Money and Banking

Drawbacks of Barter System and Evolution of Money, Functions of Money

Objectives

After going through this chapter, you shall be able to understand the following concepts

- Barter system of exchange and its drawbacks
- Evolution and functions of money

Introduction

The exchange of goods and services is a very crucial part of an economy. Almost all the economies of the world have experienced various mediums of exchange, however, the major medium of exchange that existed in the almost all the economies are as follows.

1. Barter System of Exchange

2. Money as a Medium of Exchange

Barter System of Exchange

Barter system of exchange refers to an exchange system in which goods and services are exchanged for other goods and services. Such a system is also known as commodity for commodity exchange (i.e. *C*-*C* exchange). For example- if a person having surplus wheat wants milk, then he/she can exchange wheat with a person who has milk and as well as needs wheat at the same time.

However; such a system of trading/exchange involves certain non-monetary costs. The following are the two of the major cost components involved in the Barter system.

1. ***Cost of Searching***- Cost of searching implies a cost that is involved in searching a suitable person, who is ready to exchange a commodity in exchange of a commodity that another person has. In other words, if a person A having rice wants shoes, then he need to search for a person B, who indeed has shoes and wants rice in exchange. The search cost increases, as the number of individuals increase.

2. ***Cost of Waiting***- Cost of waiting involves cost in terms of time and effort wasted in searching for the suitable person to exchange commodities. The longer the time spent in searching the person, more will be the cost of waiting.

On the basis of these costs, the following are the major drawbacks of Barter system.

1. ***Problem of Double Coincidence of Wants***

Double coincidence of wants implies that the needs of any two individuals should complement each other for the exchange to take place. That is, in other words, the commodities owned by two different individuals are required by each other. However; in reality it is very difficult to find an individual who possess the goods and services that are needed by another individual at the same time in exchange of what the he/she has.

For example, it is very difficult for person A having rice to search for a person who is ready to exchange shoes for rice at the same time. In addition, it is also not guaranteed that the amount of rice that the person A is willing to exchange for shoes will be the exact amount of rice that is needed by another person or vice-versa.

2. ***Lack of Common Unit of Value***

Under the Barter system of exchange, there was no common unit for measuring the value of one good in terms of other good for the purpose of exchange. For example, a horse cannot be measured in terms of rice in the case of exchange between rice and horse. Hence, under Barter system, there was lack of common unit of value.

3. ***Difficulty in Wealth Storage and Transfer of Value***

Individuals tend to store a part of their wealth or earnings as savings to be used for future needs or as an investment. However, it is very difficult to store many types of commodities. For example, perishable goods such as grains, milk, meat, etc could not be stored to exchange goods in future. In addition to this, transportation of goods from one place to another was tedious and also difficult. Therefore, the transfer of value and wealth storage was one of the major difficulties in the Barter system.

4. ***Lack of Standard of Deferred Payments***

As wealth could not be stored, therefore, it was very difficult to make future payments and contractual payments such as salaries, loans, interest payments, etc. For example, it was difficult to decide whether wages to a labour are to be paid in terms of food grains or any other commodity.

This is because it was difficult to value the services of labour in terms of a commodity.

Similarly, if a loan is taken in the form of a commodity, then the problem will arise in its repayment. For instance, if an individual takes loan in the form of food grains but at the time of repayment, it may happen that he/she finds it difficult to repay the loan in the form of food grains because of lack of availability of food grains. Thus, Barter system involved difficulty in future and contractual payments.

Evolution of Money

Due to the severe drawbacks, the Barter system proved inefficient as a medium of exchange. Therefore, a need arose for a *commonly and readily* accepted medium of

exchange. It became necessary to find a common unit/good that is acceptable to both the parties involved in an exchange. It was then; that money was invented. Money easily overcame the drawbacks of the Barter system and served as an effective instrument of exchange.

Money has an Edge over Barter System

Money as a medium of exchange has an edge over Barter system. It overcomes the shortcomings of the Barter system in the following manner.

1. Money solves the problem of double coincidence of wants. For example, if a person needs milk in exchange for wheat, then he/she must search for a person who is ready to trade milk for wheat. Such searches were made redundant with the invention of money.

2. With money as a medium of exchange, the value of goods and services is measured under a common unit. For example, it is difficult to calculate the value of a horse in terms of rice. Money solved this problem by measuring the values of different goods in terms of a common denomination, i.e. Rupees, Dollars, etc.

3. Under the Barter system, it was difficult for the individuals to save, invest or accumulate wealth in terms of commodities. Money overcame this problem as it is neither a perishable commodity nor the value of money depreciates (negligible depreciation due to inflation) Therefore, money facilitates store of wealth.

4. As superior to the Barter system, money also made the system of deferred or contractual payments such as, salaries, interest payments, etc. possible. For example, a worker working on contract basis can be easily paid in terms of money.

Phases of Evolution of Money:

The history of evolution of money can be traced back to inception of the Barter system. With the course of the Barter system, various difficulties arose. Due to the shortcomings of this system, thinkers invented money- a superior medium of exchange. Money in the initial phase took the form of metals such as, gold and silver. After 1930's, due to the increased volume of transactions, paper money substituted metallic money. Now-a-days, we have paper money as well as credit money and plastic money (debit cards).

Let us explain the process of evolution of money in detail.

1. *Barter System*- Initially, human beings exchanged goods and services for other goods and services. In other words, commodity exchange or commodity money was more prevalent.

2. *Money in the form of Metals*- After the commodity money was phased out; metals began to be used as a medium of exchange. Under the metallic monetary system, gold

and silver were the two metals that were of particular importance and were widely in use. Gold and silver held an important place due to the following reasons.

(a) They were widely accepted as a medium of exchange.

(b) They were available only in the limited amount.

(c) They were durable and non-perishable, therefore, could be stored easily.

(d) One could easily divide gold and silver into monetary units.

Metallic money was in use up-to the first half of 18^{th} century, however; after the 1930s, it was also phased out due to the following reasons.

(a) With time, the volume of exchange and transaction increased and it was getting difficult to match the production of these metals with their increasing requirements for exchange purposes.

(b) It was difficult to transfer metals from one place to another due to reasons such as lack of safety during transportation, inconvenience in handling large amount, etc.

(3) *Money in the form of Paper*- With the further rise in the volume of trade, paper money came into existence and was widely used. This form of money was easier to carry and store thus, became a medium of exchange among almost all the countries of the world.

(4) *Bank Money and Credit Money*- Bank money can be said to be the most convenient and durable form of money. Now-a-days, individuals frequently use credit money in the form cheques, drafts, credit card etc. Along with this, plastic money in the form of debit-cards has also emerged as an attractive medium of exchange. Moreover, net banking facilities and online transactions have further reduced the risked involved in carrying paper money.

Functions of Money

As discussed above, money has overcome the drawbacks of the Barter system and served as an effective medium of exchange to facilitate trade. Thus, besides being a unique medium of exchange, money also serves other functions as well. According to Professor Kinley**,** we can classify the functions of money into following three categories.

1. Primary functions

2. Secondary functions

3. Contingent functions

Primary Functions of Money

There are two main primary functions of money

a. *Medium of Exchange*- Money acts as medium of exchange as it facilitates exchange through a common medium i.e. currency. With money as a medium, the two components of a transaction namely, sale and purchase can be easily separated. In other words, money eliminates the need for double coincidence of wants for an exchange to take place and can be performed independently of each other.

Moreover, money has widened the domain and scope of market. Today, market is no more limited to a specific geographical location. This can be verified by the increasing popularity of online transactions. Hence, it can be concluded that money has infused commercialisation, which has raised the overall level of economic activities and has made production market oriented.

b. *Unit of Value*- Money serves as a common medium or unit of value. The goods and services are of different types and are measurable in different units such as, meter, litre, gram, etc. Money has provided a common yardstick to measure all these different units in a common denomination known as price. This has made different goods and services comparable to each other in terms of their respective prices.

Secondary Functions of Money

These are those functions that money performs besides its primary functions. The secondary functions of money can be divided into following three parts.

a. *Store of Value*- Generally, people have a tendency to save certain portion of their income in form of savings and to accumulate wealth. Under the Barter system, such storage of wealth was not possible due to perishable nature of certain commodities. As against this, wealth can be easily stored in the form of money without any loss in its value. Thus, store of value as a function of money implies that money can be easily saved and used for future needs.

The store of value function of money can be justified because of the following reasons.

i. Money is the most widely accepted as a medium of exchange.

ii. There is no loss in the value of money over time (though, there exists loss of value of money due to inflation but it is negligible).

iii. Money can be stored conveniently and does not involve any cost.

b. *Standard of Deferred Payments*- Deferred Payments refer to the future payments and contractual payments such as loans and interest payments, salaries, etc. As money is widely accepted as medium of exchange and can be used as to store value without much loss of value, so it can be used for future payments.

c. *Transfer of Value*- Money can be transferred easily from one place to another and from one person to another. Therefore, it implies that with the help of money, purchasing power can be transferred. An individual who is having money has purchasing power and he/she can transfer the purchasing power to anyone just by transferring money. For example, when a father is giving pocket money to his son, he is indeed transferring purchasing power to his son to buy different goods and services.

Contingent Functions of Money

The following are the various contingent functions that money performs.

a. *Facilitates Credit*- Money facilitates the functioning of credit instruments such as cheques, promissory notes, bills of exchange, etc. Such credit instruments facilitate transfer of value from one person to another.

b. *Facilitates Distribution of Income*- Factor payments can be made easily in form of monetary remunerations such as wages, rent, interest and profit.

c. *Maximises Consumers' and Producers' Satisfaction*- Since all goods and services are valued in terms of money, therefore, it is possible for a consumer to maximise his/her satisfaction by equalising marginal utilities of various goods consumed. Similarly, all the factors of production are valued in monetary terms. Consequently, it becomes possible for a producer to maximise production by equalising marginal productivities of different factors of production.

d. *Liquidity*-Money is the most liquid form of all the assets and wealth. Gold, silver, land, cheques, etc. are not as liquid as money. If need arises, then these assets have to be converted into money, but on the other hand, money need not to be converted into any other form as it is readily acceptable. Apart from being liquid, money also provides guarantee of liquidity/solvency to other forms of wealth and assets. This implies that money can be converted into any type of asset and on the other hand, any type of asset can be converted into money.

Demand for Money: The Transaction Motive, the Speculative Motive

Objectives

After going through this chapter you shall be able to understand the following concepts

- Demand for Money- The Transaction Demand for Money and the Speculative Demand for Money
- Concept of Liquidity Trap

Introduction

We know that money is the most liquid form of all the assets. However, holding money in the form of cash balances involves an opportunity cost. This opportunity cost of holding money implies that instead of holding money in form of cash balances (to enjoy liquidity), one can put the money deposit it in bank account and earn interest. Thus, if one holds money in form of cash, then he/she needs to forego the interest earning (from the bank deposits) and vice-versa. Therefore, the decision to hold money depends on the trade-off between the liquidity preference and the interest preference.

Based on the above preferences, Keynes developed a theory named "Liquidity Preference Theory". According to Keynes, the demand for money is because of the following three motives.

1. Transaction Motive

2. Precautionary Motive

3. Speculation Motive

Transaction Motive for Demand of Money

We all incur some or the other expenditure everyday to fulfill our day-to-day needs such as food, shelter, cloth, etc. In other words, we all required to hold some portion of money in form of cash to such daily expenses. Holding cash to meet these daily transactional needs is called Transaction Demand for money. The reason such a demand for money is the time-lag between receipt of income and consumption expenditure.

Usually, people receive income at certain intervals of time such as a month, a week, etc. which is to be consumed throughout the period till the next receipt. Thus, they have a tendency to hold money in cash for various transaction purposes. This demand for money is a positive function of income. As income rises, people tend to spend more, consequently, demand more money to carry out the increased transactional needs. Algebraically,

$$M_T^d = f(Y)$$

where,

M_T^d represents the transaction demand for money

Y represents the income of an individual

f represents the functional relationship between the transaction demand for money and individual's income

As $Y \uparrow \Rightarrow M_T^d \uparrow$

Precautionary Demand for Money

The future is full of uncertainties. Sometimes, people encounter certain unforeseen expenses such as medical exigencies, accidents, emergencies, etc. To meet such emergencies, people require immediate cash. Thus, as a precaution, they tend to hold some portion of money in form of idle cash balance. The demand for money to meet these unforeseen and unexpected expenses is known as precautionary demand for money. Similar to the Transaction demand for money, precautionary demand for money is also a positive function of income, that is, it increases with increase in income and vice-versa. Algebraically,

$$M_P^d = f(Y)$$

where,

M_P^d represents the precautionary demand for money

Y represents the income of an individual

f represents the functional relationship between the precautionary demand for money and individual's income

As $Y \uparrow \Rightarrow M_P^d \uparrow$

Speculative Demand for Money

Besides cash, people also tend to hold wealth in form of property, gold, bonds, shares, etc. The speculative demand for money refers to the demand for money that people hold as idle cash balance to speculate with the aim of earning capital gains and profits. For simplicity, Keynes assumed that people store wealth in form of money or bonds. Bonds refer to the financial papers that bear the promise of a future stream of monetary income over a period of time. The bonds are issued by the firms to borrow from the general public. Keynes demonstrated that there exists an inverse relationship between the rate of interest and speculative demand for money. Let us now consider two different situations regarding speculative demand for money.

If the *current rate of interest on the bond is low*, then people expect the interest rate to rise in the future. This implies that people expect the bond prices to fall (due to the negative relationship between the bond prices and the rate of interest). This fall in bond prices implies *capital loss* to the bond holders. To counter this situation, the preference for holding bonds falls and instead desire to hold idle cash balances rises. Thus, *the speculative demand for money rises*.

If Current Interest Rate on Bond is Low ⇒ People expect interest rate to rise in future ⇒ Bond Price in future falls ⇒ Capital Loss ⇒ Preference for Bonds Falls ⇒ Desire to Hold Cash Balances Increases ⇒Speculative Demand for Money Rises

On the other hand, *if the current interest rate on securities and bonds is high*, then people expect the interest rate to fall in the future. This implies that people expect the bond prices to rise in the future (due to the negative relationship between the bond prices and the rate of interest). This rise in the bond prices implies a *capital gain* to the bond holders. Consequently, the preference to hold bonds increases and the people desire to hold lesser idle cash balances. Thereby, *the speculative demand for money falls*.

If Current Interest Rate on Bond is High ⇒ People expect interest to fall in future ⇒ Bond Price in future rises ⇒ Capital Gains ⇒ Preference for Bonds Rises ⇒ Desire for Idle Cash Balances Falls ⇒Speculative Demand for Money Falls

Hence, ***the speculative demand for money is inversely related to (or negative function of) the expected rate of interest (i_e)***. That is, $M_s^d = f(i_e)$

Algebraically, the speculative demand for money can be represented as follows.

$$M_s^d = \frac{r_{max} - r}{r - r_{min}}$$

where,

M_s^d represents Speculative demand for money

r represents the market rate of interest

r_{max} represents the upper limit of the market rate of interest.

r_{min} represents the lower limit of the market rate of interest.

From the above equation, it can be interpreted that as r decreases from r_{max} to r_{min} the speculative demand for money $\left(M_s^d\right)$ increases.

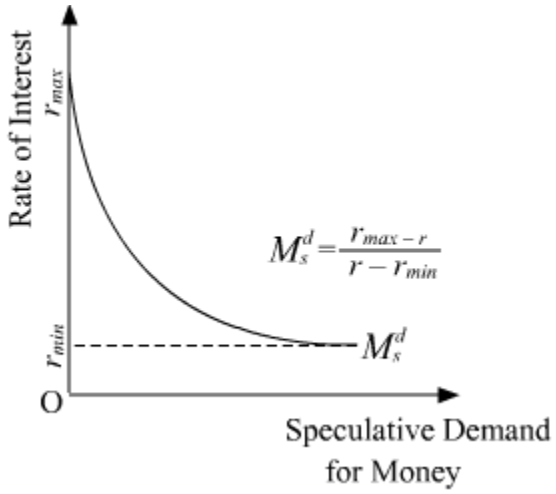
Liquidity Trap

Liquidity trap refers to the situation where the speculative demand function becomes infinitely elastic.

We know that bond prices hold an inverse relationship with the market rate of interest. Liquidity Trap is an extreme case of this situation where the current rate of interest becomes very low and people expect the rate of interest to rise to a very high level in the future. Thereby, they expect the bond prices to fall heavily in the future.

Owing to the fear of capital loss in the future, people prefer holding money in form of cash balances rather than holding bonds. This leads to a situation where the speculative demand for money becomes infinitely elastic. In this situation, if any additional money is pumped into the economy, then this will only increase the demand for cash holdings without any increase in the demand for bonds.

Thus, pumping additional money in this situation will further exaggerate the condition as this will further reduce the interest rate below r_{min}. Such a situation is known as the situation of ***'Liquidity Trap***'. The situation of Liquidity Trap is graphically depicted below.



In the diagram, interest rate is represented on the vertical axis and the speculative demand for money is represented on the horizontal axis. When the rate of interest equals r_{max}, then the speculative demand for money is zero. If the rate of interest equals r_{max}, then the current interest rate is so high that everybody expects the interest rate to fall in the future. Thus, they expect the bond prices to rise in the future. In other words, people expect a capital gain in the future. Thereby, they prefer to hold bonds and not cash balances. Hence, the speculative demand for money is zero.

On the other hand, when rate of interest equals r_{min}, then the speculative demand for money is infinite. At r_{min} the current interest rate is so low that everybody expects the interest rate to rise in the future. Thus, they expect the bond prices to fall in the future. The fall in the bond price indicates an expected capital loss. Thereby, people prefer to hold money in form of idle cash balances and not bonds. Hence, the speculative demand for money is infinite.

Total Demand for Money

Total demand for money is the sum of Transaction Demand for money, Precautionary Demand for money and Speculative Demand for money. That is,

Total Demand for money = Transaction Demand + Precautionary Demand + Speculative Demand

Algebraically,

$$M^d = M_T^d + M_P^d + M_s^d$$

where,

M_T^d represents the Transaction Demand for Money

M_P^d represents the Precautionary Demand for Money

M_s^d represents Speculative Demand for Money

M^d represents Total Demand for Money

Legal Definition of Money and Supply of Money

Objectives

After going through this chapter you shall be able to understand the following concepts.

- Concept of Money Supply
- Measures of Money Supply
- Concept of Narrow Money and Broad Money

Supply of Money

Supply of money refers to the total stock of money (in the form of currency notes and coins) held by the people of an economy at a particular point of time. Generally, the Monetary Authority of an economy undertakes the task of issuing currency notes and

coins. In India, the Reserve Bank of India (RBI) and Government of India together forms the Monetary Authority.

RBI has the sole right of issuing Indian currency notes. However; the currency coins and notes of denomination less than equal to Re1 are issued by the Government of India.

The stock of money has the following two major components.

1. **The Currency Component**- The currency notes and coins as issued by the Monetary Authority of a country.

2. **The Deposit Component**- The savings or the current account deposits held by the public in various commercial banks of a country.

However, it should be noted that the following items are excluded from the definition of stock of money.

a. The stock of money that is held by the government and by the central bank of a country.

b. The stock of money held by the commercial banks in a country.

The stock of money held by aforementioned institutions is not included in the stock of money of a country as these institutions themselves are the suppliers of money in the country.

Currency Component

The currency notes and coins as issued by the Monetary Authority are collectively called the Currency Component of the money supply. In India, RBI issues the currency notes of various denominations (such as Rs 2, Rs 5, Rs 10, Rs 50, Rs 100, Rs 500, Rs 1000). On the other hand, Government of India issues currency coins and notes of denomination less than and equal to Re 1. These currency notes and coins issued by the RBI and GOI are collectively called the ***Fiat Money*** or the ***Legal Tender Money***.

Fiat Money implies that the currency notes and coins do not have any intrinsic value. In other words, the real value of the paper (in case of currency notes) and metals (in case of coins) is not equivalent to the face value printed on the notes and coins. Fiat money derives its value only because of government order (fiat).

The currency issued by the Monetary Authority is also known as Legal Tender Money. It implies that the values of such currency notes and coins are backed by the Monetary Authority. The Monetary Authority provides a person with purchasing power equal to the face value of the currency held by him.

The fiat money becomes the legal tender when it is backed by the Monetary Authority. Moreover, the currency notes and coins issued by the Monetary Authority cannot be refused by any citizen of that country for the settlement of transactions. Therefore, it becomes the legally medium of payment in the economy.

Deposit Component

Apart from the currency notes and coins, the stock of money also includes the Saving Deposits and the Current Account Deposits held by the public in various commercial banks.

Deposits held by the public can be classified into two major categories- Term Deposits and Demand Deposits.

a. *Term Deposits*- These are also known as Time Deposits. These refer to the money deposits that are held for a specific (fixed) time period say, 5 years, 10 years. Such deposits cannot be withdrawn before the maturity of the specified time period for which they are held. Also these are non-chequeable deposits i.e. no cheques can be issued against the Term Deposits.

b. *Demand Deposits*- As opposed to the Term Deposits, the Demand Deposits are the deposits that are payable on demand or on call. In other words, such deposits can be withdrawn by the depositor as and when required. Since demand deposits are always available on demand, they are chequeable deposits i.e. cheques can be issued against such deposits.

Legal Definition of Money: Measures of Money Supply

Money Supply is a stock variable. It refers to the total stock of money held (or in circulation) by the public of a country at a particular point of time. The various definitions of money supply in India as prescribed by RBI are M_1, M_2, M_3 and M_4.

Note: M_1, M_2, M_3 and M_4 are arranged in the descending order of liquidity i.e. M_1 has the highest liquidity and M_4 has the least liquidity.

***M_1*:** This measure of money supply includes the following three components.

1. Currency held by the public in the form of notes and coins
2. Net Demand Deposits held by the commercial banks
3. Other deposits held by the RBI

Therefore, M_1 is defined as the sum total of currency held by the public, Net Demand Deposits held by the commercial banks and other deposits held by the RBI. Algebraically,

$M_1 = C + DD + OD$

where,

C represents currency held by the public

DD represents Net Demand Deposits held by the commercial banks*

OD represents other deposits held by the RBI.

The other deposits held by the RBI comprises of the following three components.

1. Demand Deposits of the various public financial institutions such as Housing Development and Finance Corporation, etc. held with the RBI.

2. Demand Deposits of the foreign central banks and foreign government held with the RBI.

3. Demand Deposits of international financial institutions such as World Bank, etc.

However, it should be noted that *OD* does not include deposits of the government of the country held with the RBI and deposits of the country's banking system held with the RBI.

M_1 is the most important measure of all the measures of money supply. In practical terms, it includes all the money supplied by the RBI, Government of India and various commercial banks.

Important Note: Distinction between Gross Demand Deposits and Net Demand Deposits

Gross Demand Deposits includes the Demand Deposits held by the public as well as the inter-bank claims (i.e. claims of banks against each other). On the other hand, the Net Demand Deposits does not include the inter-bank claims. Gross Demand Deposits are not a part of money supply; while, the Net Demand Deposits is a part of money supply.

***M_2*:** It includes all the components of M_1 along with the component of savings of the people held with the post offices. That is,

$M_2 = M_1$ + Savings of the people held with the Post offices.

***M_3*:** It is the most commonly used measure of the money supply. It includes all the components of M_1 along with the Net Time Deposits with the commercial banks. That is,

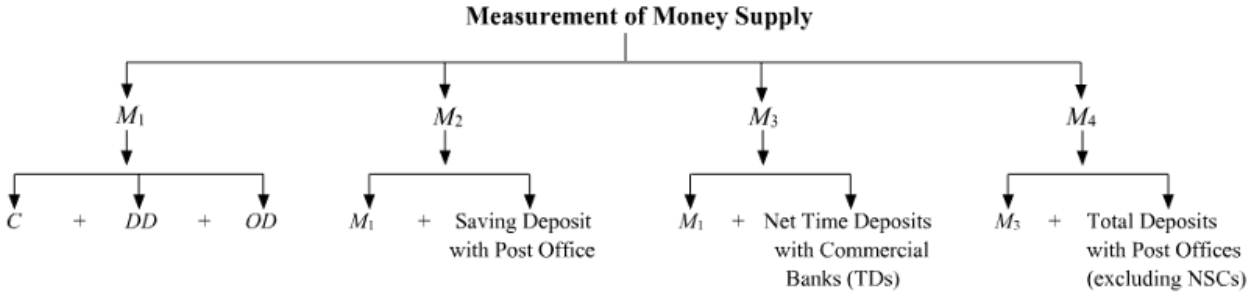
$M_3 = M_1$ + Net Time Deposits with the commercial banks

Important Note: If money supply is measured using the concept of M_3, then we get an estimate of ***Aggregate Monetary Resources*** of India.

***M_4*:** In addition to all the components of M_3, M_4 also includes the Total Deposits with the post offices (excluding National Savings Certificates). That is,

$M_4 = M_3$ + Total Deposits with the Post offices (excluding National Savings Certificate)

All the definitions of money supply in India are summarised in the chart given below.



Narrow Money and Broad Money

If money supply is measured using the concept of M_1 and M_2, then it is called ***Narrow Money*** concept of money supply. The Narrow Definition of money basically focuses on the primary functions of money that is, money as a medium of exchange in form of currency and Demand Deposits. Consequently, the Narrow Definition of Money can be represented as:

$M_N = C + DD$

where,

M_N represents the Narrow Definition of Money

C represents currency held by the public

DD represents Net Demand Deposits held by the commercial banks

On the other hand, if M_3 and M_4 measures are used to measure the money supply, then it is called ***Broad Money*** concept of money supply. Besides the primary functions, the Broad Definition of money focuses on the secondary functions of money that is, money as a store of value. This definition includes money that is held in form of Savings and Net Time Deposits (store of value) besides currency and Demand Deposits. Therefore, the Broad Definition of Money can be represented as:

$M_B = C + DD + SD + TD$

where,

M_B represents the Broad Definition of Money

C represents currency held by the public

DD represents Net Demand Deposits held by the commercial banks

SD represents Savings Deposits of the people held with the Post offices

TD represents Net Time Deposits with the commercial banks

Functions of Commercial Bank, Money Creation by Commercial Bank

Objectives

After going through this chapter you shall be able to understand the following concepts

- Commercial Banks and its Functions
- Credit Creation by the Commercial Banks
- High Powered Money
- The Process of Creation of Money
- Concept of Money Multiplier

Commercial Bank

A commercial bank refers to a financial institution that accepts deposits from the general public and extends loans for various purposes such as consumption and investment. In other words, a commercial bank is engaged in a two way transaction. On one hand, it accepts deposits from the public and in return, it offers them a rate of interest on their deposits (borrowing rate for bank).

On the other hand, it extends loans to the investors in return of which it charges a rate of interest on the amount lend (i.e. lending rate). The banks generally maintain a difference between the borrowing rate and the lending rate, which forms the profits for the banks.

It should be noted that the financial institutions such as post office saving banks cannot be categorised as banks. This is because although they do accept deposits but they do not perform the lending functions. Similarly, the financial institutions such as LIC, UTI, etc. cannot be regarded as commercial banks.

This is because although they perform lending functions but they do not accept deposits from the general public. Thus, for a financial institution to classify as a commercial bank it must perform both the functions- acceptance of deposits and lending functions.

Functions of Commercial Banks

The following are the various functions performed by a commercial bank.

1. ***Acceptance of Deposits***- Accepting deposits from the general public is the basic function of a commercial bank. The public deposits are of the following three types.

a. Saving Account Deposits- A Saving Account caters to the needs of those individuals who wish to save a part of their income and earn interest on the amount saved. Such deposits are payable on demand i.e. such deposits can be withdrawn by the depositor as and when required. However, the banks impose a limit on the withdrawal amount from the saving account. Also these deposits are chequeable deposits i.e. cheques can be issued against such deposits.

b. Fixed Account Deposits- Fixed Account deposits (also known as Time Deposits) refer to those deposits that are held for a fixed (specific) period of time (called maturity period). These deposits cannot be withdrawn before the maturity period, hence, are not payable on demand. Also, these deposits are non-chequeable deposits. However, due to the longer lock-in period involved in the fixed account deposits, these deposits involve a higher rate of interest than that earned on the saving account deposits.

c. Current Account Deposits- Current Account deposits (also known as Demand Deposits) refer to those deposits that provide the depositor the liberty to withdraw money at any point of time. The depositor can withdraw the required amount from the account through cheques. Generally, Current Account deposits prove useful for businessmen as they are required to deal with many transactions in a single day. Such deposits do not offer any rate of interest.

2. ***Granting Loans and Advances***- Granting loans and advances to the investors is the second most important function performed by the commercial banks. The deposits received by the banks from the public are not kept idle. Rather, the commercial banks keep only a fraction of the deposits with themselves as reserves and extend the rest as loans and advances to the borrowers for various productive purposes. The loans granted by the banks are given against certain securities i.e. the borrower is required to deposit the approved security with the bank to avail the loan. The following are the different types of loans and advances made by the commercial banks.

a. Cash Credit- In the system of Cash Credit, the banks first estimate the value of the assets held by the borrower. Based on this estimation, a credit limit is then decided by the bank for the borrower. The credit limit decided by the bank is the upper limit for borrowings by the borrower. However, the actual utilisation of credit by the borrower

depends on his/her withdrawing power. The borrower is liable to pay interest only on the withdrawn portion of the credit.

b. Demand Loans- Under the Demand Loan system, the banks credit the entire loan amount to the borrower. The borrower thus, becomes liable to pay the interest on the entire loan amount. However, such loans can be recalled on demand and have no fixed maturity period.

c. Short-term Loans- Similar to the system of Demand Loans, under the system of Short-term Loans the entire loan amount is sanctioned to the borrower, thus, the borrower becomes liable to pay interest on the entire loan amount. However, as opposed to the Demand Loans, the Short-term Loans have a fixed maturity period. In other words, the Short -term Loans cannot be recalled and the repayment of these loans is done either in one instalment or in a series of instalments.

3. ***Agency Functions***- Besides performing the major functions of acceptance of deposits and granting of loans, the commercial banks also perform various agency functions as well. The following are the major agency functions performed by the commercial banks.

a. Transfer of Funds- Banks provide easy and cheap flow of funds from one place to another *via* mail transfers, demand drafts, etc.

b. Collection and Payment of Funds- The banks also perform the function of collecting funds on behalf of their customers through bills, cheques, etc. In addition to this, banks also make certain payments such as taxes, insurance premium, etc., on the behalf of their customers.

c. Purchase and Sale of Securities and Foreign Exchange- Since the commercial banks are more knowledgeable in regards to the stocks and shares, thereby; they buy and sell such securities on behalf of their customers. Similarly, banks also purchase and sell foreign exchange for their customers.

d. Role of Trustee and Executor- The commercial banks also perform the role of a trustee and executor for the property of their customers.

e. Provision of Underwriting Facilities- Certain commercial banks provide the facility of underwriting the sale of new shares (underwriting refers to the act of purchasing fully or a portion of the whole or unsold portion of the new shares).

4. ***Discounting Bills of Exchange***- The commercial banks provide financial assistance to the business community by discounting bills of exchange. A bill of exchange is a document that acknowledges the amount of money that is owed by the debtors as against the goods and services received by him. The banks purchase these bills produced by the customers (after deducting interest on the face-value of the bill). In this

sense, by purchasing the bills they provide easy means of finance to the business community as and when required.

5. ***Credit Creation***- The commercial banks create credit in the economy through demand deposits. Credit creation paves the path for the growth of the economy.

6. ***Investment of Funds***- Apart from granting loans and advances, the banks also invest their surplus funds in securities. Investment in the securities helps the commercial banks to meet their future requirement of funds. The banks can borrow from the RBI against such securities. Also, if required the banks can sell their securities in the open market to meet their requirement of funds. The securities can be of mainly two types- Government Securities and other approved securities.

Government Securities refer to the securities of the central government and the state government. For example, National Savings Certificates, etc.

Other approved securities are those securities that are included under the provisions of Banking Regulation Act, 1949. For example, the securities of the electricity board, housing board, etc.

7. ***Other Functions***- Apart from the above mentioned functions, the commercial banks also perform various other functions as well. These are as follows

a. Providing Locker Facility- The commercial banks provide locker facility to their customers (account holders) for keeping their valuables.

b. Issuing Traveller's Cheque and Letters of Credit- They provide their customers traveller's cheque and letters of credit. The traveller's cheque and letters of credit help the people to avoid the risk of carrying cash while travelling.

c. Providing useful business and statistical information- The banks provide critical business and statistical information as and when required by the customers.

Credit Creation by Commercial Banks- Some Important Definitions

As we know that there are four definitions or measures of money supply in India (M_1, M_2, M_3, M_4). Money supply as measured by any of these definition changes, if any of its component changes.

For simplicity, let us proceed with the most liquid definition of money i.e. M_1 ($CC + DD + OD$). Various actions of the RBI and the commercial banks can change the components of M_1, thereby, resulting in a change in the value of the money supply. This impact on the value of money supply as a result of change in the components of M_1 can be understood with the help of the following ratios.

1. ***Currency Deposit Ratio* (*cdr*)**

Currency Deposit Ratio (*cdr*) is the ratio of money held by the people in the form of cash to the money that they hold as deposits in the banks. In other words, it depicts people's preference for the cash balances (i.e. liquidity preferences). Algebraically, this ratio can be presented as:

$$cdr = \frac{C}{DD}$$

where,

C represents currency held by the people in the form of cash.

DD represents Demand Deposits held by the people in the bank

cdr represents Currency Deposit Ratio

Currency Deposit Ratio suggests that if a person gets Re 1, he would deposit Rs $\left(\frac{1}{1+cdr}\right)$ in the bank and keeps Rs $\left(\frac{cdr}{1+cdr}\right)$ with himself as idle cash balance.

Explanation

Since, the person gets Re 1, so the sum of the amount that he deposits in his bank account and the amount that he keeps with himself as idle cash balance should be equal to Re1.

That is, algebraically,

$C + DD = 1$ **(1)**

We know that

$$cdr = \frac{C}{DD}$$

$$\text{i.e. } C = cdr.DD$$

Substituting the value of *C* in the equation (1)

$cdr.\ DD + DD = 1$

$\Rightarrow DD\ (1 + cdr) = 1$

$$\Rightarrow DD = \frac{1}{1+cdr}$$

Thus, from Re 1, the persons deposits $\frac{1}{1+cdr}$ in the bank

Substituting the value of *DD* in the equation (1)

$$C + \frac{1}{1+cdr} = 1$$
$$\text{or}, C = \frac{cdr}{1+cdr}$$

Thus, after depositing $\frac{1}{1+cdr}$ in the bank, the person keeps $\frac{cdr}{1+cdr}$ with himself as cash.

It should be noted that the value of *cdr* depends mainly on the seasonal patterns of the expenditure. For example, the value of *cdr* will be higher during the festive seasons. This is because people need to hold greater cash balances during the festive seasons.

2. ***Reserve Deposit Ratio* (*rdr*)**

We know that out of the total deposits received by a commercial bank from the public, the bank keeps a portion of the total deposits as ***reserves*** and extends the rest as **loans** to the borrowers. Reserve Deposit Ratio refers to that portion of the total deposits that are kept by the commercial banks with themselves as reserves. Reserves held by the commercial banks comprises of two components.

a. Cash held by the banks with themselves
b. Deposits of the commercial banks held with the RBI

The reserve deposits to be held by the commercial banks are decided by the RBI through its various policy instruments. The RBI uses the following two types of policy instruments to influence reserve deposits of the commercial banks.

1. *Legal Reserve Ratio*- Legal Reserve Ratio refers to the minimum portion of the total deposits, which the commercial banks are legally required to keep as cash with themselves or with the RBI. It comprises of the following two components.

a. *Cash Reserve Ratio* (*crr*)- Cash Reserve Ratio (*crr*) as decided by the RBI, specifies the portion of the total deposits which the commercial banks are required to keep as reserves with the RBI. Higher the *crr*, higher will be the banks' requirement for reserve deposits and vice-versa.

b. Statutory Liquidity Ratio (*SLR*)- SLR specifies the portion of the total deposits that the commercial banks are required to maintain with themselves in the form of certain specified liquid assets (such as gold, etc.).

2*. Bank Rate*- Bank Rate refers to the rate at which the RBI lends to the commercial banks. In other words, it is that rate at which the commercial banks borrow funds from

the RBI. If RBI increases the Bank Rate, then it increases the cost of borrowings by the commercial from the RBI. Consequently, the commercial banks will lend credit (loan) to the general public at higher rate, hence, this will discourage the public to apply for loans.

High Powered Money *(H)*

High Powered Money (*H*) refers to the total liability of the monetary authority of a country. High Powered Money is also known as the monetary base. It includes currency (notes and coins), deposits with the government and the reserves of the commercial banks held with the central bank of the country.

Algebraically, High Powered Money can be represented as:

$H = C + R$

where,

H represents High Powered Money

C represents Currency (notes and coins)

R represents Cash Reserves of the commercial banks with the central bank

The Process of Creation of Money

The two important institutions involved in the money supply are the central bank (RBI as in India) and the commercial banks. On one hand, RBI prints new money (seigniorage), while on the other hand, the commercial banks multiplies the money supplied by the RBI through the process of credit creation. It should be noted that the printing of money by RBI forms a very small proportion of the total money supply. The money created by the commercial banks is known as credit money.

People deposit money in their respective bank accounts. As per the central bank guidelines, the commercial banks are required to maintain a portion of total deposits in form of cash reserves. With the help of the past experiences, the commercial banks know that not all the depositor will turn-up for withdrawal at the same day.

Consequently, the commercial banks lends the remaining portion (left after maintaining cash reserves) of the total deposits to the general public in form of credit, loans and advances. It is the second portion of the total deposits that is responsible for the credit creation (credit money). The process of creation of credit money begins as soon as the commercial banks start the lending process.

The amount of the credit money increases as the banks lend loans to more and more number of people in the economy. The deposit of money by the people in the banks and

the subsequent lending of loans by the commercial banks is a never-ending process. It is due to this continuous process that the commercial banks are able to create credit money a multiple times of the initial deposits.

The process of credit creation can be better understood with the help of the following numerical example. For simplicity, let us assume that the entire commercial banking system is a single unit called 'banks'.

Suppose, initially the public deposited Rs 1000 with the banks. The banks kept a portion of these deposits with themselves as cash reserves (in accordance with *CRR* and *SLR*) and extend the rest as loans to the borrowers. Let us assume that the Legal Reserve Ratio (*LRR)* is 20% or 0.20 and the banks have maintained exactly the same amount as cash reserves (i.e. neither more nor less).

This implies that banks will keep 20% of the deposits received as reserves and the rest is given out as loans. In other words, out of Rs 1000 (initial deposits), banks kept Rs 200 with themselves as reserves and the balance amount of Rs 800 (Rs 1,000 – Rs 200) is given as loans. Also, suppose that all the transactions taking place in the economy are routed only through banks.

Thus, the money spent by the borrowers again comes back to the banks as deposits. Hence, there is an increment in the demand deposits with the banks by Rs 800 (in the second round). Therefore, now the total deposits with the banks rises to Rs 1,800 (Rs 1,000 + Rs 800).

Now, out of the new deposits of Rs 800, the banks will keep 20% as reserves and the remaining amount is lent out i.e. Rs160 is kept as reserves and the remaining Rs 640 is extended as loans. When the borrower spends this borrowed amount either by cheques, demand drafts, etc. this amount is routed through the banks. Therefore, the money spent by the borrower comes back to the bank and the total deposits increase to Rs 2,440 (i.e. Rs 1800 + Rs 640).

The same process continues and with each round the total deposits with the banks increases. However; in every subsequent round the cash reserves diminishes. The process comes to an end when the total cash reserves (aggregate of cash reserves from the subsequent rounds) become equal to the initial deposits of Rs 1,000 that was initially held by the banks.

Rounds	**Deposits Received** ***A***	**Loans Extended** ***B***	**Cash Reserves** $C = \frac{20}{100} \times A$
Initial	1,000	800	200
Round I	800	640	160
Round II	640	512	128
Round III	-	-	-
Round IV	-	-	-

.	-	-	-
.	-	-	-
Round *N*	-	-	-
Total	**5,000**	**4,000**	**1,000**

In the schedule, it should be noted that the total amount of deposits received, i.e. Rs 5,000 is ascertained by the formula of money multiplier. Money multiplier is defined as the inverse of the Legal Reserve Ratio (*LRR*). Algebraically,

$$M_m = \frac{1}{LRR}$$
$$M_m = \frac{1}{0.20} = 5\text{times}$$

As the money multiplier is 5 times, so this implies that the total deposits (Rs 5,000) increased by 5 times the initial deposits (Rs 1,000) through the process of credit creation. This can be interpreted as the commercial banks have created money of Rs 5,000 from the deposits of Rs 1,000.

Money Multiplier

The above formula for money multiplier is a simple definition depending solely on the Legal Reserve Ratio. But a more complex and real-world formula for money multiplier must account for people desire for hold some portion of money in form of cash balance and the rest in form of bank deposits. In this case, the formula for the money multiplier becomes as

$$M_m = \left(\frac{1+cdr}{cdr + rdr}\right)$$

where,

M_m represents Money Multiplier

rdr represents Reserve Deposits Ratio

cdr represents Currency Deposit Ratio

Important Note: The value of money multiplier is always greater than 1.

Definition of Money Multiplier

Money multiplier is defined as the ratio of stock of money *(M_S)* to the stock of High Powered Money *(H)*. In other words, it shows the number of times the total deposits have increased from the initial deposits of money.

Algebraically, money multiplier can be presented as:

$$M_m = \frac{M_S}{H}$$

where,

M_S represents the Stock of Money

H represents High Powered Money

M_m represents Money Multiplier

Thus, from the above discussion of money multiplier, we can present money multiplier as:

$$M_m = \left(\frac{1+cdr}{cdr + rdr}\right) = \frac{M_S}{H}$$

Derivation of Formula for Money Multiplier

The value of money multiplier can be derived algebraically as follows

$C + DD = M_S$ **(1)**

We know that

$$cdr = \frac{C}{DD}$$

$$\text{i.e. } C = cdr.DD$$

Substituting the value of C in the equation (1)

$M_S = (cdr.\ DD) + DD$

or, $M_S = (cdr + 1)\ DD$

or, $M_S = (1+ cdr)\ DD$ **(2)**

where,

M_S represents money supply

cdr represents Currency Deposit Ratio

DD represents Demand Deposits

Also we know that High Powered Money (H)

$H = C + R$

or, $H = cdr.\ D + R$ **(3)**

Now, $rdr = \frac{R}{DD}$

$\Rightarrow R = rdr.\ D$

Putting value of R in the equation (3)

$H = cdr.\ D + rdr.\ DD$

$\Rightarrow H = (cdr + rdr).\ DD$ **(4)**

Now, as stated in the definition that money multiplier is expressed as a ratio of stock of money *(M_S)* to the stock of High Powered Money *(H)*.

So, $M_m = \frac{M_S}{H}$

Putting values of M_S and H from equation (2) and (4)

$$M_m = \frac{(1+cdr)DD}{(cdr\ +\ rdr)DD}$$

$$\text{or},\ M_m = \left(\frac{1+cdr}{cdr\ +\ rdr}\right)$$

Functions of Reserve Bank of India and Instruments of Monetary Policy

Objectives

After going through this chapter, you shall be able to understand the following concepts.

- Central Bank and its Functions
- Instruments of Monetary Policy of the Central bank

Central Bank and its Functions

The Central Bank is the apex institution of a country's monetary system. It regulates and controls the activities of all the commercial banks and other financial institutions of the country. It plays a pivotal role in the organisation and development of a sound monetary and financial system in an economy. In India, Reserve Bank of India (RBI) is the central bank.

Functions of Central Bank

The following are the major functions of a central bank of a country.

1. ***Issue of Currency***

The central bank of a country has the exclusive authority to issue the currency (notes + coins). The currency issued by the central bank is known as 'legal tender money' i.e. the value of such currency is backed by the central bank. However, the currency issued by the central bank is its monetary liability.

In other words, the central bank is obliged to back the currency issued by it by assets of equal value such as gold coins and bullions, foreign exchange. In addition to issuing currency to the general public, the central bank also issues currency to the central government of the country. That is, the central government if required, can sell its securities to the central bank and in return gets the required cash currency.

2. ***Banker to the Commercial Banks***

Central bank is the apex bank of all the commercial banks and financial institutions in the country. It holds the same relationship with the commercial banks as commercial bank holds with its customer. The central bank accepts deposits from the commercial banks and holds it as reserves for them. The commercial banks are compulsorily required to hold a part of their deposits as reserves with the central bank in accordance with the cash reserve ratio (*CRR*). In addition to the *CRR* requirements, the commercial banks hold reserves with the central bank for clearing their settlements with other banks and to fulfil their requirements of inter-bank transfers.

3. ***Supervisor for the Commercial Banks***

Central bank also performs the task of monitoring the functions of the commercial banks in the country. In other words, it controls and organises the working of the commercial banks. The supervision by the central bank may be regarding the following matters.

a. Licensing of the commercial banks and other financial institutions
b. Expansion of the commercial banks in terms of branches
c. Mergers and amalgamation of the banks
d. Liquidation of the banks

4. ***Banker to the Government***

Central bank acts as a banker and financial advisor to the government. As a banker to the government, it performs the following functions.

a. It manages the account of the government.
b. It accepts receipts from the government and makes payment on behalf of it.
c. It grants short-term loans and credit to the government.
d. It performs the task of managing the public debt.

e. The central bank advises the government on all the banking and financial related matters.

5. ***Custodian of Foreign Exchange***

The central bank is the sole custodian of a country's foreign exchange and stock of gold. All the transactions in foreign exchange are routed through the central bank and any earnings from the foreign exchange are to be deposited with the central bank. By having the custody of foreign exchange reserves, the central bank maintains exchange rate stability and promotes international trade.

6. ***Lender of Last Resort***

As the lender of last resort, the central bank is under the obligation to provide funds against securities to the commercial bank as and when needed by them. When a commercial bank faces financial crisis and fails to obtain funds from other sources, then the central bank plays the vital role of ‘lender of last resort’ and provides them with the financial assistance in the form of credit. This role of the central bank saves the commercial bank from being bankrupt. Thus, the central bank plays the role of guarantor for the commercial banks and maintains a sound and healthy banking system in the economy.

7. ***Controller of Credit***

The central bank controls the supply of money and credit in an economy through its various policy instruments (Qualitative and Quantitative instruments). By controlling the supply of money and credit, the central bank controls various economic variables such as prices and interest rate in the economy.

8. ***Clearing House Function***

Central bank acts as a clearing house for the commercial banks. As a clearing house it settles inter-bank claims, thus, reduces the need for cash reserves by the commercial banks.

9. ***Collection of Statistical Data***

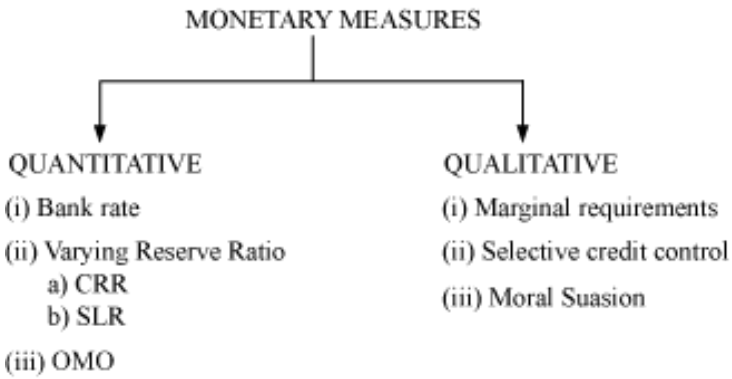
Central banks collect various statistical information related to banking, currency and foreign exchange. Thereby, it helps in the development of suitable monetary and fiscal policies.

Instruments of Monetary Policy of the Central Bank

Central bank controls the supply of money and credit through various instruments of monetary policy. These instruments of monetary policy can be broadly classified into the following two categories.

a. Quantitative Instruments
b. Qualitative Instruments

The following flow chart highlights various monetary instruments through which the central bank influences the monetary policy.



Quantitative Instruments

Quantitative instruments of monetary policy are the measures that affect the overall supply of money/credit in the economy. The following are the quantitative instruments used by the central bank

1. ***Bank Rate****:* Bank rate refers to the rate at which the central bank provides loans to the commercial banks. This instrument is a key at the hands of RBI to control the money supply. Changes in the bank rate change the cost of borrowings, thereby affect the money supply. This is explained by the following mechanism.

An increase in the bank rate increases the cost of borrowing for the commercial banks from the central bank. The commercial banks in turn, increase the lending rate for their customers. However, this increase in the lending rate reduces the borrowing capacity of the public, thereby, discourages loans and credit.

This depresses the multiplier process and thus, decreases the value of money multiplier. Hence, the total money supply decreases.
A decrease in the bank rate will have the reverse effect and will increase the money supply

To ***summarise***,
Bank rate ↑ ⇒ ***cost of borrowing for the commercial bank*** ↑ ⇒ ***lending rate for the public*** ↑ ⇒ ***Borrowing capacity*** ↓⇒ ***demand for loans and credit*** ↓⇒ ***money supply*** ↓

Bank rate ↓ ⇒ ***cost of borrowing for the commercial bank*** ↓ ⇒ ***lending rate for the public*** ↓ ⇒ ***Borrowing capacity*** ↑ ⇒ ***demand for loans and credit*** ↑ ⇒ ***money***

supply ↑

However, the ***effectiveness of the bank rate policy*** depends on certain exogenous factors. The following are the factors that affect the effectiveness of the bank rate policy.

a. *The extent to which the banks depend on the borrowed funds for lending purposes*- If the commercial banks are highly dependent on the borrowed funds for their lending purposes, then any change in the bank rate will have a greater impact on their lending capacity, hence, on the money supply.

In other words, the effectiveness of bank rate policy holds a positive relationship with the dependence of the commercial banks on the borrowed funds i.e. the higher the dependence; greater will be the effectiveness of bank rate policy and vice-versa.

b. *The sensitivity of the demand for borrowed funds from banks to the bank rate*- If the borrowed funds are highly sensitive to the bank rate, then the bank rate policy will be highly effective. In other words, if a slight fall (or rise) in the bank rate leads to a significant rise (or fall) in the amount of borrowed funds, then the bank rate policy is highly effective.

c. *The changes in the other interest rate*- If a change in the bank rate does not affect other interest rates in the market, then the bank rate policy might not prove to be effective.

d. *The availability of other sources of supply of funds*- The effectiveness of the bank rate policy also depends on the dependence of people on non-institutional sources of credit such as, money lenders, etc. If people can access credit from non-institutional sources, then lesser will be the effect of a change in the bank rate and vice-versa.

2. ***Open Market Operations (OMOs)***- Open Market Operations refer to the buying and selling of securities either to the public or to the commercial banks in an open market. Open Market operations refer to the buying and selling of securities in an open market, in order to affect the money supply in the economy. The selling of securities by RBI will wipe out the extra cash balance from the economy, thereby limiting the money supply, whereas in the case of buying securities by RBI, additional money is pumped into the economy stimulating the money supply.

To summarise,

Selling of securities in the open market ⇒ Extra Cash Balance ↓ ⇒ Money supply ↓

Purchase of securities in the open market ⇒ Extra Cash Balance is pumped into the economy ⇒ Money supply ↑

However; the ***success of OMO*** as a tool of monetary policy requires the following pre-requisites.

a. The existence of a well functioning securities market.
b. If banks keep higher than required or usual amount as reserves, then the *OMOs* might not be successful. This is because in such a case, *OMOs* will not have much impact on the cash reserves, thus, the lending capacity of banks will not be affected.

3. ***Cash reserve ratio (CRR)***- It refers to the minimum proportion of the total deposits that the commercial banks has to maintain with the central bank in form of reserves. An increase in the *CRR,* would mean that banks would be required to keep a greater portion in form of deposits with the central bank.

This implies that the commercial banks are left with lesser amount of funds to lend out. Hence, the lending capacity of the banks reduces, leading to fall in the money supply. On the contrary, a fall in CRR will lead to an increase in the money supply.

To ***summarise***,

CRR ↑ ⇒ ***Deposits with the banks*** ↓ ⇒ ***cash reserves of the bank*** ↓ ⇒ ***Lending capacity of banks*** ↓ ⇒ ***Money supply*** ↓

CRR ↓ ⇒ ***Deposits with the banks*** ↑ ⇒ ***cash reserves of the bank*** ↑ ⇒ ***Lending capacity of banks*** ↑ ⇒ ***Money supply*** ↑

4. ***Statutory Liquidity Ratio (SLR):*** Statutory Liquidity Ration (*SLR)* is defined as the minimum percentage of assets to be maintained by the commercial banks with themselves in the form of either fixed or liquid assets. The flow of credit is reduced by increasing this liquidity ratio and vice-versa.

A rise in SLR will restrict the banks to pump money into the economy, thereby leading to fall in the money supply. On the other hand, a fall in the SLR allows the commercial banks to lend greater volume of credit into the economy, hence, increase the money supply.

SLR ↑ ⇒ ***Minimum percentage of assets*** ↑ ⇒ ***Lending capacity of banks*** ↓ ⇒ ***Money supply*** ↓

SLR ↓ ⇒ ***Minimum percentage of assets*** ↓⇒ ***Lending capacity of banks*** ↑ ⇒ ***Money supply*** ↑

Qualitative Measures
Qualitative instruments of monetary policy, as against the quantitative instruments affect

the flow and direction of credit to particular sectors in a positive or negative manner. The following are the various qualitative measures at the disposal of a central bank.

1. ***Margin Requirements***-

The commercial banks' function to grant loan rests upon the value of security being mortgaged. So, the banks keep a margin, which is the difference between the market value of security and the loan value. For example, a commercial bank grants loan of Rs 80,000 against security of Rs 1,00,000.

So, the margin is calculated as Rs 1,00,000 – Rs 80,000 = Rs 20,000. When the central bank decides to restrict the flow of money, then the margin requirement of loan is raised and vice-versa in the case of expansionary credit policy.

2. ***Selective Credit Control***- Selective Credit Control is an instrument of monetary policy that affects the flow of credit to particular sectors of the economy either positively or negatively. The positive aspect of credit control is concerned with the increased flow of credit to the priority sector, whereas, the negative aspect of the credit control is concerned with the measures to restrict flow of credit to a particular sector.

3. ***Moral Suasion***- A persuasion technique followed by the central bank to pressurise the commercial banks to abide by the monetary policy is termed as moral suasion. This involves meetings, seminars, speeches and discussions, which explains the present economic scenario and thereby persuading the commercial banks to adapt the changes needed. In other words, this is an unofficial monetary policy that exercises the power of talk.

4. ***Direct Action***- The central bank can also take direct action against those commercial banks who do not abide by its directives and policy changes. In this case, the central bank may directly refuse any grant of further funds to such banks.

5. ***Rationing of Credit***- Under the system of rationing of credit, the central bank fixes the credit limit for different business activities in the economy. No commercial banks can exceed the prescribed credit limits. The main aim of loan credit rationing is to restrict the flow of credit towards speculative activities.