Structure of Indian Financial System

The Indian financial system is broadly classified into two broad groups: (i) organised sector and (ii) unorganised sector. The financial system is also divided into users of financial services and providers. Financial institutions sell their services to households, businesses and government.

Introduction of Indian Financial System- The financial system enables lenders and borrowers to exchange funds. India has a financial system that is controlled by independent regulators in the sectors of insurance, banking, capital markets and various services sectors.

Prof. Nilofar Sayyad

Broadly there are two categories of Indian Financial System, i.e. **Indian Money market and Indian capital Market**: Indian Money Market – in which short term funds are lent and borrowed. Indian Capital Market – where medium and long term exchanges happen.

Components of Indian Financial System:

There are four main components of the Indian Financial System. This includes:

1. Financial Institutions
2. Financial Assets
3. Financial Services
4. Financial Markets

1. Financial Institutions

The Financial Institutions act as a mediator between the investor and the borrower. The investor's savings are mobilised either directly or indirectly via the Financial Markets.

The main functions of the Financial Institutions are as follows:

- A short term liability can be converted into a long term investment
- It helps in conversion of a risky investment into a risk-free investment
- Also acts as a medium of convenience denomination, which means, it can match a small deposit with large loans and a large deposit with small loans.

The financial institutions can further be divided into two types:

Banking Institutions or Depository Institutions – This includes banks and other credit unions which collect money from the public against interest provided on the deposits made and lend that money to the ones in need.

Non-Banking Institutions or Non-Depository Institutions – Insurance, mutual funds and brokerage companies fall under this category. They cannot ask for monetary deposits but sell financial products to their customers.

2. Financial Assets- The products which are traded in the Financial Markets are called Financial Assets. Based on the different requirements and needs of the credit seeker, the securities in the market also differ from each other.
Some important Financial Assets have been discussed briefly below:

- **Call Money –** When a loan is granted for one day and is repaid on the second day, it is called call money. No collateral securities are required for this kind of transaction.

•**Notice Money –** When a loan is granted for more than a day and for less than 14 days, it is called notice money. No collateral securities are required for this kind of transaction.

•**Term Money –** When the maturity period of a deposit is beyond 14 days, it is called term money.

•**Treasury Bills –** Also known as T-Bills, these are Government bonds or debt securities with maturity of less than a year. Buying a T-Bill means lending money to the Government.

•**Certificate of Deposits –** It is a dematerialised form (Electronically generated) for funds deposited in the bank for a specific period of time.

•**Commercial Paper –** It is an unsecured short-term debt instrument issued by corporations.

3. Financial Services

Services provided by Asset Management and Liability Management Companies. They help to get the required funds and also make sure that they are efficiently invested.

The financial services in India include:

•**Banking Services –** Any small or big service provided by banks like granting a loan, depositing money, issuing debit/credit cards, opening accounts, etc.

•**Insurance Services –** Services like issuing of insurance, selling policies, insurance undertaking and brokerages, etc. are all a part of the Insurance services

•**Investment Services –** It mostly includes asset management

•**Foreign Exchange Services –** Exchange of currency, foreign exchange, etc. are a part of the Foreign exchange services

The main aim of the financial services is to assist a person with selling, borrowing or purchasing securities, allowing payments and settlements and lending and investing.

4. Financial Markets

The marketplace where buyers and sellers interact with each other and participate in the trading of money, bonds, shares and other assets is called a financial market.

The financial market can be further divided into four types:

- **Capital Market –** Designed to finance the long term investment, the Capital market deals with transactions which are taking place in the market for over a year. The capital market can further be divided into three types:
  - **(a)**Corporate Securities Market
  - **(b)**Government Securities Market
  - **(c)**Long Term Loan Market

- **Money Market –** Mostly dominated by Government, Banks and other Large Institutions, the type of market is authorised for small-term investments only. It is a wholesale debt market which works on low-risk and highly liquid instruments. The money market can further be divided into two types:
  - **(a)** Organised Money Market
  - **(b)** Unorganised Money Market
- **Foreign exchange Market –** One of the most developed markets across the world, the Foreign exchange market, deals with the requirements related to multi-currency. The transfer of funds in this market takes place based on the foreign currency rate.

- **Credit Market –** A market where short-term and long-term loans are granted to individuals or Organisations by various banks and Financial and Non-Financial Institutions is called Credit Market.

Financial System

- Financial Institutions
- Financial Markets
- Financial Assets/ Instruments
- Financial Services

Financial Institutions

- Banking
- Non Banking

- Banking
  - commercial
  - Co operative
  - RRB
  - Foreign

Type of Financial Intermediaries-

1. **Merchant bankers-** these are intermediaries in stock market who are responsible for public issue.
2. Underwriters-

a. Firm underwriting- specified number of securities
b. Sub underwriting- more than 1 underwriter
c. Joint underwriting- 2 or more
d. Syndicate underwriting- 2 types of agreement, one between issuing company and underwriter and underwriters themselves

Financial Markets

- Capital Market
- Money Market

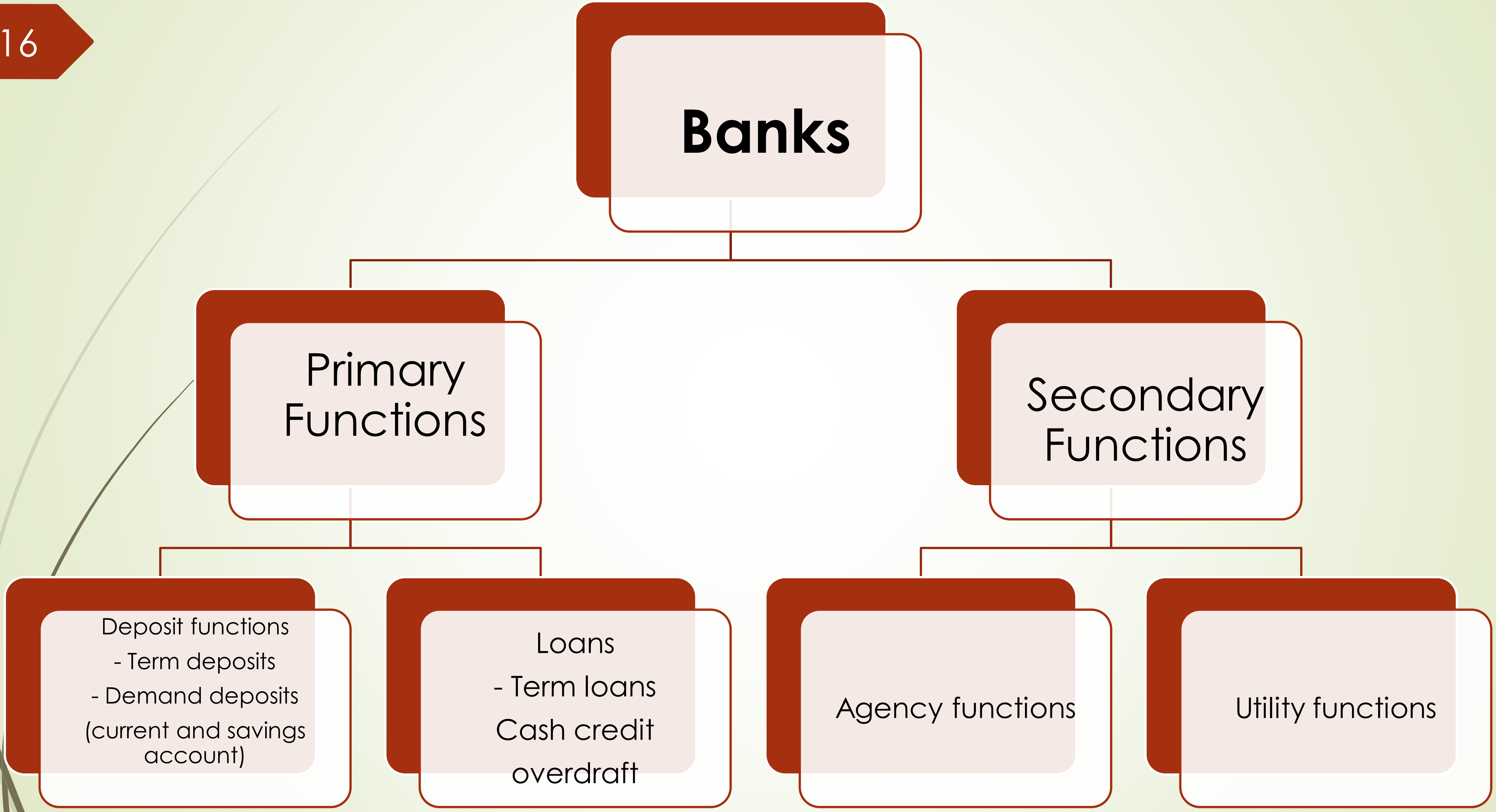
Financial services

- Fund based services
- Fee based services

Important fund based services include:

- •Leasing.
- •Hire purchase.
- •Factoring.
- •Forfeiting.
- •Mutual funds.
- •Bill discounting.
- •Credit Financing.
- •Housing Finance.

The common fee-based services offered to corporate clients are: cash management services, letter of credit, bank guarantees, bill discounting, factoring/ forfaiting, forex services, merchant banking, registrar services, underwriting services, custodial services, lease and hire purchase, and credit rating.


Banks
Primary Functions
Secondary Functions
Deposit functions
- Term deposits
- Demand deposits
(current and savings account)
Loans
- Term loans
Cash credit
overdraft
Agency functions
Utility functions

A) Primary functions

1. Accepting deposits
2. Granting loans and advances

B) Secondary functions

1. Agency functions

i) Payment and collection of cheques, bills and promissory notes
ii) Execution of standing instructions
iii) Acting as a Trustee, executor

General utility functions:

1. Safe custody and safe deposit vaults
2. Remittances of funds
3. Pension payments
4. Acting as a dealer in foreign exchange

Functions of financial markets

1. Financial markets facilitates price discover for various financial instruments
2. Financial markets provide liquidity for investors
3. Financial market reduces cost of transaction
4. It provides diversification of risk

Derivatives- Futures and Options

Introduction- Derivatives are truly financial innovation which involves gains as well as losses.
World's greatest investor, Warren Buffet termed Derivative as "Weapons of mass destruction".

Definition of Derivative

- As per IFRS- International Financial Reporting Standards " a derivative is a financial instrument with the following 3 characteristics;
- 1. its value changes in response to a change price of a specified underlying financial or non financial item
- 2. It requires no or comparatively little investment and
- 3. It is to be settled at a future date

Definition as per GAAP-

a derivative instrument is a financial instrument or other contract with all three of the following characteristics:

1. It has 1 or more underlying assetsSecondary Functions

- 2. it requires smaller or no initial net investment

It's term require net settlement, rapidly settled by means outside the contract, it provides for delivery of an asset that puts the recipient not different from net settlement

- Derivatives are instruments whose value derives from some underlying asset.
- The underlying asset can be currency, stocks, government bonds, debentures or a physical commodity.

Role of Financial System in Economic Growth

The development of any country depends on the economic growth the country achieves over a period of time. Economic growth deals about investment and production and also the extent of Gross Domestic Product in a country. To attain economic development, a country needs more investment and production. This can happen only when there is a facility for savings.

Financial system plays a vital role in :

- Facilitating Savings
- Boosting Investment
- Boosting GDP of Country
- Promoting Production

Financial systems help in growth of capital market

▶Any business requires two types of capital namely, fixed capital and working capital. Fixed capital is used for investment in fixed assets, like plant and machinery. While working capital is used for the day-to-day running of business. It is also used for purchase of raw materials and converting them into finished products.

▶**Fixed capital** is raised through capital market by the issue of debentures and shares. Public and other financial institutions invest in them in order to get a good return with minimized risks.

▶For **working capital**, we have money market, where short-term loans could be raised by the businessmen through the issue of various credit instruments such as bills, promissory notes, etc.

Financial system helps in Infrastructure and Growth

- Economic development of any country depends on the infrastructure facility available in the country. In the absence of key industries like coal, power and oil, development of other industries will be hampered. It is here that the financial services play a crucial role by providing funds for the growth of infrastructure industries. Private sector will find it difficult to raise the huge capital needed for setting up infrastructure industries.

For a long time, infrastructure industries were started only by the government in India. But now, with the policy of economic liberalization, more private sector industries have come forward to start infrastructure industry. The Development Banks and the Merchant banks help in raising capital for these industries.

Financial system helps in development of Trade

▶The financial system helps in the promotion of both domestic and foreign trade. The financial institutions finance traders and the financial market helps in discounting financial instruments such as bills. Foreign trade is promoted due to per-shipment and post-shipment finance by commercial banks. They also issue Letter of Credit in favor of the importer. Thus, the precious foreign exchange is earned by the country because of the presence of financial system. The best part of the financial system is that the seller or the buyer do not meet each other and the documents are negotiated through the bank.

Financial system Boosts Employment Growth

The presence of financial system will generate more employment opportunities. The money market, provides working capital to the businessmen and manufacturers due to which production increases, resulting in generating more employment opportunities. With competition picking up in various sectors, the service sector such as sales, marketing, advertisement, etc., also pick up, leading to more employment opportunities. Various financial services such as leasing, factoring, merchant banking, etc., will also generate more employment.

Need for Derivatives

▶**Arbitrage advantage-** Arbitrage is an investment strategy in which an investor simultaneously buys and sells an asset in different markets to take advantage of a price difference and generate a profit.

▶**Protection against market volatility**

▶**Park surplus funds**

Types Of Derivative

Options

Options are derivative contracts which gives the buyer a right to buy/sell the underlying asset at the specified price during a certain period of time. The buyer is not under any obligation to exercise the option.

Futures

Futures are standardized contracts which allow the holder to buy/sell the asset at an agreed price at the specified date. The parties to the future contract are under an obligation to perform the contract.

Forwards

Forwards are like futures contracts wherein the holder is under an obligation to perform the contract. But forwards are unstandardized and not traded on stock exchanges. Trade In Derivatives Market

First , need to understand the functioning of derivative markets before trading. The strategies applicable in derivatives are completely different from that of the stock market.

Derivative market requires you to deposit margin amount before starting trading. The margin amount cannot be withdrawn until the trade is settled.

Should have an active trading account which permits derivative trading.

For selection of stocks, consider factors like cash in hand, the margin requirements, the price of the contract and that of the underlying shares. Make sure that everything is as per your budget.

Bond market- The bond market refers broadly to the buying and selling of various debt instruments issued by a variety of entities. Corporations and governments issue bonds to raise debt capital to fund operations or seek growth opportunities. In return, they promise to repay the original investment amount, plus interest.

The bond market has largely been dominated by the United States, which accounts for about 39% of the market.

Bonds and bank loans form what is known as the *credit market*. The global credit market in aggregate is about three times the size of the global equity market. Bank loans are not securities under the Securities and Exchange Act, but bonds typically are and are therefore more highly regulated.

This is usually in the form of bonds, but it may include notes, bills, and so on for public and private expenditures.

Commodity market- A commodity market is **a market that trades in the primary economic sector rather than manufactured products**, such as cocoa, fruit and sugar. Hard commodities are mined, such as gold and oil. Futures contracts are the oldest way of investing in commodities.

Futures market-

A futures market is **an auction market in which participants buy and sell commodity and futures contracts for delivery on a specified future date**. Futures are exchange-traded derivatives contracts that lock in future delivery of a commodity or security at a price set today.

Commodities traded in Indian Commodity markets:

- **METAL** - Aluminium, Copper, Lead, Zinc, Nickel, Sponge Iron, Steel Long, Steel Flat, and Tin.
- **SPICES** - Cardamom, Jeera, Pepper, and Red Chilli.
- **BULLION** - Gold, Gold HNI, Gold M, i Gold, Silver, Silver HNI, and Silver M
- **FIBER** - Cotton L Staple, Cotton M Staple, Cotton Yarn, and Kapas.
- **PULSES** - Chana, Matur, Yellow Peas.
- **ENERGY** - Crude oil, Furnace Oil, and Natural Gas.
- Other commodities like maize, plantations, petrochemicals, oil and oil seeds.
- **AGRICULTURE** - Chana, Chilli, Cofee, Cotton Seed, Crude Palm Oil, Groundnut, Groundnut Expeller Oil, Guar Gum, Guar Seeds, Gur, Jeera, Kidney Beans, Masoor Grain Bold, Staple cotton, Mentha Oil, Mulberry Raw Silk, Mulbery Green Cocoons etc.
- **BULLION** - Gold 1 KG/100 gm, Silver 30KG/5 KG.
- **ENERGY** - Brent Crude Oil, Furnance Oil, Light Sweet Crude Oil.
- **FERROUS METALS** - Mild Steel Ingot.
- **PLASTICS** - Polypropylene, Linear Low Density Polyethene, Polyvinyl Chloride.
- **NON-FERROUS METALS** - Aluminium Ingot, Copper Cathode, Nickel Ingot, Zinc Cathode.

Foreign exchange markets-

foreign exchange market (forex, or FX, market), **institution for the exchange of one country's currency with that of another country**. Foreign exchange markets are actually made up of many different markets, because the trade between individual currencies—say, the euro and the U.S. dollar—each constitutes a market.

Cryptocurrency

- Ten years ago, on the cusp of the Financial Crisis in 2008, on 31 October, an anonymous individual named Satoshi Nakamoto invented the first cryptocurrency, Bitcoin, with the publication of a white paper titled —Bitcoin: A Peer-to-Peer Electronic Cash System.

- *Cryptocurrencies*: an asset on a blockchain that can be exchanged or transferred between network participants and hence used as a means of payment—but offers no other benefits.

A cryptocurrency is a digital currency that operates in a decentralized manner and uses encryption. In other words, no central bank or government regulates this currency (it's decentralized). It is digital in that it is virtual, not like physical money. And it uses security features (encryption/cryptography) in order to avoid counterfeiters, secure transactions, and generate the units of currency.

Features of Cryptocurrency:

1.Decentralized & No Central Authority

2.Anonymous

3.Irreversible & Immutable (cannot be undone)

4. Limited Supply & Scarcity


Money Market
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Money market structure: The Indian monetary market has two broad categories – the organized sector and the unorganized sector.

Organized Sector: This sector comprises of the governments, the RBI, the other commercial banks, rural banks, and even foreign banks. The RBI organizes and controls this sector. Other corporations like the LIC, UTI, etc also participate in this sector but not directly. Other large companies and corporates also participate in this sector through banks.

Unorganized Sector: These are the indigenous banks and the local money lenders and hundis etc. Their activities are not controlled by the RBI or any other body, so they are the unorganized sector.


Indian Money Market
Organized Market
Unorganized Market
Call and Notice Money Market
Treasury Bill Market
Commercial Bills
Certificate of Deposits
Commercial Papers
Money Market Mutual Funds
The REPO Market
DFHI
Indegenous Bankers
Moneylenders

Introduction

Money market is a market for short-term funds. The short-term is defined as a period of 364 days or less. The manufacturers need two types of finance:

1. finance to meet daily expenses (working capital)
2. finance to meet capital expenditure (Fixed Capital)

The market where such short-time finance is borrowed and lent is called ―money market‖. The most important function of the money market is to bridge the liquidity gap.

1.DFHI :

DFHI stands for Discount Finance House of India. It is a specialized money market institution which was established in April 1988 with an objective to provide liquidity to money market Instruments.

2. Call Money Market :

It an important sub market of the Indian money market. It is also known as money at call and money at short notice. It is also called inter bank loan market. In this market money is demanded for extremely short period. The duration of such transactions is from few hours to 14 days. It is basically located in the industrial and commercial locations such as Mumbai, Delhi, Calcutta, etc. These transactions help stock brokers and dealers to fulfill their financial requirements. The rate at which money is made available is called as a call rate. Thus rate is fixed by the market forces such as the demand for and supply of money.

3. Commercial Bill Market :

It is a market for the short term, self liquidating and negotiable money market instrument. Commercial bills are used to finance the movement and storage of agriculture and industrial goods in domestic and foreign markets. The commercial bill market in India is still underdeveloped.

4. Treasury Bill Market :

This is a market for sale and purchase of short term government securities. These securities are called as Treasury Bills which are promissory notes or financial bills issued by the RBI on behalf of the Government of India. There are two types of treasury bills. (i) Ordinary or Regular Treasury Bills and (ii) Ad Hoc Treasury Bills. The maturity period of these securities range from as low as 14 days to as high as 364 days. They have become very popular recently due to high level of safety involved in them.

Market for Certificate of Deposits (CDs) :

It is again an important segment of the Indian money market. The certificate of deposits is issued by the commercial banks. They are worth the value of Rs. 25 lakh and in multiple of Rs. 25 lakh. The minimum subscription of CD should be worth Rs. 1 Crore. The maturity period of CD is as low as 3 months and as high as 1 year. These are the transferable investment instrument in a money market. The government initiated a market of CDs in order to widen the range of instruments in the money market and to provide a higher flexibility to investors for investing their short term money.

6. Market for Commercial Papers (CPs) :

It is the market where the commercial papers are traded. Commercial paper (CP) is an investment instrument which can be issued by a listed company having working capital more than or equal to Rs. 5 cr. The CPs can be issued in multiples of Rs. 25 lakhs. However the minimum subscription should at least be Rs. 1 cr. The maturity period for the CP is minimum of 3 months and maximum 6 months. This was introcuced by the government in 1990.

7. Short Term Loan Market :

It is a market where the short term loan requirements of corporates are met by the Commercial banks. Banks provide short term loans to corporates in the form of cash credit or in the form of overdraft. Cash credit is given to industrialists and overdraft is given to businessmen.

Objectives of Money Market

1. To cater to the requirements of borrowers for short term funds, and provide liquidity to the lenders of these funds.

2. To provide parking place for temporary employment of surplus fund.

3. To provide facility to overcome short term deficits.

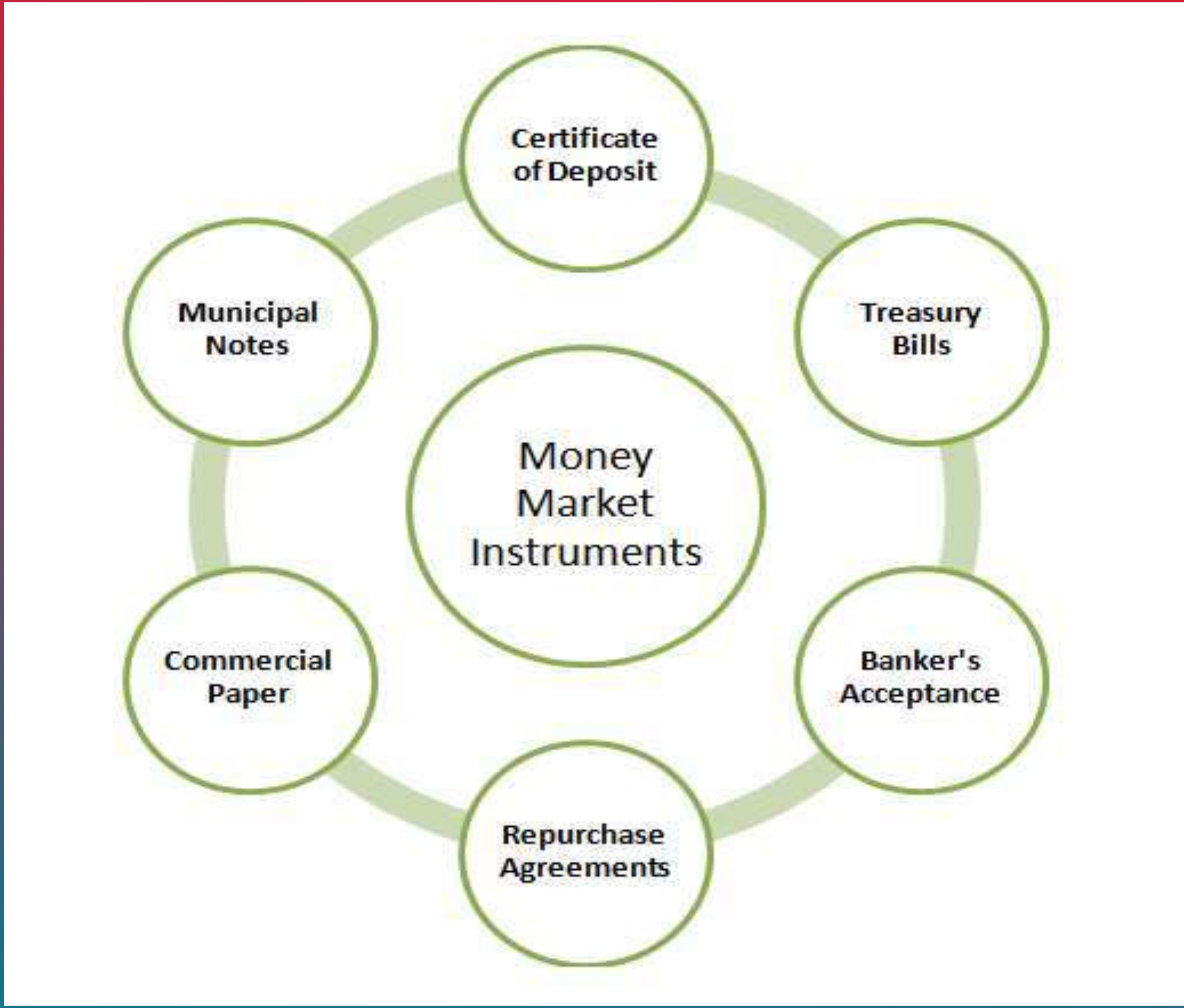
4. To enable the central bank to influence and regulate liquidity in the economy.

4. Repurchase Agreements or Ready Forward Contract (Repo)

Repurchase Agreement is a formal agreement between two parties, where one party sells a security to another, with the promise of buying it back at a later date. It is also called a Sell-Buy transaction. Repo rate, fixed by the RBI may be defined as the rate at which domestic Indian banks borrow from other Indian banks or from the RBI. A decreasing repo rate makes it cheaper for banks to borrow money from other banks or the central bank.

5. Banker's Acceptance

- This is a financial instrument produced by an individual or a corporation in the name of the bank, wherein the issuer must pay a specified amount to the instrument holder on a predetermined date, between 30 and 180 days, starting from the date of issue of the instrument
- Banker's Acceptance is issued at a discounted price, and the actual price is paid to the holder at maturity. The difference between the two is the profit made by the investor
- Banker's acceptance is a secure financial instrument as the payment is guaranteed by a commercial bank


Certificate of Deposit
Treasury Bills
Banker's Acceptance
Repurchase Agreements
Commercial Paper
Municipal Notes
Money Market Instruments

Role of Central Bank In Money Market

Reserve Bank of India is the biggest regulator of the Indian markets. It controls the monetary policy of India. The major money market reforms came after the recommendations of S. Chakravarty Committee and Narsimham Committee and these are as follows:

1.**Deregulation of Interest Rates**

Interest rates are now subject to market conditions as the ceiling limit on them have been removed by RBI after 1989. The important interest rates in India are-Bank rate, Medium-term lending rate, Prime Lending rate, Bank Deposit rate, Call rate, Certificate of Deposit rate. RBI removed the upper ceiling of 16.5% and instead fixed a minimum of 16% per annum. The rates were further relaxed after the Narasimhan Committee report.

2. Reforms in Call and Term money market

RBI announced that non-banking financial institutions should not participate in call/term money market operations and it should purely be an interbank operating segment and encouraged other participants to migrate to

collateralized segments to improve stability. 3. Establishment of the DFI
The Discount and Finance House of India (DFHI) was set up in April 1988 to impart liquidity in the money market. It was set up jointly by the RBI, Public sector Banks and Financial Institutions. DFHI has played an important role in stabilizing the Indian money market.

4. Introducing Liquidity Adjustment Facility
RBI introduced a Liquidity Adjustment Facility in June 2000 which was operated through fixed repo and reverse repo rates. This helped establishment of interest rate as an important monetary instrument and granted greater flexibility to RBI to respond to market needs and suitably adjust liquidity in the market.

5. Establishment of the CCIL
The Clearing Corporation of India limited (CCIL) was set up in April 2001. The CCIL clears all transactions in government securities, and repose reported on the Negotiated Dealing System.

6. Debt Recovery

RBI has set up special Recovery Tribunals which provide legal assistance to banks for recovery of dues.

7. Regulation of Non-Banking Financial Companies

RBI Act was amended in 1997 to bring the NBFCs under its regulatory framework. They have to be registered with RBI to operate within India.

Participants of money market

- Central Government
- State Government
- Public Sector Undertakings
- Scheduled Commercial Banks (SCBs)
- Private Sector Companies
- Provident Funds
- General Insurance Companies
- Life Insurance Companies
- Mutual Funds
- Non-banking Finance Companies

The reforms in Indian money market:

In order to widen and diversify the Indian money market RBI has introduced many new money market instruments such as 182-days treasury bills, 364-day treasury bills, CDs & CPs. Through these instruments the government, commercial banks, financial institutions and corporate can raise funds through the money market.

In order to expand the investor base for CDs and CPs the minimum amount of investment and the minimum maturity periods are reduced by RBI.

Deregulation of Interest Rates

Interest rates are now subject to market conditions as the ceiling limit on them have been removed by RBI after 1989.The important interest rates in India are- Bank rate, Medium-term lending rate, Prime Lending rate, Bank Deposit rate, Call rate, Certificate of Deposit rate, Commercial paper rate etc. This deregulation got a major push after the economic liberalisation of 1991.

Reforms in Call and Term money market

The reforms in call and term money market were done to infuse more liquidity into the system and enable price discovery. RBI undertook several important steps to check the constraints and remove them systematically. It was in October 1998, RBI announced that non-banking financial institutions should not participate in call/term money market operations and it should purely be an interbank operating segment and encouraged other participants to migrate to collateralised segments to improve stability.

Introduction of new money market instruments

RBI introduced many new market instruments to diversify the market. These were certificates of deposit in 1989, commercial papers in 1990 and interbank participation certificates with/without risk in 1988.

Setting up Discount and Finance House of India

Discount and Finance House of India was set up in 1988 to impart more liquidity and also further develop the secondary market instruments

Introducing Liquidity Adjustment Facility

RBI introduced a Liquidity Adjustment Facility in June 2000 which was operated through fixed repo and reverse repo rates.

Refinance by RBI

This is a potent tool by RBI to meet the any liquidity shortages and for credit control to select sectors. The export credit refinance facility to banks is provided under Section 17(3) of RBI Act 1934.

Regulation of Non-Banking Financial Companies

RBI Act was amended in 1997 to bring the NBFCs under its regulatory framework. A NBFC is a company registered under Companies Act, 1956 and is involved in making loans and advances, acquisition of shares, stocks, bonds, securities issued by government etc.

Debt Recovery

RBI has set up special Recovery Tribunals which provide legal assistance to banks for recovery of dues.

Merchant Banking

Definition: Merchant banking can be defined as a skill-oriented professional service provided by merchant banks to their clients, concerning their financial needs, for adequate consideration, in the form of fee.

Functions of Merchant Banking Organization:-

1.Portfolio Management: Merchant banks provides advisory services to the institutional investors, on account of investment decisions. They trade in securities, on behalf of the clients, with the aim of providing them with portfolio management services.

2.Raising funds for clients: Merchant banking organization assist the clients in raising funds from the domestic and international market, by issuing securities like shares, debentures, etc., which can be deployed for starting a new project or business or expansion activities

3.PromotionalActivities:One of the most important activities of merchant banking is the promotion of business enterprise, during its initial stage, right from conceiving the idea to obtaining government approval. There is some organization, which even provide financial and technical assistance to the business enterprise.

4. Loan Syndication: Loan Syndication means service provided by the merchant bankers, in raising credit from banks and financial institutions, to finance the project cost or working capital of the client's project, also termed as project finance service.

Credit Rating Agency:-

•A company that provides investor with assessments of an investment's risk.

•The issuers of investments, especially securities pay credit rating agencies to provide them with ratings. A high rating indicates low risk and may therefore encourage investors to **buy** a security.

•Additionally, **banks** may only **invest** in securities with a high rating from two or more credit rating agencies.

'IPO'-INITIAL PUBLIC OFFERING:-

Definition: Initial public offering is the process by which a private company can go public by sale of its stocks to general public. It could be a new, young company or an old company which decides to be listed on an exchange and hence goes public.

Companies can raise equity capital with the help of an IPO by issuing new shares to the public or the existing shareholders can sell their shares to the public without raising any fresh capital.

IPO Process-

1. Appointment of Merchant Banker/ Lead manager
2. Appointment of Underwriter

3. Price discovery through Book Building process- Book building is **the process by which an underwriter attempts to determine the price at which an initial public offering (IPO) will be offered**. The process of price discovery involves generating and recording investor demand for shares before arriving at an issue price. The issue price is then decided after the bid closure based on the demand generated in the process. The lowest price in the price band is called floor price and the highest price is called cap price.

4. Appointment of registrars- Responsibility of a registrar for an IPO is mainly involves processing of IPO applications, allocate shares to applicants based on SEBI guidelines, process refunds through ECS or cheque and transfer allocated shares to investors Demat accounts.

5. Appointment of the brokers to the issue

6. Registration of the Offer document (DRHP) to SEBI- Draft Red- Herring prospectus- When a company plans to raise money (for example: float an IPO) from the public by selling its shares to investors, it files and submits a **Draft Red Herring Prospectus** (DRHP), also known as 'offer document' or 'preliminary registration document', with the market regulator Securities and Exchange Board of India.

7. Filing of prospectus with the Registrar of companies

8. Printing and dispatch of application forms

9. Filing of the initial listing application with stock exchange

10. Statutory announcement

11. Processing applications and allotment of shares

12. Listing of the Issue

Secondary Market operations

Transactions made in this market generate income for the investors. Here, securities are traded multiple times.

Role of stock exchanges- A stock exchange **brings companies and investors together**. A stock exchange helps companies raise capital or money by issuing equity shares to be sold to investors. The companies invest those funds back into their business, and investors, ideally, earn a profit from their investment in those companies.

Securities traded in Stock Exchange-

1. **Shares**
2. **Derivatives**
3. **Bonds**
4. **Pooled investment products**

Major participants in of stock exchanges- The five main participants of the stock market include **SEBI, which is the regulator, the stock exchanges, publicly listed companies, investors and traders and market intermediaries**.

Capital market instruments:

1. Preference shares- Preference shares, more commonly referred to as preferred stock, are **shares of a company's stock with dividends that are paid out to shareholders before common stock dividends are issued**. If the company enters bankruptcy, preferred stockholders are entitled to be paid from company assets before common stockholders.

2. Equity shares- An equity share, normally known as ordinary share is **a part ownership where each member is a fractional owner and initiates the maximum entrepreneurial liability related to a trading concern**. These types of shareholders in any organization possess the right to vote.

3. Non voting shares- Non-voting shares **do not give the holder any voting rights in the company**. This means that the holder is entitled to a portion of the company's capital, but is not able to take part in its general meetings. Non-voting shares are mostly issued to employees or to family members of the main shareholders.

4. Debentures- A debenture is **a marketable security (a type of investment) issued by a business or other organization to raise money for long-term activities and growth**. It is a form of debt capital so it is accounted for as debt on the balance sheet of the issuing company.

5. Convertible cumulative debentures- A convertible debenture is a type of long-term debt issued by a company that can be converted into shares of equity stock after a specified period. Convertible debentures are usually unsecured bonds or loans, often with no underlying collateral backing up the debt.

These long-term debt securities pay interest returns to the bondholder like any other bond. The unique feature of convertible debentures is that they are exchangeable for stock at specified times. This feature gives the bondholder some security that may offset some of the risks involved with investing in unsecured debt. A convertible debenture differs from convertible notes or convertible bonds, generally in that debentures have longer maturities.

6. Fixed deposits- A **fixed deposit** (**FD**) is a financial instrument provided by banks or NBFCs which provides investors a higher rate of interest than a regular savings account, until the given maturity date. It may or may not require the creation of a separate account.

It is known as a term deposit or time deposit in Canada, Australia, New Zealand, fixed deposit in India and the United States, and as a bond in the United Kingdom and for a fixed deposit is that the money cannot be withdrawn from the FD as compared to a recurring deposit or a demand deposit before maturity. Some banks may offer additional services to FD holders such as loans against FD certificates at competitive interest rates.

It's important to note that banks may offer lesser interest rates under uncertain economic conditions. The interest rate varies between 4 and 7.50 percent. The tenure of an FD can vary from 7, 15 or 45 days to 1.5 years and can be as high as 10 years.

These investments are safer than Post Office Schemes as they are covered by the Deposit

Insurance and Credit Guarantee Corporation (DICGC). However, DICGC guarantees amount up to 500000(about $6850) per depositor per bank. They also offer income tax and wealth tax benefits.

7. Debentures and bonds- Debentures are debt financial instruments issued by private companies, but any collaterals or physical assets do not back them up. The owner of a bond is called a bondholder. The owner of a debenture is called a debenture holder. Bonds get secured by the collateral or physical assets of the issuing company.

Global depository receipts (GDR)-

A global depositary receipt (GDR) is a bank certificate issued in more than one country for shares in a foreign company. GDRs list shares in two or more markets, most frequently the U.S. market and the Euromarkets, with one fungible security.

GDRs are most commonly used when the issuer is raising capital in the local market as well as in the international and US markets, either through private placement or public stock offerings. A global depositary receipt (GDR) is very similar to an American depositary receipt (ADR), except an ADR only lists shares of a foreign country in the U.S. markets.

- A global depositary receipt (GDR) is a certificate issued by a bank that represents shares in a foreign stock on two or more global markets.
- GDRs typically trade on American stock exchanges as well as Eurozone or Asian exchanges.
- GDRs and their dividends are priced in the local currency of the exchanges where the shares are traded.
- GDRs represent an easy, liquid way for U.S. and international investors to own foreign stocks.

Understanding Global Depositary Receipt

A global depositary receipt (GDR) is a type of bank certificate that represents shares in a foreign company, such that a foreign branch of an international bank then holds the shares. The shares themselves trade as domestic shares, but, globally, various bank branches offer the shares for sale. Private markets use GDRs to raise capital denominated in either U.S. dollars or euros. When private markets attempt to obtain euros instead of U.S. dollars, GDRs are referred to as EDRs.

Investors trade GDRs in multiple markets, as they are considered to be negotiable certificates. Investors use capital markets to facilitate the trade of long-term debt instruments and for the purpose of generating capital. GDR transactions in the international market tend to have lower associated costs than some other mechanisms that investors use to trade in foreign securities.

A U.S.-based company, for instance, that wants its stock to be listed on the London and Hong Kong Stock Exchanges can accomplish this via a GDR. The U.S.-based company enters into a depositary receipt agreement with the respective foreign depository banks. In turn, these banks issue shares in their respective stock exchanges based on the regulatory compliance for both of the countries.

American depositary receipts- The term American depositary receipt (ADR) refers to a negotiable certificate issued by a U.S. depositary bank representing a specified number of shares—usually one share—of a foreign company's stock. The ADR trades on U.S. stock markets as any domestic shares would. ADRs offer U.S. investors a way to purchase stock in overseas companies that would not otherwise be available. Foreign firms also benefit, as ADRs enable them to attract American investors and capital without the hassle and expense of listing on U.S. stock exchanges.

An American depositary receipt is a certificate issued by a U.S. bank that represents shares in foreign stock.

- These certificates trade on American stock exchanges.
- ADRs and their dividends are priced in U.S. dollars.
- ADRs represent an easy, liquid way for U.S. investors to own foreign stocks.
- These investments may open investors up to double taxation and there are a limited number of options available.

How American Depositary Receipts (ADRs) Work?

American depositary receipts are denominated in U.S. dollars. The underlying security is held by a U.S. financial institution, often by an overseas branch. ADR holders do not have to transact the trade in the foreign currency or worry about exchanging currency on the forex market. These securities are priced and traded in dollars and cleared through U.S. settlement systems.
In order to begin offering ADRs, a U.S. bank must purchase shares on a foreign exchange. The bank holds the stock as inventory and issues an ADR for domestic trading. ADRs list on either the New York Stock Exchange (NYSE) or the Nasdaq, but they are also sold over-the-counter (OTC).

Income Bonds Interest income on such bonds is paid only where the corporate command adequate cash flows. They resemble cumulative preference shares in respect of which fixed dividend is paid only if there is profit earned in a year, but carried forward and paid in the following year. There is no default on income bonds if interest is not paid. Unlike the dividend on cumulative preference shares, the interest on income bond is tax deductible. These bonds are issued by Corporates that undergo financial restructuring.

Asset Backed Securities

These are a category of marketable securities that are collateralized by financial assets such as installment loan contracts. Asset backed financing involves a disinter- mediating process called ‘securitization’, whereby credit from financial intermediaries in the form of debentures are sold to third parties to finance the pool. REPOS are the oldest asset backed security in our country. In USA, securitization has been undertaken for the following the oldest asset backed security in our country. In USA, securitization has been undertaken for the following:

1. Insured mortgages
2. Mortgage backed bonds
3. Student loans
4. Trade credit receivable backed bonds
5. Equipments leasing backed bonds
6. Certificates of automobile receivable securities
7. Small business administration loans 8. Credit and receivable securities.

Zero-Coupon Bonds (ZCBs)/Zero Coupons Convertible Debentures:

Zero Coupon Bonds first came to be introduced in the U.S. securities market. Initially, such bonds were issued for high denominations. These bonds were purchased by large security brokers in large chunks, who resold them to individual investors, at a slightly higher price in affordable lots. Such bonds were called —Treasury Investment Growth Receipts'(TIGRs) or 'Certificate of Accruals on Treasury Securities'(CATSs) or ZEROs as their coupon rate is Zero. Moreover, these certificates were sold to investors at a hefty discount and the difference between the face value of the certificate and the acquisition cost was the gain. The holders are not entitled for any interest except the principal sum on maturity.

Indexed Bonds

These are the bonds whose interest payment and redemption value are indexed with movements in prices. Indexed bonds protect the investor from the eroding purchasing power of money because of inflation. For instance, an inflation-indexed bond implies that the payment of the coupon and/or the redemption value increases or decreases according to movements in prices. The bonds are likely to hedge the principal amount against inflation. Such bonds are designed to provide investors an effective hedge against inflation so as to enhance the credibility of the anti-inflationary policies of the Government. The yields of an inflation-indexed bond provide vital information on the expected rate of inflation. United Kingdom, Australia, and Canada have introduced index linked government securities as a segmented internal debt management operation with a view to increase the range of assets available in the system, provide an inflation hedge to investors, reduce interest costs and

Euro Convertible Bonds

Bonds that give the holders of euro bonds to have the instruments converted into a wide variety of options such as the call option for the issuer and the put option for the investor, which makes redemption easy are called ‘Euro-convertible bonds’. A euro convertible bond essentially resembles the Indian convertible debenture but comes with numerous options attached. Similarly, a euro-convertible bond is an easier instrument to market than equity.

Floating Rate Bonds (FRBs)

Bonds that carry the provision for payment of interest at different rates for different time periods are known as ‘Floating Rate Bonds’. The SBI, while issuing such bonds, adopted a reference rate of highest rate of interest on fixed deposit of the Bank, provided a minimum floor rate payable at 12 percent p.a. and attached a call option to the Bank after 5 years to redeem the bonds earlier than the maturity period of 10 years at a certain premium. A major highlight of the bonds was the provision to reduce interest risk and assurance of minimum interest on the investment provided by the Bank.

Secured Premium Notes (SPNs)

Secured debentures that are redeemable of a premium over the issue price or face value are called secured premium notes. Such bonds have a lock-in period during which period no interest will be paid. It entitles the holder to sell back the bonds to the issuing company at par after the lock-in period. A case in point was the issue made by the TISCO in the year 1992, where the company wanted to raise money for its modernization program without expanding its equity excessively in the next few years. The company made the issue to the existing shareholders on a rights basis along with the rights issue. The salient features of the TISCO issue were as follows : 1. Face value of each SPN was Rs 300 2. No interest was payable during the first three years

Role of SEBI in capital market- The main duty of SEBI is to regulate the Indian Capital markets. It monitors and regulates the stock market and protects the interests of the investors by enforcing certain rules and regulations.

Junk Bonds

Junk bond is a high risk, high yield bond which finances either a Leveraged Buyout (LBO) or a merger of a company in financial distress Junk bonds are popular in the USA and are used primarily for financing takeovers. The coupon rates range from 16 to 25 percent. Attractive deals were put together establishing their feasibility in terms of adequacy of cash flows to meet interest payments. Michael Milken (the junk bond king) of Drexel Burnham Lambert was the real developer of the market.

Securities and Exchange Board of India (SEBI) SEBI is the regulator of securities market in India. It was established on 12 April 1988.

SEBI is required to regulate and promote the securities market by: • Providing fair dealings in the issues of securities and ensuring a market place where funds can be raised at a relatively low cost. • Providing a degree of protection to the investors and safeguard their rights and interests so that there is a steady flow of savings into the market. • Regulating and developing a code of conduct and fair prices by intermediaries in the capital market like brokers and merchant banks with a view to make them competitive and professional.

Role of SEBI in Indian Capital Market

• Power to make rules for controlling stock exchange :SEBI has power to make new rules for controlling stock exchange in India. For example, SEBI fixed the time of trading 9 AM and 5 PM in stock market.

• To provide license to dealers and brokers :SEBI has power to provide license to dealers and brokers of capital market. If SEBI sees that any financial product is of capital nature, then SEBI can also control to that product and its dealers.

• To Stop fraud in Capital Market :SEBI has many powers for stopping fraud in capital market.> It can ban on the trading of those brokers who are involved in fraudulent and unfair trade practices relating to stock market. > It can impose the penalties on capital market intermediaries if they involve in insider trading.

• To Control the Merge, Acquisition and Takeover the companies :SEBI sees whether this merge or acquisition is for development of business or to harm capital market.

• To audit the performance of stock market :SEBI uses his powers to audit the performance of different Indian stock exchange for bringing transparency in the working of stock exchanges.

T**o make new rules on carry - forward transactions :> Share** trading transactions carry forward can not exceed 25% of broker's total transactions.> 90 day limit for carry forward.

• To create relationship with ICAI :SEBI creates good relationship with ICAI for bringing more transparency in the auditing work.

• Introduction of derivative contracts on Volatility Index :For reducing the risk of investors, SEBI has now been decided to permit Stock Exchanges to introduce derivative contracts on Volatility Index

• To Require report of Portfolio Management Activities :SEBI has also power to require report of portfolio management to check the capital market performance.

• To educate the investors :Time to time, SEBI arranges scheduled workshops to educate the investors.

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Banks And NBFC’s

Types of banks:

1. Central Bank.
2. Cooperative Banks.
3. Commercial Banks.
4. Regional Rural Banks (RRB)
5. Local Area Banks (LAB)
6. Specialized Banks.
7. Small Finance Banks.
8. Payments Banks.

Types of NBFC

- Asset Finance Company.
- Loan Company.
- Mortgage Guarantee Company.
- Investment Company.
- Core Investment Company.
- Infrastructure Finance Company.
- Micro Finance Company.
- Housing Finance Company.

Central Bank- Reserve Bank Of India

- The Reserve Bank of India is the central bank of the country. Central banks are a relatively recent innovation and most central banks, as we know them today, were established around the early twentieth century.
- The Reserve Bank of India was set up on the basis of the recommendations of the Hilton Young Commission. The Reserve Bank of India Act, 1934 (II of 1934) provides the statutory basis of the functioning of the Bank, which commenced operations on April 1, 1935.
- **The Bank was constituted to**
- Regulate the issue of banknotes
- Maintain reserves with a view to securing monetary stability and
- To operate the credit and currency system of the country to its advantage.

The Bank began its operations by taking over from the Government the functions so far being performed by the Controller of Currency and from the Imperial Bank of India, the management of Government accounts and public debt. The existing currency offices at Calcutta, Bombay, Madras, Rangoon, Karachi, Lahore and Cawnpore (Kanpur) became branches of the Issue Department. Offices of the Banking Department were established in Calcutta, Bombay, Madras, Delhi and Rangoon.

Burma (Myanmar) seceded from the Indian Union in 1937 but the Reserve Bank continued to act as the Central Bank for Burma till Japanese Occupation of Burma and later upto April, 1947. After the partition of India, the Reserve Bank served as the central bank of Pakistan upto June 1948 when the State Bank of Pakistan commenced operations. The Bank, which was originally set up as a shareholder's bank, was nationalised in 1949.

An interesting feature of the Reserve Bank of India was that at its very inception, the Bank was seen as playing a special role in the context of development, especially Agriculture. When India commenced its plan endeavors, the development role of the Bank came into focus, especially in the sixties when the Reserve Bank, in many ways, pioneered the concept and practice of using finance to catalyze development.

The Bank was also instrumental in institutional development and helped set up institutions like the Deposit Insurance and Credit Guarantee Corporation of India, the Unit Trust of India, the Industrial Development Bank of India, the National Bank of Agriculture and Rural Development, the Discount and

Finance House of India etc. to build the financial infrastructure of the country.
With liberalisation, the Bank's focus has shifted back to core central banking functions like Monetary Policy, Bank Supervision and Regulation, and Overseeing the Payments System and onto developing the financial markets.

Nationalised banks- The nationalized banks are those banks that were ones owned by the private players but due to the financial or socio-economic exigencies, the ownership was acquired by the government. In more technical terms Nationalised Banks have such an ownership structure where the government is the majority shareholder i.e. **>50%.**

Why banks were Nationalised?
Bank Nationalization is a policy decision, which is undertaken keeping certain goals in mind. From time to time Central Government can carry out the nationalization of banks. Though candidates must note that

List of Government banks in India along with a merged banks list as of 2022.

1.State Bank of India
2.Punjab National Bank (With Merger of Oriental Bank of Commerce and United Bank of India)
3.Bank of Baroda
4. Canara Bank (With Merger of Syndicate Bank)
5.Union Bank of India (With Merger of Andhra Bank and Corporation Bank)
6.Bank of India
7.Indian Bank (With Merger of Allahabad Bank)
8.Central Bank of India
9.Indian Overseas Bank
10.UCO Bank
11.Bank of Maharashtra
12.Punjab & Sind Bank

1. State Bank of India

State Bank of India is the largest bank in India. SBI is ranked 236th on the Fortune Global 500 list. The bank was founded in 1955. With the merger with its 5 associates banks, SBI has the largest branches network in India.

Headquarters: Mumbai, India;
Tagline: Pure Banking, Nothing Else
Chairperson: Dinesh Kumar Khara

2. Punjab National Bank

Punjab National Bank is a banking and financial services bank owned by the Government of India. The bank was established in 1894. PNB bank is merged with **OBC Bank and United Bank.** The new bank will become the second-largest Public Sector Bank of India with 18 Lakh crore rupees and the second largest in terms of branch network across the country.

- Headquarters: New Delhi, India
- Tagline: The name you can Bank Upon
- CEO: Atul Kumar Goel

3. Bank of Baroda

Bank of Baroda is an Indian multinational bank. It is the third-largest public sector bank in the country established in 1908. Bank of Baroda will be merged with Vijaya Bank and Dena Bank to create the country's third-largest lender with a combined business of Rs. 14.82 lakh crore.

Headquarters: Vadodara, Gujarat

Tagline: India's International Bank

Managing Director & CEO: Sanjiv Chadha

4. Canara Bank

Canara Bank is one of the oldest public sector banks in India. The bank was founded in 1906 by the name Canara Hindu Permanent Fund but later changed its name to Canara Bank Limited in 1910. Canara Bank will merge with **Syndicate Bank** to become the fourth largest Public Sector Bank in the country. The total business of the bank will be Rs.15.2 lakh crore. It will also become the third-largest bank branch network in India.

Headquarters: Bengaluru, Karnataka

Tagline: Together We Can

CEO: Lingam Venkat Prabhakar

5. Union Bank of India

Union Bank of India is one of the largest public sector banks in India. The government holds 90% of its share capital. The bank was founded in 1919. With Merger of Andhra Bank and Corporation Bank.

Headquarters: Mumbai, India

Tagline: Good People to Bank With

CEO: Rajkiran Rai G.

6. Bank of India

Bank of India is the founder member of SWIFT (Society for Worldwide Inter Bank Financial Telecommunications) and one of the top 5 banks in India.

- Headquarters: Mumbai, India
- Tagline: Relationship Beyond Banking
- Managing Director & CEO: Atanu Kumar Das

7. Indian Bank

Indian Bank has overseas branches in Colombo and Singapore. It was founded in 1907. With Merger of Allahabad Bank.

- Headquarters: Chennai, India
- Tagline: Your Own Bank
- CEO: Shri Shanti Lal Jain

8. Central Bank of India

Central Bank of India was one of eighteen public sector banks that get recapitalized in 2009. It is founded in 1911.

- Headquarters: Mumbai, India
- Tagline: Build a better life around us
- Managing Director & CEO: Matam Venkata Rao

9. Indian Overseas Bank

Indian Overseas Bank has 6 foreign branches and a representative office. It was founded in 1937.

- Headquarters: Chennai, India
- Tagline: Good People to Grow With
- CEO: Partha Pratim Sengupta

10. UCO Bank

UCO Bank is one of the major government-owned commercial banks of India. It was founded in 1943. UCO bank recently launched its Whatsapp banking.

Headquarters: Kolkata, West Bengal

Tagline: Honours Your Trust
CEO: Shri Soma Sankara Prasad

11. Bank of Maharashtra

Bank of Maharashtra is a major public sector bank. The Government of India has 87.74% shares of this bank. It is founded in 1935.

- Headquarters: Pune, India
- Tagline: One Family One Bank
- CEO: A. S. Rajeev

12. Punjab & Sind Bank

Punjab and Sind Bank is emerging as a techno-savvy public sector bank of India. It was founded in 1908.

- Headquarters: Rajendra Place New Delhi, India
- Tagline: Where Service Is A Way Of Life
- MD & CEO: S Krishnan

Cooperative banks- Co-operative banks are financial entities established on a co-operative basis and belonging to their members. This means that the customers of a co-operative bank are also its owners. These banks provide a wide range of regular banking and financial services.

Co-operative bank is a small-sized, financial entity, where its members are the owners and customers of the Bank. They are regulated by the Reserve Bank of India (RBI) and are registered under the States Cooperative Societies Act.

The Co-operative Banks have recently been in news after RBI's restrictions on one of the leading banks, where they were denied any kind of money withdrawal. This incident of the Punjab and Maharashtra Co-operative Bank (PMC) has raised questions over the reliability of such financial entities.

Co-operative Banking has proved to be an asset in terms of acting as a financial intermediary to agricultural and allied activities, small scale industries, and self employed workers.

Of the total number of Cooperative Banks in India, they can be divided into two types, which can further be subdivided:

- Urban Co-operative Banks
  - Non-Scheduled UCBs
  - Scheduled UCBs
- Rural Co-operative Banks
  - State Cooperative Banks
  - District Central Cooperative Banks
  - Primary Agricultural Credit Societies

They work on the principle of '**one person, one vote**'. Since these banks are owned by the members, a Board of Directors is chosen democratically and then they are responsible for controlling the Organisation.

Farmers can avail agricultural loans on minimum interest rates from the Co-operative Banks.

Providing easy and accessible loans and credit benefits in the rural areas with scarce banking facilities.

•Banks are the government authorized financial intermediary that aims at providing banking services to the general people. Whereas NBFCs provides banking services to people without carrying a bank license.

•An NBFC is incorporated under the Companies Act whereas a bank is registered under the **Banking Regulation Act, 1949**

•NBFCs are not allowed to accept deposits which are repayable on demand whereas banks accept demand deposits.

•In NBFC, foreign Investments up to 100% is allowed. Whereas in the case of private sector banks they are eligible for foreign investment, but which would be no more than 74%.

•Banks are an integral part of the payment and settlement cycle while NBFC is not a part of this system.

•It is mandatory for banks to maintain reserve ratios like CRR or SLR. Whereas in the case of NBFC it is not required to maintain reserve ratios.

•Deposit insurance facility is allowed to the depositors by Deposit Insurance and Credit Guarantee Corporation (DICGC). In the case of NBFC, this type of facility shall not be available.

•Banks can create credit whereas in case of NBFC they are not involved in the creation of credit.

•Banks can provide transaction services to its customers such as providing overdraft facility, issue of traveller's cheque, transfer of funds, etc. Whereas these type of services cannot be provided by NBFC.

Regional Rural Banks-

Regional Rural Banks are government owned scheduled commercial banks of India that operate at regional level in different states of India. These banks are under the ownership of Ministry of Finance, Government of India. They were created to serve rural areas with basic banking and financial services.

Founded: 2 October 1975; 46 years ago
Number of locations: 21871
Owner: Government of India (50%), Nationalised Banks (35%), State Governments (15%)

Maharashtra	Vidarbha Konkan Gramin Bank	Bank of India	Nagpur
	Maharashtra Gramin Bank	Bank of Maharashtra	Aurangabad
Jammu and Kashmir	Ellaquai Dehati Bank	State Bank of India	Srinagar
	J&K Grameen Bank	J&K Bank Ltd.	Jammu
Jharkhand	Vananchal Gramin Bank	State Bank of India	Ranchi
	Jharkhand Gramin Bank	Bank of India	Ranchi
Karnataka	Pragathi Krishna Gramin Bank	Canara Bank	Ballari
	Kaveri Gramin Bank	State Bank of India	Mysuru
	Karnataka Vikas Grameena Bank	Syndicate Bank	Dharwad
Kerala	Kerala Gramin Bank	Canara Bank	Mallapuram
Madhya Pradesh	Narmada Jhabua Gramin Bank	Bank of India	Indore
	Central Madhya Pradesh Gramin Bank	Central Bank of India	Indore
	Madhyanchal Gramin Bank	State Bank of India	Sagar

Scheduled banks- Scheduled banks are those banks that are listed under Schedule II of the Reserve Bank of India Act, 1934. The bank's paid-up capital and raised funds must be at least Rs. 5 lakh to qualify as a scheduled bank. These banks are liable for low interest loans from the RBI. They also have membership in clearing houses.

They also have numerous obligations to fulfil such as maintaining an average daily Cash Reserve Ratio with the central bank.

Types of Scheduled Banks in India

The banks listed in Schedule II of RBI are further classified as –

1. Scheduled Commercial Public Sector Banks
2. SBI and its associates
3. Scheduled Commercial Private Sector Banks
4. Old Private Banks
5. New Private Sector Banks
6. Scheduled Foreign Banks in India

Differences Between a Scheduled Bank and Non-Scheduled Bank:

Scheduled Bank

- They are listed in the second schedule of the RBI Act.
- These have a paid up capital of Rs. 5 lakhs or more and comply with all the requirements of the RBI.
- They maintain a cash reserve ratio with RBI.
- They are authorized to borrow funds from the Reserve Bank of India.
- They are comparatively more financially stable.

Non-Scheduled Bank

- They are not listed in the second schedule of the RBI Act.
- There is no such condition that needs to be fulfilled for it to be considered a non-scheduled bank.
- They maintain the CRR amount with themselves.
- They are not allowed to.
- These banks are riskier.

Foreign banks-

A foreign bankis obligated to follow the regulations of both the home and host countries. Because the foreign bank branch has loan limits based on the total bank capital, they can provide more loans than subsidiary banks. That is because the foreign bank branch, while possibly small in one market, is technically part of a larger bank. Hence, it enjoys the capital base of the larger entity.India received the highest Foreign Direct Investment.

Banks often open a foreign branch to provide more services to their multinational corporate clients.
Foreign bank branches tend to be more effective in countries with high taxes and nations where it is easy for international firms to enter the market.

Foreign bank branches may face special difficulties during an economic or political crisis.

As of now, there are around 46 Foreign banks that are operating in India in 2021.

CITI BANK

Citi Bank is a multinational bank located in New York (USA) since 1812. Around 25 lakh customers are associated with the bank across India, with 43 branches and 750 ATMs.

DOHA BANK
Doha is an International Bank that was established in 2014. The headquarters are in Qatar with 3 branches in the Indian cities of Mumbai, Chennai and Kochi.

BANK OF AMERICA
Another foreign bank that enjoys its headquarters in India is the Bank of America, situated in
the USA, as the name suggests. With around 5 branches in India, the bank supports international transactions between India and America.

BARCLAYS BANK
The UK-based bank present in India since 1990 employs over 23,000 people in banking, technology and other services. Headquartered in Mumbai, the bank has 7 branches in the
country.

HSBC INDIA
HSBC Bank is the subordinate of the Hong Kong and Shanghai Banking Corporation. There are around 24 branches of the bank in India. Interestingly, the bank is known to offer India its first ATM in 1987.

DEUTSCHE BANK
The Deutsche Bank has its roots in Frankfurt, Germany. The Indian subordinate of the bank was established in 1980, in the financial capital of the country, Mumbai.

STANDARD CHARTERED BANK
Headquartered in London, England, the British multinational bank Standard Chartered Bank employs around 87,000 people and has more than 1,200 branches spread across 70 countries.

ROYAL BANK OF SCOTLAND
Known as one of the most reputable banks in the world, the Royal Bank of Scotland was founded in 1921. Established in India in 2003, the bank has around 10 branches in the nation.

DBS BANK
DBS bank is a Singaporean multinational banking and financial services organisation. With its global strength, the bank has managed to get a spot among the world's 15 safest banks in the world.

Mudra banks

Micro Units Development and Refinance Agency Bank is a public sector financial institution in India. It provides loans at low rates to micro-finance institutions and non-banking financial institutions which then provide credit to MSMEs.

It was launched by Prime Minister Narendra Modi on 8 April 2015.

Parent organization: Small Industries Development Bank of India

Headquarters: Mumbai

Small finance banks in India

Objectives

The objectives of setting up of small finance banks will be to further financial inclusion by:

1. provision of savings vehicles, and

2. supply of credit to small business units, small and marginal farmers, micro and small industries and other unorganised sector entities, through high technology-low cost operations.

Eligible promoters

- Resident individuals/professionals with 10 years of experience in banking and finance;
- Companies and societies owned and controlled by residents will be eligible to set up small finance banks.
- Existing Non-Banking Finance Companies (NBFCs), Micro Finance Institutions (MFIs), and Local Area Banks (LABs) that are owned and controlled by residents can also opt for

conversion into small finance banks.

Promoter/promoter groups should be ‘fit and proper’ with a sound track record of professional experience or of running their businesses for at least a period of five years in order to be eligible to promote small finance banks.

Capital requirement

The minimum paid-up equity capital for small finance banks shall be Rs. 100 crore.

Promoter's contribution

The promoter's minimum initial contribution to the paid-up equity capital of such small finance bank shall at least be 40 per cent and gradually brought down to 26 per cent within 12 years from the date of commencement of business of the bank.

Foreign shareholding

The foreign shareholding in the small finance bank would be as per the Foreign Direct Investment (FDI) policy for private sector banks as amended from time to time.

Some of the operational Small Finance Banks in India are as follows.

1.Ujjivan Small Finance Bank.

2.Janalakshmi Small Finance Bank.

3.Equitas Small Finance Bank.

4.A U Small Finance Bank.

5.Capital Small Finance Bank.

6.ESAF Small Finance Bank.

7.Utkarsh Small Finance Bank.

8.Suryoday Small Finance Bank.

9.Fincare Small Finance Bank.

Specialised Bank

Specialised banks are financial institutions that concentrate primarily on financing specialised economic and social endeavours. Small and cottage enterprises financing may be available for specialised activities. Financing the rural asset-poor and landless, among other things.

The specialized banks are defined as those banks that are banking operations that serve a specific type of economic activity, such as industrial activity or agricultural or real estate, under the resolutions of their establishment. Specialized bank does not have to accept demand deposits of the main aspects of its activities.

Specialised Bank # 1. Industrial Development Bank of India:
The Industrial bank of India popularly known as IDBI was established as wholly owned subsidiary of RBI. It was set up under the Act of Parliament in July 1964 to serve the purpose of providing credit and other facilities to the Industry.

Specialised Bank # 2. Housing Finance Bank: Housing Finance in India had been core issue for general public to obtain a Housing Loan either from Nationalised Banks or from other Financial institutions. The gap was generally and to little extend was fulfilled by state financial corporations, Co-operative banks/societies.

Specialised Bank # 3. EXIM Bank:

The Export and Import Bank of India popularly known as EXIM Banks was established in 1982 under the Export-Import Bank of India Act 1981 mainly for the purpose of enhancing export trade of the country.

Specialised Bank # 4. Rural Credit Bank:

The rural credit has been managed in many ways. The system of providing credit for rural development had been looked after by RBI, NABARD, Commercial banks, State Co-operative banks, District co-operative banks and Primary Agricultural Credit societies. But our economy had been lacking a developed Rural Financial system.

A **Non-Banking Financial Company** (NBFC) is a company registered under the Companies Act, 1956 engaged in the business of loans and advances, acquisition of shares/stocks/bonds/debentures/securities issued by Government or local authority or other marketable securities of a like nature, leasing, hire-purchase, insurance.

NBFCs are not subject to the banking regulations and oversight by federal and state authorities adhered to by traditional banks.

Investment banks, mortgage lenders, money market funds, insurance companies, hedge funds, private equity funds, and P2P lenders are all examples of NBFCs.

Since the Great Recession, NBFCs have proliferated in number and type, playing a key role in meeting the credit demand unmet by traditional banks.

There are many types of NBFC. Some of the most familiar are:
Casinos and card clubs
Securities and commodities firms (e.g., brokers/dealers, investment advisers, mutual funds, hedge funds, or commodity traders)
Money services businesses (MSB)
Insurance companies

Loan or finance companies
Operators of credit card systems

Wholesale and retail banking

Wholesale banking refers to banking services sold to large clients, such as other banks, other financial institutions, government agencies, large corporations, and real estate developers. It is the opposite of retail banking, which focuses on individual clients and small businesses.

Wholesale banking services include currency conversion, working capital financing, large trade transactions, mergers and acquisitions, consultancy, and underwriting, among other services.

RETAIL BANKING

Retail & Wholesale Banking

Retail Bank	Wholesale Bank
It deals with the customer directly	It deals with large multinationals firms, public sector and proprietorship
Takes funds from individual and invest it to small business	It takes funds from large business and invest it back to business
There is large volume of low transition	There is low volume of large transaction
Services like accepting deposits, maintain savings, checking account, provide loan to individual and safety deposit facility	Services like saving account, checking account, loan facility from companies and business
ICICI , PNB etc.	E.g. Bank of Baroda ,HDFC, ING Vysya etc.

Investment banking- Investment banking is the division of a bank or financial institution that serves governments, corporations, and institutions by providing underwriting (capital raising) and mergers and acquisitions (M&A) advisory services.

Investment banking pertains to certain activities of a financial services company or a corporate division that consist in advisory-based financial transactions on behalf of individuals, corporations, and governments.

The investment banking industry in India –
Axis Bank Ltd.
Barclays Bank PLC
BNP Paribas
Central Bank of India
Credit Suisse Securities (India) Private Ltd.
Deutsche Equities India Private Ltd.
Edelweiss Financial Services Ltd.
HDFC Bank Ltd.
HSBC Securities & Capital Markets (India) Private Ltd.
ICICI Securities Ltd.
IDBI Capital Market Services Ltd.
JP Morgan India Private Ltd.

Corporate Banking- Corporate banking is a subset of business banking that involves a range of banking services that are offered only to corporates. The services include the provision of credit, cash management facilities, etc.

UNIT-IV
Internet Banking

Outline:

- Introduction to Internet Banking
- Computers and Commercial World
- Telephone Banking
- Computerized Corporate Banking
- Electronic Funds Transfer(EFT)
- Importance of Cheques Clearing
- Magnetic Ink Character Recognition(MICR)
- RTGS
- NEFT
- Optical Mark Recognition
- Computer Output to Microphone(COM)
- Facsimile Transformation

Introduction to Internet Banking

- **Bank** is a financial institution and a mediator which accepts deposits and directs those deposits into lending activities either directly or through capital markets.

- **Banking** is the business activity of accepting and safeguarding money owned by other individuals and entities and then lending out this money in order to earn a profit.

Introduction to Internet Banking

- Banking Involves various functions like
  - Deposits
  - Withdrawals
  - Funds transfers
  - Project Finance
  - Loans
  - Pension
  - Insurance
  - Share Trading
  - Mutual Funds

Introduction to Internet Banking

- Internet banking is an internet based banking service that allows customers to operate their bank accounts from anywhere anytime, eliminating the restrictions imposed by geography and time.

- **Services**:
  - Fund Transfer
  - Request for issue of Demand Draft(DD)
  - Opening of new accounts
  - Closure of Loan accounts
  - Issue of Cheque book
  - Utility Bill payments such as Telephone or Electricity Bills
  - Online Ticket Booking for travel by Road, Rail or Air.

Introduction to Internet Banking

- Payment of Insurance premium and credit card dues.
- Online Share trading and mutual funds investments
- Customs duty payment and Tax Payments(Income, Service, Sate Government)
- Bank Statements
- Alerts
- Find location and ATM
- Request a loan and Check status
- Digital Signature

Introduction to Internet Banking

- **Advantages**:
  - 24/7 account and service access
  - Speed and efficiency
  - Online bill payment
  - Low overhead can mean low fees
  - Low overhead can mean high interest rates on deposit accounts

- **Disadvantages**:
  - Lack of Awareness among existing customers
  - Technology issues
  - Security issues
  - Inefficient at complex transactions
  - No relationship with personal banker
  - Inconvenient to make deposits

Computers and Commercial World

- Commerce world involves buying and selling of products and services.
- Commercial activities performed through electronic medium in the banking sector is known as E-business.
- Computer are used in commercial world because of the following characteristics:
  - **High speed** – Solving Complex computations very fast
  - **Accurate** – Getting accurate results for given input
  - **Diligence** - Working without any break(Free from tiredness, lack of concentration)
  - **Versatile** – Different types of work at the same time
  - **Compactness** – Computer Size is decreasing with new technology
  - **Reliability** – Computer will not do mistaken
  - **Bulk Storage** - Can store large amount of data with appropriate format

Computers and Commercial World

- **Factors** influence of computer on Commercial World:
  - Computer Software for accounts and Electronic Spread Sheet for financial calculations.
  - Reduce staffing costs on routine jobs like wages and accounts
  - Provides statistics to plan the business and assist in solving complex commercial problems.
  - Processing orders, generating invoice, tracing feedbacks, commercial documents transfer, etc.
  - It enables a business to reach global market through internet.
  - It handles Scheduling, Accounting, Billing, inventory Management, Contact Management.
  - Centralized Database Systems
  - Credit card transactions, Retail purchases, Automatic debit through internet.
  - E-Commerce

Computers and Commercial World

- Returns
- Customer Services
- Customer Relationship Management
- Supply Chain Management.

Goals:

- Reduce Cost
- Lower product cycle time
- Fast Customer Response
- Improved Service Quality

Computers and Commercial World

- **Advantages**:
  - Can reach world any time you want.
  - Online store works 24/7
  - Add and remove a products from catalogue or brochures
  - Large variety of goods
  - Faster business because all documents are exchanged electronically
  - Funds transfer becomes faster
  - Direct contact with customer without any middle man
  - Helps reduce cost and delay

Computers and Commercial World

- **Disadvantages**:
  - Buyer is not able to touch and feel product.
  - Less contact with the people
  - Lack in store maintenance for online shopping
  - Hacking problems
  - Internet access is not widely available at present.
  - No mutual trust between seller and buyer
  - Not secure for online transactions
  - If portals are not protected from virus attacks the business will be adversely affected.

Telephone Banking

- Telephone banking allows customers to conduct banking services using phone from anywhere and anytime.

- It doesn’t involve vision for the customers while producing their transactions.

- It is divided into 2 types:
    - Operator Attended
    - Automated – No human operators involved.

- Mobile E-Commerce and E-banking – Bank accounts, Balance, statements, Transfer, Bill payments.

Computerized Corporate Banking

- Corporate module provides roles such as Regulator, Admin, Up loader, Transaction Maker, Authorizer and Auditor
- **Functions** of the above roles:
  - Manage users, define rights and transaction rules on corporate accounts
  - Access accounts in several branches with a single sign-on mechanism
  - Upload files to make bulk transactions to third parties, supplier, vendor and tax collection authorities.
  - Fund transfer to own accounts, third party payments and draft issues.
  - Bill Payments
  - Authorize, Modify, Reschedule and cancel transactions based on rights assigned to the user.
  - Generate account statements.
  - Enquire on transaction details or current balance.

Electronic Funds Transfer(EFT)

- EFT refers to the computer-based systems used to perform financial transactions electronically.
- Transactions involve Credit and Debit between different branches of banks.
- Procedure for Fund Transfer:
  - Logon to retail section of internet banking using credentials (username and password)
  - Select Fund transfer link under Payments/Transfers tab
  - Select the Debit account and credit account
  - Enter the amount and remarks
  - On confirming the transaction, you will be displayed a confirmation page with the details of the transaction and option to submit or cancel the funds transfer request.
  - Click on submit button to complete the transaction. After successful transaction you will receive a reference number for your record.

Electronic Funds Transfer(EFT)

- Secure payment systems for EFT
  - Cybercash, Verisign, Payflow, CyberSource, Netseller, Tandata, etc.

- These payment systems are secured by SSL(Secure Socket Layer) and RSA(Ron-Rivert, Adi Shamir and Len Adleman) Cryptosystem security

Importance of Cheques Clearing

- Cheque is a negotiable instrument or a type of bill of exchange that orders payment of money from a bank account.
- In India cheques are valid for a period of 3 months from the date of their issue.
- Cheque clearing is the process through which financial institutions exchange cheques and other payment items that they have accepted.
- Modern cheque clearing system uses MICR. It is an electronic clearing system that saves lot of time and labour compared to manual clearing system.
- If more than one bank is involved then it has to go through clearing house
- Reserve Bank acts as a central clearing house in India.
- SBI corporation etc banks act as clearing house in cities where RBI's office does not exist.

Importance of Cheques Clearing

Magnetic Ink Character Recognition(MICR)

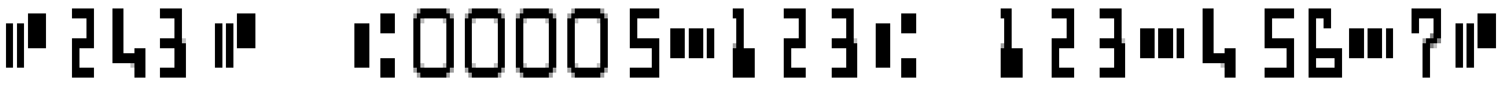
- **MICR** (Magnetic Ink Character Recognition) is a technology used to verify the legitimacy or originality of paper documents, especially checks.

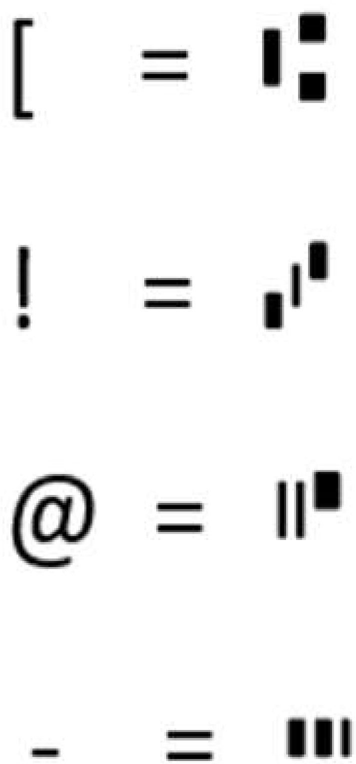
- By the mid 1950's, the **Stanford Research Institute and General Electric Computer Laboratory** had developed the first automated system to process checks-MICR.

- The same team also developed the **E13B** MICR font(consists of numbers from 0-9 & four special characters).

Magnetic Ink Character Recognition(MICR)

- **E13B** MICR font consists of numbers from **0-9** & **four special characters**





Magnetic Ink Character Recognition(MICR)

- MICR was established as the standard for negotiable documents by the **American Bankers Association(ABA)** in 1958.

- A Negotiable instrument is a document guaranteeing the payment of a specific amount of money, either on demand or at a set time, with the payer usually named on the document.

- By the end of 1959, the first checks had been printed using magnetic ink.

- MICR is used for banking applications for reading the cheque number.

- Cheque contains bank identification code and customer’s account number.

Magnetic Ink Character Recognition(MICR)

- **Features of MICR**
  - Is a character recognition technology used primarily by the bank industry to facilitate the processing of cheques and makes up the routing number and account number at the bottom of a cheque.
  - MICR characters are printed in special typefaces with a magnetic ink or toner, usually containing iron oxide.

Magnetic Ink Character Recognition(MICR)

- **Cont…**
  - Use of magnetic printing allows the characters to be read reliably even if they have been overprinted or obscured by other marks, such as cancellation stamps and signature.

  - The error rate for magnetic scanning of a typical check is smaller than with Optical Character Recognition(OCR) systems.

  - For well printed MICR documents, the “can’t read” rate is usually less than 1%, while substitution rate(misread rate) is in the order of 1 per 100,000 characters.

  - MICR operates at the speed of reading 2,400cps(Characters Per Second)

RTGS

- **RTGS** (Real Time Gross Settlement) and **NEFT** (National Electronic Funds Transfer) are electronic payment systems that allow individuals to transfer funds between banks.
- Both these systems are maintained by the Reserve Bank of India.
- It is applicable only for money transfer within the country, the payments are final and irrevocable..
- **'Real Time**' means the processing of instructions at the time they are received rather than at some later time.
- **'Gross Settlement'** means the settlement of funds transfer instructions occurs individually (on an instruction by instruction basis).
- It is the fastest possible mode of money transfer through bank channels in India.

RTGS

- Participants in RTGS transfer need to supply the same type of details as provided in the NEFT system.

- The transactions are settled as soon as they are processed

- RTGS is not a 24x7 system (8 am to 4.30 pm on a working day)
The timings that the banks follow may vary from bank to bank.

- The RTGS system is primarily meant for large value transactions. The minimum amount to be remitted through RTGS is ₹2,00,000/- with no upper or maximum ceiling.

- Service Charges
  - Inward transactions – Free, no charge to be levied.
  - Outward transactions – ₹2,00,000/- to 5,00,000/- : not exceeding ₹30/-;
    Above ₹5,00,000/- : not exceeding ₹55/-.

RTGS

- **Benefits**:
  - It is a safe and secure system for funds transfer.
  - RTGS transactions / transfers have no amount cap.
  - The system is available on all days when most bank branches are functioning, including Saturdays.
  - There is real time transfer of funds to the beneficiary account.
  - The remitter need not use a physical cheque or a demand draft.
  - The beneficiary need not visit a bank branch for depositing the paper instruments.
  - The beneficiary need not be apprehensive about loss / theft of physical instruments or the likelihood of fraudulent encashment thereof.
  - Remitter can initiate the remittances from his / her home / place of work using internet banking, if his / her bank offers such service.
  - The transaction charges have been capped by RBI.
  - The transaction has legal backing.

NEFT(National Electronic Funds Transfer)

- It is a nation-wide payment system. Under this Scheme, individuals can electronically transfer funds from any bank branch to any individual having an account with any other bank branch in the country participating in the Scheme.
- Individuals, firms or corporate maintaining accounts with a bank branch can transfer and receive funds using NEFT.
- There is no limit – either minimum or maximum – on the amount of funds that could be transferred using NEFT.
- **Timings**:
    - 9AM – 7PM on all weekdays – 11 hourly settlements
    - 9AM – 1PM on Saturday – 5 hourly settlement
- **Charges**:
    - Rs 5 per Transaction for amount < Rs 1 lakh
    - Rs 25 per Transaction for amount > Rs 1 lakh

NEFT

- **Features & Benefits:** Customers who wish to remit money through NEFT has to furnish the following particulars:

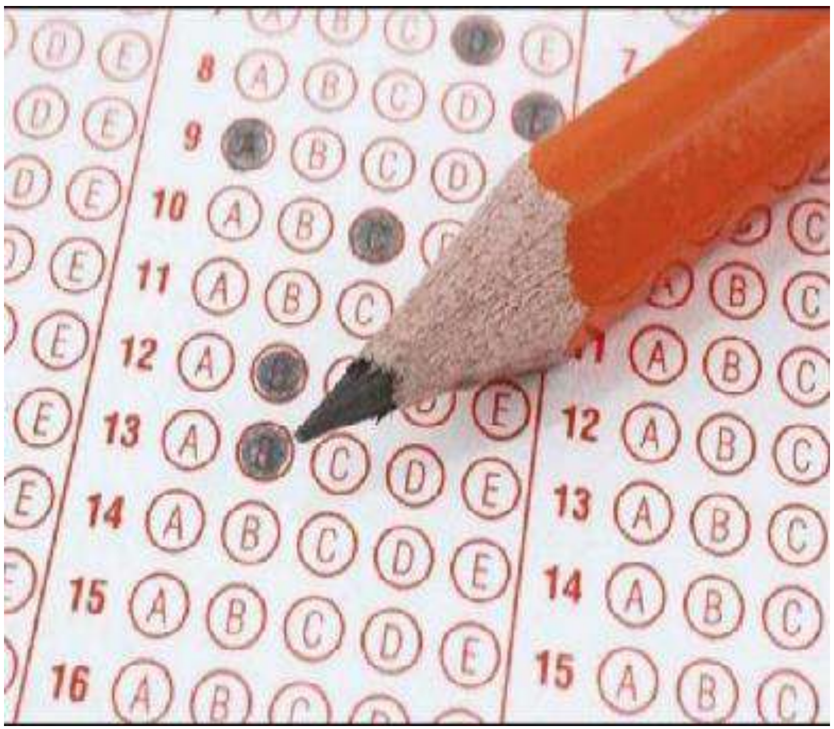
  - **IFSC** (Indian Financial System Code) of beneficiary Bank/Branch.
  - Full Account Number of the beneficiary.
  - Name of the beneficiary.
  - NEFT is available through Online mode for Internet Banking & Mobile Banking customers.
  - For Corporate customers, bulk upload facility is available at branches

Difference between RTGS & NEFT

SL. No	RTGS	NEFT
1	It is based on Gross-settlement	It is based on net-settlement
2	It is completed on one-to-one basis, no bunching with other transactions	It is completed in batches
3	These transactions are processed throughout the working hours of the system	These transactions are processed in cycles during given working day
4	It involves large amount of cash transactions i.e >5Lakh	It involves smaller amount of cash transactions i.e <2Lakh
5	This processes in real time	It process in cycles

OMR(Optical Mark Recognition)

- OMR is also called as "Mark Sensing"
- OMR is a method of scanning technology in which data is input via marks made in predefined positions on a form and entering data into a computer system.
- OMR is best for handling discrete data. Ex: Religion, Occupation



OMR(Optical Mark Recognition)

- OMR is a technology that detects the absence or presence of a mark, but not shape of the mark.
- **Functions**:
  - Reads marks written by pencil or ballpoint pen in the pre-defined position on the questionnaires sheet.
  - OMR can judge the existence of written marks by recognizing their depth(darkness) on the sheet.
  - OMR has been widely used as a direct input device for data of censuses and surveys as well as other commercial and administrative data.
- **What is a Mark?**

A mark is a response position on the questionnaire that is filled by survey collectors or respondents.

OMR(Optical Mark Recognition)

- **When to Use OMR:**
  - A large volume of data must be collected and processed in a short period of time.
  - Data are to be collected from a large number of sources simultaneously.
  - Questionnaires mainly comprise the selection of categories or "tick box" answer to multiple choice questions.
  - Survey collectors are limited or self filling by the respondents.
  - Highly accurate process is expected, like in scanning examination sheet.

OMR(Optical Mark Recognition)

- **Advantages:**
  - Simplicity of filling questionnaires with an ordinary pencil or pen.
  - High speed of reading/recognition – 7500 sheets/hour (double sided)
  - Reliability of less recognition of errors.
  - Lower cost.

- **Disadvantages:**
  - Marking needs larger area on the sheet compared to writing of characters.
  - Marks are not easy for people to read
  - OMR requires high quality printing.

Computer Output to Microphone(COM)

- Microphone is also called as mic which converts sound into an electrical signal.

- Microphones are used in many applications such as Telephones, Tape recorders, hearing aids, motion picture production, live and recorded audio engineering, FRS radios, megaphones, radio and television broadcasting and in computer for recording voice, speech recognition, VoIP.

- Most microphones use electromagnetic induction, capacitance change, piezoelectric generation or light modulation to produce an electric voltage signal from mechanical vibrations.

FACSimile Transformation(FAX Facsimile)

- FAX technology was developed in **19th century** i.e 1968.
- FACSmile originally called "**telecopying**"
- FAX is a device used for the transmission and reproduction of documents by digitized signals that are sent over telephone lines.
- FAX machines scans printed text and graphics and convert the image into digital code – 1 for dark areas, 0 for white areas.
- FAX machine is made up of scanner, printer and modem with fax signaling.

FACSimile Transformation(FAX Facsimile)

- FAX standards were classified by Groups 1,2,3 and 4
- **Groups 1 and 2** used until the late 1980s - transmitted a page in 3-6mins.

- **Group 3** –
  - Transmits at <1 minute per page
  - Uses data compression at 9600bps.
  - Resolutions:
    - 203*98 dpi in standard mode.
    - 203*196 dpi in fine mode.
    - 203*392 dpi in super fine mode.

- **Group 4** machines transmit a page in just few seconds & provide up to 400*400 resolution. It requires 56-64 Kbps bandwidth.

Accounting in Banks

Accounting impacts all aspects of bank operations and requires recordkeeping systems that generate accurate and reliable information and reports needed to meet the needs of customers, shareholders, supervisory agencies, tax authorities, and courts of law.

While the general structure of financial statements for banks isn’t that much different from a regular company, the nature of banking operations means that there are significant differences in the sub-classification of accounts. Banks use much more leverage than other businesses and earn a spread between the interest income they generate on their assets (loans) and their cost of funds (customer deposits).

Electronic banking- Electronic banking, which is also known as electronic fund transfer (EFT), refers to **the transfer of funds from one account to another through electronic methods**. A 2015 study by the Federal Reserve found that 22 percent of mobile phone owners use mobile payments.

Online banking, also known as internet banking, web banking, is an electronic payment system that enables customers of a bank or other financial institution to conduct a range of financial transactions through the financial institution's website.

Electronic banking is a form of banking in which funds are transferred through an exchange of electronic signals rather than through an exchange of cash, checks, or other types of paper documents. Transfers of funds occur between financial institutions such as banks and credit unions. They also occur between financial institutions and commercial institutions such as stores. Whenever someone withdraws cash from an automated teller machine (ATM) or pays for groceries using a debit card (which draws the amount owed to the store from a savings or checking account), the funds are transferred via electronic banking.

Electronic banking relies on intricate computer systems that communicate using telephone lines. These computer systems record transfers and ownership of funds, and they control the methods customers and commercial institutions use to access funds. A common method of access (or identification) is by access code, such as a personal identification number (PIN) that one might use to withdraw cash from an ATM machine.

There are various electronic banking systems, and they range in size. An example of a small system is an ATM network, a set of interconnected automated teller machines that are linked to a centralized financial institution and its computer system. An example of a large electronic banking system is the Federal Reserve Wire Network, called Fedwire. This system allows participants to handle large, time-sensitive payments, such as those required to settle real estate transactions.

When Did It Begin

For decades financial institutions have used powerful computer networks to automate millions of daily transactions. In the 1950s the Bank of America was one of the first institutions to develop the idea that electronic computers could take over the banking tasks of handling checks and balancing accounts, which was, at that time, extremely labor-intensive. Other institutions gradually joined the effort and progressed away from using paper checks and toward all-electronic banking. Data-processing machines, robotic document sorting, and the invention of optical character recognition (a computer application that translates handwritten or typewritten words into text that can be machine-edited) were a few of the developments which allowed this evolution.

The first electronic banking machines were able to keep records of deposits and withdrawals from each client, make account balance information available instantaneously, monitor overdrafts, stop payments, and hold funds. The machines responsible for this work today are as exact and reliable as the banking industry requires them to be.

Electronic banking laid the groundwork for speed and convenience in individual and commercial (business) banking. The spread of personal computer use has added another layer of convenience and speed to the process. Electronic banking allows customers of most banks to do their banking at any hour of the day, regardless of the bank's operating hours. If customers choose to do such things as transfer funds or pay bills, they can usually do so from anywhere Internet access is available. Online banking typically offers bank statements, electronic bill payment, funds transfers between a customer's checking and savings accounts (or to another customer's account), loan applications and transactions, and purchasing or sales of investments, all of which allow customers to maintain their accounts without making a trip to the bank itself.

When funds are transferred between accounts by electronic means, it is called an electronic funds transfer (EFT). The Electronic Fund Transfer Act, passed by the federal government in 1978, established that an electronic funds transfer is any financial transaction that originates from a telephone, electronic terminal, computer, or magnetic tape (storage tape of the sort used in video or audio cassettes).

A wire transfer is the electronic transfer of funds across a network controlled and maintained by hundreds of banks around the world. Usually wire transfers are reserved for moving large sums of money. Wire transfers allow people in different geographic locations to transfer money easily. The wire transfer payment system called Fedwire (Federal Reserve Wire Network) links the offices of the Federal Reserve (the central bank of the U.S. government), the U.S. Treasury (the department of the federal government that manages the country's revenue), and other government agencies and institutions.

One of the largest companies that provide electronic money services is Western Union. The company started out in 1851 as a transmitter of telegraphs, messages sent through wires as coded electronic pulses. As the telegraph became an obsolete form of communicating information in the mid-twentieth century, Western Union redefined itself as a provider of electronic financial transactions. Now named Western Union Financial Services, Inc., the company specializes in electronic money transfers and business communications services.

Another prominent provider of electronic financial transactions is PayPal, a service founded in 1999. It is used to process payments when people buy or sell things on the Internet. The service first gained popularity among people who used the auction website eBay. Most of the sellers on the site were not professional merchants and so were not equipped to accept credit cards; PayPal enabled them to receive electronic payments while also giving buyers an alternative to mailing paper checks or money orders. In 2002 eBay acquired PayPal.

Recent Trends

As online banking has become more sophisticated, banks have been formed that operate exclusively as electronic banks and have no physical storefront for customers to use. Without the costs of purchasing and maintaining physical “bricks-and-mortar” structures like traditional banks do, online banks are able to offer higher interest rates on savings accounts (interest payments are fees that customers collect for keeping their money in the bank). Customers at online banks can use the Internet to conduct all the standard banking transactions (including paying bills online, viewing images of cancelled checks, and transferring money to accounts at other banks and brokerages).

Many of these customers have their employer automatically deposit their paychecks into their bank accounts electronically (a method called direct deposit, which is also very commonly used by clients of traditional banks). Some employers, however, do not offer direct deposit. If a customer of an online bank receives a paper check, he or she cannot walk into their bank and cash it. He or she must mail the check to their bank or deposit it in an ATM that accepts deposits for their bank. Some customers view this inconvenience as a drawback of using an online bank.

DATANET: