc. Underdeveloped countries have to import capital equipment, machinery, raw materials, spares and components thereby raising their imports, but experts are almost stagnant. They are high-priced due to inflation. Thus, an imbalance is created between imports and exports which leads to disequilibrium in the balance of payments. Monetary policy can help in narrowing the balance of payments deficit through high

rate of interest. This is because, a high interest rate attracts the inflow of foreign investments and helps in bridging the balance of payments gap.

4. **To Create Banking and Financial Institutions:** One of the objectives of monetary policy in an underdeveloped country is to create and develop banking and financial institutions in order to encourage, mobilise and channelize savings for capital formation. The monetary authority should encourage the establishment of branch banking in rural and urban areas. Such a policy will help in monetizing the non-monetized sector and encourage saving and investment for capital formation. It should also organize and develop money and capital market.

Practice Questions

i) Economic stabilization policies of government can be achieved either through monetary or fiscal policies as the case may be. However, monetary policies seem to be most effective in the advanced countries. Justify this statement by discussing :

a) Meaning of monetary policy.

b) Discuss objectives or goals of monetary policy.

c) Outline limitations of monatary policy in developing economy.

Write short, but self-explanatory notes on the following:

a) Regulation of Consumer Credit and Direct Action .

b) Regulation of Margin Requirement and Moral Suasion.

c) Bank Rate Policy and Open Market Operations.

d) Changes in Reserve Ratios and Selective Credit Controls.

e) Traditional defination of money and Legal defination of money.

PORTFOLIO MANAGEMENT

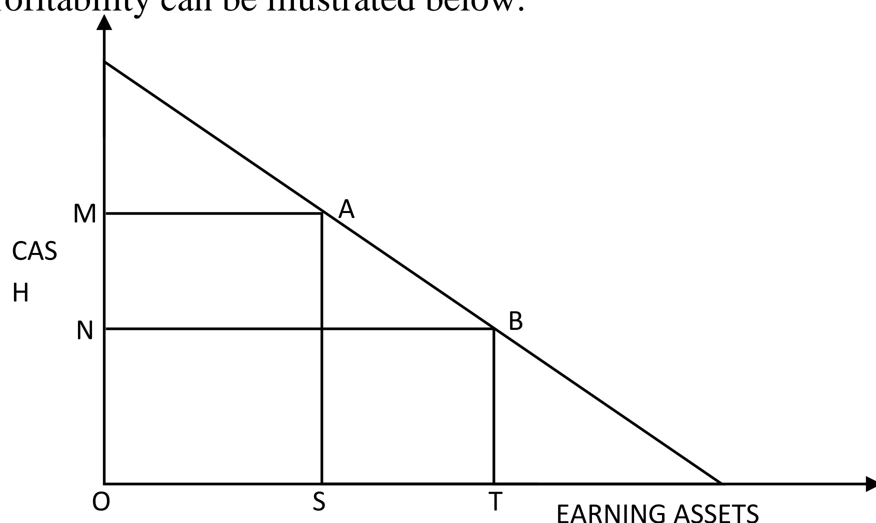
Meaning of Portfolio Management

Portfolio management refers to the prudent management of a bank's assets and liabilities in order to seek some optimum combination of income or profits liquidity and safety.

Objectives of Portfolio Management

There are three (3) main objectives of portfolio management which includes:

1. **Liquidity:** A commercial bank needs a high degree of liquidity in its assets. The liquidity of an assets refers to the ease and certainty with which it can be turned into cash. The liabilities of a bank are large in relation to its assets because it holds a small proportion of its assets in cash. But its liabilities are payable on demand at a short notice. Therefore, the bank must hold a sufficiently large proportion of its assets in the form of cash and liquid assets for the purpose of profitability. If the bank keeps liquidity, its profit will be low. Moreso, if it ignores liquidity and aims at earning more profits, it will be disastrous for the bank. Thus, in managing its investment portfolio a bank must strike a balance between the objectives of liquidity and profitability. The balance must be achieved with a relatively high degree of safety. This is because banks are subject to a number of restrictions that limit the size of earning assets they can acquire. The nature of conflict between liquidity and profitability can be illustrated below:



According to the figure above, CE is the investment-possibility line which shows all combinations of cash and earning assets. For example, point A denotes a combination of OM of cash and OS of earning assets and point B shows ON of cash and OT of earning assets. Each bank seeks to obtain its optimum point along the line CE which will be a combination of cash and earning assets so as to achieve the highest possible level of earnings consistent with its liquidity and safety.

Many types of assets are available to a commercial bank with varying degrees of liquidity. The most liquid of assets is cash, next are deposits with the central bank, treasury bills and other short-term bills issued by the central and state governments and large firms and call loans to other banks, firms, dealers and brokers in government securities. The less liquid assets are the various types of loans to customers and investments in long-term bonds and mortgages. Thus, the major sources of liquidity of a bank are its borrowings from the other banks and the central bank and rom the sales of the assets. But, the amount of liquidity which the bank can have depends on the availability and cost of borrowings. If it can borrow large amounts at any time without difficulty at a low cost (interest rate), it will hold very little liquid assets. But, if it is uncertain to borrow funds or the cost of borrowing is high, the bank will keep more liquid assets in its portfolio.

2) Safety: A commercial bank always operates under conditions of uncertainty and risk. It is uncertain about the amount and cost of funds it can acquire and about its income in the future. A commercial bank faces two types of risks:

a) The first is the market risk which results from the decline in the prices of debt obligations when the market rate of interest rises.

b) The second is the risk by default where the bank fears that the debtors are not likely to repay the principal and pay the interest in time. This risk is largely concentrated in customer loans, where banks have a special function to perform

and bank loans to businesses and bank mortgage loans are among the high-grade loans of these types.

In the light of these risks, a commercial bank has to maintain the safety of its assets. It is also prohibited by law to assume large risks because it is required to keep a high ratio of its fixed liabilities to its total assets with itself and also with the central bank in the form of cash. But if the bank follows the safety assets it will not be able to create more credit. It will thus lose customers to other banks and its income will also be very low. Moreso, if the bank takes too much risk, it may be highly harmful for it. Therefore, a commercial bank must estimate the amount of risks attached to the various types of available assets, compare estimated risk differentials consider both long-run and short-run consequences and strike a balance.

3) Profitability: One of the principal objectives of a bank is to earn more profit. It is essential for purpose of paying interest to depositors, wages to the staff, dividend to shareholders and meeting other expenses. It cannot afford to hold a large amount of funds in cash for that will mean forgoing income. But the conflict between profitability and liquidity is not very sharp. Liquidity and safety are primary considerations while profitability is subsidiary for the very existence of a bank depends on the first two.

The Theories of Portfolio Management

1) The Real Bills Doctrine: The real bills doctrine or the commercial loan theory states that a commercial bank should advance only short-term self-liquidating productive loans to business firms. Self-liquidating loans are those which are meant to finance the production and movement of goods through the successive stages of production, storage, transportation and distribution. When such goods are ultimately sold, the loans are considered to liquidate themselves automatically. For instance, a loan given by the bank to a businessman to finance inventories would be repaid out of the receipts from the sale of those very inventories, and the loan would be automatically self-liquidated. The

theory of states that when commercial banks make only short term self-liquidating productive loans, the central bank, in turn, should only lend to the banks on the security of such short-term loans. This principle would ensure the proper degree of liquidity for each bank and the proper money supply for the whole economy. The central bank was expected to increase or diminish bank reserves by rediscounting approved loans. When business expanded and the needs of trade increased, banks were able to acquire additional reserves by rediscounting bills with the central banks. When business fell and the needs of trade declined, the volume of rediscounting of bills would fall, the supply of bank reserves and the amount of bank credit and money would also contract.

Advantages:

1. They possess liquidity that is why they liquidate themselves automatically
2. They mature in the short-run and are for productive purposes. Hence there is no risk of their running into bad debts.

Disadvantages:

1. If a bank refuses to grant a fresh loan till the old loan is repaid, the disappointed borrower will have to reduce production which will adversely affect business activity. If all the banks follow the same rule, this may lead to reduction in the money supply and prices in the community. This may, in turn, make it impossible for existing debtors to repay their loans in time.
2. The doctrine assumes that loans are self-liquidating under normal economic conditions. If there is depression, production and trade suffer and the debtor will not be able to repay the debt at maturity.
3. This doctrine neglects the fact that liquidity of a bank depends on the saleability of its liquid assets and not on real trade bills. If a bank possesses a variety of assets like bills and securities which can be readily

sold in the money and capital markets, it can ensure safety, liquidity and profitability.

4. The basic defect of the theory is that no loan is in itself automatically self-liquidating. A loan to a retailer to purchase inventories is not self liquidating if the inventories are not sold to consumers and remain with the retailer. Thus, a loan to be successful involves a third party, the consumers in this case besides the lender and the borrower.
5. This theory is based on the needs of trade which is no longer accepted as an adequate criterion for regulating this type of bank credit. If bank credit and money supply fluctuate on the basis of the needs of trade, the central bank cannot prevent either spiraling recession or inflation.

2) The Shiftability Theory: The shiftability theory of bank liquidity was propounded by H.G. Moulton who asserted 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 and asset to be perfectly shiftable must be immediately transferable without capital loss when the need for liquidity arises. This is particularly applicable to short-term market investments, such as treasury bills and bills of exchange which can be immediately sold whenever it is necessary to raise funds by banks. But in a general crises when all banks are in need of liquidity, the shiftability theory requires that all banks should possess such assets which can be shifted on to the central bank which is the lender of the last resort. This theory has certain elements of truth. Banks now accept sound assets which can be shifted on to other banks. Shares and debentures of large companies are accepted as liquid assets along with treasury bills and bills of exchange. This has encouraged lending by banks.

Advantages

1. There is no risk of running into bad debts.

2. Being productive, such loans earn income for the banks.

Disadvantages

1. Mere shiftability of assets does not provide liquidity to the banking system. it entirely depends upon the economic circumstances.
2. The shiftability theory ignores the fact that in times of acute depression, the shares and debentures cannot be shifted on to others by the banks. In such a situation, there are no buyers and all who possess them want to sell them
3. A single bank may have shiftable assets in sufficient quantities but if it tries to sell them when there is a run on the banks, it may adversely affect the entire banking system.
4. If all the banks simultaneously start shifting their assets, it would have disastrous effects on both the lenders and borrowers.

3) The Anticipated Income Theory: The anticipated income theory was developed by H.V. Prochnow in 1944 on the basis of the practice of extending term oans by the US commercial banks. According to this theory, regardless of the nature and character of a borrowers 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. It is granted against the hypothecation of machinery, stock and even immovable property. The bank puts restrictions on the financial activities of the borrower while granting this loan. At the time of granting a loan, the bank takes into consideration not only the security but the anticipated earnings of the borrower. Thus a loan by the bank gets repaid out of the future income of the borrower in installments, instead of in a lump sum at the maturity of the loan.

Advantages:

1. This theory is superior to the real bills doctrine and the shiftability theory because it fulfills the three objectives of liquidity, safety and profitability. Liquidity is assured to the bank when the borrower saves and repays the

loan regularly in installments. It also satisfies the safety principle because the bank grants a loan not only on the basis of a good security but also on the ability of the borrower to repay the loan.

2. The banks can utilize its excess reserves in granting term-loan and is assured of a regular income.
3. The term-loan is highly beneficial for the business community which gets funds for medium terms.

Disadvantages

1. Analysis Creditworthiness: It is not a theory but simply a method to analyse a borrower's creditworthiness. It gives the bank criteria for evaluating the potential of a borrower to successfully repay a loan on time.
2. Fails to Meet Emergency Cash Needs: Repayment of loans in installments to the bank no doubt provide a regular stream of liquidity, but they fail to meet emergency cash needs of the lender bank

4) The Liabilities Management Theory: This theory was developed in the 1960s. According to this theory, 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. A bank can acquire reserves by creating additional liabilities against itself from different sources. These include:

i. Time Certificates of Deposits: These are the principal source of reserve money for a commercial bank. Time certificates of deposits are of different maturities ranging from 90 days to less than 12 months. This is negotiable in the money market and have access to liquidity by selling them in the money market.

ii. Borrowing From Other Commercial Banks: A bank may create additional liabilities by borrowing from other banks having excess reserves. But such borrowings are only for a very short duration, i.e for a day or week at the most. The interest rate of such borrowings

depends upon the prevailing rate in the money market. But borrowings from other banks are only possible during normal economic conditions.

iii. Borrowing from the Central Bank: Banks also create liabilities on themselves by borrowing from the central bank of the country. They borrow to meet their liquidity needs for short-term and by discounting bills from the central bank. But such borrowings are relatively costlier than borrowings from other sources.

iv. Raising Capital Funds: Commercial banks acquire funds by issuing fresh shares or debentures. But the availability of funds through this source depends on the amount of dividend or interest rate which the bank is prepared to pay. Usually the banks are not in a position to pay rates higher than the one paid by manufacturing and trading companies. Hence, they are not able to get sufficient funds from this source.

v. Ploughing Back Profits: Another source of liquid funds for a commercial bank is the ploughing back of its profits. But how much it can get from this source will depend upon its rate of profit and its dividend policy. It is the larger banks that can depend on this source rather than the smaller banks.

Practice Questions

i) Explain what you understand by portfolio management

ii) Discuss in details the main objectives of portfolio management.

iii) Write short, but self-explanatory notes on the following:

a) The Real Bills Doctrine

b) The Shiftability Theory.

c) The Anticipated Income Theory

d) The Liabilities Management Theory

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