SYLLABUS

BBA I Year

Subject – Economics of Money & Banking

UNIT – I	**Introduction to Money** Meaning, Nature and functions of Money, Quantity Theory of Money - Classical, Keynesian, Monetarists; Theories of Money Supply, Components of Mority Supply: Measures of Money Supply. Determinants of Money Supply, Money Multiplier.
UNIT – II	**Demand of Money** Classical Theory. Keynes Theory, Portfolio Balance Theory, Friedman's Theory: Monetary Policy - Meaning Objectives, and Instruments, The structure of interest rate-term structure and yield curve, Theories of term structure of interest rates.
UNIT – III	**Financial System** **Different theories & Approaches;** Financial Markets; Functions and Types, Money Market and Capital Market nature, functions and instrument; Structure of Indian money and capital markets, National Institutions of Security Market Investment Planning. Theoretical perspectives on financial and real sectors.
UNIT – IV	**Banking** Theories of Banking Commercial and Central Banking Systems - Punctions, Credit Creation and Credit Control; Daring and Non-Banking Financial Intermediaries in India, RBI - Functions, Monetary Policy - Methods and Recent Changes in India, International Monetary policy transmission mechanism.
UNIT – V	**Business Monetary Policy :** Concept of Monetary Policy. Instrument of Monetary Policy, Effectiveness of Monetary Policy in Recession; Effectiveness of Monetary Policy in Inflation, Objectives of Monetary Policy, Monetary Policy & Economic Growth. Monetary Policies of the Reserve Bank of India.

UNIT-I

Meaning of Money

Money is an economic unit that functions as a generally recognized medium of exchange for transactional purposes in an economy. Money provides the service of reducing transaction cost, namely the double coincidence of wants. Money originates in the form of a commodity, having a physical property to be adopted by market participants as a medium of exchange.

Money is commonly referred to as currency. Economically, each government has its own money system. Cryptocurrencies are also being developed for financing and international exchange across the world.

Money is a liquid asset used in the settlement of transactions. It functions based on the general acceptance of its value within a governmental economy and internationally through foreign exchange. The current value of monetary currency is not necessarily derived from the materials used to produce the note or coin. Instead, value is derived from the willingness to agree to a displayed value and rely on it for use in future transactions. This is money's primary function: a generally recognized medium of exchange that people and global economies intend to hold, and are willing to accept as payment for current or future transactions.

In general terms, the main function of money in an economic system is "to facilitate the exchange of goods and services and help in carrying out trade smoothly." Its basic characteristic is general acceptability. Functions of money are reflected in the following well- known couplet:

"Money is a matter of functions four A medium, a measure, a standard, a store."

Thus conventionally money performs the following four main functions, each of which overcomes one or the other difficulty of barter. Medium of exchange and measure of value are primary functions because they are of prime Importance whereas standard of deferred payment and store of value are called secondary functions because they are derived from primary functions.

Function of Money

1. Money as the Medium of Exchange:

Money came into use to remove the inconveniences of barter as money has separated the act of purchase from sale. Medium of exchange is the basic or primary function of money. People exchange goods and services through the medium of money. Money acts as a medium of exchange or as a medium of payments. Money by itself has no utility (except perhaps to the miser). It is only an intermediary.

The use of money facilitates exchange, exchange promotes specialisation Increases productivity and efficiency A good monetary system is, therefore, of immense utility to human society. Money is also called a bearer of options or generalised purchasing power because it provides freedom of choice to buy things he wants most from those who offer best bargain.

2. Money as a Unit of Account or Measure of Value:

Money serves as a unit of account or a measure of value. Money is the measuring rod, i.e., it is the units in terms of which the values of other goods and services are measured in money terms and expressed accordingly Different goods produced in the country are measured in different units like cloth m metres, milk in litres and sugar in kilograms.

Without a common unit, exchange of goods becomes very difficult Values of all goods and services can be expressed easily in a single unit called money Again without a measure of value, there can be no pricing process. Without a pricing process organised marketing and production is not possible. Thus, the use of money as a measure of value is the basis of specialised production.

The measuring rod of money is also indispensable to all forms of economic planning. Consumers compare the values of alternative purchases m terms of money Producers also compare the values of alternative purchases m terms of money. Producers compare the relative costliness of the factors

of production in terms of money and also plan their output on the basis of the money yield. It is, therefore, highly important that the value of money should be stable.

3. Money as the Standard of Deferred Payments:

Deferred payments are payments which are made some time in the future. Debts are usually expressed in terms of the money of account. Loans are taken and repaid in terms of money.

The use of money as the standard of deterred or delayed payments immensely simplifies borrowing and lending operations because money generally maintains a constant value through time. Thus, money facilitates the formation of capital markets and the work of financial intermediaries like Stock Exchange, Investment Trust and Banks. Money is the link which connects the values of today with those of the future.

4. Money as a Store of Value:

Wealth can be stored in terms of money for future. It serves as a store value of goods in liquid form. By spending it, we can get any commodity in future. Keynes places great emphasis on this function of money. Holding money is equivalent to keeping a reserve of liquid assets because it can be easily converted into other things.

People therefore normally wish to keep a part of their wealth in the form of money because savings in terms of goods is very difficult. This desire is known as liquidity preference. Clearly money is the best form of store of value. Wheat or any other product which will command a value cannot be stored for a long period.

Another Function 'Liquidity of Money' is added these days. Money is perfectly liquid. Liquidity means convertibility into cash. Thus, the ability to convert an asset into money quickly and without loss of value is called liquidity of asset. Modern economists are laying stress on liquidity of money.

Since, by definition, money is the most generally accepted commodity, it is also the most liquid of all resources. Possession of money enables one to get hold of almost any commodity in any place

and money never locks a buyer. It is this peculiarity which distinguishes money from all other commodities. A preference for liquidity is preference for money.

Money, thus, acts as common medium of exchange, a common measure of value, as standard of deferred payments and a store of value.

THEORIES OF VALUE OF MONEY

The concept of the quantity theory of money (QTM) began in the 16th century. As gold and silver inflows from the Americas into Europe were being minted into coins, there was a resulting rise in inflation. This led economist Henry Thornton in 1802 to assume that more money equals more inflation and that an increase in money supply does not necessarily mean an increase in economic output. Here we look at the assumptions and calculations underlying the QTM, as well as its relationship to monetarism and ways the theory has been challenged

QUANTITY THEORY OF MONEY (QTM)

The quantity theory of money states that there is a direct relationship between the quantity of money in an economy and the level of prices of goods and services sold. According to QTM, if the amount of money in an economy doubles, price levels also double, causing inflation (the percentage rate at which the level of prices is rising in an economy). The consumer therefore pays twice as much for the same amount of the good or service. Another way to understand this theory is to recognize that money is like any other commodity: increases in its supply decrease marginal value (the buying capacity of one unit of currency). So 31 an increase in money supply causes prices to rise (inflation) as they compensate for the decrease in money's marginal value..

The quantity theory of money (QTM) also assumes that the quantity of money in an economy has a large influence on its level of economic activity. So, a change in the money supply results in either a change in the price levels or a change in the supply of goods and services, or both. In addition, the theory assumes that changes in the money supply are the primary reason for changes in spending.

One implication of these assumptions is that the value of money is determined by the amount of money available in an economy. An increase in the money supply results in a decrease in the value of money because an increase in the money supply also causes the rate of inflation to increase. As inflation rises, purchasing power decreases. Purchasing power is the value of a currency expressed in terms of the amount of goods or services that one unit of currency can buy. When the purchasing power of a unit of currency decreases, it requires more units of currency to buy the same quantity of goods or services.

Throughout the 1970s and 1980s, the quantity theory of money became more relevant as a result of the rise of monetarism. In monetary economics, the chief method of achieving economic stability is through controlling the supply of money. According to monetarism and monetary theory, changes in the money supply are the main forces underpinning all economic activity, so governments should implement policies that influence the money supply as a way of fostering economic growth. Because of its emphasis on the quantity of money determining the value of money, the quantity theory of money is central to the concept of monetarism.

Monetarism

According to monetarists, a rapid increase in the money supply can lead to a rapid increase in inflation. This is because when money growth surpasses the growth of economic output, there is too much money backing too little production of goods and services. In order to curb a rapid rise in the inflation level, it is imperative that growth in the money supply falls below the growth in economic output.

When monetarists are considering solutions for a staggering economy in need of an increased level of production, some monetarists may recommend an increase in the money supply as a short-term boost. However, the long-term effects of monetary policy are not as predictable, so many monetarists believe that the money supply should be kept within an acceptable bandwidth so that levels of inflation can be controlled.

Instead of governments continually adjusting economic policies through government spending and taxation levels, monetarists recommend letting non-inflationary policies–like a gradual reduction of the money supply–lead an economy to full employment.

Keynesianism

Many Keynesian economists remain critical of the basic tenets of the quantity theory of money and monetarism, and challenge the assertion that economic policies that attempt to influence the money supply are the best way to address economic growth.

Keynesian economics is a theory of economics that is primarily used to refer to the belief that the government should use activist stabilization and economic intervention policies in order to influence aggregate demand and achieve optimal economic performance. John Maynard Keynes was a British economist who developed this theory in the 1930s as part of his research trying to understand, first and foremost, the causes of the Great Depression. At the time, Keynes advocated for a government response to the global depression that would involve the government increasing their spending and lowering their taxes in order to stimulate demand and pull the global economy out of the depression.

In the 1930s, Keynes also challenged the quantity theory of money, saying that increases in the money supply actually lead to a decrease in the velocity of money in circulation and that real income–the flow of money to the factors of production–increased. Therefore, the velocity of money could change in response to changes in the money supply. In the years since Keynes' made this argument, other economists have proved that Keynes' contention with the quantity theory of money is, in fact, accurate.

Some of the tenets of monetarism became very popular in the 1980s in both the U.S. and the U.K. Leaders in both of these countries, such as Margaret Thatcher and Ronald Reagan, tried to apply the principles of the theory in order to achieve money growth targets for their countries' economies. However, it was revealed over time that strict adherence to a controlled money supply did not provide a solution for economic slowdowns.

What Is the Money Supply?

The money supply is all the currency and other liquid instruments in a country's economy on the date measured. The money supply roughly includes both cash and deposits that can be used almost as easily as cash.

Governments issue paper currency and coin through some combination of their central banks and treasuries. Bank regulators influence the money supply available to the public through the requirements placed on banks to hold reserves, how to extend credit, and other money matters.

- The money supply refers to the amount of cash or currency circulating in an economy.
- Different measures of money supply take into account non-cash items like credit and loans as well.
- Monetarists believe that increasing the money supply, all else equal, leads to inflation.

Understanding Money Supply

Economists analyze the money supply and develop policies revolving around it through controlling interest rates and increasing or decreasing the amount of money flowing in the economy. Public and private sector analysis is performed because of the money supply's possible impacts on price levels, inflation, and the business cycle. In the United States, the Federal Reserve policy is the most important deciding factor in the money supply. The money supply is also known as the money stock

Effect of Money Supply on the Economy

An increase in the supply of money typically lowers interest rates, which in turn, generates more investment and puts more money in the hands of consumers, thereby stimulating spending. Businesses respond by ordering more raw materials and increasing production. The increased

business activity raises the demand for labor. The opposite can occur if the money supply falls or when its growth rate declines.

Change in the money supply has long been considered to be a key factor in driving macroeconomic performance and business cycles. Macroeconomic schools of thought that focus heavily on the role of money supply include Irving Fisher's Quantity Theory of Money, Monetarism, and Austrian Business Cycle Theory.

Historically, measuring the money supply has shown that relationships exist between it and inflation and price levels. However, since 2000, these relationships have become unstable, reducing their reliability as a guide for monetary policy. Although money supply measures are still widely used, they are one of a wide array of economic data that economists and the Federal Reserve collects and reviews.[1]

How Money Supply is Measured

The various types of money in the money supply are generally classified as Ms, such as M0, M1, M2, and M3, according to the type and size of the account in which the instrument is kept. Not all of the classifications are widely used, and each country may use different classifications. The money supply reflects the different types of liquidity each type of money has in the economy. It is broken up into different categories of liquidity or spendability.[2]

M1, for example, is also called narrow money and includes coins and notes that are in circulation and other money equivalents that can be converted easily to cash. M2 includes M1 and, in addition, short-term time deposits in banks and certain money market funds.[1] M3 includes M2 in addition to long-term deposits. However, M3 is no longer included in the reporting by the Federal Reserve.[3] MZM, or money zero maturity, is a measure that includes financial assets with zero maturity and that are immediately redeemable at par. The Federal Reserve relies heavily on MZM data because its velocity is a proven indicator of inflation.[4]

Money supply data is collected, recorded, and published periodically, typically by the country's government or central bank. The Federal Reserve in the United States measures and publishes the total amount of M1 and M2 money supplies on a weekly and monthly basis. They can be found online and are also published in newspapers.

How is money supply determined?

A central bank regulates the level of money supply within a country. Through monetary policy, a central bank can undertake actions that follow an expansionary or contractionary policy. Expansionary policies involve the increase in money supply through measures such as open market operations, where the central bank purchases short-term Treasuries with newly created money, thus injecting money into circulation. Conversely, a contractionary policy would involve the selling of Treasuries, removing money from circulating in the economy.

What's the difference between M0, M1, and M2?

In the United States, the money supply is categorized by various monetary aggregates including M0, M1, and M2. These are used by the Federal Reserve to measure how open market operations impact the economy. The monetary base, or M0, is equal to coin currency, physical paper, and central bank reserves. M1, typically the most commonly used aggregate, covers M0 in addition to demand deposits and travelers' cheques. Meanwhile, M2, which may be used as an indicator for inflation when compared to GDP, covers M1 in addition to savings deposits and money market shares.

Reserve money is also called central bank money, monetary base, base money, or high-powered money. It is the base level for the money supply or the high-powered component of the money supply.

In the most simple language, Reserve Money is **Currency in Circulation** plus **Deposits of Commercial Banks with RBI.**

Mo

- = Currency in circulation + Bankers' deposits with the RBI + 'Other' deposits with the RBI
- = Net RBI credit to the Government + RBI credit to the commercial sector + RBI's claims on banks + RBI's net foreign assets + Government's currency liabilities to the public – RBI's net non-monetary liabilities.

M1 (Narrow Money)

- =Currency with the public + Deposit money of the public (Demand deposits with the banking system + 'Other' deposits with the RBI).

M2:

- =M1 + Savings deposits with Post office savings banks.

M3: (Broad Money)

- = M1+ Time deposits with the banking system
- = Net bank credit to the Government + Bank credit to the commercial sector + Net foreign exchange assets of the banking sector + Government's currency liabilities to the public – Net non-monetary liabilities of the banking sector (Other than Time Deposits).

M4:

- =M3 + All deposits with post office savings banks (excluding National Savings Certificates).

The Money Multiplier refers to how an initial deposit can lead to a bigger final increase in the total money supply.

For example, if the commercial banks gain deposits of £1 million and this leads to a final money supply of £10 million. The money multiplier is 10.

The money multiplier is a key element of the fractional banking system.

1. There is an initial increase in bank deposits (monetary base)
2. The bank holds a fraction of this deposit in reserves and then lends out the rest.
3. This bank loan will, in turn, be re-deposited in banks allowing a further increase in bank lending and a further increase in the money supply.

$$\text{Money Multiplier} = \frac{\text{Change in total money supply}}{\text{Change in monetary base (reserves)}}$$

The Reserve Ratio

The reserve ratio is the % of deposits that banks keep in liquid reserves.

For example 10% or 20%

Formula for money multiplier

$$\text{Money Multiplier} = \frac{1}{\text{Reserve Ratio}}$$

In theory, we can predict the size of the money multiplier by knowing the reserve ratio.

- If you had a reserve ratio of 5%. You would expect a money multiplier of 1/0.05 = 20
- This is because if you have deposits of £1 million and a reserve ratio of 5%. You can effectively lend out £20 million.

What is Money Multiplier Formula?

The phenomenon in which money is created in the form of the creation of credits in the economy is referred to as the money multiplier and is based on the fractional reserve banking system.

It is defined as the maximum limit to which the money supply is affected as there are changes in the amount of money deposited. This money multiplier effect is most commonly seen in commercial banks since deposits are accepted by them and after a while, they have kept the money as a reserve, to inject liquidity in the economy, they start distributing the money as loans.

The Reserve ratio is referred to as the total amount of money, for the withdrawal purposes by the customers, which should be kept by the commercial banks in their reserves. It is also known as the cash reserve ratio or the required reserve ratio

Money Multiplier in simple words is considered as the largest amount of money that can be created through this kind of banking.
It is also known as the credit multiplier formula. The higher the RR leads to a lower money multiplier because the commercial banks will have to maintain the larger reserves due to which there will be less amount available to lend to the public.

Example

Suppose an initial deposit of ₹10,000 is made into the bank. The Legal Reserve Ratio (LRR), which has to be maintained by the commercial banks, is 20%. All the payments and deposits are done through the bank. The banks keep only the minimum balance of LRR and lend the rest of the money to the public.

Solution: Money multiplier Formula = 1÷ LRR

Money multiplier = 1÷ 20%

Money multiplier = (1÷0.20) * 100

Money multiplier = 5 times

It shows that the initial deposit of ₹10,000 will be increased up to 5 times excluding the reserves.

The following table will explain the process:

	Deposits	**Loans**	**LRR @20%**
Initial Deposit	10,000	8,000	2,000
1st	8,000	6,400	1,600
2nd	6,400	5,120	1,280
3rd	5,120	4,096	1,024
4th	4,096	3,276.8	819.20
5th	3,276.8	2,621.44	655.36
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Total	50,000	40,000	10,000

Explanation

The initial deposits of ₹10,000 have been made into the bank, and the banks are required to maintain 20% of the deposits with them as the LRR is 20%, therefore the bank has to maintain 20% of ₹10,000 i.e. ₹2,000 with itself and can lend the rest of the money i.e. ₹8,000 as loans to the public. As all the payments are done through the banks, therefore the amount of ₹8,000 comes again to the bank and the bank will keep 20% of this amount i.e. ₹1,600 with itself, and will lend again the rest of the amount i.e. ₹6,400 to the public. This process will go again and again till the time the value of deposits doesn't become ₹50,000. As the value of the money multiplier is 5, it means the value of initial deposits of ₹10,000 will become ₹50,000 till the end. This process will continue till the initial deposits increase to ₹50,000.

Using the Reserve ratio to influence monetary policy

In theory, if a Central Bank demands a higher reserve ratio – it should have the effect of acting like deflationary monetary policy. A higher reserve ratio should reduce bank lending and therefore reduce the money supply.

Money Multiplier in the real world

In a simple theory of the money multiplier, it is assumed that if the bank lends $90 – all of this will return. However, in the real world, there are many reasons why the actual money multiplier is significantly smaller than the theoretically possible money multiplier.

1. **Import spending.** If consumers buy imports the money leaves the economy
2. **Taxes**. A percentage of income will be taken in taxes.
3. **Savings**. Not all money is spent and circulated, a significant percentage will be saved
4. **Currency Drain Ratio.** This is the % of banknotes that individual consumers keep in cash, rather than depositing in banks. If consumers deposited all their cash in banks, there would be a bigger money multiplier. But, if people keep funds in cash then the banks cannot lend more.
5. **Bad loans**. A bank may lend out $90 but the company goes bankrupt and so this is never deposited bank into the banking system.

6. **Safety reserve ratio.** This is the % of deposits a bank may like to keep above the statutory reserve ratio. i.e. the required reserve ratio may be 5%, but banks may like to keep 5.2%.
7. **It might not be possible to lend more money out**. Just because banks could lend 95% of their deposits doesn't mean they can, even if they wanted to. In a recession, people may not want to borrow, but they prefer to save.
8. Banks may not want to lend Also, at various times, the banks may not want to lend, e.g. during a recession they feel firms and individuals more likely to default. Therefore, the banks end up with a higher reserve ratio.

Therefore, due to these factors, the reserve ratio and money multiplier are theoretical.

UNIT-II

Portfolio Balance Theory

The main problem with Keynesian approach to the demand for money is that it suggests that individuals should, at any given time, hold all their liquid assets either in money or in bonds, but not some of each.

The second approach — Tobin's model of liquidity preference — deals with this problem by showing that if the return on bonds is uncertain, that is, bonds are risky, then the investor worrying about both risk and return is likely to do best by holding both bonds and money.

Portfolio theories like the one presented by Tobin emphasizes the role of money as a store of value. According to these theories, people hold money as part of their portfolio of assets. The reason for this is that money offers a different combination of risk and return than other assets which are less liquid than money — such as bonds.

To be more specific, money offers a safe (nominal) return, whereas the prices of stocks and bonds may rise or fall. Thus, Tobin has suggested that households choose to hold money as part of their optimal portfolio.

Portfolio theories predict that the demand for money depends on the risk and return associated with money holding as also on various other assets households can hold instead of money. Furthermore, the demand for money should depend on real wealth, because wealth measures the size of the portfolio to be allocated among money and the alternative assets.

For instance, the money demand function may be expressed as:

$$(M/P)_d = f(r_s, r_b, \pi^e, W)$$

- r_s = the expected real return on stock,
- r_b = the expected real return on bonds,
- π^e = the expected inflation rate and
- W= real wealth.

An increase in r_s or r_b reduces money demand, because other assets become more attractive. An increase in n^e also reduces money demand, because money becomes less attractive. An increase in W raises money demand, because higher wealth means a larger portfolio.

It is against this backdrop that we study the portfolio theory of money demand.

Speculative Demand for Money as Behavior toward Risk:

Tobin ignored the determination of the transactions demand for money and considered only the demand for money as a store of wealth. The focus is on an individual's portfolio allocation between money-holding and bondholding, subject to the wealth constraint, i.e., W = M + B, where W is the total fixed wealth, M is money and B is bond.

In Tobin's theory there is no such thing as fixed normal level to which interest rates are always expected to return as has been postulated by Keynes. Following Tobin we can assume that the expected capital gain is zero. This is because the individual investor expects capital gains and losses to be equally likely.

The best expectation of the return on bonds is simply the prevailing market rate of interest (r). But this is just the expected return on bonds. The actual return also includes some capital gain or loss, since the interest rate does not generally remain fixed.

Thus bonds pay an expected return of interest, but they are a risky asset. Their actual return is uncertain due to the fact that the market rate of interest fluctuates even in the short run.

In contrast, money is a safe asset because it yields no return at all. At the same time money is a safe asset since no capital gain or loss is made by holding money. In Tobin's view an individual will hold some proportion of wealth in money for reducing the overall riskiness of his portfolio.

If only bonds are held, returns would be maximum no doubt but the risk to which the investor is exposed will also be maximum. A risk- adverse investor would voluntarily sacrifice some return for a reduction in risk. Tobin argues that money as an asset is demanded as an aversion to risk.

On the vertical axis of the upper quadrant we measure the expected return to the portfolio; on the horizontal axis we measure the riskiness of the portfolio. The expected return on the portfolio is the interest that can be earned on bonds.

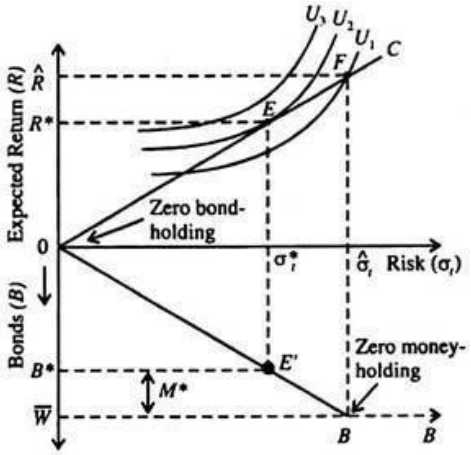


Fig. 19.4 Determination of the Optimal Portfolio

This depends on two things:

(i) the interest rate and

(ii) the proportion of the portfolio held in bonds. The total risk to which an individual is exposed depends on

(iii) the uncertainty concerning bond prices — that is, the uncertainty concerning future movements in market rate of interest, and

(iv) The proportion of the portfolio held in bonds.

Let us denote the expected total return by R and the total risk of the portfolio as a σ_t. If an individual holds all his wealth (W) in money and none in bonds, i.e., W = M + 0, both R and σ_t will be zero, as shown by the origin (point 0) in Figure. With an increase in the proportion of bonds, i.e., W = M + B; as M falls and B increases, R and a, will both rise.

The opportunity line C is a locus of points showing the terms on which the individual investor can increase R at the cost of increasing a_t. A movement along C from left to right shows that the investor increases his bond holding only by reducing his money holding.

The lower quadrant of Figure shows alternative portfolio allocations, resulting in different combinations of R and a_t. The vertical axis measures bond holding. The amount of bonds (B) held in W increases as the investor moves down the vertical axis to a maximum of W.

The difference between W and B is the asset demand for money (M). The line OB in the lower part of the diagram shows the relationship between a, and B. As the proportion of B in W increases, σ_t also

increases. This means that as the proportion of bonds in the portfolio increases, the total risk of the portfolio increases, too.

Optimal Portfolio Allocation:

A risk-averse investor will move to that point along the line C which enables him to reach the highest attainable indifference curve. At that point he ends up choosing that portfolio which he intends to choose and, thus, maximizes his utility. The reason is obvious. At the

tangency point E, with $R = R^*$ and $\sigma_t = \sigma^*_t$, the terms on which the investor is able to increase expected return on the portfolio by taking more risk, shown by the slope of the line C, is equated to the terms on which he (she) is willing to make the trade-off, as is measured by the slope of the indifference curve.

From the lower part we see that this risk -return combination is achieved by holding an amount of bonds equal to B*, and by holding the remainder of wealth ($\bar{W} - B^* = M^*$) in the form of money.

The demand for money thus shows the investor's 'behavior towards risk', i.e., the result of seeking to reduce risk below what it would be if $\bar{W} = B$ and $M = 0$. In Fig. 19.4 such an all-bonds-portfolio would be associated with risk of σ_t and the expected return of R, as shown by point F in the upper part of the diagram.

This portfolio yields a lower level of utility than that represented by bond holdings of B* and money holdings of M*.

The reason is that as the investor moves to the right of point E along the line 0C, the additional return expected from the portfolio by holding more bonds (and less money) is not adequate to compensate the investor for the additional risk (the slope of the line 0C is less than that of the indifference curve U_2). The movement to point F takes the investor to a lower indifference curve, U_1. **Tax Rates and**

Portfolio Choice:

A major portion of the revenues to a successful investment goes to the government as taxes. Since different assets are treated differently by the tax laws, tax considerations are obviously important in choosing a portfolio. After all, rational investors care about after-tax returns, not before-tax returns. Government bonds illustrate this point. These bonds yield a lower return than do corporate bonds (debentures) of comparable risks and liquidity. Still, people buy government bonds because they are

generally exempt from income tax and capital gains tax. The higher an investor's income, the more valuable these tax exemptions are, because his tax savings are greater the higher the tax rate.
The higher demand for these tax-exempt bonds from high income investors pushes up their price, which reduces the return received on the bonds. We can expect the return to decline to the point where the after-tax return for high income individuals is at most slightly higher than for an ordinary taxable bond of comparable risk.

Friedman's Theory:

Friedman asserts that "the quantity theory is in the first instance a theory of the demand for money. It is not a theory of output, or of money income, or of the price level." The demand for money on the part of ultimate wealth holders is formally identical with that of the demand for a consumption service. He regards the amount of real cash balances (M/P) as a commodity which is demanded because it yields services to the person who holds it. Thus money is an asset or capital good. Hence the demand for money forms part of capital or wealth theory.
For ultimate wealth holders, the demand for money, in real terms, may be expected to be a function primarily of the following variables:

1. Total Wealth:

The total wealth is the analogue of the budget constraint. It is the total that must be divided among various forms of assets. In practice, estimates of total wealth are seldom available. Instead, income may serve as an index of wealth. Thus, according to Friedman, income is a surrogate of wealth.

2. The Division of Wealth between Human and Non-Human Forms:

The major source of wealth is the productive capacity of human beings which is human wealth. But the conversion of human wealth into non-human wealth or the reverse is subject to institutional constraints. This can be done by using current earnings to purchase non-human wealth or by using non-human wealth to finance the acquisition of skills. Thus the fraction of total wealth in the form of non-human wealth is an additional important variable. Friedman calls the ratio of non-human to human wealth or the ratio of wealth to income as w.

3. The Expected Rates of Return on Money and Other Assets:

These rates of return are the counterparts of the prices of a commodity and its substitutes and complements in the theory of consumer demand. The nominal rate of return may be zero as it generally is on currency, or negative as it sometimes is on demand deposits, subject to net service charges, or positive as it is on demand deposits on which interest is paid, and generally on time deposits. The nominal rate of return on other assets consists of two parts: first, any currently paid yield or cost, such as interest on bonds, dividends on equities, and costs of storage on physical assets, and second, changes in the prices of these assets which become especially important under conditions of inflation or deflation.

4. Other Variables:

Variables other than income may affect the utility attached to the services of money which determine liquidity proper. Besides liquidity, variables are the tastes and preferences of wealth holders. Another variable is trading in existing capital goods by ultimate wealth holders. These variables also determine the demand function for money along-with other forms of wealth. Such variables are noted as u by Friedman.

Broadly, total wealth includes all sources of income or consumable services. It is capitalised income. By income, Friedman means "permanent income" which is the average expected yield on wealth during its life time.

Wealth can be held in five different forms: money, bonds, equities, physical goods, and human capital. Each form of wealth has a unique characteristic of its own and a different yield.

1. Money is taken in the broadest sense to include currency, demand deposits and time deposits which yield interest on deposits. Thus money is luxury good. It also yields real return in the form of convenience, security, etc. to the holder which is measured in terms of the general price level (P).
2. Bonds are defined as claim to a time stream of payments that are fixed in nominal units.
3. Equities are defined as a claim to a time stream of payments that are fixed in real units.
4. Physical goods or non-human goods are inventories of producer and consumer durable.
5. Human capital is the productive capacity of human beings. Thus each form of wealth has a unique characteristic of its own and a different yield either explicitly in the form of interest, dividends, labour income, etc., or implicitly in the form of services of money measured in terms of P, and

inventories. The present discounted value of these expected income flows from these five forms of wealth constitutes the current value of wealth which can be expressed as:

$$W = y/r$$

Where

W is the current value of total wealth,

Y is the total flow of expected income from the five forms of wealth, and

r is the interest rate.

This equation shows that wealth is capitalised income. Friedman in his latest empirical study Monetary Trends in the United States and the United Kingdom (1982) gives the following demand function for money for an individual wealth holder with slightly different notations from his original study of 1956 as:

$$M/P = f(y, w; R_m, R_b, R_e, g_p, u)$$

Where M is the total stock of money demanded;

P is the price level;

y is the real income;

w is the fraction of wealth in non-human form:

R_m is the expected nominal rate of return on money;

R_b is the expected rate of return on bonds, including expected changes in their prices;

R_e is the expected nominal rate of return on equities, including expected changes in their prices;

g_p=(1/P) (dP/dt) is the expected rate of change of prices of goods and hence the expected nominal rate of return on physical assets; and

и stands for variables other than income that may affect the utility attached to the services of money.

The demand function for business is roughly similar, although the division of total wealth and human wealth is not very useful since a firm can buy and sell in the market place and hire its human wealth at will. But the other factors are important.

The aggregate demand function for money is the summation of individual demand functions with M and y referring to per capita money holdings and per capita real income respectively, and w to the fraction of aggregate wealth in nonhuman form.

The demand function for money leads to the conclusion that a rise in expected yields on different assets (R_b, R_e and g_p) reduces the amount of money demanded by a wealth holder, and that an increase in wealth raises the demand for money. The income to which cash balances (M/P) are adjusted is the expected long term level of income rather than current income being received.

Empirical evidence suggests that the income elasticity of demand for money is greater than unity which means that income velocity is falling over the long run. This means that the long run demand for money function is stable and is relatively interest inelastic, as shown in fig. 68.1. where M_D is the demand for money curve. If there is change in the interest rate, the long-run demand for money is negligible.

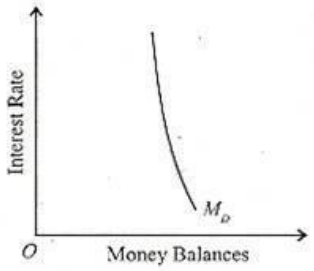


Fig. 68. 1

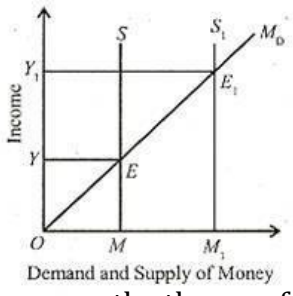
In Friedman's restatement of the quantity theory of money, the supply of money is independent of the demand for money. The supply of money is unstable due to the actions of monetary authorities. On the other hand, the demand for money is stable. It means that money which people want to hold in cash or bank deposits is related in a fixed way to their permanent income.

If the central bank increases the supply of money by purchasing securities, people who sell securities will find their holdings of money have increased in relation to their permanent income. They will, therefore, spend their excess holdings of money partly on assets and partly on consumer goods and services.

This spending will reduce their money balances and at the same time raise the nominal income. On the contrary, a reduction in the money supply by selling securities on the part of the central bank will reduce the holdings of money of the buyers of securities in relation to their permanent income.

They will, therefore, raise their money holdings partly by selling their assets and partly by reducing their consumption expenditure on goods and services. This will tend to reduce nominal income. Thus, on both counts, the demand for money remains stable. According to Friedman, a change in the supply of money causes a proportionate change in the price level or income or in both. Given the demand for money, it is possible to predict the effects of changes in the supply of money on total expenditure and income.

If the economy is operating at less than full employment level, an increase in the supply of money will raise output and employment with a rise in total expenditure. But this is only possible in the short run. Friedman's quantity theory of money is explained in terms of Figure 68.2. Where income (Y) is measured on the vertical axis and the demand for the supply of money are measured on the horizontal axis. M_D is the demand for money curve which varies with income. MS is the money supply curve which is perfectly inelastic to changes in income. The two curves intersect at E and determine the equilibrium income OY. If the money supply rises, the MS curve shifts to the right to M_1S_1. As a result, the money supply is greater than the demand for money which raises total expenditure until new equilibrium is established at E_1 between M_D and M_1S_1, curves. The income rises to OY_1.



Demand and Supply of Money

Thus Friedman presents the quantity theory as the theory of the demand for money and the demand for money is assumed to depend on asset prices or relative returns and wealth or income. He shows how a theory of the stable demand for money becomes a theory of prices and output. A discrepancy between the nominal quantity of money demanded and the nominal quantity of money supplied will be evident primarily in attempted spending. As the demand for money changes in response to changes in its determinants, it follows that substantial changes in prices or nominal income are almost invariably the result of changes in the nominal supply of money.

Its Criticisms:

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

1. Very Broad Definition of Money:

Friedman has been criticised for using the broad definition of money which not only includes currency and demand deposits (M_1) but also time deposits with commercial banks (M_2). This broad definition leads to the obvious conclusion that the interest elasticity of the demand for money is negligible. If the rate of interest increases on time deposits, the demand for them (M_2) rises. But the demand for currency and demand deposits (M_1) falls.

So the overall effect of the rate of interest will be negligible on the demand for money. But Friedman's analysis is weak in that he does not make a choice between long-term and short-term interest rates. In fact, if demand deposits (M_1) are used a short-term rate is preferable, while a long- term rate is better with time deposits (M_2). Such an interest rate structure is bound to influence the demand for money.

2. Money not a Luxury Good:

Friedman regards money as a luxury good because of the inclusion of time deposits in money. This is based on his finding that there is higher trend rate of the money supply than income in the United States. But no such 'luxury effect' has been found in the case of England.

3. More Importance to Wealth Variables:

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

4. Money Supply not Exogenous:

Friedman takes the supply of money to be unstable. The supply of money is varied by the monetary authorities in an exogenous manner in Friedman's system. But the fact is that in the United States the money supply consists of bank deposits created by changes in bank lending. Bank lending, in

turn, is based upon bank reserves which expand and contract with (a) deposits and withdrawals of currency by non-bank financial intermediaries; (b) borrowings by commercial banks from the Federal Reserve System; (c) inflows and outflows of money from and to abroad: and (d) purchase and sale of securities by the Federal Reserve System. The first three items definitely impart an endogenous element to the money supply. Thus the money supply is not exclusively exogenous, as assumed by Friedman. It is mostly endogenous.

5. Ignores the Effect of Other Variables on Money Supply:

Friedman also ignores the effect of prices, output or interest rates on the money supply. But there is considerable empirical evidence that the money supply can be expressed as a function of the above variables.

6. Does not consider Time Factor:

Friedman does not tell about the timing and speed of adjustment or the length of time to which his theory applies.

7. No Positive Correlation between Money Supply and Money GNP:

Money supply and money GNP have been found to be positively correlated in Friedman's findings. But, according to Kaldor, in Britain the best correlation is to be found between the quarterly variations in the amount of cash held in the form of notes and coins by the public and corresponding variations in personal consumption at market prices, and not between money supply and the GNP.

8. Conclusion:

Despite these criticisms, "Friedman's application to monetary theory of the basic principle of capital theory—that is the yield on capital, and capital the present value of income—is probably the most important development in monetary theory since Keynes's General Theory. Its theoretical significance lies in the conceptual integration of wealth and income as influences on behaviour."

Friedman Vs Keynes:

Friedman's demand for money function differs from that of Keynes's in many ways which are discussed as under.

First, Friedman uses a broader definition of money than that of Keynes in order to explain his demand for money function. He treats money as an asset or capital good capable of serving as a

temporary abode of purchasing power. It is held for the stream of income or consumable services which it renders. On the other hand, the Keynesian definition of money consists of demand deposits and non-interest bearing debt of the government.

Second, Friedman postulates a demand for money function quite different from that of Keynes. The demand for money on the part of wealth holders is a function of many variables. These are R_m, the yield on money; R_b, the yield on bonds; R_e, the yield on securities; g_p, the yield on physical assets; and u referring to other variables. In the Keynesian theory, the demand for money as an asset is confined to just bonds where interest rates are the relevant cost of holding money.

Third, there is also the difference between the monetary mechanisms of Keynes and Friedman as to how changes in the quantity of money affect economic activity. According to Keynes, monetary changes affect economic activity indirectly through bond prices and interest rates.

The monetary authorities increase the money supply by purchasing bonds which raises their prices and reduces the yield on them. Lower yield on bonds induces people to put their money elsewhere, such as investment in new productive capital that will increase output and income. On the other hand, in Friedman's theory monetary disturbances will directly affect prices and production of all types of goods since people will buy or sell any asset held by them. Friedman emphasises that the market interest rates play only a small part of the total spectrum of rates that are relevant.

Fourth, there is the difference between the two approaches with regard to the motives for holding money balances. Keynes divides money balances into "active" and "idle" categories. The former consist of transactions and precautionary motives, and the latter consist of the speculative motive for holding money. On the other hand, Friedman makes no such division of money balances.

According to him, money is held for a variety of different purposes which determine the total volume of assets held such as money, physical assets, total wealth, human wealth, and general preferences, tastes and anticipations.

Fifth, in his analysis, Friedman introduces permanent income and nominal income to explain his theory. Permanent income is the amount a wealth holder can consume while maintaining his wealth intact. Nominal income is measured in the prevailing units of currency. It depends on both prices and quantities of goods traded. Keynes, on the other hand, does not make such a distinction.

Portfolio Balance Approach

The main problem with Keynesian approach to the demand for money is that it suggests that individuals should, at any given time, hold all their liquid assets either in money or in bonds, but not some of each.

This is obviously not true in reality.

The second approach — Tobin's model of liquidity preference — deals with this problem by showing that if the return on bonds is uncertain, that is, bonds are risky, then the investor worrying about both risk and return is likely to do best by holding both bonds and money.

Portfolio theories like the one presented by Tobin emphasises the role of money as a store of value. According to these theories, people hold money as part of their portfolio of assets. The reason for this is that money offers a different combination of risk and return than other assets which are less liquid than money — such as bonds.

To be more specific, money offers a safe (nominal) return, whereas the prices of stocks and bonds may rise or fall. Thus Tobin has suggested that households choose to hold money as part of their optimal portfolio.

Portfolio theories predict that the demand for money depends on the risk and return associated with money holding as also on various other assets households can hold instead of money. Furthermore, the demand for money should depend on real wealth, because wealth measures the size of the portfolio to be allocated among money and the alternative assets.

For instance, the money demand function may be expressed as:

$$(M/P)_d = f(r_s, r_b, \pi^e, W)$$

- r_s = the expected real return on stock,
- r_b = the expected real return on bonds,
- π^e = the expected inflation rate and
- W= real wealth. An increase in
- r_s or r_b reduces money demand, because other assets become more attractive.

An increase in n^e also reduces money demand, because money becomes less attractive. An increase in W raises money demand, because higher wealth means a larger portfolio.

It is against this backdrop that we study the portfolio theory of money demand.

Speculative Demand for Money as Behaviour toward Risk:

Tobin ignored the determination of the transactions demand for money and considered only the demand for money as a store of wealth. The focus is on an individual's portfolio allocation between money-holding and bondholding, subject to the wealth constraint, i.e., W = M + B, where W is the total fixed wealth, M is money and B is bond.

In Tobin's theory there is no such thing as fixed normal level to which interest rates are always expected to return as has been postulated by Keynes. Following Tobin we can assume that the expected capital gain is zero. This is because the individual investor expects capital gains and losses to be equally likely.

The best expectation of the return on bonds is simply the prevailing market rate of interest (r). But this is just the expected return on bonds. The actual return also includes some capital gain or loss, since the interest rate does not generally remain fixed.

Thus bonds pay an expected return of interest, but they are a risky asset. Their actual return is uncertain due to the fact that the market rate of interest fluctuates even in the short run.

In contrast, money is a safe asset because it yields no return at all. At the same time money is a safe asset since no capital gain or loss is made by holding money. In Tobin's view an individual will hold some proportion of wealth in money for reducing the overall riskiness of his portfolio.

If only bonds are held, returns would be maximum no doubt but the risk to which the investor is exposed will also be maximum. A risk- averse investor would voluntarily sacrifice some return for a reduction in risk. Tobin argues that money as an asset is demanded as an aversion to risk.

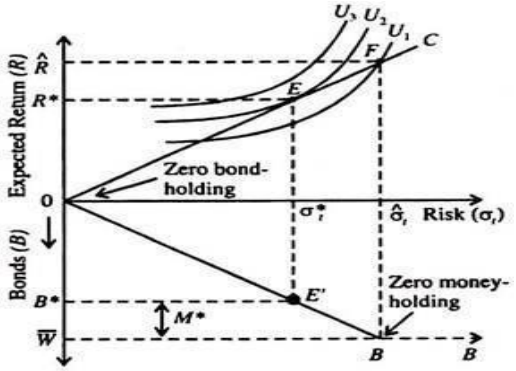


Fig. 19.4 Determination of the Optimal Portfolio

On the vertical axis of the upper quadrant we measure the expected return to the portfolio; on the horizontal axis we measure the riskiness of the portfolio. The expected return on the portfolio is the interest that can be earned on bonds.

This depends on two things:

(i) The interest rate and

(ii) The proportion of the portfolio held in bonds. The total risk to which an individual is exposed depends on

(iii) The uncertainty concerning bond prices — that is, the uncertainty concerning future movements in market rate of interest, and

(iv) The proportion of the portfolio held in bonds.

Let us denote the expected total return by R and the total risk of the portfolio as a σt. If an individual holds all his wealth (W) in money and none in bonds, i.e., W = M + 0, both R and σt will be zero, as shown by the origin (point 0) in Fig. 19.4.

With an increase in the proportion of bonds, i.e., W = M + B; as M falls and B increases, R and a, will both rise. The opportunity line C is a locus of points showing the terms on which the individual investor can increase R at the cost of increasing σt. A movement along C from left to right shows that the investor increases his bond holding only by reducing his money holding.

The lower quadrant of Fig. 19.4 shows alternative portfolio allocations, resulting in different combinations of R and σt. The vertical axis measures bond holding. The amount of bonds (B) held in W increases as the investor moves down the vertical axis to a maximum of W.

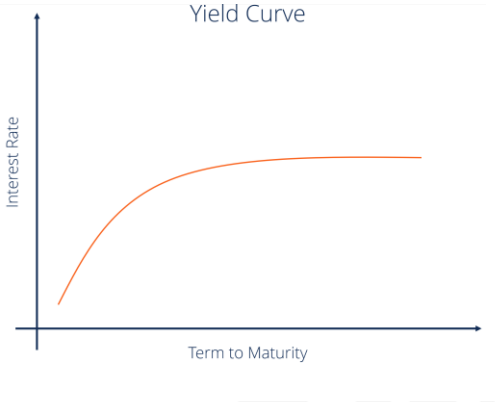
The difference between W and B is the asset demand for money (M). The line OB in the lower part of the diagram shows the relationship between a, and B. As the proportion of B in W increases, σt also increases. This means that as the proportion of bonds in the portfolio increases, the total risk of the portfolio increases, too.

Yield Curve

What is the Yield Curve?

The Yield Curve is a graphical representation of the interest rates on debt for a range of maturities. It shows the yield an investor is expecting to earn if he lends his money for a given period of time. The graph displays a bond's yield on the vertical axis and the time to maturity across the horizontal axis. The curve may take different shapes at different points in the economic cycle, but it is typically upward sloping.

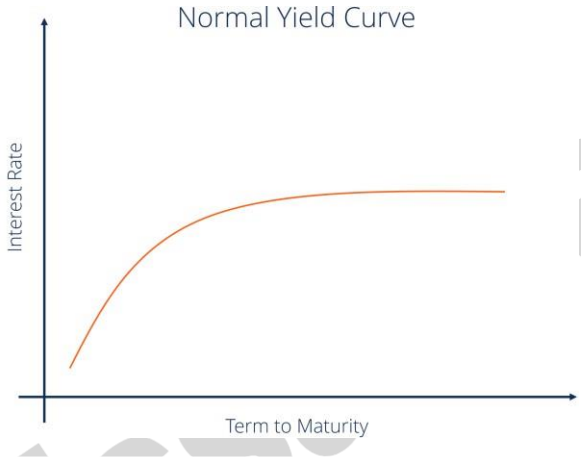
A fixed income Analyst may use the yield curve as a leading economic indicator, especially when it shifts to an inverted shape, which signals an economic downturn, as long-term returns are lower than short-term returns.



Types of Yield Curves

1. Normal

This is the most common shape for the curve and, therefore, is referred to as the normal curve. The normal yield curve reflects higher interest rates for 30-year bonds as opposed to 10-year bonds. If you think about it intuitively, if you are lending your money for a longer period of time, you expect to earn a higher compensation for that.



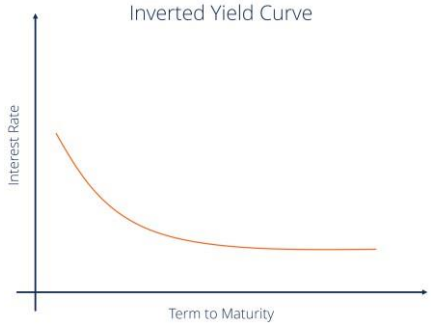
he positively sloped yield curve is called normal because a rational market will generally want more compensation for greater risk. Thus, as long-term securities are exposed to greater risk, the yield on such securities will be greater than that offered for lower-risk short-term securities.

A longer period of time increases the probability of unexpected negative events taking place. Therefore, a long-term maturity will typically offer higher interest rates and have higher volatility.

2. Inverted

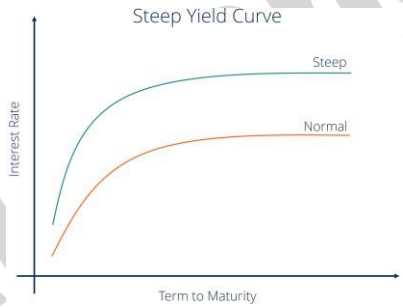
An inverted curve appears when long-term yields fall below short-term yields. An inverted yield curve occurs due to the perception of long-term investors that interest rates will decline in the future. This can happen for a number of reasons, but one of the main reasons is the expectation of a decline in inflation.

When the yield curve starts to shift toward an inverted shape, it is perceived as a leading indicator of an economic downturn. Such interest rate changes have historically reflected the market sentiment and expectations of the economy.



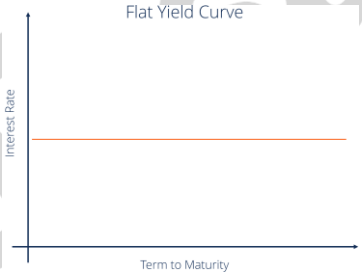
3. Steep

A steep curve indicates that long-term yields are rising at a faster rate than short-term yields. Steep yield curves have historically indicated the start of an expansionary economic period. Both the normal and steep curves are based on the same general market conditions. The only difference is that a steeper curve reflects a larger difference between short-term and long-term return expectations.



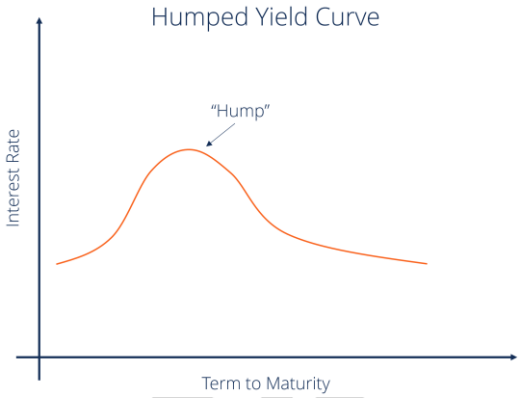
4. Flat

A flat curve happens when all maturities have similar yields. This means that the yield of a 10-year bond is essentially the same as that of a 30-year bond. A flattening of the yield curve usually occurs when there is a transition between the normal yield curve and the inverted yield curve.



5. Humped

A humped yield curve occurs when medium-term yields are greater than both short-term yields and long-term yields. A humped curve is rare and typically indicates a slowing of economic growth.



Influencing Factors

1. Inflation

Central banks tend to respond to a rise in expected inflation with an increase in interest rates. A rise in inflation leads to a decrease in purchasing power and, therefore, investors expect an increase in the short-term interest rate.

2. Economic Growth

Strong economic growth may lead to an increase in inflation due to a rise in aggregate demand. Strong economic growth also means that there is a competition for capital, with more options to invest available for investors. Thus, strong economic growth leads to an increase in yields and a steeper curve.

3. Interest Rates

If the central bank raises the interest rate on Treasuries, this increase will result in higher demand for treasuries and, thus, eventually lead to a decrease in interest rates.

Importance of the Yield Curve

1. Forecasting Interest Rates

The shape of the curve helps investors get a sense of the likely future course of interest rates. A normal upward sloping curve means that long-term securities have a higher yield, whereas an inverted curve shows short-term securities have a higher yield.

2. Financial Intermediary

Banks and other financial intermediaries borrow most of their funds by selling short-term deposits and lend by using long-term loans. The steeper the upward sloping curve is, the wider the difference between lending and borrowing rates, and the higher is their profit. A flat or downward sloping curve, on the other hand, typically translates to a decrease in the profits of financial intermediaries.

3. The Tradeoff between Maturity and Yield

The yield curve helps indicate the tradeoff between maturity and yield. If the yield curve is upward sloping, then to increase his yield, the investor must invest in longer-term securities, which will mean more risk.

4. Overpriced or Underpriced Securities

The curve can indicate for investors whether a security is temporarily overpriced or underpriced. If a security's rate of return lies above the yield curve, this indicates that the security is underpriced; if the rate of return lies below the yield curve, then it means that the security is overpriced.

Yield Curve Theories

1. Pure Expectation Theory

This theory assumes that the various maturities are substitutes and the shape of the yield curve depends on the market's expectation of future interest rates. According to this theory, yields tend to change over time, but the theory fails to define the details of yield curve shapes. This theory ignores interest rate risk and reinvestment risk.

2. Liquidity Preference Theory

This theory is an extension of the Pure Expectation Theory. It adds a premium called liquidity premium or term premium. This theory considers the greater risk involved in holding long-term debts over short-term debts.

3. Segmented Market Theory

The segmented market theory is based on the separate demand and supply relationship between short-term securities and long-term securities. It is based on the fact that different maturities of securities cannot be substituted for one another.

Since investors will generally prefer short-term maturity securities over long-term maturity securities because the former offers lower risk, then the price of short-term securities will be higher, and thus, the yield will be correspondingly lower.

4. Preference Habitat Theory

This is an extension of the Market Segmentation Theory. According to this theory, investors prefer a certain investment horizon. To invest outside this horizon, they will require some premium. This theory explains the reason behind long-term yields being greater than short-term yields.

UNIT-III

FINANCIAL MARKETS

MONEY MARKET IN INDIA

The money market is a market for financial assets that are close substitutes for money. It is a market for overnight to short-term funds and instruments having a maturity period of one or less than one year. It is not a place (like the Stock Market), but an activity conducted by telephone. The money market constitutes a very important segment of the Indian financial system.

The characteristics of the money market are:

(i) It is not a single market but a collection of markets for several instruments.

(ii) It is a wholesale market of short-term debt instruments.

(iii) Its principal feature is honour where the creditworthiness of the participants is important.

(iv) The main players are: Reserve Bank of India (RBI), Discount and Finance House of India (DFHI), mutual funds, banks, corporate investors, non-banking finance companies (NBFCs), state governments, provident funds, primary dealers, Securities Trading Corporation of India (STCI). public sector undertakings (PSUs), non-resident Indians and overseas corporate bodies.

(v) It is a need-based market wherein the demand and supply of money shape the market.

Functions of the Money Market

A money market is generally expected to perform three broad functions:

(i) Provide a balancing mechanism even out the demand for and supply of short-term funds.

(ii) Provide a focal point for central bank intervention for influencing liquidity and general level of interest rates in the economy.

(iii) Provide reasonable access to suppliers and users of short-term funds to fulfill their borrowings and investment requirements at an efficient market clearing price.

Besides the above functions, a well-functioning money market facilitates the development of a market for longer term securities. The interest rates for extremely short-term use of money serve as a benchmark for longer-term financial instruments.

Benefits of an Efficient Money Market

An efficient money market benefits a number of players. It provides a stable source of funds to banks in addition to deposits, allowing alternative financing structures and competition. It allows banks to manage risks arising from interest rate fluctuations and to manage the maturity structure of their assets and liabilities.

A developed interbank market provides the basis for growth and liquidity in the money market including the secondary market for commercial paper and treasury bills. An efficient money market encourages the development f non-bank intermediaries, thus increasing the competition for funds. Savers get a wide array of savings instruments to choose from and invest their savings quid money market provides an effective source of long-term finance to borrowers. Large borrowers can lower the cost of raising funds and manage short-term funding or surplus efficiently,

A liquid and vibrant money market is necessary for the development of a capital market, foreign exchange market, and market in derivative instruments. The money market supports the long-term debt market by increasing the liquidity of securities. The existence of an efficient money market is a precondition for the development of a government securities market and a forward foreign exchange market. Trading in forwards, swaps, and futures is also supported by a liquid money market as the certainty of prompt cash settlement is essential for such transactions. The government can achieve better pricing on its debt as it provides access to a wide range of buyers. It facilitates the government market borrowing programme Monetary control through indirect methods (repos and open market operations) is more effective if the money market is liquid. In such a market, the market responses to the central bank's policy actions are both faster and less subject to distortion.

The Indian Money Market

The average turnover of the money market in India is over Rs 40,000 crore daily. This is more than 3 per cent of the total money supply in the Indian economy and 6 per cent of the total funds that commercial banks have let out to the system. This implies that 2 per cent of the annual GDP of India gets traded in the money market in just one day. Even though the money market is many times larger than the capital market, it is not even a fraction of the daily trading in developed markets.

Role of the Reserve Bank of India in the Money Market The Reserve Bank of India is the mou important constituent of the money market. The market comes within the direct purview of the Reserve Bank regulations

The aims of the Reserve Bank's operations in the money market are:

(i) to ensure that liquidity and short-term interest rates are maintained at levels consistent with the monetary policy objectives of maintaining price stability:

(ii) to ensure an adequate flow of credit to the productive sectors of the economy; and

(iii) to bring about order in the foreign exchange market.

The Reserve Bank influences liquidity and interest rates through a number of operating instruments cash reserve requirement (CRR) of banks, conduct of open market operations (OMOS), repos, change in bank rates and, at times, foreign exchange swap operations.

Steps to Develop the Money Market in India

The money market in India is divided into the formal (organised) and informal (unorganised) segments. One of the greatest achievements of the Indian financial system over the last fifty years has been the decline in the relative importance of the informal segment and increasing presence and influence of the formal segment Several steps were taken in the 1980s and 1990s to reform and develop the money market. The reforma in the money market were initiated in the latter half of the 1980s.

In the 1980s A committee to review the working of the monetary system under the chairmanship of Sakhamoy Chakravorty was set up in 1985. It underlined the need to develop money market instruments. As a follow up, the Reserve Bank set up a working group on the money market under the chairmanship of N Vagal which submined its report in 1987. This committee laid the blueprint for the institution of a money market. Based on its recommendations the Reserve Bank initiated a number of measures:

(i) The Discount and Finance House of India (DFHI) was set up as a money market institution jointly by the Reserve Bank, public sector banks, and financial institutions in 1988 to impart liquidity to money market instruments and help the development of a secondary market in such instruments

(ii) Money market instruments such as the 182-day treasury bill, certificate of deposit, and interbank participation certificate were introduced in 1988-89. Commercial paper was introduced in January 1990

(iii) To enable price discovery, the interest rate ceiling on call money was freed in stages from October 1988 As a first step, operations of the DFHI in the call/notice money market were freed from the interest rate ceiling in 1988. Interest rate ceilings on interbank term money (10.5-11.5 per cent), rediscounting of commercial bills (12.5 per cent), and interbank participation without risk (12.5 per cent) were withdrawn effective May 1989. All the money market interest rates are, by and large. determined by market forces. There has been a gradual shift from a regime of administered interest rates to market-based interest rates

In the 1990s The government set up a high-level committee in August 1991 under the market in government dated securities and public sector bonds. chairmanship of M Narasimham (Narasimham Committee) to examine all aspects relating to structure, organisation, functions, and procedures of the financial system. The committee made several recommendations for the development of the money market. The Reserve Bank accepted many of its recommendations.

(i) The Securities Trading Corporation of India was set up in June 1994 to provide an active secondary market in goverment dated securities and public sector bonds.

(ii) Barriers to entry were gradually eased by (a) setting up the primary dealer system in 1995 and satellite dealer system in 1999 to inject liquidity in the market: (b) relaxing issuance restrictions and subscription norms in respect of money market instruments; (c) allowing the determination of yields based on the demand and supply of such paper; (d) enabling market evaluation of associated risks by withdrawing regulatory restriction such as bank guarantees in respect of commercial papers; and (e) increasing the number of participants by allowing

the entry of foreign institutional investors (FIls), non-bank financial institutions, mutual funds, and so on.

(iii) Several financial innovations in instruments and methods were introduced. Treasury bills of varying maturities and RBI repos were introduced. Auctioned treasury bills were introduced leading to market determined interest rates.

(iv) The development of a market for short-term funds at market-determined rates has been fostered by a gradual switch from a cash-credit system to a loan-based system, shifting the onus of cash management from banks to borrowers.

(v) Ad hoc and on-tap 91-day treasury bills were discontinued. They were replaced by Ways and Means Advances (WMA) linked to the bank rate. The introduction of WMA led to the limiting of the almost funding of the government.

(vi) Indirect monetary control instruments such as the bank rate-reactivated in April 1997, strategy of combining auctions, private placements, and open market operations-in 1998-99, and the liquidity adjustment facility (LAF)-in June 2000 were introduced.

(vii) The minimum lock-in period for money market instruments was brought down to 15 days, (viii) The Reserve Bank started repos both on auction and fixed interest rate basis for liquidity management. Since June 5, 2000, the newly introduced liquidity adjustment facility has been effectively used to influence short-term rates by modulating day-to-day liquidity conditions. The transition to LAF was facilitated by the experiment with the Interim Liquidity Adjustment Facility (ILAF) from April 1999. This provided a mechanism for liquidity management through a combination of repos, export credit (ix) The interbank liabilitics were exempted from cash reserve ratio and statutory liquidity ratio (SLR) refinance, and collateralised lending facilities. stipulations for facilitating the development of a term money market.

Money Market Centres

There are money market centres in India at Mumbai, Delhi, and Kolkata. Mumbai is the only active money market centre in India with money flowing in from all parts of the country getting transacted there.

Money Market Instruments

The instruments traded in the Indian money market are

(i) Treasury hills (T-bills)

(ii) Call/notice money market--Call (overnight) and short notice (up to 14 days)

(iii) Commercial paper (CP)

(iv) (iv) Certificates of deposit (CD)

(v) Commercial bills (CB)

Call/notice money market and treasury bills form the most important segments of the Indian money market. Treasury bills, call money market, and certificates of deposit provide liquidity for government and banks while commercial paper and commercial hills provide liquidity for the commercial sector and intermediaries

4.2 TREASURY BILLS

Treasury Bills are short-term instruments issued by the Reserve Bank on behalf of the government to tide over short-term liquidity shortfalls. This instrument is used by the government to raise short-term funds to bridge seavonal or temporary gaps between its receipts (revenue and capital) and expenditure. They form the most important segment of the money market not only in India but all over the world as well.

T-bills are repaid at par on maturity. The difference between the amount paid by the tenderer at the time of purchase (which is less than the face value) and the amount received on maturity represents the interest amount on T-bills and is known as the discount. Tax deducted at source (TDS) is not applicable on T-bills.

Features of T-bills

(i) They are negotiable securities.

(ii) They are highly liquid as they are of shorter tenure and there is a possibility of an interbank repos in them.

(iii) There is absence of default risk.

(iv) They have an assured yield, low transaction cost, and are eligible for inclusion in the securities for SLR purposes.

(v) They are not issued in scrip form. The purchases and sales are effected through the Subsidiary General Ledger (SGL) account.

(vi) At present, there are 91-day and 364-day T-bills in vogue. The 91-day T-bills are auctioned by RBI every Friday and the 364-day T-bills every alternate Wednesday that is, the Wednesday preceding the reporting Friday.

(vii) Treasury bills are available for a minimum amount of Rs 25,000 and in multiples thereof.

TYPES OF T-BILLS

There are three categories of T-bills.

(i) **On-tap bills:** On-tap bills, as the name suggests, could be bought from the Reserve Bank at any time at an interest yield of 4.663 per cent. They were discontinued from April 1, 1997, as they had lost much of their relevance.

(ii) **Ad hoc bills:** Ad hoc bills were introduced in 1955. It was decided between the Reserve Bank and the government of India that the government could maintain with the Reserve Bank a cash balance of not less than Rs 50 crore on Fridays and Rs 4 crore on other days, free of obligation to pay interest thereon. and whenever the balance fell below the minimum, the government account would be replenished by the creation of ad hoc bills in favour of the Reserve Bank. Ad hoc 91-day T-bills were created to replenish the government's cash balances with the Reserve Bank. They were just an accounting measure in the Reserve Bank's books and, in effect, resulted in automatic monetisation of the government's budget deficit. A monetised deficit is the increase in the net Reserve Bank credit to the central government which is the sum of the increase in the Reserve Bank's holdings of: (a) the government of India's dated securities; (b) 91-day treasury bills, and (c) rupee coins for changes in cash balances with the Reserve Bank.

In the 1970s and 1980s, a large proportion of outstanding ad hocs were converted into long-term dated and undated securities of the government of India. This conversion is referred as "funding" Their expansion put a constraint on the Reserve Bank conduct of monetary policy and hence they were discontinued from April 1, 1997. The outstanding ad hoc T-bills and tap bills as on March 31, 1997. were funded on April 1, 1997, into special securities without any specified maturity at an interest rate of 4.6 per cent per annum. A system of Ways and Means Advances from April 1. 1997, was introduced to replace ad

hoc bills and to accommodate temporary mismatches in the government of India receipts and payments,

(iii) **Auctioned T-bills:** Auctioned T-bills, the most active money market instrument, were first introduced in April 1992. The Reserve Bank receives bids in an auction from various participants and issues the bills subject to some cut-off limits. Thus, the yield of this instrument is market determined. These bills are neither rated nor can they be rediscounted with the Reserve Bank. At present, the Reserve Bank issues T-bills of two maturities-91-days and 364- days.

Importance of T-Bills

The development of T-bills is at the heart of the growth of the money market. T-bills play a vital role in the cash management of the government. Being risk free, their yields at varied maturitics serve as short-term benchmarks and help in pricing different floating rate products in the market. The T-bills market is the preferred central bank tool for market intervention to influence liquidity and short-term interest rates. The development of the T-bills market is a pre-condition for effective open market operations.

Development of T-Bills Market

Ad hoc 91-day treasury bills were introduced in the mid-1950s. These bills were introduced to replenish on an automatic basis, the central government's cash balance with the Reserve Bank so that only the minimum required level was maintained. These bills opened up an era of uncontrolled monetisation of the central government's deficit. Before the 1960s, there was an active T-bills market owing to the weekly auctions of the 91-day T-bills.

In the mid-1960s, the auction system for the issue of 91-day T-bills was replaced by on-tap bills. Till 1974, the tap bills rate changed with changes in the bank rate which sustained the interest of the participants in the T-bills market.

However, after 1974, the discount rate on ad hoc and tap bills was fixed uniformly at 4.6 per cent. The T-bills market lost lustre due to the administered rate regime. However, the interest in T-bills revived with the introduction of the 182-day T-bills on auction basis in November 1986. It also

revived because of the constitution of the Discount and Finance House of India in 1988 as a money market institution.

The 182-day T-bills were discontinued in 1992 and replaced by 364-day auction T-bills in April 1992 as part of reform measures. Subsequently, the 91-day auction T-bills were introduced in January 1993. The parallel existence of the 91-day tap T-bills and ad hoc T-bills continued till March 1997.

Thereafter, the 14-day intermediate T-bills and auction T-bills were introduced in April 1997 to provide an alternative avenue to state goverments and to facilitate some foreign central banks to invest surplus funds.

The 182-day T-bills were reintroduced to provide variety in treasury bills. However, both the 182-and 14-day T-bills have been discontinued since March 2001.

The Reserve Bank's purchase d holding of T-bills have become totally voluntary with the discontinuation of ad hoc and on-tap 91-day T-bills. Before the introduction of the auctioned 'T-bills, a substantial majority of the T-bills used to be held by the Reserve Bank. With the introduction of auctioned T-bills, more than 25 per cent of T-bills are held by investors other than the Reserve Bank. The auction procedures have been streamlined with notified amounts for all auctions being specified in case of competitive bids and non-competitive bids being accepted outside the notified amount. A uniform price-based auction for 91-day T-bills was introduced on an experimental basis in 1998-99. It has been successfully adopted.

4.4 CALL/NOTICE MONEY MARKET

Introduction

It is by far the most visible market as the day-to-day surplus funds, mostly of banks, are traded there. The call money market accounts for the major part of the total turnover of the money market. It is a key segment of the Indian money market. Since its inception in 1955-56, the call money market has registered a tremendous growth in volume of activity.

The call money market is a market for very short-term funds repayable on demand and with a maturity period varying between one day to a fortnight. When money is borrowed or lent for a day, it is known as call (overnight) money. Intervening holidays and/or Sundays are excluded for this purpose. When money is borrowed or lent for more than a day and upto 14 days, it is known as

notice money. No collateral security is required to cover these transactions. The call money market is a highly liquid market, with the liquidity being exceeded only by cash. It is highly risky and extremely volatile as well.

Why Call Money

Call Money is required mostly by banks. Commercial banks borrow money from other banks to maintain a cash balance known as cash reserve requirement. This interbank borrowing has led to the development of the call money market.

CRR is an important requirement to be met by all commercial banks. The Reserve Bank stipulates this requirement from time to time. The CRR is a technique for monetary control effected by the Reserve Bank for abiving specific macro-economic objective/s such as maintaining desired levels of inflation, growth, exchange and so cu CRR refers to the cash that banks have to maintain with the Reserve Bank as a certain percentage of their total demand and time liabilities (DTL) The CRR, a primary instrument of monetary picy, has been brought down from 15 per cent in March 1991 to 4,725 per cent in October 2002.

Prior to May 2000, banks were required to maintain 85 per cent of their fortnightly reserve requirement on a daily basis. The networking among various branches of banks was not developed enough for the branches port their respective net demand and time liabilities (NDTL) positions to the main branch on the first day of the fortnight itself. The NDTL of a bank is the sum of its liabilities to the banking system and its liabilities the public.

With a view to providing further flexibility to banks and enabling them to choose an optimium strategy of bolding reserves depending upon their intra-period cash flows, several measures were undertaken recently. In November 1999, a lagged reserve maintenance system was introduced under which banks were allowed to maintain reserve requirements on the basis of the last Friday of the second (instead of the first) preceding fortnight. From May 6, 2000, the requirement of minimum 85 per cent of the CRR balance on the first 13 days be maintained on a daily basis was reduced to 65 per cent. With effect from August 11, 2000, this was duced to 50 per cent for the first seven days of the reporting fortnight while maintaining the minimum 65 per cent for the remaining seven days including the reporting Friday. The daily minimum CRR was reduced

mable the smooth adjustment of liquidity between surplus and deficit segments and better cash management avoid sudden increase in overnight call rates:

Hence, once every fortnight on a reporting Friday," banks have to satisfy reserve requirements which ahen entails borrowing in the call/notice money market. It is a market in which banks trade positions to maintain cash reserves. It is basically an over the counter (OTC) market without the intermediation of brokers. ter-bank trading accounts for more than 80 per cent of total transactions.

Participants in the Call Money Market

The call money market was predominantly an inter-bank market till 1971 when UTI and LIC were allowed to operate as lenders. Until March 1978, brokers were also allowed to participate in the call money market who would effect transactions between lenders and borrowers for a brokerage. In the 1990s, the participation was gradually widened to include DFHI, STCI, GIC, NABARD, IDBI, money market mutual funds, corporates. and private sector mutual funds as lenders in this market.

The participants in the call money market as both lenders and borrowers are scheduled and non-scheduled commercial banks, foreign banks, state, district and urban cooperative banks, and DFHI. Qther borrowing participants are the brokers and dealers in securities/bullion/bills market, and sometimes individuals of high financial status

In 1996-97, the Reserve Bank permitted primary dealers to participate in this market as both borrowers and lenders. Entities that could provide evidence of surplus funds have been permitted to route their lending through primary dealers. The minimum size of operations for routing transactions has been reduced from Rs 20 crore to Rs 3 crore, with effect from May 9, 1998.

Role of the Reserve Bank in the Call Money Market

The Reserve Bank intervenes in the call money market indirectly in two ways

(i) by providing lines of finance/additional funding to the DFHI and other call money dealers; and

(ii) by conducting repo auctions.

Additional funding is provided through reverse repo auctions which increases liquidity in the market and brings down call money rates.

The Reserve Bank's repo auctions absorb excess liquidity in the economy and push up depressed call rates.

The Reserve Bank's intervention is necessary as there is a close linkage between the call money market and other segments of the money market and the foreign exchange market.

Link Between Call Money Market and Other Financial Markets

There is an inverse relationship between call rates and short-term money market instruments such as certificates of deposit and commercial paper. When call rates peak to a high level, banks raise more funds through certificates of deposit. When call money rates are lower, many banks fund commercial paper by borrowing from the call money market and earn profits through between money market segments.

A large issue of government securities also affects call money rates. When banks subscribe to large issues of government securities, liquidity is sucked out from the banking system. This increases the demand for funds in the call money market which pushes up call money rates. Similarly, a rise in the CRR or in the repo rate absorbs excess liquidity and call rates move up.

The call money market and the foreign exchange market are also closely linked as there exist arbitrage opportunities between the two markets. When call rates rise, banks borrow dollars from their overseas branches, swap them for rupees, and lend them in the call money market. At the same time, they buy dollars forward in anticipation of their repayment liability. This pushes forward the premia on the rupee-dollar exchange rate. It happens many a times that banks fund foreign currency positions by withdrawing from the call money market. This hikes the call money rates

4.5(A) MONEY MARKET INTERMEDIARIES

The Discount and Finance House of India

The DFHI was set up in April 1988 by the Reserve Bank with the objective of deepening and activating the money market. It commenced its operations from July 28, 1988.

It is a joint stock company in form and is jointly owned by the Reserve Bank, public sector banks and all India financial institutions which have contributed to its paid-up capital of Rs 200 crore in the proportion of 5-3-2 In addition, refinance facility with the Reserve Bank and credit of Rs 100 crore from 28 public sector bunks on a consortium basis are the sources of its funds.

The role of the DFHI is to function as a specialized money market intermediary for stimulating activity in money market instruments and develop secondary market in these instruments. It also undertakes short term buy-back operations in the government and approved dated securities. DFHI mobilises funds/resources from commercial/cooperative banks, financial institutions, and corporate entities having resources to lend (which individually may not represent tradable volumes in wholesale market) which are pooled and lent in the money market. The two- way regular quotes in money market instruments provided by DFHI serve as a base to broaden the secondary market and give an assured liquidity to the instruments

DFHI was categorised as an eligible institution under the relevant of the RBI Act, 1934, in November 1989 so that the placement of funds with DFHI can be included as an asset with the banking system for netting purposes while calculating the net demand and time liabilities for reserve purposes. DFHI is also an authorised institution to undertake repo transactions in treasury bills and all dated government securities to impart greater liquidity to these instruments.

Since November 13, 1995, DFHI is an accredited primary dealer. With this accreditation, its role ha undergone a transformation Now it acts as a market maker, giving two-way quotes and takes large position on its account in government securitie

The DFHI deals in treasury hills, commercial bills, certificates of deposits, commercial paper, shon term deposits, call/notice money market and government securities. The presence of the DFHI as intermediacy in the money market has helped the corporate entities, banks, and financial institutions to raise short-term money and invest short-term surpluses. The DFHI also extends repos, that is, bay-back facility upto 14 days, to hanks and financial institutions in respect of money market instrumento The cumulative turnover in each of these instruments is shown in Table 4:17.

The cumulative turnover of the DFHI in all financial transactions increased four-fold in a span of nine years. The major part of the rumover was in call money followed by government dated securities and treasury hills. Its business in CDs and CPx was negligible and business in commercial bills declined sharply in the 1990s. Its dealings in government securities exceeded those in treasury bills after being accredited as a primary dealer

The DFHI has been concentrating on the call money market rather than activating other money marker instruments like CPs, CDs and CBs. These instruments need to be developed further for activating and deepening the money market.

4.5(B) MONEY MARKET MUTUAL FUNDS

Money Market Mutual Funds (MMMFs) were introduced in April 1991 to provide an additional short-term avenue for investment and bring money market investment within the reach of individuals. These mutual funds would invest exclusively in money market instruments.

MMMFs bridge the gap between small individual investors and the money market. MMMF mobilises savings from small investors and invests them in short-term debt instruments or money market instruments

A Task Force was constituted to examine the broad framework outlined in April 1991 and consider the implications of the scheme. Based on the recommendations of the Task Force, a detailed scheme of MMMF was announced by the Reserve Bank in April 1992

The MMMFs portfolio consists of short-term money market instruments. An investor investing in MMMF gets a yield close to short-term money market rates coupled with adequate liquidity.

The Reserve Bank has been making several modifications to the scheme since 1995-96 to make it more flexible and attractive to a larger investor base such as banks, financial institutions, and corporates besides individuals. Modifications such as the removal of ceiling for raising resources, allowing the private sector to set up MMMFs, permission to MMMFs to invest in rated corporate bonds and debentures, reduction in the minimum lock-in period to 15 days, and so on are steps towards making the MMMFs scheme attractive.

MMMFs were allowed to offer a 'cheque writing facility in a tie up with banks to provide more liquidity to unit holders.

Earlier, MMMFs could be set up either in the form of a money market deposit account (MMDA) or as a separate entity. Now, all MMMFs have to be set up as separate entities only in the form of a "Trust.

The growth in MMMFs has been less than expected. Though, in principle, approvals were granted to 10 entities, only three MMMFs have been set up-one in the private sector Kothari Pioneer Mutual Fund, and the other two by IDBI and UTI. The total size of these funds is not very large.

The MMMFs, earlier under the purview of the Reserve Bank, come under the purview of regulation since March 7. 2000

CAPITAL MARKET

5.1 INTRODUCTION

The capital market is an important constituent of the financial system. It is a market for long-term funds both equity and debt and funds raised within and outside the country.

The capital market aids economic growth by mobilising the savings of the economic sectors and directing the same towands channels of productive uses. This is facilitated through the following measures.

(i) Issue of primary securities in the primary market', that is, directing cash flow from the surplus secte to the deficit sectors such as the government and the corporate sector.

(ii) Issue of "secondary securities in the primary market, that is, directing cash flow from the surplus secti to financial intermediaries such as banking and non-banking financial institutions.

(iii) 'Secondary market' transactions in outstanding securities which facilitate liquidity. The liquidity of the stock market is an important factor affecting growth Many profitable projects require long-term finan and investment which means locking up funds for a long period. Investors do not like to relinqui control over their savings for a long time. Hence, they are reluctant to invest in long-gestation project It is the presence of the liquid secondary market that attracts investors because it ensures a quick exit without heavy losses or costs.

Hence, the development of an efficient capital market is necessary for creating a climate conducive investment and economic growth.

Functions of a Capital Market

The functions of an efficient capital market are as follows.

(i) Disseminate information efficiently for enabling participants to develop an informed opinion abou investment, disinvestment, reinvestment, or holding a particular financial asset.

(ii) Enable quick valuation of financial instruments both equity and debt.

(iii) Provide insurance against market risk or price risk through derivative trading and default risk through investment protection fund

(iv) Enable wider participation by enhancing the width of the market by encouraging participation through networking institutions and associating individuals.

(v) Provide operational efficiency through

(a) simplified transaction procedure,

(b) lowering settlement timings, and

(c) lowering transaction costs

(vi) Develop margration

(a) real sector and financial sector,

(b) equity and debt instruments,

(c) long-term and short-term hands,

(d) long-term and short-term interest costs,

(e) private sector and government sector, and

(f) domestic funds and external funds.

(vi) Direct the flow of funds into efficient channels through investment, disinvestment, and reinvestment

Primary Capital Market and Secondary Capital Market

The capital market comprises the primary capital market and the secondary capital market.

Primary Market Primary market refers to the long-term flow of funds from the surplus sector to the and corporate sector (through primary issues) and to banks and non-bank financial intermediaries (through secondary issues). Primary issues of the corporate sector lead to capital formation (creation of net fixed assets and incremental change in inventories).

The nature of fund-raising is as follows,

Domestic

Equity issues by - Corporates (primary issues)

-Financial intermediaries (secondary issues)

Debt instruments by	-Government (primary issues)
	-Corporates (primary issues)
	-Financial intermediaries (secondary issues)

External

Equity issues through	-Global Depository Receipts (GDR)
issue of	and American Depository Receipts (ADR)
Debt instruments through	-External Commercial Borrowings (ECB)

Other External Borrowings

Foreign Direct Investments (FDI)	-in equity and debt form.
Foreign Institutional Investments (FIT)	-in the form of portfolio investments.
Non-Resident Indian Deposits (NRI)	-in the form of short-term and medium-term deposits.

The fund raising in the primary market can be classified as follows.

(i) Public issue by prospectus

(ii) Private placement

(iii) Rights issues

Secondary Market Secondary market is a market for outstanding securities. An equity instrument, being an eternal fund, provides an all-time market while a debt instrument, with a defined maturity period, is traded at the secondary market till maturity. Unlike primary issues in the primary market which result in capital formation, the secondary market facilitates only liquidity and marketability of outstanding debt and equity instruments. The secondary market contributes to economic growth by channelising funds into the most efficient channel through the process of disinvestment to reinvestment. The secondary market also provides instant valuation of securities (equity and debt instruments) made possible by changes in the internal environment, that is, through companywide and industrywide factors. Such a valuation facilitates the theasurement of the cost of capital and rate of return of economic entities at the micro level.

The Indian secondary market can be segregated into two.

(i) Secondary market for corporates and financial intermediaries. For trading in issues of corporates and financial intermediaries, there are
(a) recognised stock exchanges.
(b) National Stock Exchange of India Limited (NSE),
(c) Over the Counter Exchange of India (OTCEI), and
(d) Interconnected Stock Exchange of India (ISE).
The participants in this market are registered brokers both individuals and institutions. They operate through a network of sub-brokers and sub-dealers and are connected through an electronic networking syste

(ii) Secondary market for government securities and public sector undertaking bonds. The trading in government securities is basically divided into short-term money market instruments such as treasury bills and long-term government bonds ranging in maturity from 5-20 years. The main participants in the secondary market for government securities are primary dealers, banks, financial institutions, mutual funds, and others. The secondary market transactions in government securities are conducted through the Subsidiary General Ledger (SGL) since September 1994. Both the government securities and public sector undertaking bonds are now traded in the Wholesale Debt Market (WDM) segment of the National Stock Exchange, Bombay Stock Exchange (BSE), and Over the Counter Exchange of India.

5.2 HISTORY OF THE INDIAN CAPITAL MARKET

The history of the capital market in India dates back to the eighteenth century when East India Company. securities were traded in the country, Until the end of the nineteenth century, securities trading was unorganised and the main trading centres were Bombay (now Mumbai) and Calcutta (now Kolkata). Of the two, Bombay was the chief trading centre wherein bank shares were the major trading stock. During the American Civil War (1860-61), Bombay was an important source of supply for cotton. Hence, trading activities flourished during the period, resulting in a boom in

share prices. This boom, the first in the history of the Indian capital market, lasted for a half a decade. The bubble burst on July 1, 1865, when there was tremendous slump in share prices

The capital market was not well organised and developed during the British rule because the British government was not interested in the economic growth of the country. As a result, many foreign companies depended on the London capital market for funds rather than on the Indian capital market. In the post-independence period also, the size of the capital market remained small. During the first and second five year plans, the government's emphasis was on the development of the agricultural sector and public sector undertakings The public sector undertakings were healthier than the private undertakings in as of paid up capital but their shares were not listed on the stock exchanges. Moreover, the Controller of Capital Ines (CCD) closely supervised and controlled the timing, composition, interest rates, pricing, allotment. and floatation costs of new issues. These strict regulations demotivated many companies from going public for almost four and a half decades. te the 1950s, Century Textiles, Tata Steel, Bombay Dyeing. National Rayon, and Kohinoor Mills were the favourite scrips of speculators. As speculation became rampant, the stock market came to be known as Seta Baraar Despite speculation, non-payment or defaults were not very frequent. The government enacted Securities Contracts (Regulation) Act in 1956 to regulate stock markets. The Companies Act, 1956 also enacted. The decade of the 1950s was also characterised by the establishment of a network for the development of financial institutions and state financial corporations.

The 1990s will go down as the most important decade in the history of the capital market of Ind Liberalisation and globalisation were the new terms coined and marketed during this decade. The Capit Issues (Control) Act, 1947 was repealed in May 1992. The decade was characterised by a new industr policy, emergence of SEBI as a regulator of capital market, advent of foreign institutional investors, eu issues, free pricing, new trading practices, new stock exchanges, entry of new players such as private sec mutual funds and private sector banks, and primary market boom and bust.

Major capital market scams took place in the 1990s. These shook the capital market and drove away small investors from the market. The securities scam of March 1992 involving brokers as well as bankers was one of the biggest scams in the history of the capital market. In the

subsequent years owing to free pricing many unscrupulous promoters, who raised money from the capital market, proved to be fly-by-night operaton This led to an erosion in the investors' confidence. The M S Shoes case, one such scam which took place in March 1995, put a break on new issue activity

A brief history of the rise of equity trading in India

July 9, 1875: Native brokers form the Native Share and Stock Brokers' Association in Bombay. Membership fee is Re. 1. The association has 318 members.

1899: Bombay Stock Exchange acquires own premises.

1921: Clearing houses are established for settlement of trades as volumes increase.

1923: KR P Shroff becomes the honorary president of BSE. 1925: Bombay Securities Contract Control Act (BSCCA) comes into force. December 1, 1939: Stock exchange building is acquired.

1943: Forward trading banned till 1946. Only ready to deliver and hand delivery contracts permitted. 1956: Securities Contract Regulation Act drafted on the lines of BSCCA comes into force. 1957: BSE becomes the first exchange in India to get permanent recognition. 1964: Unit Trust of India (UTI) is born

April 1, 1966: KR P Shroff retires and Phiroze J Jeejeebhoy becomes chairman.

June 29, 1969: Morarji Desai bans forward trading.

1973: Construction of PI Towers, named after late Phirore Jamshedji Jeejeebhoy, starts.

January 2, 1986: BSE Sensex launched as the first stock market index with 1978-79 as the base year November 1987: SBI Mutual Fund launches Magnum Regular Income Scheme.

April 1988: Securities and Exchange Board of India (SEBI) set up.

January 1992: SEBI given statutory powers.

May 1992: Harshad Mehta securities scam breaks.

May 27, 1992: Reliance is the first Indian company to make a GDR issue.

May 30, 1992: The Capital Issues Control Act. 1947 is repealed.

September 1992: Foreign institutional investors are permitted to invest in the Indian securities market.

November 1992: Finance Minister Manmohan Singh inaugurates Over the Counter Exchange of India.

October 30, 1993: The first private sector mutual fund. Kothari Pioncer Mutual Fund, begins operations.

1993: SEBI bans badla trading on BSE

June 1994: NSE commences operations in wholesale debt market segment. **November 1994:** The capital market segment INSE goes on stream. Trading is screen based for the first time in Indi

March 1995: BSE on line trading system (BOLT) replaces open outery system. April 1995: The National Securities Clearing Corporation Limited, India's first clearing corporation is set up.

October 1995: NSE overtakes BSE as the largest stock exchange in terms of volume of trading

April 1996: Nifty is born. The National Securities Clearing Corporation Limited commences operations.

November 1996: The National Securities Depository Limited is created.

May 1997: BSE introduces screen based trading.

February 1997: SEBI releases norms for takcovers and acquisitions.

November 1998: SEBI recognises Interconnected Stock Exchange founded by 15 regional stock exchanges. This exchange starts functioning in February 1999

February 1998.: Launch of automated lending and borrowing mechanism (ALBM) on NSE.

March 11, 1999: Infosys Technologies is the first company to be listed on NASDAQ through a public offering of American Depository Receipts.

March 22, 1999: Central Depository Services (India) promoted by BSE commences operations.

September 1999: ICICI is the first Indian company to be listed on the New York Stock Exchange (NYSE)

October 11, 1999: For the first time in BSE's history, the Sensex closes above the 5,000 mark at 5,031.78.

January 2000: BSE creates a Z' category of scrips in addition to A, B1, and B2 comprising scrips that breached or failed to comply with the listing agreement.

February 2000: Internet trading commences on NSE On February 14, 2000, BSE sensex hits all-time high of 6.150. On February 21, NSE records peak market capitalisation of Rs 11,94,282 crore.

April 10, 2000: The Sensex is revamped to include Dr. Reddy's Lab. Reliance Petroleum, Satyam Computers and Zee Telefilms replacing Indian Hotels, Tata Chemicals, Tata Power, and IDBI.

June 2000: BSE and NSE introduce derivatives trading in the form of index futures.

July 9, 2000: BSE turns 125. October 19, 2000: Wipro lists on the NYSE.

January 22, 2001: Borrowing and Lending Securities Scheme (BLESS) launched on BSE to promote securities lending and borrowing activities.

March 2001: Ketan Parekh scam breaks. SEBI suspends all the broker directors of the BSE in relation to the KP scam.

May 2001: BSE advises compulsory demat for B2 scrips.

June 2001: Index options start trading on NSE.

UNIT-IV

Theories of Banking

Meaning of Commercial Banks:

A commercial bank is a financial institution which performs the functions of accepting deposits from the general public and giving loans for investment with the aim of earning profit.

In fact, commercial banks, as their name suggests, axe profit-seeking institutions, i.e., they do banking business to earn profit.

They generally finance trade and commerce with short-term loans. They charge high rate of interest from the borrowers but pay much less rate of Interest to their depositors with the result that the difference between the two rates of interest becomes the main source of profit of the banks. Most of the Indian joint stock Banks are Commercial Banks such as Punjab National Bank, Allahabad Bank, Canara Bank, Andhra Bank, Bank of Baroda, etc.

Functions of Commercial Banks

The two most distinctive features of a commercial bank are borrowing and lending, i.e., acceptance of deposits and lending of money to projects to earn Interest (profit). In short, banks borrow to lend. The rate of interest offered by the banks to depositors is called the borrowing rate while the rate at which banks lend out is called lending rate.

The difference between the rates is called 'spread' which is appropriated by the banks. Mind, all financial institutions are not commercial banks because only those which perform dual functions of (i) accepting deposits and (ii) giving loans are termed as commercial banks. For example, post offices are not bank because they do not give loans. Functions of commercial banks are classified in to two main categories—(A) Primary functions and (B) Secondary functions.

Let us know about each of them:

(A) Primary Functions:

1. It accepts deposits:

A commercial bank accepts deposits in the form of current, savings and fixed deposits. It collects the surplus balances of the Individuals, firms and finances the temporary needs of commercial

transactions. The first task is, therefore, the collection of the savings of the public. The bank does this by accepting deposits from its customers. Deposits are the lifeline of banks.

Deposits are of three types as under:

(i) Current account deposits:

Such deposits are payable on demand and are, therefore, called demand deposits. These can be withdrawn by the depositors any number of times depending upon the balance in the account. The bank does not pay any Interest on these deposits but provides cheque facilities. These accounts are generally maintained by businessmen and Industrialists who receive and make business payments of large amounts through cheques.

(ii) Fixed deposits (Time deposits):

Fixed deposits have a fixed period of maturity and are referred to as time deposits. These are deposits for a fixed term, i.e., period of time ranging from a few days to a few years. These are neither payable on demand nor they enjoy cheque facilities.

They can be withdrawn only after the maturity of the specified fixed period. They carry higher rate of interest. They are not treated as a part of money supply Recurring deposit in which a regular deposit of an agreed sum is made is also a variant of fixed deposits.

(iii) Savings account deposits:

These are deposits whose main objective is to save. Savings account is most suitable for individual households. They combine the features of both current account and fixed deposits. They are payable on demand and also withdraw able by cheque. But bank gives this facility with some restrictions, e.g., a bank may allow four or five cheques in a month. Interest paid on savings account deposits in lesser than that of fixed deposit.

Difference between demand deposits and time (term) deposits:

Two traditional forms of deposits are demand deposit and term (or time) deposit:

(i) Deposits which can be withdrawn on demand by depositors are called demand deposits, e.g., current account deposits are called demand deposits because they are payable on demand but saving account deposits do not qualify because of certain conditions on withdrawal. No interest is

paid on them. Term deposits, also called time deposits, are deposits which are payable only after the expiry of the specified period.

(ii) Demand deposits do not carry interest whereas time deposits carry a fixed rate of interest.

(iii) Demand deposits are highly liquid whereas time deposits are less liquid,

(iv) Demand deposits are chequable deposits whereas time deposits are not.

2. It gives loans and advances:

The second major function of a commercial bank is to give loans and advances particularly to businessmen and entrepreneurs and thereby earn interest. This is, in fact, the main source of income of the bank. A bank keeps a certain portion of the deposits with itself as reserve and gives (lends) the balance to the borrowers as loans and advances in the form of cash credit, demand loans, short- run loans, overdraft as explained under.

(i) Cash Credit:

An eligible borrower is first sanctioned a credit limit and within that limit he is allowed to withdraw a certain amount on a given security. The withdrawing power depends upon the borrower's current assets, the stock statement of which is submitted by him to the bank as the basis of security. Interest is charged by the bank on the drawn or utilised portion of credit (loan).

(ii) Demand Loans:

A loan which can be recalled on demand is called demand loan. There is no stated maturity. The entire loan amount is paid in lump sum by crediting it to the loan account of the borrower. Those like security

brokers whose credit needs fluctuate generally, take such loans on personal security and financial assets.

(iii) Short-term Loans:

Short-term loans are given against some security as personal loans to finance working capital or as priority sector advances. The entire amount is repaid either in one instalment or in a number of instalments over the period of loan.

Investment:

Commercial banks invest their surplus fund in 3 types of securities:

(i) Government securities, (ii) Other approved securities and (iii) Other securities. Banks earn interest on these securities.

(B) Secondary Functions:

Apart from the above-mentioned two primary (major) functions, commercial banks perform the following secondary functions also.

3. Discounting bills of exchange or bundles:

A bill of exchange represents a promise to pay a fixed amount of money at a specific point of time in future. It can also be encashed earlier through discounting process of a commercial bank. Alternatively, a bill of exchange is a document acknowledging an amount of money owed in consideration of goods received. It is a paper asset signed by the debtor and the creditor for a fixed amount payable on a fixed date. It works like this.

Suppose, A buys goods from B, he may not pay B immediately but instead give B a bill of exchange stating the amount of money owed and the time when A will settle the debt. Suppose, B wants the money immediately, he will present the bill of exchange (Hundi) to the bank for discounting. The bank will deduct the commission and pay to B the present value of the bill. When the bill matures after specified period, the bank will get payment from A.

4. Overdraft facility:

An overdraft is an advance given by allowing a customer keeping current account to overdraw his current account up to an agreed limit. It is a facility to a depositor for overdrawing the amount than the balance amount in his account.

In other words, depositors of current account make arrangement with the banks that in case a cheque has been drawn by them which are not covered by the deposit, then the bank should grant overdraft and honour the cheque. The security for overdraft is generally financial assets like shares, debentures, life insurance policies of the account holder, etc.

Difference between Overdraft facility and Loan:

(i) Overdraft is made without security in current account but loans are given against security.

(ii) In the case of loan, the borrower has to pay interest on full amount sanctioned but in the case of overdraft, the borrower is given the facility of borrowing only as much as he requires.

(iii) Whereas the borrower of loan pays Interest on amount outstanding against him but customer of overdraft pays interest on the daily balance.

5. Agency functions of the bank:

The bank acts as an agent of its customers and gets commission for performing agency functions as under:

(i) Transfer of funds:

It provides facility for cheap and easy remittance of funds from place-to-place through demand drafts, mail transfers, telegraphic transfers, etc.

(ii) Collection of funds:

It collects funds through cheques, bills, bundles and demand drafts on behalf of its customers.

(iii) Payments of various items:

It makes payment of taxes. Insurance premium, bills, etc. as per the directions of its customers.

(iv) Purchase and sale of shares and securities:

It buys sells and keeps in safe custody securities and shares on behalf of its customers.

(v) Collection of dividends, interest on shares and debentures is made on behalf of its customers.

(iv) Acts as Trustee and Executor of property of its customers on advice of its customers.

(vii) Letters of References:

It gives information about economic position of its customers to traders and provides similar information about other traders to its customers.

6. Performing general utility services:

The banks provide many general utility services, some of which are as under:

(i) Traveller's cheques .The banks issue traveler's cheques and gift cheques.

(ii) Locker facility. The customers can keep their ornaments and important documents in lockers for safe custody.

(iii) Underwriting securities issued by government, public or private bodies.

(iv) Purchase and sale of foreign exchange (currency).

Credit (Money) Creation by Commercial bank

RBI produces money while commercial banks increase the supply of money by creating credit which is also treated as money creation. Commercial banks create credit in the form of secondary deposits.

total deposits of a bank is of two types:

(i) Primary deposits (initial cash deposits by the public) and (ii) Secondary deposits (deposits that arise due to loans given by the banks which are assumed to be redeposited in the bank.) Money creation by commercial banks is determined by two factors namely (i) Primary deposits i.e. initial cash deposits and (ii) Legal Reserve Ratio (LRR), i.e., minimum ratio of deposits which is legally compulsory for the commercial banks to keep as cash in liquid form. Broadly when a bank receives cash deposits from the public, it keeps a fraction of deposits as cash reserve (LRR) and uses the remaining amount for giving loans. In the process of lending money, banks are able to create credit through secondary deposits many times more than initial deposits (primary deposits).

How? It is explained below.

Process of money (credit) creation:

Suppose a man, say X, deposits Rs 2,000 with a bank and the LRR is 10%, which means the bank keeps only the minimum required Rs 200 as cash reserve (LRR). The bank can use the remaining amount Rs 1800 (= 2000 – 200) for giving loan to someone. (Mind, loan is never given in cash but it is redeposited in the bank as demand deposit in favour of borrower.) The bank lends Rs 1800 to, say, Y who is actually not given loan but only demand deposit account is opened in his name and the amount is credited to his account.

This is the first round of credit creation in the form of secondary deposit (Rs 1800), which equals 90% of primary (initial) deposit. Again 10% of Y's deposit (i.e., Rs 180) is kept by the bank as cash reserve (LRR) and the balance Rs 1620 (=1800 – 180) is advanced to, say, Z. The bank gets new demand deposit of Rs 1620. This is second round of credit creation which is 90% of first round of increase of Rs 1800. The third round of credit creation will be 90% of second round of 1620. This is not the end of story.

The process of credit creation goes on continuously till derivative deposit (secondary deposit) becomes zero. In the end, volume of total credit created in this way becomes multiple of initial

(primary) deposit. The quantitative outcome is called money multiplier. If the bank succeeds in creating total credit of, says Rs 18000, it means bank has created 9 times of primary (initial) deposit of Rs 2000. This is what is meant by credit creation.

In short, money (or credit) creation by commercial banks is determined by (i) amount of initial (primary) deposits and (ii) LRR. The multiple is called credit creation or money multiplier.

Symbolically:

Total Credit creation = Initial deposits x 1/LPR.

Money Multiplier:

It means the multiple by which total deposit increases due to initial (primary) deposit. Money multiplier (or credit multiplier) is the inverse of Legal Reserve Ratio (LRR). If LRR is 10%, i.e., 10/100or 0.1, then money multiplier = 1/0.1 = 10.

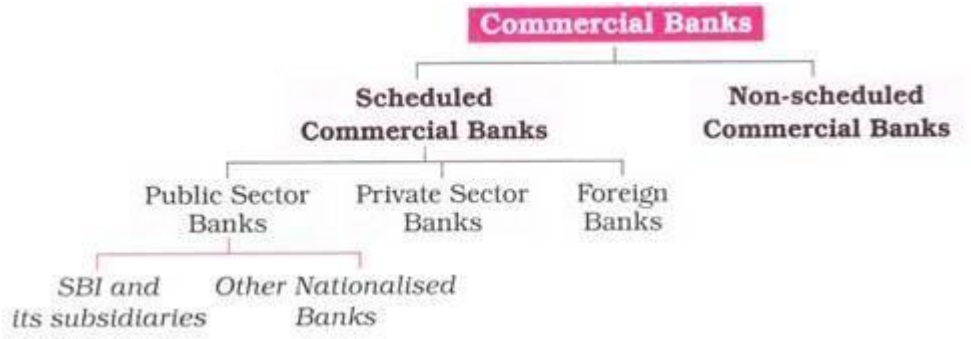
Smaller the LRR, larger would be the size of money multiplier credited to his account. He is simply given the cheque book to draw cheques when he needs money. Again, 20% of Sohan's deposit which is considered a safe limit is kept for him by the bank and the balance Rs 640 (= 80% of 800) is advanced to, say, Mohan. Thus, the process of credit creation goes on continuously and in the end volume of total credit created in this way becomes multiple of initial cash deposit.

The bank is able to lend money and charge interest without parting with cash because the bank loan simply creates a deposit (or credit) for the borrower. If the bank succeeds in creating credit of, say, Rs 15,000, it means that the bank has created credit 15 times of the primary deposit of Rs 1,000. This is what is meant by credit creation.

Similarly, the bank creates credit when it buys securities and pays the seller with its own cheque. The cheque is deposited in some bank and a deposit (credit) is created for the seller of securities. This is also called credit creation. As a result of credit creation, money supply in the economy becomes higher. It is because of this credit creation power of commercial banks (or banking system) that they are called factories of credit or manufacturer of money.

Types of Commercial Banks:

The following chart depicts main types of commercial banks in India.



Scheduled Banks and Non-scheduled Banks:

Commercial banks are classified in two broad categories—scheduled banks and non-scheduled banks. Scheduled banks are those banks which are included in Second Schedule of Reserve Bank of India. A scheduled bank must have a paid-up capital and reserves of at least Rs 5 lakh. RBI provides special facilities including credit to scheduled banks. Some of important scheduled banks are State Bank of India and its subsidiary banks, nationalised banks, foreign banks, etc.

Non-scheduled Banks:

The banks which are not included in Second Schedule of RBI are known as non-scheduled banks. A non-scheduled bank has a paid-up capital and reserves of less than Rs 5 lakh. Clearly, such banks are small banks and their field of operation is also limited.

A passing reference to some other types of commercial banks will be informative.

Industrial Banks provide finance to industrial concerns by subscribing (buying) shares and debentures of companies and also give long-term loans to acquire machinery, plants, etc. Foreign Exchange Banks are commercial banks which are branches of foreign banks and facilitate international financial transactions through buying and selling of foreign bills.

Agricultural Banks finance agriculture and provide long-term loans for buying tractors and installing tube-wells. Saving Banks mobilise small savings of the people in savings account, e.g., Post office saving bank. Cooperative Banks are organised by the people for their own collective benefits. They advance loans to their members at fair rate of interest.

Significance of Commercial Banks:

Commercial banks play such an important role in the economic development of a country that modern industrial economy cannot exist without them. They constitute nerve centre of production, trade and industry of a country. In the words of Wick-sell, "Bank is the heart and central point of modern exchange economy."

Non-Banking Financial Institutions

The non-banking financial institutions are the organizations that facilitate bank-related financial services but does not have banking licenses.

Non- Banking Financial Institutions – Types

Mutual Funds Mediators between people and stock exchange

- Money collected from people by selling their units is called corpus
- Oldest Mutual Fund company in India is UTI (Unit Trust of India)
- Mutual Funds nearly provides all the considerations

Insurance Companies

- Collect money from the public through the sale of insurance policies
- There are two types of Insurance – Life Insurance and General Insurance
    - General Insurance includes Loss of property, car, house etc.
    - It also includes Health Insurance

IRDA Act, 1999 – Insurance Regulatory and Development Authority Act Insurance companies were opened up for private companies Objective was to promote competition FDI was allowed upto 26% (Recently increased to 49%) IRDA was established as the regulator of the insurance sector

1. LIC – Life Insurance Corporation

- Set up in 1956 by the government by nationalising all the existing private sector life insurance companies
- This was done due to large scale defaults

2. GIC – General Insurance Corporation

- It was established in 1973
- Subsidiaries of GIC are:-
    - NICL – National Insurance Company of India Limited
    - United India Insurance Company Limited
    - Oriental Insurance Company of India Limited
    - New India Insurance Company of India Limited

1. ULIP – Unit Linked Insurance Plans

- A mixture of Insurance and Mutual Funds

Hedge Funds

- These are mutual funds for rich investors
- Funds are raised through sale of their unit to High net worth Individuals and Institutional Investors
- Units of these are usually sold in chunks/groups
- There is a lock –in period for Hedge funds before which funds cannot be withdrawn
- Corpus is an investment in risky instruments with a long term perspective

Venture Capital Firms/ Companies

- They provide finance and technical assistance to firms which undertake a business project based on innovative ventures
- They provide finance for the commercial application of new technology

Merchant banks (Investment Banks)

- Merchant banks provide financial consultancy services
- They advise firms on fundraising, manage IPO of firms, underwrite new issues and facilitate demat• trading.

Finance Companies (Loan Companies)

- Financial Institutions raise funds from the public for lending purpose
- e.g. – Muthoot Finance, Cholamandalam

Micro Finance Institutions (MFI)

- Raise funds from the public for lending to weaker sections

- In India, they mainly raise funds from banks
- e.g. – Basix, Bandhan, SKS Micro Finance.

To know more about micro-finance in India, check the linked article.

Vulture Funds

- These funds buy stocks of companies which are nearing bankruptcy at a very low price.
- After purchasing such stocks they initiate the recovery process to increase the price of shares and sell it at a later point of time

Leasing Companies

- They purchase equipment and machinery and provide the same to companies on a lease.
- These companies charge rent on these machinery which is similar to EMI

With the increasing functions of NBFCs in the Indian Economy, the RBI (Reserve Bank of India) announced the notification **Master Direction – IT (Information Technology) Structure** for the Non-Banking Financial Company sector in 2017. The directions on the Information Technology Framework for the NBFC sector are expected to increase protection and efficiency in processes, leading to advantages for NBFCs or their clients.

While big Non-Banking Financial Companies gaze at a strict deadline, smaller NBFCs, especially Fintech Start-ups, have a massive problem at hand; a distinctiveness crisis. The business models of start-ups like **BankBazaar** consent that they don't become an NBFC, while the operations' nature of start-ups like **Lendingkart** makes them an NBFC as part of the legal compliance. Scroll down to check the functions of NBFCs in India.

What is an NBFC?

Before we discuss the functions of NBFCs in India, let's first understand the meaning of NBFCs. NBFCs or Non-Banking Financial Companies play an essential role in encouraging comprehensive growth in India by providing the varied financial requirements of bank excluded clients. Moreover, Non-Banking Financial Companies often take a lead role in delivering innovative financial services to **MSMEs** most appropriate to their business needs. Non-Banking Financial Companies (NBFCs) play a vital role in participating in the country's economic development by furnishing a fillip to employment generation, bank credit, transportation, and wealth creation in rural areas and to aid financially weaker sections of society. Emergency services such as financial help and guidance are also furnished to the clients in matters relating to insurance.

Non-Banking Financial Companies are financial mediators involved in the business of accepting deposits providing credit and play an essential role in channelising the limited financial resources to capital formation. They supplement the functions of NBFCs in meeting the rising financial requirements of the corporate sector, providing credit to the unorganised sector & small local borrowers. But, they don't include services concerning industrial activity, sale, agriculture activity, purchase, or construction of the immovable property. In India, regardless of being different from

banks, Non-Banking Financial Companies are bound by the Indian Banking industry rules & regulations.

NBFCs concentrates on business-related loans & advances, acquisition of stock, debentures, shares, securities, bonds, and securities issued by the Indian Government or local authority or other securities of like marketable nature, hire-purchase, chit business, leasing, and insurance business.

The banking sector would constantly be the most vital sector in the field of business because of its credibility in aiding infrastructural development, supporting the manufacturing and even being the backbone for the regular man's money. However, regardless of this, the functions of NBFCs are vital, and their presence in a nation would only increase the Economy in the correct direction.

Functions of NBFCs in India

Following are some essential functions of NBFCs:

1. **Retail Financing**: Entities that offer short-term funds for loans against gold, shares, property, majorly for consumption purposes.
2. **Infrastructural Funding**: This is the most significant section where foremost Non-Banking Financial Companies deal in. A lot part of this segment alone makes up a significant portion

of funds lent amongst the different segments. This mainstream comprises Railways or Metros, Real Estate, Ports, Flyovers, Airports, etc.

3. **Hire Purchase Services**: It's a way through which the seller provides the products or goods to the buyer without transferring the goods' ownership. The payment of the goods is made in instalments. Once the buyer pays all the instalments of the goods or products, the ownership of the good is automatically transferred to the buyer.
4. **Trade Finance**: Entities dealing in distributor or dealer finance so that they can for vendor finance, working capital requirements, & other business loans.
5. **Asset Management Companies**: Asset Management Companies (AMCs) are those companies that include fund managers (who invest inequity shares to gain good gains) who invest the funds pooled by small investors & actively manage it.
6. **Venture Capital Services**: The entities that invest in small businesses are at their starting stage, but their accomplishment rate is high and is capable enough for adequate return in the coming time.
7. **Leasing Services**: The entities that deal in leasing or for a good understanding of this word we can recognise it in such a way that the way we rent a property or flat for living similarly these entities offer the property to small businesses or sometimes even larger ones who cannot afford it for whatsoever reason. The only difference between leasing & renting is that leasing contracts are made for a fixed period of time.

How NBFCs in India are Game-Changers that are Essential to the Economy?

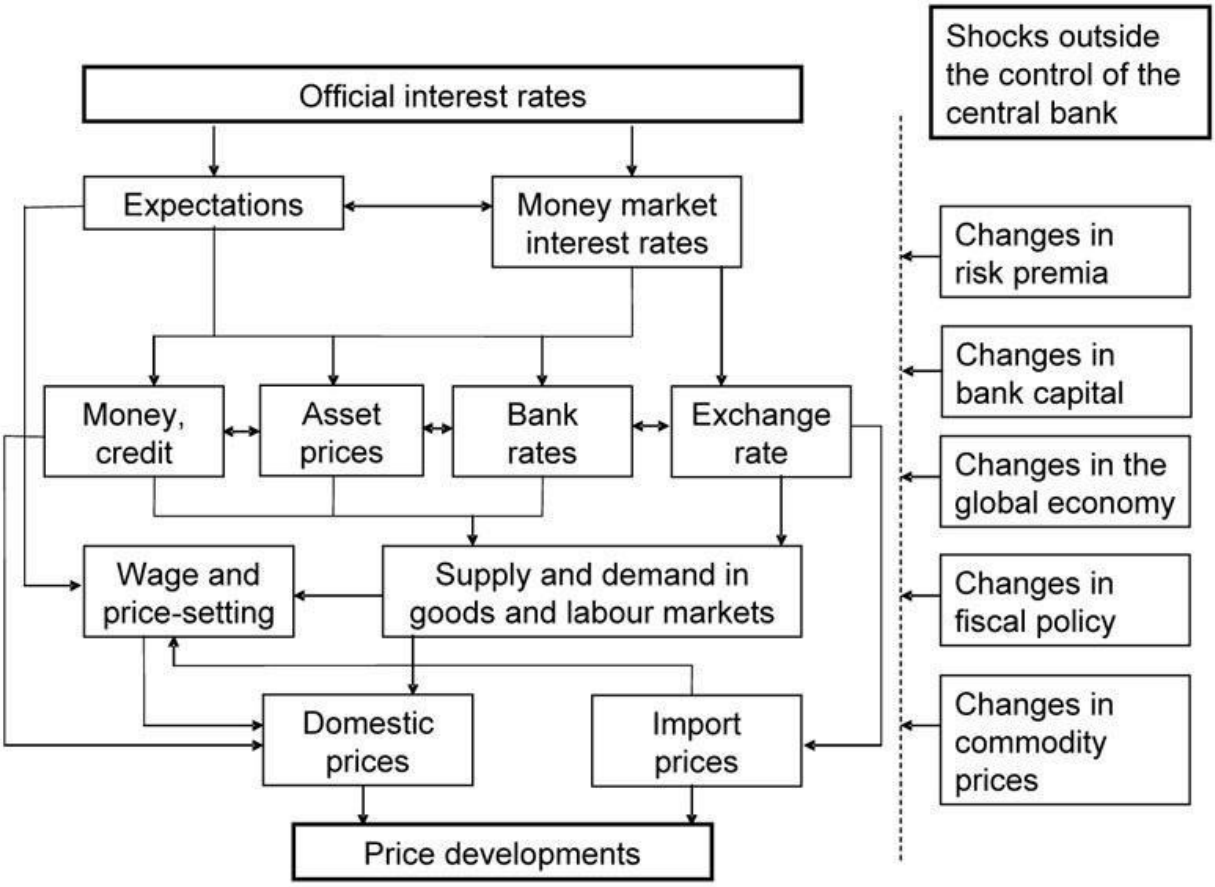
- **Growth:** In terms of growth rate, the Non-Banking Financial Company sector beat the banking sector between 2006 & 2013. On average, it grew approx 23% every year. This represents, it is contributing more to the Economy every year.
- **Promoting Comprehensive Growth**: Non-Banking Financial Companies provide an extensive variety of clients both in rural & urban areas. They finance projects of small-scale companies or entities, which is vital for the growth in rural areas. They also deliver small-

ticket loans for affordable housing projects. All these help encourage comprehensive development in the country.

- **Size of Sector**: The Non-Banking Financial Company sector has grown significantly in the past few years regardless of a slowdown in the Economy.
- **Infrastructure Lending**: Non-Banking Financial Companies contribute hugely to the Indian Economy by lending to infrastructure projects, which are essential to a growing country like India. Since they need a huge amount of funds and earn profits only over a long time duration, these are riskier projects and prevents banks from lending. In the past few years, NBFCs (Non-Banking Financial Companies) have contributed more to infrastructure lending than banks.
- **Profitability**: Non-Banking Financial Companies are more profitable than the banking sector because of lower costs. This aids them by offering cheaper loans to clients. As an outcome, Non-Banking Financial Companies' credit growth; the increase in the amount of money being borrowed to clients – is more than that of the banking sector with more clients opting for Non-Banking Financial Companies.

This is the process through which monetary policy decisions affect the economy in general and the price level in particular. The transmission mechanism is characterised by long, variable and uncertain time lags. Thus it is difficult to predict the precise effect of monetary policy actions on the economy and price level.

The chart below provides a schematic illustration of the main transmission channels of monetary policy decisions.



Change in official interest rates

The central bank provides funds to the banking system and charges interest. Given its monopoly power over the issuing of money, the central bank can fully determine this interest rate.

Affects banks and money-market interest rates

The change in the official interest rates affects directly money-market interest rates and, indirectly, lending and deposit rates, which are set by banks to their customers.

Affects expectations

Expectations of future official interest-rate changes affect medium and long-term interest rates. In particular, longer-term interest rates depend in part on market expectations about the future course of short-term rates.

Monetary policy can also guide economic agents' expectations of future inflation and thus influence price developments. A central bank with a high degree of credibility firmly anchors expectations of price stability. In this case, economic agents do not have to increase their prices for fear of higher inflation or reduce them for fear of deflation.

Affects asset prices

The impact on financing conditions in the economy and on market expectations triggered by monetary policy actions may lead to adjustments in asset prices (e.g. stock market prices) and the exchange rate. Changes in the exchange rate can affect inflation directly, insofar as imported goods are directly used in consumption, but they may also work through other channels.

Affects saving and investment decisions

Changes in interest rates affect saving and investment decisions of households and firms. For example, everything else being equal, higher interest rates make it less attractive to take out loans for financing consumption or investment.

In addition, consumption and investment are also affected by movements in asset prices via wealth effects and effects on the value of collateral. For example, as equity prices rise, share-owning households become wealthier and may choose to increase their consumption. Conversely, when equity prices fall, households may reduce consumption.

Asset prices can also have impact on aggregate demand via the value of collateral that allows borrowers to get more loans and/or to reduce the risk premia demanded by lenders/banks.

Affects the supply of credit

For example, higher interest rates increase the risk of borrowers being unable to pay back their loans. Banks may cut back on the amount of funds they lend to households and firms. This may also reduce the consumption and investment by households and firms respectively.

Leads to changes in aggregate demand and prices

Changes in consumption and investment will change the level of domestic demand for goods and services relative to domestic supply. When demand exceeds supply, upward price pressure is likely to occur. In addition, changes in aggregate demand may translate into tighter or looser conditions in labour and intermediate product markets. This in turn can affect price and wage-setting in the respective market.

Affects the supply of bank loans

Changes in policy rates can affect banks' marginal cost for obtaining external finance differently, depending on the level of a bank's own resources, or bank capital. This channel is particularly relevant in bad times such as a financial crisis, when capital is scarcer and banks find it more difficult to raise capital.

In addition to the traditional bank lending channel, which focuses on the quantity of loans supplied, a risk-taking channel may exist when banks' incentive to bear risk related to the provision of loans is affected. The risk-taking channel is thought to operate mainly via two mechanisms. First, low interest rates boost asset and collateral values. This, in conjunction with the belief that the increase in asset values is sustainable, leads both borrowers and banks to accept higher risks. Second, low interest rates make riskier assets more attractive, as agents search for higher yields. In the case of banks, these two effects usually translate into a softening of credit standards, which can lead to an excessive increase in loan supply.

Functions of RBI (The India's Central Bank)

Reserve Bank of India being an apex court of the center enjoys enormous power and functions under banking system in India. It has monopoly over the issue of bank-notes and monetary system of the country. These power and
functions as to issue of bank notes and currency system are governed by the Reserve Bank of India Act, 1934. Besides it the Banking Regulation Act, 1949 also empowers certain power and Function of the Reserve Bank.

Main Functions of RBI

Main functions are those functions which every central bank of each nation performs all over the world. Basically, these functions are in line with the objectives with which the bank is set up. It includes fundamental functions of the
Central Bank. They comprise the following tasks.

1. **Issue of Currency Notes:** The RBI has the sole right or authority or monopoly of issuing currency notes except one rupee note and coins of smaller denomination. These currency notes are legal tender issued by the RBI. Currently it is in denominations of Rs. 2, 5, 10, 20, 50, 100, 200 and 500. The RBI has powers not only to issue and withdraw but even to exchange these currency notes for other denominations. It issues these notes against the security of gold bullion, foreign securities, rupee coins, exchange bills and promissory notes and government of India bonds.
2. **Banker to other Banks**: The RBI being an apex monitory institution has obligatory powers to guide, help and direct other commercial banks in the country. The RBI can control the volumes of banks reserves and allow other banks to create credit in that proportion. Every commercial bank has to maintain a part of their reserves with its parent's viz. the RBI. Similarly, in need or in urgency these banks approach the RBI for fund. Thus, it is called as the lender of the last resort.
3. **Banker to the Government**: The RBI being the apex monitory body has to work as an agent of the central and state governments. It performs various banking function such as to accept deposits, taxes and make payments on behalf of the government. It works as a representative of the government even at the international level. It maintains government accounts, provides financial advice to the government. It manages government public debts and maintains foreign exchange reserves on behalf of the government. It provides overdraft facility to the government when it faces financial crunch.
4. **Exchange Rate Management:** It is an essential function of the RBI. In order to maintain stability in the external value of rupee, it has to prepare domestic policies in that direction. Also, it needs to prepare and implement the foreign exchange rate policy which will help in attaining the exchange rate stability. In order to maintain the exchange rate stability, it has to bring demand and supply of the foreign currency (U.S Dollar) close to each other.
5. **Credit Control Function**: Commercial bank in the country creates credit according to the demand in the economy. But if this credit creation is unchecked or unregulated then it leads the economy into inflationary cycles. On the other
credit creation is below the required limit then it harms the growth of the economy. As a central bank of the nation the RBI has to look for growth with price stability. Thus, it regulates the credit creation capacity of commercial banks
by using various credit control tools.
6. **Supervisory Function**: The RBI has been endowed with vast powers for supervising the banking system in the country. It has powers to issue license for setting up new banks, to open new branches, to decide minimum reserves, to inspect functioning of commercial banks in India and abroad, and to guide and direct the commercial banks in India. It can have periodical inspections an audit of the commercial banks in India.

Developmental / Promotional Functions of RBI

Along with the routine traditional functions, central banks especially in the developing country like India have to perform numerous functions. These functions are country specific functions and can change according to the requirements of that country. The RBI has been performing as a promoter of the financial system since its inception. Some of the major development functions of the RBI are maintained below.

1. **Development of the Financial System**: The financial system comprises the financial institutions, financial markets and financial instruments. The sound and efficient financial system is a precondition of the rapid economic development of the nation. The RBI has encouraged establishment of main banking and nonbanking institutions to cater to the credit requirements of diverse sectors of the economy.
2. **Development of Agriculture**: In an agrarian economy like ours, the RBI has to provide special attention for the credit need of agriculture and allied activities. It has successfully rendered service in this direction by increasing the flow of credit to this sector. It has earlier the Agriculture Refinance and Development Corporation (ARDC) to look after the credit, National Bank for Agriculture and Rural Development (NABARD) and Regional Rural Banks (RRBs).
3. **Provision of Industrial Finance**: Rapid industrial growth is the key to faster economic development. In this regard, the adequate and timely availability of credit to small, medium and large industry is very significant. In this regard the RBI has always been instrumental in setting up special financial institutions such as ICICI Ltd. IDBI, SIDBI and EXIM BANK etc.
4. **Provisions of Training**: The RBI has always tried to provide essential training to the staff of the banking industry. The RBI has set up the bankers' training colleges at several places. National Institute of Bank Management i.e NIBM, Bankers Staff College i.e BSC and College of Agriculture Banking i.e CAB are few to mention.
5. **Collection of Data:** Being the apex monetary authority of the country, the RBI collects process and disseminates statistical data on several topics. It includes interest rate, inflation, savings and investments etc. This data proves to be quite useful for researchers and policy makers.
6. **Publication of the Reports**: The Reserve Bank has its separate publication division. This division collects and publishes data on several sectors of the economy. The reports and bulletins are regularly published by the RBI. It includes RBI weekly reports, RBI Annual Report, Report on Trend and Progress of Commercial Banks India., etc. This information is made available to the public also at cheaper rates.
7. **Promotion of Banking Habits**: As an apex organization, the RBI always tries to promote the banking habits in the country. It institutionalizes savings and takes measures for an expansion of the banking network. It has set up many institutions such as the Deposit Insurance Corporation-1962, UTI-1964, IDBI-1964, NABARD-1982, NHB-1988, etc. These organizations develop and promote banking habits among the people. During economic reforms it has taken many initiatives for encouraging and promoting banking in India.
8. **Promotion of Export through Refinance**: The RBI always tries to encourage the facilities for providing finance for foreign trade especially exports from India. The Export-Import Bank of India (EXIM Bank India) and the Export Credit Guarantee Corporation of India (ECGC) are supported by refinancing their lending for export purpose.

Supervisory Functions of RBI

The reserve bank also performs many supervisory functions. It has authority to regulate and administer the entire banking and financial system. Some of its supervisory functions are given below.

1. **Granting license to banks**: The RBI grants license to banks for carrying its business. License is also given for opening extension counters, new branches, even to close down existing branches.
2. **Bank Inspection**: The RBI grants license to banks working as per the directives and in a prudent manner

without undue risk. In addition to this it can ask for periodical information from banks on various components of assets and liabilities.

3. **Control over NBFIs**: The Non-Bank Financial Institutions are not influenced by the working of a monitory policy. However, RBI has a right to issue directives to the NBFIs from time to time regarding their functioning. Through periodic inspection, it can control the NBFIs.

4. **Implementation of the Deposit Insurance Scheme**: The RBI has set up the Deposit Insurance Guarantee Corporation in order to protect the deposits of small depositors. All bank deposits below Rs. One lakh are insured with this corporation. The RBI work to implement the Deposit Insurance Scheme in case of a bank failure.

Reserve Bank of India's Credit Policy

The Reserve Bank of India has a credit policy which aims at pursuing higher growth with price stability. Higher economic growth means to produce more quantity of goods and services in different sectors of an economy; Price stability however does not mean no change in the general price level but to control the inflation. The credit policy aims at increasing finance for the agriculture and industrial activities. When credit policy is implemented, the role of other commercial banks is very important. Commercial banks flow of credit to different sectors of the economy depends on the actual cost of credit and arability of funds in the economy.

UNIT-V

Monetary policy

Monetary policy refers to the policy of the central bank with regard to the use of monetary instruments under its control to achieve the goals specified in the Act.

The Reserve Bank of India (RBI) is vested with the responsibility of conducting monetary policy. This responsibility is explicitly mandated under the Reserve Bank of India Act, 1934.

The goal(s) of monetary policy

The primary objective of monetary policy is to maintain price stability while keeping in mind the objective of growth. Price stability is a necessary precondition to sustainable growth.

In May 2016, the Reserve Bank of India (RBI) Act, 1934 was amended to provide a statutory basis for the implementation of the flexible inflation targeting framework.

The amended RBI Act also provides for the inflation target to be set by the Government of India, in consultation with the Reserve Bank, once in every five years. Accordingly, the Central Government notified in the Official Gazette 4 per cent Consumer Price Index (CPI) inflation as the target for the period from August 5, 2016 to March 31, 2021 with the upper tolerance limit of 6 per cent and the lower tolerance limit of 2 per cent. On March 31, 2021, the Central Government retained the inflation target and the tolerance band for the next 5-year period – April 1, 2021 to March 31, 2026.

The Central Government notified the following as factors that constitute failure to achieve the inflation target: (a) the average inflation is more than the upper tolerance level of the inflation target for any three consecutive quarters; or (b) the average inflation is less than the lower tolerance level for any three consecutive quarters.

Prior to the amendment in the RBI Act in May 2016, the flexible inflation targeting framework was governed by an Agreement on Monetary Policy Framework between the Government and the Reserve Bank of India of February 20, 2015.

The Monetary Policy Framework

The amended RBI Act explicitly provides the legislative mandate to the Reserve Bank to operate the monetary policy framework of the country.

The framework aims at setting the policy (repo) rate based on an assessment of the current and evolving macroeconomic situation; and modulation of liquidity conditions to anchor money market rates at or around the repo rate. Repo rate changes transmit through the money market to the entire the financial system, which, in turn, influences aggregate demand – a key determinant of inflation and growth.

Once the repo rate is announced, the operating framework designed by the Reserve Bank envisages liquidity management on a day-to-day basis through appropriate actions, which aim at anchoring the operating target – the weighted average call rate (WACR) – around the repo rate.

The operating framework is fine-tuned and revised depending on the evolving financial market and monetary conditions, while ensuring consistency with the monetary policy stance. The liquidity management framework was last revised significantly in April 2016.

The Monetary Policy Process

Section 45ZB of the amended RBI Act, 1934 also provides for an empowered six-member monetary policy committee (MPC) to be constituted by the Central Government by notification in the Official Gazette. The first such MPC was constituted on September 29, 2016. The present MPC members, as notified by the Central Government in the Official Gazette of October 5, 2020, are as under:

1. 1. Governor of the Reserve Bank of India—Chairperson, ex officio;
2. 2. Deputy Governor of the Reserve Bank of India, in charge of Monetary Policy—Member, ex officio;
3. 3. One officer of the Reserve Bank of India to be nominated by the Central Board—Member, ex officio;
4. 4. Prof. Ashima Goyal, Professor, Indira Gandhi Institute of Development Research —Member;

5. 5. Prof. Jayanth R. Varma, Professor, Indian Institute of Management, Ahmedabad—Member; and

6. 6. Dr. Shashanka Bhide, Senior Advisor, National Council of Applied Economic Research, Delhi—Member.

(Members referred to at 4 to 6 above, will hold office for a period of four years or until further orders, whichever is earlier.)

The MPC determines the policy interest rate required to achieve the inflation target. The first meeting of the MPC was held on October 3 and 4, 2016 in the run up to the Fourth Bi-monthly Monetary Policy Statement, 2016-17.

The Reserve Bank's Monetary Policy Department (MPD) assists the MPC in formulating the monetary policy. Views of key stakeholders in the economy, and analytical work of the Reserve Bank contribute to the process for arriving at the decision on the policy repo rate.

The Financial Markets Operations Department (FMOD) operationalises the monetary policy, mainly through day-to-day liquidity management operations. The Financial Markets Committee (FMC) meets daily to review the liquidity conditions so as to ensure that the operating target of the weighted average call money rate (WACR) is aligned with the repo rate.

Before the constitution of the MPC, a Technical Advisory Committee (TAC) on monetary policy with experts from monetary economics, central banking, financial markets and public finance advised the Reserve Bank on the stance of monetary policy. However, its role was only advisory in nature. With the formation of MPC, the TAC on Monetary Policy ceased to exist.

Instruments of Monetary Policy

There are several direct and indirect instruments that are used for implementing monetary policy.

- **Repo Rate:** The (fixed) interest rate at which the Reserve Bank provides overnight liquidity to banks against the collateral of government and other approved securities under the liquidity adjustment facility (LAF).

- **Reverse Repo Rate:** The (fixed) interest rate at which the Reserve Bank absorbs liquidity, on an overnight basis, from banks against the collateral of eligible government securities under the LAF.

- **Liquidity Adjustment Facility (LAF):** The LAF consists of overnight as well as term repo auctions. Progressively, the Reserve Bank has increased the proportion of liquidity injected under fine-tuning variable rate repo auctions of range of tenors. The aim of term repo is to help develop the inter-bank term money market, which in turn can set market based benchmarks for pricing of loans and deposits, and hence improve transmission of monetary policy. The Reserve Bank also conducts variable interest rate reverse repo auctions, as necessitated under the market conditions.

- **Marginal Standing Facility (MSF):** A facility under which scheduled commercial banks can borrow additional amount of overnight money from the Reserve Bank by dipping into their Statutory Liquidity Ratio (SLR) portfolio up to a limit at a penal rate of interest. This provides a safety valve against unanticipated liquidity shocks to the banking system.

- **Corridor:** The MSF rate and reverse repo rate determine the corridor for the daily movement in the weighted average call money rate.

- **Bank Rate:** It is the rate at which the Reserve Bank is ready to buy or rediscount bills of exchange or other commercial papers. The Bank Rate is published under Section 49 of the Reserve Bank of India Act, 1934. This rate has been aligned to the MSF rate and, therefore, changes automatically as and when the MSF rate changes alongside policy repo rate changes.

- **Cash Reserve Ratio (CRR):** The average daily balance that a bank is required to maintain with the Reserve Bank as a share of such per cent of its Net demand and time liabilities (NDTL) that the Reserve Bank may notify from time to time in the Gazette of India.

- **Statutory Liquidity Ratio (SLR):** The share of NDTL that a bank is required to maintain in safe and liquid assets, such as, unencumbered government securities, cash and gold. Changes in SLR often influence the availability of resources in the banking system for lending to the private sector.

- **Open Market Operations (OMOs):** These include both, outright purchase and sale of government securities, for injection and absorption of durable liquidity, respectively.

- **Market Stabilisation Scheme (MSS):** This instrument for monetary management was introduced in 2004. Surplus liquidity of a more enduring nature arising from large capital inflows is absorbed through sale of short-dated government securities and treasury bills. The cash so mobilised is held in a separate government account with the Reserve Bank.

For current operative policy rates, please see "Current Rates" section on the home page.

Open and Transparent Monetary Policy Making

Under the amended RBI Act, the monetary policy making is as under:

The MPC is required to meet at least four times in a year.

The quorum for the meeting of the MPC is four members.

Each member of the MPC has one vote, and in the event of an equality of votes, the Governor has a second or casting vote.

The resolution adopted by the MPC is published after conclusion of every meeting of the MPC in accordance with the provisions of Chapter III F of the Reserve Bank of India Act, 1934.

On the 14th day, the minutes of the proceedings of the MPC are published which include:

a. a. the resolution adopted by the MPC;

b. b. the vote of each member on the resolution, ascribed to such member; and

c. c. the statement of each member on the resolution adopted.

Once in every six months, the Reserve Bank is required to publish a document called the Monetary Policy Report to explain:

a. a. the sources of inflation; and

b. b. the forecast of inflation for 6-18 months ahead.

Introduction to Monetary Policy

Central Bank Objectives:

Avoiding large, sudden foreign exchange outflows!

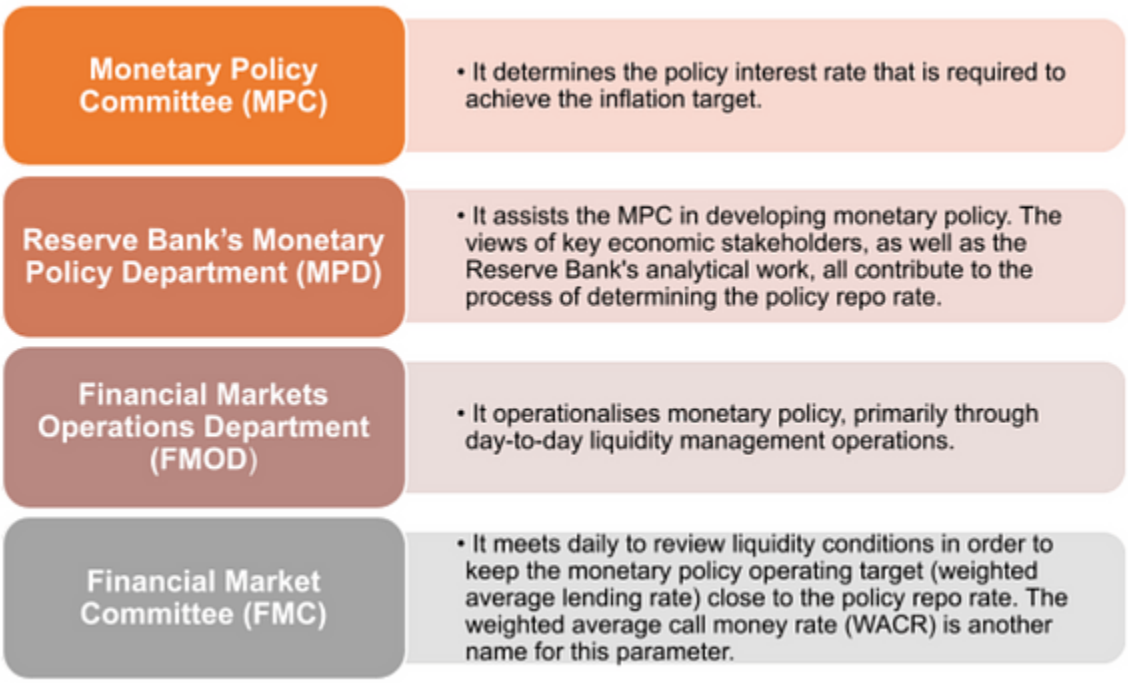
- Shortage of foreign exchange can lead to loss ofconfidence in domestic currency
- Exchange rate needs to be competitive
- Financial System Stability
- Well-functioning credit and payment system

Central Bank Objectives & Functions

Monetary Stability	• **Monetary policy** • **Exchange rate policy**
Financial Stability	• **Prudential policy** • **Supervision, oversight**
Policy Operation Functions	• **FX intervention** • **FX reserve management** • **Liquidity management** • **Lender of last resort**

Monetary Policy & Economic Growth

Monetary Policy Process



Monetary Policy Instruments

Monetary Policy Instruments

Monetary policy is implemented using a variety of direct and indirect instruments.

Repo Rate

The (fixed) interest rate at which the Reserve Bank provides overnight liquidity to banks in exchange for the government and other approved securities as collateral under the liquidity adjustment facility (LAF).

Reverse Repo Rate

The (fixed) interest rate at which the Reverse Bank absorbs liquidity from banks on an overnight basis in exchange for eligible government securities under the LAF.

Liquidity Adjustment Facility (LAF)

- The LAF is made up of both overnight and term repo auctions.
- The Reserve Bank has gradually increased the proportion of liquidity injected through fine-tuning variable rate repo auctions of various tenors.
- The goal of the term repo is to help develop the inter-bank term money market, which in turn can set market-based benchmarks for loan and deposit pricing and thus improve monetary policy transmission.
- The Reserve Bank also conducts variable interest rate reverse repo auctions as market conditions dictate.

Marginal Standing Facility (MSF)

- A facility through which scheduled commercial banks can borrow an additional amount of overnight money from the Reserve Bank by dipping into their **Statutory Liquidity Ratio (SLR)** portfolio up to a certain limit at a penal rate of interest.
- This acts as a safety valve for the banking system in the event of unexpected liquidity shocks.

Bank Rate

- It is the rate at which the Reserve Bank is willing to purchase or rediscount bills of exchange or other commercial papers.
- Section 49 of the **Reserve Bank of India Act, 1934** mandates the publication of the Bank Rate.
- This rate has been aligned with the MSF rate and, as a result, changes automatically when the MSF rate and the policy repo rate change.

Cash Reserve Ratio (CRR)

The average daily balance that a bank is required to maintain with the Reserve Bank as a share of such percentage of its **Net demand and time liabilities (NDTL)** as specified by the Reserve Bank in the Gazette of India from time to time.

Statutory Liquidity Ratio (SLR)

- The percentage of NDTL that a bank must keep in safe and liquid assets such as unencumbered government securities, cash, and gold.
- SLR changes frequently have an impact on the availability of resources in the banking system for lending to the private sector.

Open Market Operations (OMOs)

These include the outright purchase and sale of government securities for the purpose of injecting and absorbing long-term liquidity, respectively.

Market Stabilisation Scheme (MSS)

- This monetary management tool was introduced in 2004.
- Short-term government securities and treasury bills are sold to absorb longer-term surplus liquidity resulting from large capital inflows.
- The money raised in this manner is kept in a separate government account of the Reserve Bank.