

EQUITY MARKETS

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Overview of Indian Equity Market

Equity shares refer to long term finances of the company contributed by public. The equity shareholders hold the right to vote as per their contribution. The voting rights denote their ownership status. The finances garnered by the company act as the capital of the company and used for carrying out business, acquire assets, make investments, etc. The net worth of the company is denoted by the share capital. The share capital is not withdrawable unless winding up or dissolution of the company. In case of a public limited company the shares are transferable, their value is decided by company's performance, future potential and general economic conditions. The shareholders are rewarded in the manner of dividends paid out of profits & decided by the board. While it is not an obligation to pay the dividends, it affects its market value. In fact, equity is the costliest source of finance.

Prior to independence corporate sector depended only on equity finance for growth. The exchanges that were set up were mainly at the behest of brokerage houses. Post-independence public sector was the dominant players with a socialistic attitude and requirement of huge capital in setting heavy industries. India adopted a mixed economy model and slowly private sector was picking up. After economic liberalization SEBI was set up to regulate the capital markets and with its growth, the corporate sector has taken wings. A lot of IPOs have come out. Since 2014, govt. has been trying to disinvest from the PSUs and now pandemic has hastened the need for privatization.

- **Ownership & Management**

The ownership of the company is determined by the shareholders. However, it becomes impractical to take daily decisions, react strategically to changes in environment and take swift decisions. So, it is obvious to leave the running of the company in the hands of the professionals having expertise in the relevant field. Collectively it is called Board of Directors. Some of the decisions taken by Board involving change in equity structure, issue of debentures, allotment of voting rights and issue of shares, appointment of auditors require approval of shareholders. While resolutions may be passed by simple majority, others involving interests of existing shareholders require two-thirds majority. The board functions under rules framed by ministry of corporate affairs, Company Act and transparency are a measure of corporate governance. Shareholders like to be associated with companies with good corporate governance. While it seems very rational to appoint a board, it also has its limitations. It suffers from the conflict of interest of principal and agent. The objective of board may be to increase sales and utilize internal accruals for funding business while objective of shareholders is to receive maximum share of profits from the internal accruals.

- **Development of Equity Culture in India**

1. India is the 5th largest economy in the world. It boasts of \$1 trillion economy. Having a middle class of 400 million comprising 28% of the population, 79% of the taxpayer base, and attributing to 70% of the consumer spending, 760 million smartphone users, 25% growth rate of ecommerce business. The statistics are quite encouraging to investors in India's growth story. India has 1.2 billion youth population (aged 15 – 24 years) which is 16.3% of world's population. India is a data hub to the world with increasing BPO, KPO and IT analytic establishments. It is the largest producers of vaccines in the world with 25 crore COVID19 shots getting administered, seconding only to China.

2. This has been attracting the investors from foreign lands. The capital markets are their destination to pick up stake in the growing companies. SEBI has been incentivizing equity culture through investor education, IPO quota, price discounts, tax breaks, etc. During 2009 to 2014, equity markets grew by 100% but retail participation grew by 33%. This was a fallout of the stock exchange crashes when traditional retail investors lost wealth. Building a culture of equity is about discipline and regularity. The retail investors are mostly unaware of the economic data releases, and their implications on the equity markets. This increases the importance of investing through SIPs through well-known fund houses.

3. It is a fact that major retail investors who wish to interact with the equity markets directly, do so on the basis of tips and suggestions from share brokers, friends, family members and personal opinions expressed by analysts in different forums. They probably will desert the stock when its price start going down. It's very difficult to book loss. However, if the stocks are in profit, they will sell it too soon to book the profit. This violates rational thinking and introduces inefficiency. It prevents investors from staying invested or reap benefits of long term.

4. Equity culture of a country refers generally to the propensity of the citizens to invest in equity markets. Majority on savings are locked up in bank FDs and gold. For every dollar rise in GDP 18% goes to savings, 8% to gold, and only 1.5% to equity. Also, the rising income levels has not reflected in the participation in the stock market. Reasons for this aversion may be trust deficits in markets, market volatility, misleading brokers and lack of investor awareness.

5. Taking statistics in the period 2000 to 2013, ratio of market capitalization to GDP in case of USA/ UK, Canada is 120%, Germany/France/Italy is 55%. For BRICS countries it is 53%, Korea/ Japan 72%. For India it was 70% (12 % in 1990), however it was contributed mainly by foreign investors. Domestic investors are less active. In the period 2000 to 2013, foreign investors invested \$ 120 billion compared to \$ 17 billion by domestic investors. Indian investors withdrew money in 6 out of 13 years. In the entire period there was \$ 284 billion incremental savings, \$ 166 billion incremental gold buying but a mere \$ 17 billion in equity.

6. Current market capitalization of Indian equity markets was \$ 2.5 trillion. Top 3 corporates by market capitalization are Reliance Industries, TCS and HDFC Bank. Foreign companies took back \$15.07 billion as investment income in SEP – DEC 2020 period, as against \$ 12.2 billion a year ago. Since last few months Sensex has been on a bull run as FPIs has been mopping up equities and domestic investors are selling and making money.

- **Market Terminology**

1. **Agent:** An agent is a brokerage firm which does buying/selling of shares on behalf of the investor in the stock market.

2. **Ask/Offer:** It refers to the lowest price at which the owner of the equity shares is ready to sell the shares in the stock market.

3. **At the money:** Under this scenario, the strike price of an option is equal to the price of the underlying asset which it represents.

4. **Broker:** A person who purchases or sells an investment on behalf of the investor/trader in return for a commission.
5. **Bear Market:** It refers to a period in which the prices of equity shares fall consistently. You may look at it like beginning of a downward trend in the stock market.
6. **Bull Market:** An opposite of bear market, a bull market situation in which the prices of the stocks are increasing over a prolonged period of time. A single stock and a sector can be bullish at one time and bearish at another time.
7. **Beta:** It measures the association between price of one equity share and the overall movement of stock market. Beta of the market is assumed to be 1. A stock's beta of more than 1 shows a higher risk than the market. A beta of less than 1 shows that stock is less risky than the market.
8. **Bid:** It is the highest price that the buyer of a stock is ready to pay for a particular stock.
9. **Blue Chip Stock:** These are equity shares of companies which are well-established and financially stable. These generally have a relatively huge market capitalization.
10. **Board Lot:** Each exchange board defines a standard trading unit which relies on the per share price. Some of the popular board lot sizes are 50, 100, 500, 1000 units.
11. **Bonds:** A bond is a fixed income investment which is issued by the government or a company to its buyers. It shows a specified amount which an investor lends to the issuer of the bond for a specified period of time at a variable or fixed interest rate.
12. **Book:** It relates to an electronic record which is used to organise all the buy and sell orders of particular stocks which have remained pending.
13. **Call Option:** In this, the buyer of the option gets a right not an obligation to purchase the underlying asset at a specified price and time.
14. **Close Price:** It is the final price on a specific trading day at which the equity shares of a company is sold or traded.
15. **Cash:** Settlement on same day
16. **Convertible Securities:** It is a security like preferred stocks, bonds, debentures which are issued by an issuer capable of being converted into other securities of that issuer.
17. **Debentures:** It is a form of fixed-income instrument which is not backed by security of any physical assets or collateral of the issuer.
18. **Defensive Stock:** During the tenure of recession or an economic downturn, investors holding defensive stocks like these receive a constant rate of dividends.
19. **Delta:** A delta relates to the ratio of change in the price of a derivative in response to change in the price of the underlying asset. A higher delta suggests higher sensitivity of the delta to the price changes in the underlying asset.
20. **Derivative:** A sophisticated instrument to hedge risks
21. **IPO:** Initial Public Offer
22. **Face value:** It relates to the amount of money or the value in cash that the holder of a security will obtain from the issuer of the security when the security matures at the specific date.
23. **Moving Average:** It refers to the average price per unit of an equity share with respect to a specific period of time. Some popular time frames used to study the moving average of a stock include 50- and 200-day moving averages.

24. **One-sided Market:** It refers to a situation wherein a market only contains potential sellers/ buyers instead of both being present simultaneously. Market makers show only the bid price or an offer price indicating that market is heading in one direction.
25. **Spread:** It refers to the difference between the bid and the ask prices of an equity share. You may perceive it as the difference between the amount at which you would like to buy and the amount at which you would like to sell a stock.
26. **TOM:** Settlement on next working day
27. **SPOT:** Settlement on next-to-next working day (T+2)
28. **Volatility:** It refers to the fluctuations in the price of an equity share. Highly volatile stocks witness severe ups and downs during trading sessions. These are highly risky bets which can bring large number of profits for the skilled intra-day trader.
29. **VIX:** Volatility Index
30. **Volume:** It shows the average number of shares of stock which are traded during a particular time period usually the daily trading volume. It can also convey the number of shares which you are allowed to purchase of a given stock.
31. **Yield:** You may use the yield to calculate the return on an investment which you get after receiving dividend on a share. You can find the yield by dividing the annual amount of dividend by the price paid for the stock.

- **Investment Procedure**

- **Primary Market**

Availability of capital is both a need and a major constraint for the setting up or expanding ventures on a large scale. Instead of depending upon a limited pool of savings of a small circle of friends and relatives, the promoter has the option of raising money from the public across the country/world by issuing shares of the company. For this purpose, the promoter can invite investment to his or her venture by issuing offer document which gives full details about track record, the company, the nature of the project, the business model, etc. If the investor is comfortable with this proposed venture, he may invest and thus become a shareholder of the company. Primary market is a market wherein corporates issue new securities for raising funds generally for long term capital requirement.

- **Features of primary markets include:**

- The securities are issued by the company directly to the investors.
- The company receives the money and issues new securities to the investors.
- The primary markets are used by companies for the purpose of setting up new ventures/ business or for expanding or modernizing the existing business.
- Primary market performs the crucial function of facilitating capital formation in the economy

- **How it Works**

- **Preparation & Filing of Offer Document:**

1. A merchant banker is engaged. He is responsible for preparation of offer documents, legal compliance, marketing of issue to investors.

2. An offer document is prepared giving sufficient information and disclosures, which enables (potential) investors to make an informed decision. Accordingly, the offer document is required to contain details about the company, its promoters, the project, financial details, objects of raising the money, terms of the issue etc
3. The draft offer document thus prepared is filed with SEBI and is made available on SEBI's website. SEBI vets the offer document and observes if all the disclosures made in offer document are adequate for investors. Any observations of shortcomings are forwarded to merchant banker for rectification. Investors are also allowed to bring to notice any inadequacy.
4. The final offer document is filed by merchant banker with SEBI, ROC and stock exchanges. They are available online for viewing.

○ **Opening of Issue**

1. After completing legal formalities, the issuer company issues advertisements in English, Hindi and regional language newspapers and the issue is open to public for subscription. The interested investor applies for the issue within the issue period by duly filling up the application form and making the payment.
2. The entire back-office operation of the public issue, including processing of application forms, despatch of refunds, allotment of securities, is handled by the Registrar to the Issue (RTI) on behalf of the issuer company. The RTI matches applicant's name in the application form and verifies it against the PAN, demat account details (DP ID and Demat A/c No) and also weeds out duplicate applications.

○ **Allotment and Listing:**

The issue then closes (investor cannot apply beyond the closing date) and the shares are allotted to the applicants proportionally or on lottery basis, if there is oversubscription. The merchant banker and RTI finalize the 'basis of allotment'. This is approved by the stock exchange officials and the basis of allotment is made available in the website of the RTI. The issuer company issues advertisements in English, Hindi and regional language newspapers about the issue price and basis of allotment.

○ **Procedure of Allotment**

▪ ACB Company Ltd. is offering shares 10 crore shares @ ₹ 600 per share to the public. The minimum amount, for which allotment can be made, is required to be in the range of ₹ 5,000 – 7,000. Accordingly, the minimum application size for this issue works out to 9 shares (₹ 600 X 9 = ₹ 5,400). Therefore, application can be made for a minimum of 9 shares or in multiples thereof. Number of shares offered / Subscription received for (number of shares).

▪ Example: 10.00 crore shares are offered by company out of which 3.50 crore are offered to retail investors. The issue is subscribed up to 40 crores (4 times) total and 28.87 crore (8.25 times) by retail investors. Allotment is done to each investor in proportion to the number of times of subscription. In this case as the subscription is 8.25 times the allotment for each investor is 1/8.25th of the number of shares applied. Assume there are three retail individual investors A, B & C who have applied for 81, 72 and 45 shares respectively. So, A will be

allotted $81 \times 1/8.25 = 10$ shares, B will be allotted $72 \times 1/8.25 = 8.73$ shares, C will be allotted $45 \times 1/8.25 = 5.43$ but actually 9 shares will be allotted to B & C which is the minimum lot size.

- Upon allotment, investor will receive demat credit within 12 days. The despatch of refund cheques, instructions for unblocking amount in bank account (for ASBA) and instructions for electronic credits of refund money, is given by the RTI within 12 days of the close of the issue.

- The shares of the company are then listed on the stock exchange within 12 working days of the close of the issue. Listing of shares (or debentures) in stock exchange enables the investor to buy securities from or sell securities to other investors (secondary market)

- The complete contact details of all the intermediaries involved in an issue namely merchant banker, RTI, banker to the issue etc. are available in the offer document. In case the investor needs any clarification, they can contact them.

- Revision of bids and withdrawal of bids possible before closure of issue.

- Pre-requisites for application are: PAN card, Bank account, Demat account

- Refund is given for application money of un-allotted shares. Failure to return within stipulated time will attract interest of 15%

- For grievance redressal of non-receiving of refund, one may approach SEBI.

- **Secondary Market Investment**

- 1. Understanding the Stock Exchange Platform:**

A stock exchange is precisely a platform that conducts the trading of financial instruments like stocks and derivatives. The activities on this platform are regulated by the Securities and Exchange Board of India. The participants have to register with SEBI and the stock exchange in order to conduct trades. Trading activities include brokering, issuing of shares by companies, etc.

- 2. Listing of the Company in the Secondary Market:**

The shares of a company are listed on the secondary market for the first time through an Initial Public Offer or IPO. The allotment of stocks takes place before listing and investors who bid for the stocks get their share depending on the number of investors.

- 3. Trading in the Secondary Market:**

Once the company has been listed, stocks can be traded in the secondary market by the investors. This is the marketplace for the buyers and sellers to transact and make profits or in some cases, losses.

- 4. Stock Brokers:**

Because of the magnitude of investors who number in the thousands, it is difficult to have them assemble at one location. Therefore, to conduct trade, stockbrokers and brokerage firms come into the picture. These are entities that are registered with the Stock Exchange and serve as intermediaries between the investors and the exchange itself. When you place an order to buy any share at a given rate, the broker processes it at the exchange where there are multiple parties involved.

- 5. Passing of your order:**

Your buy order is passed on to the exchange by the broker, where it is matched for a sell order for the same. The exchange takes place when the seller and the buyer agree upon a price and finalize it; the order is then confirmed.

6. Settlement:

Once you finalize a price, the exchange confirms the details to ensure that there is no default in the transaction. The exchange then facilitates the transfer of ownership of the shares which is known as Settlement. You receive a message once this takes place. The communication of this message involves multiple parties like the brokerage order department, the exchange floor traders, etc. The settlement time earlier took weeks to materialize which now happens in T+2 days. This means that if you trade today, the shares are reflected in your Demat account in two working days' time.

Primary & Secondary Markets

- **Primary Markets**

It is the starting point of debt markets. The debt instruments are born or issued for the first time in the primary

markets, thus investors are able to purchase securities directly from the issuer.

- **Types of Primary Market:**

1. **Public issue (IPO)** where the securities are sold by the company for first time. SEBI is the regulatory body that monitors IPO. As per its guidelines, a requisite due enquiry is conducted for a company's authenticity, and the company is required to mention its necessary details in the prospectus for a public issue.

2. **Private Placements:** When a company issues securities to a small group of investors (individual/ institutional).

The advantages are: 1. it saves cost 2. lesser requirement of regulatory compliances 3. the company may remain private as no public participation. It is ideal for start-ups, small firms and usual investors are HNIs, hedge funds or investment bank.

3. **Qualified Institutional Placements (QIPs)** Convertible debentures may be placed before QIBs like MFs, FIIs, Pension funds, Banks, etc.

An underwriter or investment bank manages the issue. The company who is listed can issue securities. The money collected from buyers of the securities is collected by the issuing company and a fee is paid to the underwriter. They undertake to subscribe to an issue if it is undersubscribed. Hence, they engage in extensive advertisements, campaigns to make the issue successful. They also take care of the fillings to SEBI, exchanges.

- **IPO**

1. **Fixed price IPO:** IPO share price is fixed before it is made available to the public. This price is usually set by evaluating the total assets, liabilities, and every other financial aspect. The IPO price does not fluctuate depending on its demand. The total demand for that IPO is known only after the issue is closed. The investor needs to pay 100% at the time of application. The price fixed for the IPO is usually less than the market price to attract the investors. The demand for the shares can be known only after the issue is closed.

2. **Book building IPO:** Here the price is determined during the process of IPO. There is no fixed price, but a price band. The price band is decided based on the company's financials, the success of the road shows and prevailing market conditions. The lowest price in the band is the 'floor price' and the highest price is the 'cap price'. The investors are free to bid for any number of shares, along with the price at which they are willing to pay. The quoted price must be within the price band though. In the end, the share price is decided based on the bids. This is popular method. The payment may be made after the allotment. The demand for the issue can be ascertained after each day from opening day.

In both the cases, 15% is reserved for retail individual investors, 35% for non-retail investors, and 50% for QIBs. In case of compulsorily book-built issues 10% reserved for retail, 15 % for non-retail and 75% for QIBs, otherwise proceeds have to be refunded.

The number of fixed price issues is more than the book building issues. But the capital gathered from the book building issues are much more than the fixed price issues after the market price corrections.

○ **OFS (Offer for Sale)**

Offer for sale (OFS) is a simpler method of share sale through the exchange platform for listed companies. The mechanism was first introduced by India's securities market regulator Sebi, in 2012. OFS mechanism is used only when existing shares are put on the block. Only promoters or shareholders holding more than 10 per cent of the share capital in a company can come up with such an issue. A minimum of 10 per cent of the offer size is reserved for retail investors.

In OFS, the entire retail bid amount is backed by 100 per cent margins in the form of cash and cash-equivalent. The process is quick and any excess fund, due to non-allotment or partial allotment, is refunded to the trading member on the same day, after 6 pm.

Bids backed by 100 per cent margins are allowed to be modified anytime during the OFS hours. Nonetheless, those with zero per cent margin can only be modified upwards, for revision in price and quantity. No cancellation is permitted in such bids. Bids below the floor price are rejected. The allocation remains subject to final price discovery. The floor price is generally set at a discount to the prevailing price.

But sometimes things go overboard. Take the example of MMTC. In June 2013, the OFS was offered at a steep discount of 72 per cent, thanks to low free-float shares (and hence low volumes) and premium valuations on lack of efficient price discovery mechanism. The stock crashed and now trades way below its pre-OFS price.

○ **Book Building**

● **The Process:**

- The Issuer who is planning an offer nominates lead merchant banker(s) as 'book runners'.
- The Issuer specifies the number of securities to be issued and the price band for the bids. The lower limit is called floor price and upper, cap price. The spread between the two is maximum 20%. The price band may be revised.
- The price band is declared at least 5 days before in case IPO and 1 day in case of FPO. Bids have to be entered within the specified price band.
- The Issuer also appoints syndicate members with whom orders are to be placed by the investors. The syndicate members input the orders into an 'electronic book'. This process is called 'bidding' and is similar to open auction.

- The book normally remains open for a period of 3 days. If there is a revision in price band the bidding period is extended for another 3 days.
- Bids can be revised by the bidders before the book closes.
- On the close of the book building period, the book runners evaluate the bids on the basis of the demand at various price levels.
- The book runners and the Issuer decide the final price at which the securities shall be issued.
- Generally, the number of shares is fixed, the issue size gets frozen based on the final price per share.
- Allocation of securities is made to the successful bidders. The rest get refund orders.
- **Merchant Bankers' role in price fixation**
 - Merchant Bankers are financial service providers who play an important role in making an IPO successful. They are responsible for advertising, roadshows, financier's meet, etc for garnering maximum subscription and also compliance with SEBI, disclosures through offer document.
 - They have a good knowledge of the market, investor outlook and response of investors to the build-up of the issue. Hence, they are in a better position to advise the issuing company about the price band. If they are not taking up the job of underwriting, they will be appointing the underwriters who may subscribe if the issue is undersubscribed.
 - Apart from the external market, the issuing company's parameters include EPS, PE multiple, return on net worth are taken into consideration and comparison of these parameters with peer group companies is made.
 - Hence after a discussion between merchant bankers who takes up an advisory role with the issuer the issue price is fixed.
- **RED HERRING PROSPECTS (RHP)**
 - A Red Herring Prospectus, or offer document, is filed by a company to SEBI when it plans to raise money from the public by selling shares of the company to investors. The document is very useful to investors because it provides detailed information about the company's business operations, financials, promoters and the company's objective for raising funds through IPOs. It also explains how the company aims to use the money that will be raised, the possible risks for investors etc.
 - A RHP can be obtained from SEBI website. Accordingly, the company makes advertisement in the national newspapers in English, Hindi and a regional language.

It contains the following details:

1. **IPO details:** It offers the details about the IPO including the number of shares offered via fresh issue and offer for sale. It also offers a break-up of the QIB, Non-Institutional, and Retail portions.
2. **Capital Structure:** offers details about the Equity Share Capital of the issuing company as of the date of the Red Herring Prospectus. This includes the authorized share capital and issued, subscribed, and paid-up capital before the offer. It also has information about the history of the equity share capital held by the promoters of the company.

3. Objects of the Offer: This section offers details about how the company plans to utilize the funds collected via the IPO. As an investor, this can be used to evaluate if the company is focusing on growth or will use the raised funds to repay debt, to meet working capital requirements or any other goal.

4. Industry overview: A red herring prospectus carries information about the position of the company, in comparison to its competitors. The performance trends of the industry to which the company belongs is also included in the document. If we are planning to invest in a particular company's IPO, we should analyse the various business and economic variables at play, the demand and supply mechanism and the future prospects.

5. Business Description: This segment talks about a company's core operations and how it conducts business. As a potential shareholder, we should pay attention to this part as the investment will be utilised by the company in its core business.

6. Financial information: This is one of the most important segments and contains the company's audit reports and financial statements. As an investor, the financial statement will help us get an idea about the company's financial performance in the past. It will also help to get an idea of future dividends based on the profits disclosed. We can project the safety and profitability of the future investment based on the financial statement.

7. Strengths: The Red Herring Prospectus also lists the strengths of the company – both internal and external. These strengths distinguish the company from its competitors. It is essential to go through this section only after understanding the company's business and its competition. The strengths of the company can help us understand the potential it has to grow in the near future.

8. Strategies: This section lists the strategies adopted by the company to establish and grow its business. This can include product-level strategies, geographic strategies, market-level strategies, etc. This can help us know the approach taken by the issuing company to generate profits.

9. Risk Factors: Companies list out the potential risks that could impact their business and operations under a section titled 'Risk Factors'. While many are routinely listed risks, some risks need to be examined. For example, if we find that the company has several pending legal cases, it may be a good idea to avoid the IPO. As an investor, we should be able to read between the lines to identify the real risks that could pose a threat to the company's growth in the future.

10. Management: This section has details such as names, qualifications, designations about directors, promoters and key management personnel. It may also have information about any criminal cases or that of financial delinquency or pending litigations against these people. It is important to check this section because all these can be a risk factor.

○ **ASBA (Application Supported by Blocked Amount)**

ASBA provides an alternative mode of payment in issues whereby the application money remains in the investor's account till finalization of basis of allotment in the issue.

ASBA process facilitates investors bidding with multiple options, to apply through Self Certified Syndicate Banks (SCSBs), in which the investors have bank accounts. SCSBs are those banks which satisfy the conditions laid by SEBI. SCSBs would accept the applications, verify the application, block the fund to the extent of bid payment amount, upload the details in the web-based bidding system of NSE/BSE, unblock once basis of allotment is finalized and transfer the amount for allotted shares, to the issuer.

It is a supplementary process available for all public issues made through book building route and also to all Debts & Right Issues. ASBA facility can be used for Initial Public Offer (IPO) and Follow-on Public Offer (FPO).

If an investor is applying through ASBA, his application money shall be debited from the bank account only if his/her application is selected for allotment after the basis of allotment is finalized, or the issue is withdrawn / failed.

Under ASBA, funds blocked in the account, will continue to earn interest during the application processing period, if held in an interest-bearing account. Bank will mark a lien on the deposit account of the investor to the extent of the application money. The lien will be removed immediately after finalization of the basis of allotment. If bid is successful, the deposit account will be debited and the allotted shares will be transferred by the Company to the applicant's Demat account.

- ASBA application can be rejected under the following circumstances:
 1. If you do not have sufficient balance in your bank account.
 2. If there is a mismatch in your name on the PAN Card with that in your application form or Demat account holder name.
 3. If there are multiple applications by the same investor.
 4. If the information mentioned by you is incorrect.

- Benefits for investors applying through ASBA process:
 1. When money is blocked in your bank account, you do not lose out on interest income. You continue to earn interest on the blocked amount.
 2. The ASBA eliminates the need to pay money via cheques and demand drafts.
 3. The ASBA facility is hassle-free and does not involve any cost. You can easily apply via Net banking without submitting any physical documentation.
 4. The investors need not worry about the refunds. In case there is no allotment of shares, the money is unblocked from your bank account for further use.
 5. The blocked amount is considered while calculating the Average Quarterly Balance in the account.

- Detailed procedure of applying in IPO through ASBA:

Under ASBA facility, investors can apply in any public/ rights issues by using their bank account. Investor submits the ASBA form (available at the designate branches of the banks acting as SCSB) after filling the details like name of the applicant, PAN number, demat account number, bid quantity, bid price and other relevant details, to the bank branch by giving an instruction to block the amount in their account. In turn, the bank will upload the details of the application in the bidding platform. Investors shall ensure that the details that are filled in the ASBA form are correct otherwise the form is liable to be rejected. Investors can also apply in IPOs through online/electronic mode if the SCSBs are providing such facility

○ **Green Shoe Option**

One of the problems in an IPO has been the post-issue price decline as compared to the issue price. This often has left retail investors feeling high and dry. A solution to this problem is the introduction of the Green Shoe Option in the issue.

A Green Shoe Option (“GSO”) is an option to retain (up to a certain limit) excess subscription to an issue of shares and to stabilise the post-issue price of the shares. Retail investors are given protection by the GSO since many times the post-issue listing price is at a substantial discount to the offer price. The first company to use this innovative structure was the Green Shoe Manufacturing Company (now called Stride Rite Corporation), founded in 1919.

Companies which have opted for this option, include, Maruti Suzuki, Tata Consultancy Services, etc. ICICI Bank was the first company to use the GSO under the book building route. DSP Merrill Lynch was appointed as the Stabilising Agent to maintain the post-issue price and for this the GSO was up to 15% of the issue size.

The Book Running Lead Manager (“BRLM”) normally act as the Stabilizing Agent (“SA”) for the purposes of effectuating the Green Shoe Option, under the SEBI Guidelines. The Stabilising Agent and the Company determine the number of shares to be over allotted. It cannot exceed 15% of the total issue size. In case the shares are trading at a price lower than the offer price, the stabilising agent starts buying the shares by using the money lying in the separate bank account. In this manner, by buying the shares when others are selling, the stabilising agent tries to put the brakes on falling prices. The shares so bought from the market are handed over to the promoters from whom they were borrowed. In case the newly listed shares start trading at a price higher than the offer price, the stabilising agent does not buy any shares.

The stabilisation cannot continue for a period exceeding 30 days from the date of the receipt of permission for trading of the Equity Shares from the Stock Exchanges. For the purposes of the Green Shoe Option, the Stabilising Agent shall borrow the Loaned Shares from the Green Shoe Lender.

Example: A Ltd. proposes to float an IPO of 10,00,000 equity shares at a price of Rs. 10 + 40 per share. The issue is oversubscribed and it receives applications for 17,00,000 equity shares. It has a GSO up to 15% of the issue size = 11,50,000 shares, i.e., 1,50,000 shares for the GSO.

The overallotment to the tune of 1,50,000 shares would be used for stabilising the post-listing price of the shares of A Ltd. The 150,000 shares used for the over-allotment are actually borrowed from the promoters with whom the stabilising agent signs a separate agreement. For the subscribers of a public issue, it makes no difference whether the company is allotting shares out of the freshly issued 10 lakh shares or from the 150,000 shares borrowed from the promoters.

Once allotted, a share is just a share for an investor. For the company, however, the situation is totally different. The money received from the over-allotment is required to be kept in a separate bank account (i.e., escrow account).

○ **Sweat Equity Shares**

Sweat equity shares are shares issued by a company to its own employees and directors. The main reason behind a company issuing such shares is retention of talent. There is the compulsory lock-in period of three years and are non-transferable. Sweat equity shares are directly allotted to the employees at a discount price. These types of shares are preferred over ESOPs (Employee Stock Option Plan) as they offer the right to buy and it's not an obligation to buy the shares at a pre-decided price to be allotted in the future thereby being dependent on the price volatility of the shares.

A registered valuer assesses evaluates and determines the fair value of the sweat equity shares. This serves the objective of rewarding an employee without much financial outgo.

A company is allowed to issue the following number of shares –15% of its current paid-up equity share capital in a year, Equal to the value Rs. 5 crores. Also, the sweat equity shares shouldn't go beyond 25% of the paid-up equity capital of the issuing company at any point in time. However, start-ups are allowed to issue up to 50% of the paid-up capital within 5 years from the date of registration or incorporation.

Sweat equity shares will be taxable in the hands of employee under head "Salary" in the year in which the shares are allotted or transferred to employees. At the time of sale: - Capital gains are taxable in hands of employee in year in which shares/securities are transferred.

● **Benefits for the company:**

1. Talent can be retained without cash outflow
2. No immediate raise in salary
3. Satisfied and motivated workforce
4. Employees will take more responsibility in growth of company

● **Benefits for employee:**

1. Getting shares at lower than market prices
2. Lack of pay may be compensated by rise in assets
3. Gains from capital appreciation if company grows.

Employee Stock Option' (ESOP) has been defined under Sub-section (37) of Section 2 of the Companies Act, 2013, according to which “employees’ stock option” means the option given to the directors, officers or employees of a company or of its holding company or subsidiary company or companies, if any, which gives such directors, officers or employees, the benefit or right to purchase, or to subscribe for, the shares of the company at a future date at a pre-determined price.

- **Difference between ESOP and Sweat Equity shares**

1. ESOP is not an obligation rather it is a right of the employee to purchase certain amount of share of the company at a pre decided price while SE is issuance of shares.
2. Directors if independent or holding more than 10% stake are excluded from ESOP purview.
3. The consideration has to be paid in cash (ESOP)
4. There is no restriction on holding period in ESOPs unlike 3 years in the other case.
5. At the time of granting ESOPs by the company, a registered valuer calculates FMV of the shares, while the same is done by a merchant banker in case of Sweat Equity Shares.
6. ESOPs are provided as incentive while Sweat equity is provided as consideration for getting IPRs also.

- **Rights issue of shares**

Concept of Right Issue of Shares Under Companies Act 2013

‘Right Issue’ means offering shares to existing members in proportion to their existing shareholding. The basic idea is to raise fresh capital. Right issue is generally availed by small companies where the power of shareholding retains with the shareholders of company.

It is an invitation to existing shareholders to buy more shares at a discounted price. Shareholders need to apply for rights issue before the record date. It is also known as the cut-off date.

Existing shareholders have rights but no obligation to buy these shares. With the rights the shareholders can purchase new shares at a discount to the market price. This gives them an opportunity to increase their stake within the company.

Unless the articles of the company otherwise provide, the notice of offer shall contain a statement of right to renounce. The offer includes a right to renounce the shares in favour of any other person. In case the shares are declined after the expiry of the time mentioned in the notice or by an earlier intimation from the person to whom the notice was given, the board of directors may dispose of the shares in a manner not disadvantageous to the shareholders and the company.

The right to subscription of shares in a company can be assigned to a third party. The transfer of such right is called renunciation of issue.

The Company can issue new share issues at face value or at a premium. There are no regulations for determining the amount of premium for the issue of shares.

- Rights are issued for various reasons like –
Business Expansion or Acquisition e.g., companies with strong fundamentals like L&T Finance Holdings Limited, Tata Power, etc. These companies have raised more than Rs. 10,000 crores through rights issue during the pandemic.

Become Debt-Free e.g., Reliance Industries opted for a rights issue in 2020 to become debt-free. The company used the net proceeds towards repayment of their borrowings. They successfully closed their rights issue at Rs. 53,124 crores on June 3, 2020. This was India's largest-ever rights issue. It is also the world's largest rights issue by a non-financial institution in the last ten years.

Reliance Industries rights issue price was set at ₹1,257 per share. The issue size was of 42.26 crores equity shares aggregating up to ₹53,125 crores. For every 15 shares held, a shareholder can buy one share at the discounted price. The rights were issued at a discount of ₹200 to its share price for existing shareholders (₹1,458.90 – ₹1,257).

- Options for shareholders when offered rights issue:
 1. They may accept the offer and buy the shares.
 2. They may ignore the offer.
 3. They may sell the rights in the open market. This is also known as the renunciation of rights issued. This way, the shareholder can make profits on the shares and the company will also be able to raise the required capital.

PVR Limited issued rights in July 2020. The proceeds planned to be essentially used for meeting working capital needs and partly for debt repayment. They have approximately Rs. 150 crores of debt repayment due. Theatres in India have been shut for over five months due to Covid-19 led lockdown. This pauses their operations and directly hits their revenue income. A shareholder may think this to be a risky investment, then you have an option to ignore and let go of your rights.

- Advantages:

Benefits for the company –

1. Rights issue is one of the fastest methods for a company to raise fresh capital from their existing shareholders. The company needs to hold a board meeting and pass resolution for issuance of shares under Rights Issue.

2. They incur lower issue costs and save on various expenses like advertising, underwriting fees, etc.
3. This is the best way to raise funds without increasing the debt burden.

Benefits for the Shareholders – Rights Issue provides existing shareholders an opportunity to increase their stake at a discounted price.

- **Disadvantages:**

1. Rights issue affects a company's EPS adversely, as although profits are same, it is divided amongst large number of shares.
2. Shareholders should take a look at the company's performance, objective of raising funds of the company and future potential of the sector and company. However, if promoters start participating in the rights issue, it instils a lot of confidence amongst retail shareholders.
3. Rights issue once announced may be applied through ASBA route. To facilitate rights issuance at the time of pandemic SEBI has introduced R – WAP facility.

- **ADR**

American Depository Receipts (ADRs) offer US investors a means to gain investment exposure to non-US stocks without the complexities of dealing in foreign stock markets. They are negotiable security instruments that are issued by a US bank that represent a specific number of shares in a foreign company that is traded in US financial markets. ADRs pay dividends I ADRs are listed on the NYSE, NASDAQ, and can be sold over-the-counter in US dollars and trade like regular shares.

Through ADRs, Indian companies who are willing to raise funds from the U.S. can do so by issuing shares on American Stock exchange.

However, the issuance of ADR is governed by the rules and regulations as laid down by the regulator SEC (Securities and Exchange Commission). The Indian Companies will have to maintain accounts as per the American Standards.

The Indian companies cannot directly list their equity shares on the international stock exchange. So, in order to overcome this problem; the companies give shares to an American bank. These American banks in return for those shares provide receipts to the Indian companies. The companies raise funds by providing those ADR receipts in American share market.

One ADR comprises of a certain number of shares in an Indian company and these ADRs are quoted in US dollars. The investors of a foreign country can buy and sell shares directly and the investor is free to convert the ADR to receive the equivalent number of shares.

Types of ADR are:

Sponsored ADR (created through an agreement between a non-American company and an American bank)

Unsponsored ADR (These ADRs are created by American banks without the involvement or the permission of a non-American company)

While the US stock markets show dismal improvement, Indian ADRs are drawing premium amounts. During 2009, the average premium on ADR prices increased to 10.2 per cent. Even when the recession was at a peak in 2008, the ADRs fetched a premium of an average of 6.1 per cent and a premium of 5.1 per cent in 2007.

Pricing of ADR: The number of shares underlying the receipt is depicted using a ratio ORD (ordinary share value): ADRS. For example, HDFC Bank's ratio is 3:1 implies that 3 shares of HDFC equal to a single ADR. This ratio is important to understand if the receipt has been priced at fair market value. If one decides to purchase ADRs of HDFC Bank Ltd. whose current price is \$70.23, he should verify if the ADRs are priced fairly. Assuming the current exchange rate is Rs.74.50: \$1.00, the price of 3 shares of HDFC Bank on the Indian stock exchange should be around Rs 5232 ($\$70.23 * 74.50$). HDFC Bank shares are priced at Rs 1444 per share. So, price of 3 shares would be Rs 4332. However Indian residents are allowed to trade in ADR.

- **Advantages:**

NRIs and US investors are benefitted:

1. They do not have to understand the compliance and complexities of Indian capital markets.
2. They are shielded from foreign exchange fluctuations
3. Dividends are paid in US Dollars.
4. They may participate in growing Indian IT companies who are already established

- **GDR**

- GDRs are negotiable certificates issued by depository banks that represent ownership of a specified number of a company's shares. These receipts can be listed and traded independently from the underlying shares. With GDRs, foreign companies can trade in any country's stock market except the US stock market. Those holding GDRs can convert them into shares by surrendering the receipts to the bank.
- They are listed on non-US stock exchanges like the London Stock Exchange or the Luxembourg Stock Exchange. The GDR market is an institutional one and hence offers less liquidity but allows trading across a more significant number of countries.
- For example, if Infosys wants to list its share in Australia, they will deposit a substantial number of shares with an Australian Bank. The bank can then issue receipts (GDRs) against these shares to investors. Each receipt represents a particular number of shares.
- SEBI came out with a detailed framework for issuance of depository receipts (DR) in October 2019. The introduced changes allow increased access to foreign funds through ADRs and GDRs.

- Indian companies can now list their GDR at the International Financial Services Centre in Gujarat. With the new rules in place, the companies now have an additional source for raising funds. As per the amended rules, DRs can be issued by way of public offering, private placement, or in a manner that is accepted in the concerned jurisdiction. Companies planning to issue GDR need to seek prior approval of the Ministry of Finance and Foreign Investment Promotion Board (FIPB).
- Examples of companies that have issued GDRs in India include Aditya Birla Capital listed in the Luxembourg Stock Exchange, GAIL Indian is listed in the London Stock Exchange, UPL is listed on Singapore Exchange.

○ **Differences between ADR and GDR**

- American Depository Receipt (ADR) is a depository receipt which is issued by a US depository bank against a certain number of shares of non-US company stock. Whereas Global Depository Receipt (GDR) is a depository receipt which is issued by the international depository bank, representing foreign company's stock.
- Foreign companies can trade in US stock market, through various bank branches with the help of ADR.
- Whereas GDR helps foreign companies to trade in any country's stock market other than the US stock market.
- ADR is issued in America while GDR can be issued in both America and Europe.
- ADR is listed in American Stock Exchange i.e., New York Stock Exchange (NYSE) whereas GDR is listed in non-US stock exchanges like London Stock Exchange or Luxembourg Stock Exchange.
- ADR can be traded in America only while GDR can be traded in all around the world.
- ADR Market is more liquid as compared to GDR market
- Investor's participation is more in ADR as compared to GDR
- ADR market is a retail investor market whereas GDR's market is institutional one.
- ADR's disclosure agreements are more onerous as compared to GDR.

● **IDR (Indian Depository Receipt)**

An IDR is an instrument denominated in Indian Rupees in the form of a depository receipt created by a Domestic Depository (custodian of securities registered with the Securities and Exchange Board of India) against the underlying equity shares of issuing company to enable foreign companies to raise funds from the Indian securities Markets. The size of an IDR issue shall not be less than Rs. 50 crores. IDRs enable overseas companies to raise funds from Indian investors.

The foreign issuing company shall have-

1. pre-issue paid-up capital and free reserves of at least US\$ 50 million and have a minimum average market capitalization (during the last 3 years) in its home country of at least US\$ 100 million;

2. a continuous trading record or history on a stock exchange in its home country for at least three immediately preceding years;
3. a track record of distributable profits for at least three out of immediately preceding 4 five years

Intermediaries involved are:

1. Overseas Custodian Bank is a banking company which is established in a country outside India and has a place of business in India and acts as custodian for the equity shares of issuing company against which IDRs are proposed to be issued in the underlying equity shares of the issuer is deposited.
2. Domestic Depository who is a custodian of securities, registered with SEBI and authorised by the issuing company to issue Indian Depository Receipts;
3. Merchant Banker registered with SEBI who is responsible for due diligence and through whom the draft prospectus for issuance of the IDR and due diligence certificate is filed with SEBI by the issuer company.

The issuer company is required to obtain in-principal listing permission from all the recognized stock exchanges in which the issuer proposes to get its IDRs listed. The IDRs are required to be listed in atleast one stock exchange in India having nationwide terminals.

IDRs can be converted/ redeemed into the underlying equity shares only after the expiry of one year from the date of the listing of the IDRs (subject to FEMA provisions obeyed). The quantum of conversion is up to the IDR holder.

The Investor may trade the IDRs in India or can request for redemption of the IDRs to the issuer company.

On the receipt of dividend or other corporate action on the IDRs, the Domestic Depository shall distribute the corporate benefits to the IDR holders in proportion to their holdings of IDRs.

Investment requirements: IDRs can be purchased by any person who is resident in India as defined under FEMA / Minimum application amount in an IDR issue shall be Rs. 20,000. / Investments by Indian companies in IDRs shall not exceed the investment limits, if any, prescribed for them under applicable laws / In every issue of IDR— At least 50% of the IDRs issued shall be subscribed to by QIBs; The balance 50% shall be available for subscription by non-institutional and retail.

Fungibility of IDRs means one could convert the IDR holding into overseas shares.

Market action: Though market regulator SEBI conceptualised the idea of IDRs in 2000, only in 2010 did the first, and only, IDR take off from Standard Chartered Plc. The bank had raised ₹2,500 crore through the sale of 20.4 million receipts at an issue price of ₹104. However, in July 22 ,2020 after a decade-long experiment, Standard Chartered Bank delisted, as the issue failed to convince both the bank and investors.

- **Secondary Markets**

○ Definition:

This is the market wherein the trading of securities is done. Secondary market consists of both equity as well as debt markets.

○ Functions:

1. Determines prices of securities
2. Indicator of broad market sentiments to economic events
3. Indicates popularity or unpopularity of stocks, how markets like or dislikes any news/development about a company
4. Barometer of economic growth
5. Destination of investment.
6. Provides liquidity to investors
7. Market capitalization is an indicator of size of a company
8. Decides about wealth of the rich.
9. Benchmark for future markets, mutual funds, FPOs, etc.
10. Companies are basing their strategies based on the impact on their stock markets.
11. Effects foreign exchange rates of domestic currencies on which exports and imports depends by determining FIIs inflows and outflows.
12. Prevents money of investors getting locked in illiquid assets like realty, thus stabilizing the corresponding markets.
13. Facilitates ownership and control of companies

○ Evolution & Growth

The first such market came into existence in 1875. It was an unincorporated body of stockbrokers, which started doing business in the city under a banyan tree. Business was essentially confined to company owners and brokers, with very little interest evinced by the general public.

Before independence, the growth of the industrial securities market was very much hampered since there were very few companies and the number of securities traded in the stock exchanges was still smaller. A large part of the capital market consisted of the gilt-edged market for government and semi-government securities.

In 1951 there were about 28,500 companies both public limited and private limited companies with a paid-up capital of Rs. 775 crores.

The Securities Contract Regulation Act 1956 became the parent regulation after the Indian Contract Act 1872, a basic law to be followed by security markets in India. To regulate the issue of share prices, Controller of Capital Issues Act (CCI) was passed in 1947.

In the 1960-70s was characterized by was and droughts in the country with led to bearish trends. These trends were aggravated on forward trading called bald, technically called 'contracts for

clearing'. Financial institutions such as LIC and GIC helped revive the sentiment by emerging as the most important group of investors.

Multinational companies, with operations in India, were forced to reduce foreign shareholding to below a certain percentage, which led to a compulsory sale of shares or issuance of fresh stock. There was no free pricing and their formula was very conservative. CCI decided the share selling price. Retail investors gained from it.

In the 1980s emerged an explosive growth of the securities market in India, with millions of investors suddenly discovering lucrative opportunities. RIL was ushering mass participation in company's share capital.

The 1991-92 securities scam revealed the inadequacies of and inefficiencies in the financial system. SEBI replaced CCI in 1992.

Post the bursting of dotcom bubble, there was a meltdown in software stock in early 2000. The markets have recovered since then and we have witnessed a sustained rally that has taken the index over 21000 during the year 2008.

Post 2008 crisis, stock markets have recovered and with performance of Indian economy, the markets have rallied.

- **NSE**

NSE was incorporated in 1992. It was recognised as a stock exchange by SEBI in April 1993 and commenced operations in 1994 with the launch of the wholesale debt market, followed shortly after by the launch of the cash market segment. It commenced electronic screen-based trading. During 1995-96 launched NIFTY 50 Index Commenced trading and settlement in dematerialised securities.

In between 2001 to 2011: Launched ETF listings, NOW platform for web-based trading and mobile based systems, Mutual Fund Service System (MFSS), NIFTY Bank index derivatives. Became the first exchange in India to offer trading in Currency Futures.

In the period 2011 to 2020: Renamed CNX NIFTY to NIFTY 50 and commenced trading in index futures and options contracts on the FTSE 100 index, commenced trading on NIFTY 50 (then known as CNX NIFTY) on the Osaka Exchange, on TAIEX, promoted NSE IFSC, the International Stock Exchange in India's first IFSC SEZ at GIFT City Gandhinagar. NSE was declared world's largest derivatives exchange 2019 by WFE (World Federation of Exchanges). It launched Interest Rate Options on Government of India bonds

Mr Girish Chandra Chaturvedi is the chairman of the 8-member board of directors and Mr Vikram Limaye is CEO.

Trading volumes in the equity segment have grown rapidly with average daily turnover increasing from Rs.17 crores during 1994-95 to around Rs. 32475 crores as of Dec 2019. NSE has over 1900 securities listed on NSE with market capitalisation of over Rs 154.32 lakh Crores, as of Dec 2019.

- **BSE SME Exchanges**

An SME exchange and a regular stock exchange broadly differ on two things - requirements for the listed entity and investors' characteristics. In order to pave the way for a wide range of SMEs to get listed, the SEBI has eased regulatory requirements, such as a lower minimum paid-up capital (Rs 1 crore), fewer number of allottees, etc. Besides, post listing, there are fewer compliance requirements that companies need to adhere to. SEBI has adopted a very cautious regulatory approach wherein it has tried to encourage only high net- worth investors (who tend to have a larger risk appetite) to invest in companies listed on the SME board. So, potential investors, during the Initial Public Offering (IPO), need to apply for shares worth at least Rs 1 lakh and even investors in the secondary market need to buy shares worth at least around Rs 1.5 lakh. Hence, small-time investors are prevented from investing in these risky companies.

BSE Ltd has set up the BSE SME Platform as per the rules and regulations laid down by SEBI. BSE SME Platform offers an entrepreneur and investor friendly environment, which enables the listing of SMEs from the unorganized sector scattered throughout India, into a regulated and organized sector. The listed SMEs will step into the threshold of BSE SME Platform and foray in to the world of finance for further growth and development. BSE SME will assist these SMEs to raise equity capital for their growth and expansion and thus help them blossom into full-fledged companies. In due time enable them to migrate into the Main Board of BSE as per the existing rules and regulations.

Advantages of listing in BSE SME: Expand investor base/ Lower debt burden/ Enhance visibility of companies/ Encourage innovation, entrepreneur spirit / exit option

For getting listed, the company's post issue share price should not be more than 25 crores, have a positive net worth, net tangible assets should be 1.5 crores, and have at least a track record of 3 years. 332 companies have been registered on the BSE SME and have raised funds of 3384.62 crores.

- **Stock Exchanges of the world**

1. **New York Stock Exchange (NYSE):** New York City, USA, founded in May 1792, Index: Dow Jones, S & P 500, NYSE Composite, Market Cap: 25 trillion USD

2. **Nasdaq Stock Exchange (NASDAQ):** New York City, USA, founded in February 1971, Index: NASDAQ Composite, NASDAQ Financial-100, NASDAQ-100, Market Cap: 20 trillion USD
3. **Shanghai Stock Exchange (SSE):** Shanghai, China, founded in November 1990, Index: SSE Composite, SSE 50 Market Cap: 6.5 trillion USD
4. **Hong Kong Stock Exchange (SEHK):** Hong Kong, founded in February 1891, Index: Hang Seng Index Market Cap: 6.5 trillion USD
5. **Tokyo Stock Exchange (TSE):** Tokyo, Japan, founded in 1950, Index: NIKKEI, NIKKEI Futures, NIKKEI 225, Market cap: 5.67 trillion USD
6. **Shenzhen Stock Exchange (SZSE):** Shenzhen, China, founded in December 1990 Index: SZSE Component, SZSE 100, SZSE 200, SZSE 300 Market Cap: 5 trillion USD
7. **European New Exchange Technology (EURONEXT):** Amsterdam, Netherlands (registered office); Brussels, Dublin, Lisbon, Oslo, Paris (operations), founded in 2000, It is one of the main national indices of the pan- European stock exchange group Euronext alongside Brussels' BEL20, Lisbon's PSI-20 and Amsterdam's AEX. Index: Euronext 100, Market Cap: 4.8 trillion USD
8. **London Stock Exchange (LSE):** London, UK, founded: December 1801, Index: FTSE 100, FTSE 250, FTSE 350 Market Cap: 4 trillion USD
9. **Toronto Stock Exchange (TSX):** Toronto, Canada, founded in October 1861, Index: TSX Composite, TSX 60, TSX Completion Index, Market Cap: 2.5 trillion USD
10. **Deutsche Börse Frankfurt Stock Exchange (FSX):** Frankfurt, Germany, founded in 1585, Index: DAX, LDAX, MDAX, SDAX, CDAX, VDAX, DAX plus, Div DAX, Tec DAX, and Euro Stoxx 50, Market Cap: 2.05 trillion USD
11. **South Korea Stock Exchange (KRX):** Seoul, South Korea, founded in January 2005, Index: KOSPI, KOSDAQ, KRX 100, Market Cap: 2 trillion USD
12. **SIX Swiss Exchange (SIX):** Zurich, Switzerland, founded in 1850, Index: SMI, SPI, SLI, SBI, SARON Market Cap: 1.75 trillion USD
13. **Australian Securities Exchange (ASX):** Sydney, Australia, founded in April 1987, Index: ASX 200 Market Cap: 1.52 trillion USD
14. **Singapore Stock exchange (SGX):** Singapore, founded in Dec 1999, Index: Strait Times Index (STI), Market cap 733 billion USD
15. **Johannesburg Stock Exchange (JSX):** Sandton, South Africa, founded in November 1887, Index: FTSE Market Cap: 1.1 trillion USD
16. **Brazil, Bolsa, Balcão S.A. – (B3 Bovespa):** Sao Paolo, Brazil, August 1890, Index: Ibo Vespa, Market Cap: 1.2 trillion USD

- **Recent developments**

1. Growth in Financial Intermediation: Financial intermediaries like LIC, UTI and GIC have activated the growth process of Indian capital market.
2. Growth in Underwriting of Securities: In recent years, the volume and number of securities underwritten have tremendously increased owing to increasing participation of specialized financial institutions like LIC, ICICI, IDBI, IFCI. It is evident from the fact that the number

of securities underwritten was only 55 per cent in 1960-61, whereas at present it is about 99 per cent.

3. Growth in Response to the Offer of Public Issues of Shares and Bonds: since 1991 public response to corporate securities has been improving.
4. Growth of Merchant Banking: The merchant banks in India act as the underwriter as well as the manager of new issues of securities and are regulated by SEBI.
5. Growth of Credit Rating Agencies: they rate bonds, debentures, preference shares, CDs and CPs (Commercial Papers) as credit rating has been mandatory as well as sought after by investors for increasing transparency and credibility.
6. Growth of Mutual Funds:
7. Liberalisation Measures: Foreign Institutional Investors (FII) have been allowed access to Indian capital market. Investment norms for NRIs have been liberalized, so that NRIs and Overseas Corporate Bodies can buy shares and debentures, without prior permission of RBI. This was expected to internationalize Indian capital market.

- **SEBI FMC merger**

The Forward Markets Commission (FMC) has been regulating the commodities markets since 1953, but it was seen to have lacked the muscle to tame the alleged irregularities in this market segment. A low-profile regulator, the location of FMC's headquarters on the third floor of the 'Everest' building in South Mumbai, with a lacklustre appearance (no control over entrances, guards, biometric passwords, etc)

The FMC chairman was a government appointee and it conducted its activities through plan and non-plan funds from budget grants and its staff recruitment system was dependent on what the government plans. In the absence of a powerful regulator, the commodities market had been more prone to illegal activities like 'dabba trading' (where a stockbroker executes a customer's trade done through his local books, but not reflecting at the exchange, with the hope of making some gains at a future date) compared to the better-regulated stock market.

The commodities market was also plagued by falling trading volumes on exchanges in the recent past, after the government in July 2013 re-introduced commodity transaction tax (CTT) on bullion, crude oil and base metals. All the existing commodity exchanges showed a combined 39 percent drop in turnover to Rs 60 lakh crore in 2014-15 from over Rs 101 lakh crore in the previous fiscal.

But the immediate trigger to bring commodities trading under Sebi was the collapse of India's largest—and still unregulated—commodities spot exchange, the National Spot Exchange Ltd (NSEL) in 2013. NSEL and the commodity markets were rocked by a scam involving irregularities in trading and warehousing practices resulting in a Rs 5,689 crore loss to investors.

In the aftermath of the scam FMC was transferred from the department of consumer affairs (DCA) under the ministry of consumer affairs, food and public distribution to the department of economic affairs under the ministry of finance in September 2013.

FCRA Act under which FCA was set up was abolished in 2015. It paved way for merger of FCA with SEBI thus bringing commodity trading under the ambit of SEBI. It was thought

given Sebi's experience, resources and its image as a strong regulator, the commodity business will flourish.

Then FM late Shri Arun Jaitley said "Markets thrive where there is confidence and integrity. In the long term, this requires transparency and good regulation. Farmers, producers and consumers need to have confidence that the derivatives markets are free from manipulation,"

In the months leading up to the merger, Sebi officials visited the FMC, commodity exchanges, mandis (agricultural markets and market towns), assayers and gold vaults across Gujarat, Delhi and Mumbai. Sebi has formed a separate commodities derivatives cell within its organisation for regulation, exchange administration, inspection and risk management.

The merger finally took place in Sep 2015.

Post-merger there was a spike in prices between September and November of the commodity futures of around 25% especially of turmeric, barley, chana and soyabean.

Several commodity-based derivatives entered public. Have come up, Sovereign Gold Bonds, Gold ETFs, commodity futures are being operated in a much more secure and transparent manner, raising confidence of

- **Stock Indices**

Stock Market Indices give an insight into the overall trends of the capital markets and sentiment of the investors towards a particular stock or set of stocks in an industry. To create an index, a few similar kinds of stocks are chosen from amongst the securities already listed on the exchange and grouped together. Any change taking place in the underlying stock prices impact the overall value of the index. The value of the stock market index is computed using values of the underlying stocks. If the prices of most of the underlying securities rise, then the index will rise and vice-versa.

- **Calculation Methodologies:**

- **Market-cap weightage:**

Market capitalization refers to the total market value of the stock of a company. In an index which uses market-cap weightage, the stocks are assigned weightage based on their market capitalization as compared to the total market capitalization of the index.

Suppose a stock has a market capitalization of Rs. 50,000 whereas the underlying index has a total market-cap of Rs. 1,00,000. Thus, the weightage given to the stock will be 50%. Therefore, the companies with higher market-caps get more importance in this method.

In India, free-float market capitalization is used by most of the indices. Here, the total number of shares listed by a company is not used to compute market capitalization. Instead, use only the number of shares available for trading publicly. Consequently, it gives a smaller number than the market capitalization.

- **Price weightage:**

In this method, the value of an index value is computed based on the stock price of a company rather than the market capitalization. Thus, the stocks which have higher prices receive greater weightages in the index as compared to the stocks which have lower prices.

This method has been used in The Dow Jones Industrial Average in the US and the Nikkei 225 in Japan.

▪ **Free Float Mechanism:**

Free Float Market Capitalization = Market Capitalization * Free Float Factor.

Free Float factor is the percentage of total shares a company issues and that are readily available to the common public to trade. This also means the total outstanding shares of the company. Additionally, the shares issued to the promoters, the government, etc. that are not available for trading on the market are not included. The market capitalization is the market value of the company.

Market capitalization = Share price per share * number of shares issued by the company

Value of Index = (Total free float market capitalization/ Base market capitalization) * Base period index value.

E.g., The base period (year) for Sensex calculation is 1978-79. The base value index is 100.

• **Role of Indices:**

1. **Aids in Stock-Picking:** It classifies the companies and their shares based on key characteristics like the size of company, sector, industry type and so on. Without a benchmark, you may not be able to differentiate between the stocks. Hence a stock market acts like an instant differentiator.
2. **Acts as a Representative:** Studying about stocks individually may seem very impractical. Indices help to fill the knowledge gaps that exist among the investors. They represent the trend of the whole market or a certain sector of the market. In India, the NSE Nifty the BSE Sensex act as the benchmark indices. They are believed to indicate the performance of the entire stock market. In the same manner, an index which is made up of pharma stocks is assumed to portray the average price of stocks of companies operating in the pharmaceutical industry.
3. **The Parameter for Peer Comparison** By comparing with the underlying index, you can easily judge the performance of a stock. If the stock gives higher returns than the index, it's said to have outperformed the index. If it gives lower returns than the index, it's said to have underperformed the index. Or Else you can be better off investing in low-cost professionally managed index funds. You may also compare the index with a set of stocks like the Information technology sector. As an investor, you can know market trends easily.
4. **Reflects Investor Sentiment** Investor sentiment becomes an important aspect. It is because the sentiment affects the demand for a stock which in turn impacts the overall price.
5. **Helps in Passive Investment:** Investors who want to cut down on the cost of research and stock selection prefer to invest in index portfolio. Consequently, the returns of the portfolio will resemble that of the index.

- **Indian Stock Indices**

- **Nifty50:**

The NIFTY 50 is a well diversified 50 stock index and it represent important sectors of the economy.

The base period selected for NIFTY 50 index is the close of prices on November 3, 1995, which marks the completion of one year of operations of NSE's Capital Market Segment. The base value of the index has been set at 1000 and a base capital of Rs.2.06 trillion.

The NIFTY 50 Index represents about 66.8% of the free float market capitalization of the stocks listed on NSE as on March 29, 2019. Effective June 26, 2009, NIFTY 50 is computed using Free Float Market Capitalisation weighted method, wherein the level of index reflects the free float market capitalisation of all stocks in Index.

- **SENSEX:**

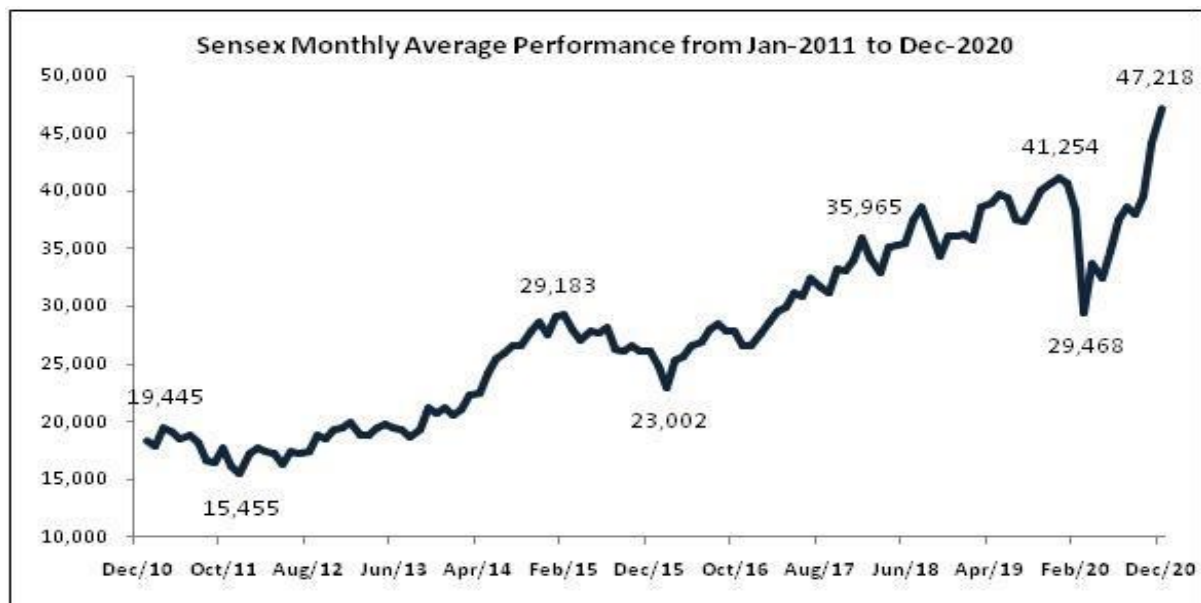
A stock market analyst Mr Deepak Mohoni introduced the term Sensex. The term Sensex is a combination of words Sensitive and Index.

The Sensex Index comprises 30 stocks on BSE. These stocks are the largest and most actively traded stocks on the BSE. The criteria for selecting stocks are as follows: Listed on BSE, it should be a large to mega-cap stock, relatively liquid stocks, revenue generated from core activities, a diversified and balanced sector involvement in line with the Indian equity market. Upon selecting the 30 stocks for the index, it uses the free float market capitalization method to calculate the value of the index. Sensex is computed using Free Float Market Capitalisation weighted method

Valuation of Equities

- **Factors Affecting Share Prices**

- Demand or Supply of shares: Market sentiment effects of share along with new share issues, buyback of shares
- Industry trends
- Fundamental factors of the company: financial performance as reflected through balance sheets, Profit & Loss statement, cash flow statements, contingent liabilities, etc, business of the company, future potential, litigations that may affect future economic benefits, tax disputes, winning large contracts, quarterly results declaration versus estimates and a host of other factors intrinsic to the company
- Dividend declarations by the company
- Competitor's activity
- State of the economy, domestic economy, global economic outlook, e.g., inflation, crude oil prices, wars or civil strife,
- International events, monetary policy of developed countries
- FII/FPI participation and level of investment
- Government policies and regulator's actions and attitude whether "accommodative stance", policy rates,
- Political climate, stability of government, power to enforce laws.
- Comments by influential people
- Other stock indices especially Asian stock indices.
- Interest rates and overall liquidity in the market, higher interest rates have a negative impact
- Performance of other asset classes like real estate, gold, debt markets etc
- Regulator activism and orderliness of markets, prevention of scams
- Natural calamities
- Data releases like IIP, (IIP measures industrial production activity. Increase in IIP cheers the markets, and lower IIP disappoints the market). PMI (PMI is a survey-based business sentiment indicator. The PMI number oscillates around the 50 marks. Above 50 is good news to markets, and PMI below 50 is not)



Sensex gave CAGR returns of 13.22% over 8 years from 2011 to 2020.

1. Aftermath of the global liquidity infusion

The previous decade ended with the global financial crisis that almost brought the financial markets to the brink. Global markets survived, thanks to the \$6 trillion in liquidity infusion. Markets recovered but liquidity became the template for the future. In 2020, when COVID struck, the global liquidity infusion was \$20 trillion.

2. Stability and reforms

Nifty rally began sometime around 2013 when opinion polls hinted at an NDA government. NDA eventually formed the government with an absolute majority. They also repeated the feat of 2014 in 2019, with even better numbers. FPIs celebrated this shift as BJP gov't's promised economic reforms to drastically transform the global image of India Inc.

3. Demonetization and GST

Of the reforms initiated in the last decade, these two reforms were the most controversial. There was pain for smaller companies and even for individuals. But both measures had an unlikely positive consequence. Demonetization pushed down lending rates and people fell for digital money. GST forced millions of small businesses to join the economic mainstream.

4. Emergence of passive funds as an asset class

The trend was much bigger globally with passive funds crossing the AUM of active funds and hedge funds put together. In India, growth of passive funds may be restrained, but today passive accounts for 12% of total AUM. That is phenomenal growth from virtually nothing five years back. Investors liked the absence of fund manager bias and low execution costs.

5. Mutual fund AUM comes of age

It took the Indian mutual fund industry almost 50 years to reach AUM of \$100 billion. Between 2014 and 2020, the MF AUM sputtered from \$100 billion to \$400 billion. With over 3.3cr SIP accounts and nearly Rs8,000cr coming into MF SIPs alone, equity funds

have surely come of age in India. A young and ambitious India has given wings to this momentum.

6. Rise of Digital; Reliance shows the way

Between 1995 and 2020, Reliance created market value of Rs650,000cr. Almost 70% of this value created in the last 25 years, happened since 2016 after Jio was launched. By 2020, digital and retail were almost contributing as much individually to the market cap of Reliance as oil refining and petrochemicals. This magnitude of corporate strategy transformation is almost unprecedented in Indian corporate history.

7. Biggest corporate tax cut in Indian history

There was historic implementation of GST, but 2019 also saw the biggest tax cut in history. With one historic swipe of the pen, Nirmala Sitharaman cut corporate tax rates from 30% to 22%. It cost the exchequer Rs150,000cr but that single effort allowed Indian companies to recover quickly despite the pernicious COVID effect.

8. Gold emerges as an investment class

Trillions of dollars in liquidity infusion, US – China trade wars meant that traditional gold looked precious. Gold touched a life-time peak of \$2075/oz in 2019 but also gave returns of over 30% for 2 years in succession. Over the previous 5-year and 10-year time frames, gold was the best asset class in India. Above all, investors are beginning to look at gold as an investment idea and not just an embellishment.

9. Mobile apps defined the decade

If digital was the big story of the last decade, then mobile apps was the engine. Today large swathes of India virtually banks, trades, insures, purchases groceries and even consults doctors through mobile apps. Mobile apps have also brought down costs drastically as we have seen the sudden rise of low-cost broking in the last decade. If technology became central to the lives in the last 10 years, we have a lot to thank the mobile apps for it.

10. COVID shakes up the world

Actually, that would be an understatement because for the first time such a large swathe of the world was shut. COVID changed the way people worked, travelled, holidayed, transacted and communicated. The aftermath of COVID is likely to linger for a long time to come. It would undoubtedly classify as the biggest impact event of the decade.

• **Equity Valuation Methods**

Equity valuation methods can be broadly classified into balance sheet methods, discounted cash flow methods, and relative valuation methods. Balance sheet methods comprise of book value, liquidation value, and replacement value methods. Balance sheet methods are the methods which utilize the balance sheet information to value a company.

Book Value Method The most useful balance sheet method is the adjusted book value method. This method calls for the adjustment of each asset's book value to equal the cost of replacing that asset in its current condition. The total of the adjusted asset values is then offset against

the sum of the liabilities to arrive at the adjusted book value. Adjustments are frequently made to the book values of the following items:

Accounts Receivable – often adjusted down to reflect the lack of collectability of some receivables.

Inventory – usually adjusted down since it may be difficult to sell off all of the inventory at cost.

Real Estate - frequently adjusted up since it has often appreciated in value since it was placed in service.

Furniture, Fixtures, and Equipment – adjusted up if those items in service (probably more than a few years) have been depreciated below their market value, or adjusted down if the items have become obsolete.

In this method, book value as per balance sheet is considered the value of equity. Book value means the net worth of the company. Net worth is calculated as follows:

Net Worth = Equity Share capital + Preference Share Capital + Reserves & Surplus – Miscellaneous Expenditure (as per B/Sheet) – Accumulated Losses.

It is used to identify cheap shares, particularly if the market price is substantially below the NAV per share, and to identify companies for the purpose of a takeover. This method of valuation is rarely used in isolation.

Liquidation Value Method: The liquidation value method is used to identify companies for takeover and/or liquidation in order to profit from the difference between market price and liquidation price. It is not easy to value assets and liabilities. Usually, an austere valuation of assets and liabilities is undertaken and a proportion of the value is lopped off in order to allow for errors.

In liquidation cost method liquidation value is considered the value of equity. Liquidation value is the value realized if the firm is liquidated today.

Liquidation Value = Net Realizable Value of All Assets – Amounts paid to All Creditors including Preference Shareholders.

Replacement Cost Method

It amounts to the valuation of a company according to the replacement cost of its assets and liabilities. This method is premised on the notion that the market value of a company cannot be too removed (upwards) from the replacement cost of the assets and liabilities, because this will enable competitors to duplicate the company.

The economic logic of this approach is that if the market value of the company is substantially higher than the replacement cost of the company's assets and liabilities, many competitors will enter the relevant field of business. This will drive the market value of the firm down (lower profits and larger supply of shares of companies in this field) and increase the replacement value of the assets and liabilities (larger demand), until the market value of the companies becomes close to the replacement cost.

In replacement cost method the value of equity is the replacement value. It means the cost that would be incurred to create a duplicate firm is the value of the firm. It is assumed that the market value and replacement value will coincide in the long run.

It is notable that James Tobin developed the concept of the ratio of market value to replacement value (known as Tobin's q). In terms of this view, the value of q will tend toward 1 in the long-term. In the short-run, however, the ratio may differ from 1.

Equity Value = Replacement Cost of Assets – Liabilities

- **Dividend Discount Model**

The Dividend Discount Model (DDM) is a quantitative method of valuing a company's stock price based on the assumption that the current fair price of a stock equals the sum of all of the company's future dividends discounted back to their present value. It is assumed that the intrinsic value of a stock reflects the present value of all future cash flows.

There are following 3 models:

1. **Gordon Growth Model**, named after US economist Myron J Gordon, it assumes that company being evaluated have a stable business growth, constant cash flow and have a constant rate of growth. Fair value of stock can be obtained as

$$V_0 = D_1 / (r - g)$$

V_0 – The current fair value of a stock,

D_1 – The dividend payment in one period from now

r – The estimated cost of equity capital

g – The constant growth rate of the company's dividends for an infinite time

It is applied when an investor wants to determine the intrinsic price of a stock that he or she will sell in one period (usually one year) from now.

2. **One-Period Dividend Discount Model:** It assumes that an investor is prepared to hold the stock for only one year. Because of the short holding period, the cash flows expected to be generated by the stock are the single dividend payment and the selling price of the respective stock. To determine the fair price of the stock, the sum of the future dividend payment and that of the estimated selling price, must be computed and discounted back to their present values. The formula is:

$$V_0 = D_1 / (1 + r) + P_1 / (1 + r)$$

Where V_0 – The current fair value of a stock, D_1 – The dividend payment in one period from now, P_1 –

The stock price in one period from now, r – The estimated cost of equity capital

3. **Multi-Period Dividend Discount Model:** In the multiple-period DDM, an investor expects to hold the stock he or she purchased for multiple time periods. the expected future

cash flows will consist of numerous dividend payments, and the estimated selling price of the stock at the end of the holding period. The intrinsic value of a stock (via the Multiple-Period DDM) is found by estimating the sum value of the expected dividend payments and the selling price, discounted to find their present values. The mathematical formula is:

$$V_0 = D_1/(1+r) + D_2/(1+r)^2 + D_3/(1+r)^3 + \dots + P_n/(1+r)^n$$

A shortcoming of the DDM is that the model follows a perpetual constant dividend growth rate assumption. This assumption is not ideal for companies with fluctuating dividend growth rates or irregular dividend payments, as it increases the chances of imprecision. Another drawback is the sensitivity of the outputs to the inputs. Furthermore, the model is not fit for companies with rates of return that are lower than the dividend growth rate.

- **PRICE EARNING RATIO FOR VALUATION (P/E ratio)**

The Price Earnings Ratio (P/E Ratio) is the relationship between a company's stock price and earnings per share (EPS). Investors want to know how profitable a company is and how profitable it will be in the future. If the company doesn't grow and the current level of earnings remains constant, the P/E ratio can be interpreted as the number of years it will take for the company to pay back the amount paid for each share.

$$P/E = \text{Stock Price Per Share} / \text{Earnings Per Share} = \text{Market Capitalization} / \text{Total Net Earnings} \\ = \text{MPS}/\text{EPS}$$

EPS is found by taking earnings from the last twelve months divided by the weighted average shares outstanding. Similar companies within the same industry are grouped together for comparison, regardless of the varying stock prices. Moreover, it's quick and easy to use when we're trying to value a company using earnings. When a high or a low P/E is found, we can quickly assess what kind of stock or company we are dealing with.

High P/E

Companies with a high Price Earnings Ratio are often considered to be growth stocks. This indicates a positive future performance, and investors have higher expectations for future earnings growth and are willing to pay more for them. The downside to this is that growth stocks are often higher in volatility, and this puts a lot of pressure on companies to do more to justify their higher valuation. Stocks with high P/E ratios can also be considered overvalued.

Low P/E

Companies with a low-Price Earnings Ratio are often considered to be value stocks. It means they are undervalued because their stock price trade lower relative to its fundamentals. This mispricing will be a great bargain and will prompt investors to buy the stock before the market corrects it. And when it does, investors make a profit as a result of a higher stock price. Examples of low P/E stocks can be found in mature industries that pay a steady rate of dividends.

- **Fundamental Analysis**

It is based on the premise that in the long run true or fair value of an equity share is equal to its intrinsic value. The intrinsic value of a share is the present value of all future expected cash inflows from the share. The future expected cash inflows from a share depends upon a wide array of factors including company's performance and future prospects. Fundamental analysis is used primarily to identify securities that are mispriced i.e., that are undervalued or overvalued.

Intrinsic value in case of an equity share it will be equal to the present value all expected future earnings (in the form of dividend, capital gain etc.) from that share because equity shares have infinite life. The expected earnings from an equity share depend upon a variety of economy wide, industry wide and company specific factors.

Fundamental analysts forecast, among other things, future level of the economy's GDP, future sales and earnings of a large number of industries and earnings of a large number of companies. Eventually such forecasts are converted to estimate the expected cash inflows from the shares of these companies. There can be two approaches to fundamental analysis – Top-down approach and bottom-up approach.

Top-down approach: with this approach the financial analysts are first involved in making forecasts for the economy, then for the industries and finally for the companies. The industry forecasts are based on the forecasts of the economy. Further a company's forecasts are based on the forecasts of the economy as well as the concerned industry.

Bottom-up approach: In case of bottom-up approach, fundamental analysts forecast the prospects of the company's first, then for the industries. Such bottom-up forecasting may unknowingly involve inconsistent assumptions. Forecasts of the economy is of no use if it is done after company forecasts because ultimately it is the expected cash inflows from the company's share that will be used in finding out the intrinsic value of a share.

Company Analysis: Company analysis is the study of various characteristics of a company regarding its operating and financial performance and future prospects. Once an investor decides to invest in a particular industry on the basis of economic and industry analysis, it is important to select the company in which investment is to be made. For example, if an investor decides to invest in IT industry, the next step is to decide in which company Infosys, Wipro, HCL, TCS etc.

The outcome of the Company analysis is expected future cash inflow from the share of that company which is used in determination of the intrinsic value of the share of that company and thereby comparing it with market value, it may be understood it is undervalued or overvalued. The intrinsic value of a company depends upon the number of dividends and growth rate, which in turn depends upon the amount of earnings. Hence analysis of earnings of the company is of utmost importance in case of company analysis.

Company analysis covers the following parameters of study- financial ratio analysis especially earnings analysis, analysis of company management and corporate governance, analysis of product differentiation and innovations. These parameters can be classified as - Financial and Non-financial parameters. Non-financial parameters include analysis of company management and corporate governance, analysis of product differentiation and innovations

Financial Parameters

1. Earnings analysis or Profitability: Past profitability of a company is a good indicator of its future prospects. Earnings analysis is an important component of company analysis because future cash inflows from an equity share depends to a great extent on the earnings of the company.

i.Return on Equity (ROE) indicates whether equity shareholders are getting adequate return on their funds or not. Return on equity is higher than return on investment if the company is profitable and uses debt. Equity shareholders are more interested in analysing return on equity rather than the overall profitability of the company because that is what matters to them.

Return on Equity = $(\text{PAT} - \text{Preference dividend}) / \text{Equity shareholders' funds} \times 100\%$

Return on Equity = $(\text{PAT} - \text{Preference dividend}) / \text{Net worth} \times 100$

ii.Earnings per share (EPS): Earnings per share is calculated by dividing the amount of profit after tax and preference dividends by the total number of outstanding equity shares of the company. Hence it shows how much amount is earned per equity share of the company. It is easy to understand than any other ratio and is widely reported in news and media. An increasing EPS shows the relative strength of the company.

Earnings per share = $(\text{PAT} - \text{Preference dividend}) / \text{Number of equity shares}$

On the basis of the past trend analysis of EPS a fundamental analyst may very well forecast its future or expected EPS which can be used in the valuation of equity shares.

iii.Price Earnings Ratio (P/E): Analysis of price earnings ratio or P/E ratio as we popularly call it is an important ingredient of company analysis. P/E ratio is calculated by dividing market price per share by the EPS. P/E ratio indicates the relative valuation of the share of a company in stock market. Price Earnings Ratio = $\text{Market price per share} / \text{EPS}$

iv.Book Equity to Market Equity Ratio (BE/ME): A related valuation ratio is Book equity to Market Equity ratio. It is calculated by dividing the Book Value of Equity share by the Market price. BE/ME Ratio = $\text{Book Value per share} / \text{Market price per share}$ It must be noted that book value per share is Net asset value per share. BE/ME ratio indicates the relative valuation of the share of a company in stock market

- **Macroeconomic Factors**

Macroeconomic factors affect stock market movements. Some of them are:

- 1. Economic Growth:** The economy's overall health has an impact on the stock market. When the economy looks like it is growing then companies have the potential to expand and increase profits which can increase share prices. Consumer spending increases when the economy is strong as individuals feel more confident about their financial position. When the economy is slowing then companies will find it harder to expand and increase earnings. If consumers are also not very confident of the future, they will choose to save instead of spending money on non-essential items.
If investors see the economic outlook looking poor, they may think about selling down equity positions or be more selective about positions which they take on. A strong economy also gives investors' confidence in the equity market. When the economy is weak, investors look to protect their capital and move funds into safe haven such as bonds which do not generate returns as high but also do not produce losses as low as the equity market.
- 2. Unemployment:** Wages are the biggest indicator of consumer spending. When unemployment is high then consumer spending drops. Funds may be limited so consumers will spend less on discretionary items and allocate spending only to essential items. This may restrict the earning capacity of companies which then affects stock prices. Consumer staples and defensive sectors are usually the better performing stocks in a high unemployment environment. For more information of what stocks to buy in a market downturn see the article Strategies for a stock market downturn.
- 3. Inflation:** Inflation affects the stock market as it impacts the level of consumer spending. When the cost of goods and services continue to rise then this means consumers have less money to spend on non-essential items. Rising costs impact businesses and their profits as input prices are higher. They may pass this on to consumers or if they need to stay competitive then they need to absorb these costs which lowers corporate profits. Lower revenues and profits can then contribute to the falling share prices of the stock. Oil stocks, consumer staples, gold stocks, healthcare and material stocks benefit from inflation.
- 4. Interest Rates:** High interest rates negatively influence the stock market. Stocks usually sell off when there is any talk of a rate hike in the future. High interest rates restrict borrowing capacity for business so this impedes their ability to grow the business. This stagnation in business growth can affect earnings growth and then stock prices. Rising interest rates also affects consumers as they may experience an increase in mortgage interest payments which can then restrict their purchasing power. This could create less demand for non-essential goods and services which then affect company earnings and stock prices. Higher interest rates are signalled by rise in liquidity in the markets. Bond yields are a leading indicator. RBI policy rates also influence interest rates.
- 5. Exchange Rates:** A weak exchange rate means exports are cheaper internationally. This is good news for companies who export products and services overseas as demand increases and earnings rise. A high exchange rate may mean cheaper imports, so this is good news for companies who use imported goods such as electronic retailers or manufacturing

companies. However, a strong exchange rate may also cause some companies to struggle as the price of the goods and services become uncompetitive compared to other countries. Indian equity markets are mainly fuelled by FII investors. So, a huge inflow into the stock markets strengthens the Rupee against US Dollar and correspondingly raises the stock indices.

6. **Monsoon.** The Indian economy is largely dependent on agriculture. The timely monsoons ensure adequate food production. Thus, food inflation, rural economic development takes place, giving an economic impetus to the GDP. It results in buoyant markets.
7. **Foreign trade.** Exports earn us foreign exchange. Imports reduces forex. So, balance of trade if turns adverse effects the markets negatively. When international crude oil prices rise, the markets react negatively. The reason is that if oil is needed to be purchased at higher prices, it results in deuteriation of trade balances and hence adverse economic development.
8. **Fiscal policy:** Policies regarding taxation, subsidies, industry impetus, policy incentives affect stock indices.

Negative Macroeconomic Factors: They include events that may jeopardize national or international economies. Fears of political instability caused by a nation's involvement in a civil or international war, are likely to heighten economic turbulence, due to the reallocation of restheces, or damage to property, assets, and livelihoods. Unanticipated catastrophic events, such as the 2008 United States economic crisis, subsequently created a far-reaching ripple effect, resulting in tighter capital preservation requirements for banking institutions on a global scale. Other negative macroeconomic factors include natural disasters, such as earthquakes, draughts, floods.

Neutral Macroeconomic Factors: Certain economic shifts are neither positive nor negative. Rather, the precise implications are determined by the intent of the action, such as trade regulation across state or national borders. The nature of the action in question, such as enacting or rescinding a trade embargo, will trigger myriad effects, depending on the economy being influenced.

Positive Macroeconomic Factors: They include events that subsequently foster prosperity and economic growth, within a single nation or a group of nations. For example, a decrease in fuel prices drive consumers to purchase more retail goods and services. Moreover, as the demand for goods and services increases, national and international suppliers of those items will invariably enjoy increased revenues from the heightened consumer activity. In turn, increased profits may drive up stock prices.

- **Role of Stock Brokers**

A stock broker is an intermediary who enables buying and selling of stocks and securities in a stock exchange on behalf of financial institutions and firms. Needless to say, all the stocks are traded through major stock exchanges. However, an investor cannot directly trade in stock exchanges. He is licensed to participate in the share market on behalf of traders and investors. There are two types of brokers for whose services a trader can go: Full services broker and discount broker.

The full-service broker

Full-service brokers can perform multiple services like retirement plans, insurance plans, market research, and investment plans. They are professionals who can manage the finances and give you advice in their specialization. Since they can offer more than one service, they usually charge or expect a higher commission. The more they bring in trades and the bigger their sales in their products, the higher their compensation is if they are under any brokerage firms.

The discount brokers

If you feel like you can manage the portfolio and are just looking for someone to execute a trade, a discount broker is the best person for you. Discount brokers charge lower than full-service brokers because they only perform the execution — they are compensated with salary and not commission. With this said, you can cut more expenses if one discount broker executes for trades for you. Recently, discount traders come with online trading platforms that help them entice more investors.

Following are some the major roles of brokers in stock market

- 1. Suggest best deals:** Mostly a broker deals in all different types of securities. Brokers suggest the best deal to buy or sell stocks and may also advise traders when to buy or sell stocks. But they are not licensed investment advisers.
- 2. Handling trade:** A broker receives orders from traders and further place those orders on exchange. Once the orders have been successfully placed, traders are informed about it. However, this is the case with full-service brokers, discount brokers and online brokers facilitates traders with a trading platform where traders can place their order on their own. All the orders are reflected in demat account once they are executed. Shares in electronic form will be added if a trader buys a share and removed if he sells a share.
- 3. Margin Financing:** Now a days stock brokers are well capitalized. Brokers lend capital to traders who are looking for leverage positions. A margin amount is to be paid by trader after which they are allowed to take a position in market. Generally, this margin amount is 50%. This is not a mandatory role of a broker.
- 4. Provide investor education and awareness.** Top brokers having good analysts conduct workshops providing market analyses and market insights.

- **Stock Market Quotations**

Stock market quotes provide all important details of stock and any trader or investor should know the terms and symbols that are used in the stock market. Open price is the first price at which the stock trades on a particular day. Close price denotes the final price at which the stock trades on a particular day. This is very important as it is used as a measure to assess the performance of a stock. One can also find the highest and lowest prices which the stock reached in a day; 52 weeks high and low is also provided. By knowing the market cap, one can understand the size of the company.

Open: This is the stock's opening price. This and all prices are quoted to hundredths of a cent.

52-week high and low (or range): These two numbers record the highest and lowest price at which the stock traded during the previous 52-week period but does not include the previous trading day. The numbers may be adjusted for stock pay-outs or large dividends.

Stock symbol (SYM): This is the stock name, often abbreviated, and the stock ticker symbol. You can find the stock symbol for a given company on many financial websites by simply typing the name of the company; the site will return its symbol.

Dividend (DIV): A dividend is a portion of profits paid to a company's shareholders. Unless noted in a footnote, this reflects the annual price per share based on the last regular disbursement.

High: This is the highest price paid for the stock during the previous day.

Low: This is the lowest price paid for the stock during the previous day.

Last (or close): This is the last price the stock traded on that day. It does not mean that is the price at which the stock will open the next day.

Change: This describes the difference between the last trade and the previous day's price.

Year-to-date percentage change (YTD% CHG): This number is the stock price percentage change for the calendar year. The percentage is adjusted for stock splits and dividends of more than 10%.

Net change (CHG): The net change is calculated from the previous day's close, so you are comparing what the stock closed at today to what it closed at yesterday.

Yield percentage (Yld%): The yield percentage expresses the dividends and any other disbursements paid to stockholders as a percentage of the stock's price.

Earnings per share (EPS): This is a company's net earnings divided by its total number of shares. A higher number indicates greater profitability.

Price-to-earnings ratio (P/E): The price-to-earnings ratio is the price of the stock divided by its EPS. This number helps investors compare stock prices more directly to other companies.

Sales volume (Sales 100s): This shows the total amount of stock sold that day expressed in hundreds. In other words, sales volume is expressed with two zeros missing. For example, if the number reported is 1,959, that means sales volume for that stock was 195,900 for the day.

Utilisation of a Quote

Once we understand how to read a stock quote, we can begin to make educated decisions regarding investments. With the data you gather, you can learn how to value a company and even make predictions about a stock's performance. We understand the liquidity of the stock from traded volumes, volatility of the stock, direction of flow of prices, comparison of peer stocks, valuation of the company, etc.

Current prices reflect the supply and demand of all investors in the market. Therefore, a lot of information is conveyed from the stock quotes. The main inference made from stock quotes is the future expectations of a company.

When prices are increasing, it generally reflects increased demand for the stock – i.e., more people buying. It shows that the future expectations for a company are promising. Conversely, if prices are decreasing, it reflects decreased demand for the stock – i.e., more people selling. It shows that the future expectations for the company are worsening.

- **Procedure for Buying and Selling of Stocks**

Following steps may be followed:

Step 01: Get the PAN Card

Step 02: Find a Stockbroker: They are often known by name – brokers. These stockbrokers are registered and licensed by domestic market regulator Securities & Exchange Board of India (SEBI). While working out as an intermediary between share trader and exchange, the stockbrokers charge a commission in helping investors buy and sell shares.

When selecting a stockbroker, it is important to take into account the broker's background, the broker's fee, the commission charged, and kind of services it is providing. You can choose from full-time traditional brokers to discount brokers based on the needs.

Step 03: Open a Demat & Trading Account: A Demat account is one where the owned shares reflected in the portfolio while the trading account is one which allows you to buy and sell shares or other securities in the market. The shares you buy and sell are in dematerialized form for online trading.

In India, the National Securities Depository Limited (NSDL) and Central Securities Depository Limited (CDSL) are the depositories which allow investors to open Demat and trading accounts through brokerage firms. It is the depository participant that holds and releases the shares you purchase and sell respectively.

To open a Demat and trading account, a photograph and KYC documents are required. Once done, you'll be provided with an account number and client ID.

Step 04: Transfer Money in the Account: Money can be transferred from bank account by different mediums like Credit/Debit Card, UPI, e-Wallet, PayPal or via bank transfer.

Step 05: Select the Shares to buy: Defining the goals is one way to select the right shares to buy. One should determine the purpose of making a portfolio. Beginner investors who are in this to buy and sell shares must focus on the overall income, expenses, and savings to ensure a consistent flow of capital for investment. Capital preservation is what beginners mostly concerned with and tend to invest in stocks of blue-chip companies for safety reasons who are recognized for their stable performance throughout the years.

Any beginner can become an informed investor if he/she keeps tabs on the current market events, day-to-day happenings in the stock market, and corporate events. To do so, one should read newspapers, use stock market web-platforms and apps, and news channels as these are simple forms of passive research. Being informed will help you in further research and understand the fundamentals which drive a particular industry. A thorough analysis can help in picking the right stocks to buy.

Step 06: Place the Buy Order Following are to be chosen - the order type – market order, limit order, stop-loss order or stop-limit order

Market order It is the simplest of buy or sell orders which are to be executed at the current market prices. It allows investors or traders to buy at the available price. While placing the market order, sometimes the price you see at the time of buy or sell is not the exact price you pay.

Limit order It is the buy or sells order which is to be executed to buy or sell the shares at the specific price or better price in either direction. Investors or traders have control over the price while placing the limit order. However, the order itself cannot be executed if the underlying security does not come to the set price

Stop-loss order It is a buy or sells order which is to be executed once the stock reaches a certain price. The stop-loss order helps investors in limiting their losses on a position.

Stop-limit order Similar to a stop-loss order, the stop-limit order is a buy or sells order with a limit on the price at which it will execute. Stop-limit order may guarantee a price limit however there is no guarantee that order will be filled.

Step 07: Place the Sell Order The decision to sell may be driven by various objectives, e.g., meeting a target price, hitting a stop loss, liquidity needs or simply for reinvesting. The procedure is followed by placing the order with the broker or trading account. Settlement takes place in T + 2 days.

Securities from demat account gets transferred and funds are received in bank account.

- **BOLT/NEAT Online Trading**

The trading on stock exchanges in India was in open outcry manner till mid-1990s.

- In order to provide efficiency, liquidity and transparency, NSE introduced, a nationwide, on-line, fully-automated Screen based trading system (SBTS) in November 1994 known as National Exchange for Automated Trading (NEAT) system.
- BSE online trading (BOLT) by BSE started in March 1995
- NEAT and BOLT are state-of-the-art client-server-based applications where at the server end all trading information is stored in in-memory databases to achieve minimum response time and maximum system availability for users.
- A member, broker enter orders from the Trader Work Stations (TWSs) installed in their offices.
- A client of these broker can place orders through phone/internet for which he should enter Model Agreement with brokers first.
- **BOLT Plus on Web - BOW** is a powerful real time trading solution provided by BSE Tech Infra Services Pvt Ltd. The application is available as a Hosted solution and allows the user to watch real time market prices and execute orders in multiple exchanges and markets instantaneously. The application is re-designed, engineered accordingly to provide rich user experience. The application is supported by robust Backend engines of OMS, RMS with

horizontal scalability and is capable of handling higher user connections. The Trading Application is available in **exe (Desktop) and Mobile (Android and iOS)**.

- NEAT is a screen-based trading system. NSE also offers “NEAT Plus” package that provides members trading in multiple markets on the exchange with a unified trading interface. NSE’s scalability allows it to add additional hardware “on-demand” to support higher trading volumes and hence maintain a high uptime record and low-latency level for trade orders from terminals. NSE conducts periodic testing and capacity enhancements as the number of NEAT users and trading loads increase. Trading data on NEAT is released almost instantaneously to all trading members on NEAT.
- NEAT on Web (NOW) is licensed trading software that offers direct connectivity to the exchange for trade execution and data feeds through trading terminals, web-based browsers and mobile devices. NOW supports trading in all of the products on the cash and derivatives markets, as well as mutual fund units on the exchange and trading on other exchanges. Members are able to access smart order routing, historical and real-time intra-day charting and other user-friendly tools. In addition to its trading desk features, NOW has a built-in risk management system and allows access to the suite of data feed products.

- **Clearing & Settlement**

As per SEBI circular MIRSD/ SE /Cir-19/2009 dated December 3, 2009 (Exchange Circular NSE/INSP/13606 dated December 03, 2009), the settlement of funds and / or securities shall be done within 1 working day of the pay-out, unless client specifically authorizes the trading member in writing to maintain a running account.

Clients whose funds and securities are maintained on a running account basis have to be settled by members on a monthly / quarterly basis as per the client mandate. Members should ensure that there is a gap of maximum 30/ 90 days (as per the client mandate) between two running account settlements.

In case a client wishes to maintain a running account for its funds and securities with the trading member, the client has to authorize the member in writing to retain its funds and securities. Such authorization should also contain: Mandate of the client as to whether the settlement of funds and securities should be done on a monthly or quarterly basis and a clause stating that the Client may revoke the authorization at any time (i.e., without notice)

In case of internet clients, authorisation received through online secured access by way of client specific user id & password, is considered as authorisation in writing.

Accordingly, the actual settlement of funds and securities shall be done by the member at least once in a calendar quarter or month, depending on the mandate of the client and the gap of between two running account settlements should not exceed 90 or 30 calendar days respectively

Members need to consider the EOD balance of funds and securities of clients as on the date of settlement either across all segments of the Exchange or across Stock Exchanges depending on the practice followed while settling the client accounts. However, the member needs to follow a uniform and consistent practice of considering the balances either across all segments of the Exchange or across Exchanges. It is clarified that while settling client accounts, both funds and securities of clients need to be settled on the same day.

- **ORDER MATCHING**

- **Order Matching Rules**

The best buy order will match with the best sell order. An order may match partially with another order resulting in multiple trades. For order matching, the best buy order is the one with highest price and the best sell order is the one with lowest price. This is because the computer views all buy orders available from the point of view of a seller and all sell orders from the point of view of the buyers in the market. So, of all buy orders available in the market at any point of time, a seller would obviously like to sell at the highest possible buy price that is offered. Hence, the best buy order is the order with highest price and vice-versa.

Members can pro-actively enter orders in the system which will be displayed in the system till the full quantity is matched by one or more of counter-orders and result into trade(s). Alternatively, members may be reactive and put in orders that match with existing orders in the system. Orders lying unmatched in the system are 'passive' orders and orders that come in to match the existing orders are called 'active' orders. Orders are always matched at the passive order price. This ensures that the earlier orders get priority over the orders that come in later.

Order Conditions: A Trading Member can enter various types of orders depending upon his/her requirements. These conditions are broadly classified into 2 categories: time related conditions and price-related conditions.

Time Conditions: DAY - A Day order, as the name suggests, is an order which is valid for the day on which it is entered. If the order is not matched during the day, the order gets cancelled automatically at the end of the trading day.

IOC - An Immediate or Cancel (IOC) order allows a Trading Member to buy or sell a security as soon as the order is released into the market, failing which the order will be removed from the market. Partial match is possible for the order, and the unmatched portion of the order is cancelled immediately.

- **Price Conditions**

Limit Price/Order - An order that allows the price to be specified while entering the order into the system.

Market Price/Order - An order to buy or sell securities at the best price obtainable at the time of entering the order.

Stop Loss (SL) Price/Order - The one that allows the Trading Member to place an order which gets activated only when the market price of the relevant security reaches or crosses a threshold price. Until then the order does not enter the market.

A sell order in the Stop Loss book gets triggered when the last traded price in the normal market reaches or falls below the trigger price of the order. A buy order in the Stop Loss book gets triggered when the last traded price in the normal market reaches or exceeds the trigger price of the order.

E.g., If for stop loss buy order, the trigger is 93.00, the limit price is 95.00 and the market (last traded) price is 90.00, then this order is released into the system once the market price reaches or exceeds 93.00. This order is added to the regular lot book with time of triggering as the time stamp, as a limit order of 95.00

Trading System & Strategies

- **Trading Systems**

Until the mid-nineties, almost all stock exchanges functioned as open out-cry systems. Though there was price discovery through the movements in prices that various brokers offered and desired for the stock, price dissemination was imperfect. Brokers would hoodwink gullible clients by giving them the worst price of the day, keeping the rest for themselves.

Then came the electronic system. An electronic trade matching system does the same thing the brokers did earlier – get buyers and sellers together so that they can deal at a price acceptable to both of them and publish these prices in real-time. An order book has to match the buy and sell orders for each stock so that the buyer gets the best price offered from his point of view (the lowest price to sell) and the seller also gets the best price (the highest price to buy).

The basic rule of priority for matching trades is first price and then time. Matching always takes place at the passive price (the price already present on the exchange until a better offer is received)

The biggest advantage of electronic matching is precise price discovery and fair trading. Each order is uniquely numbered and time stamped. There is also immediate execution of market orders and limit orders, which have an existing matching price on the system.

In an automated exchange a broker's customer can actually track his order on the trading system so there is absolute transparency. India's National Stock Exchange (NSE) and the Bombay Stock Exchange (BSE) do not allow orders to be bunched so the broker cannot cheat customers on the price. The system also maintains an automatic audit trail so surveillance becomes easier.

The reduced role of the broker and the automatic execution of trades have reduced both time and cost of execution.

Market Trends

The London Stock Exchange, with 300 member firms and 15,000 securities, was one of the first prominent exchanges to use an electronic order book in 1986, with the introduction of the Securities Exchange Trading System for a relatively small group of actively traded large-cap stocks.

India joined the bandwagon with the advent of the National Stock Exchange (NSE). It arrived with a fully computerized order book in 1994 called NEAT (National Exchange for Automated Trading). This enabled it to spread across to various towns and cities in India by setting up terminals connected to the central system through VSAT. Currently, it enables trading in 1363 securities through 2856 VSAT terminals (servicing 9000 users) spread across 354 cities. It managed to take over a large portion of trades done on the old but well-established Bombay Stock Exchange (BSE) (the oldest stock exchange in Asia that started operation in 1875). The competition from this new technology compelled the BSE to finally change to a computerized matching system in March 1995 called BOLT (Bombay Online Trading).

BOLT is one of the few stock trading systems in the world that handles hybrid/mixed modes of trading: both order-driven (where orders are received directly from customers and matched) and quote driven (where broker-dealers give two-way quotes for bid and offer which are then matched with customer orders). It supports the normal segment, the auction segment, the odd-

lot segment and continuous net settlement. There are more than 6,000 BSE trading terminals installed across the country.

Advantages

1. Transparency as it is capable of creating audit trails in a real time basis
2. Faster trade and higher volume thus increasing liquidity of the markets.
3. Minimizing Emotions by automated decision making and imparting stop loss limits.
4. Preserving Discipline by sticking to policy rather than individual's whims.
5. Diversifying Trading
6. Limitations
7. Mechanical Failures from power losses or computer crashes, and to system quirks.
8. Dependent on factors like broadband speed , device connectivity, etc □□ Too fast market movements don't give opportunity to revise orders.

• **Screen Based Trading System**

NSE introduced screen-based trading system (SBTS) where a member can punch into the computer the quantities of shares and the prices at which he wants to transact. The transaction is executed as soon as the quote punched by a trading member finds a matching sale or buys quote from counterparty. SBTS electronically matches the buyer and seller in an order-driven system or finds the customer the best price available in a quote-driven system, and hence cuts down on time, cost and risk of error as well as on the chances of fraud.

1. A member can punch into the computer quantities of securities and the prices at which he likes to transact and the transaction is executed as soon as it finds a matching order from a counter party.
2. SBTS electronically matches orders on a strict price/time priority.
3. It cuts down on time, cost and risk of error, as well as fraud resulting in improved operational efficiency.
4. It allows faster incorporation of price sensitive information into prevailing prices, and enables increasing the informational efficiency of markets.
5. It enables market participants to see the full market on real time, making the market transparent.
6. It allows a large number of participants, irrespective of geographical location, to trade with one another simultaneously, improving the depth and liquidity of the market.
7. It provides full anonymity by accepting orders of small, from members without revealing their identity, thus providing equal access to everybody.
8. It also provides a perfect audit trail, which helps to resolve disputes by logging in the trade execution process in entirety.

• **NEAT (National Exchange for Automated Trading) :**

NSE is the first exchanges in the world to use satellite communication technology for trading. Its trading system, called National Exchange for Automated Trading (NEAT), is a state-of-the-art client server based application. At the server end all trading information is stored in an in-

memory database to achieve minimum response time and maximum system availability for users. It has uptime record of 99.7%. For all trades entered into NEAT system, there is uniform response time of less than one second. Orders in NEAT are executed on a price/time priority basis.

The NEAT system has four types of market. They are:

- 1. Normal Market** All orders which are of regular lot size or multiples thereof are traded in the Normal Market. For shares that are traded in the compulsory dematerialised mode the market lot of these shares is one.
- 2. Odd Lot Market** All orders whose order size is less than the regular lot size are traded in the odd-lot market. An order is called an odd lot order if the order size is less than regular lot size.
- 3. Auction Market** In the Auction Market, auctions are initiated by the Exchange on behalf of trading members for settlement related reasons.

There are 3 participants in this market.

- (i) Initiator
- (ii) Competitor
- (iii) Solicitor

4. RETDEBT Market

NSE has main computer which is connected through Very Small Aperture Terminal (VSAT) installed at its office. The main computer runs on a fault tolerant mainframe computer at the Exchange.

Brokers have terminals installed at their premises which are connected through VSATs/leased lines/modems.

An investor informs a broker to place an order on his behalf. The broker enters the order through his PC, which runs under Windows NT and sends signal to the Satellite via VSAT/leased line/modem.

The signal is directed to mainframe computer at NSE via VSAT at NSE's office.

A message relating to the order activity is broadcast to the respective member. The order confirmation message is immediately displayed on the PC of the broker.

This order matches with the existing passive order(s), otherwise it waits for the active orders to enter the system. On order matching, a message is broadcast to the respective member.

The trading system operates on a strict price time priority. All orders received on the system are sorted, with the best priced order getting the first priority for matching i.e., the best buy orders match with the best sell order. Similar priced orders are sorted on time priority basis, i.e. the one that came in earlier gets priority over the later order.

Orders are matched automatically by the computer keeping the system, transparent and fair. Where an order does not find a match, it remains in the system for the day till a fresh order comes in or the earlier order is cancelled or modified.

The NSE trading system (NEAT) generates and maintains an audit trail of the orders entered in the system by assigning a unique order number to all the orders placed on the NEAT system.

The system is normally made available for trading on all days except Saturdays, Sundays and other holidays. Holidays are declared by the Exchange from time to time.

- **BOLT**

Bombay Stock Exchange's trading system is popularly known as BOLT (BSE's Online Trading System). The BSE has deployed an Online Trading system (BOLT) on March 14, 1995

BOLT has a two-tier architecture. The trader workstations are connected directly to the backend server, which acts as a communication server and a Central Trading Engine (CTE). Other services like information dissemination, index computation, and position monitoring are also provided by the system.

Access to market related information through the trader workstations is essential for the market participants to act on real-time basis and take immediate decisions

BOLT has been interfaced with various information vendors like Bloomberg, Bridge, and Reuters. Market information is fed to news agencies in real time

It makes the trade efficient, transparent and time saving.

- **Market Phases**

Market cycle refers to economic trends observed during different types of business environments. A new market cycle may be formed when a new technological innovation or a change in market regulations disrupts existing market trends and creates new ones. The four phases of a market cycle include the accumulation phase, mark-up phase, distribution phase, and mark-down phase.

A market cycle comes with no set duration, which means that it can last for any time horizon – from a few days to a decade. It can prove to be a hindrance to economic and monetary policy formulation.

Generally, one market cycle exhibits four different stages. At each stage, securities will respond to the prevailing market conditions differently. For example, during an upswing or a boom period, companies selling luxury products exhibit high growth rates. During a downswing or a recession, the FMCG is expected to outperform. It is because the demand for basic necessities and consumer durables, such as food and hygiene products, remains constant.

- 1. Accumulation Phase**

The accumulation takes place immediately after the market reaches the bottom. After figuring that the worst is over, value investors, money managers, and experienced traders start buying securities, and valuations become extremely important. During the period, the market sentiment makes a switch from being negative to neutral. However, the market is still bearish. Strategy :It may last a few weeks or a few months. So use this time to study the market and anticipate the right time to enter. The price range during this period is small and not particularly

advantageous for day traders. It is advisable not to make large trades at this time until a market trend is confirmed.

2. Mark-up phase

During the markup stage, investors begin to jump in by the large, and a substantial rise in market volumes is observed. Valuations start climbing over historical norms, but unemployment and layoff continue to grow. At the mark-up stage, the market sentiment switches from being neutral to bullish or even euphoric in some cases. A selling climax is observed, which is a last parabolic price rise due to the participation of fence-sitters and hesitant or risk-averse investors.

Strategy : This is the best time for a trader to make money. There is a lot of upward movement of prices which is great for momentum traders. Any downward trend during this period is not viewed as a bad thing but rather an opportunity to buy shares. When the market goes down, the shares will get bought up as the market begins to trend again. The run-up phase is best for swing or short-term traders. As this phase progresses, the volatility in the market decreases as prices move slowly every day.

3. Distribution phase

The distribution phase is the third phase of the market cycle, wherein traders start selling securities. The market sentiment goes from being bullish to mixed. It is the period at the end of which the market changes directions. The transition is gradual and may last for a long time. Prices tend to remain more or less constant over several months. However, it may accelerate due to a sudden negative geopolitical change or bad economic news, such as pandemic lockdowns.

Strategy : There is a lot of volatility in the early stages as investors begin to pull out of the market which presents a good shorting opportunity as the market reaches the bottom it will bounce back with velocity.

4. Mark-down phase

The mark-down phase is the final phase of a market cycle and proves to be terrible for investors who still hold positions. Security prices fall way below what investors originally paid for them. Being the last period, it also marks the beginning of the next accumulation phase, wherein new investors will purchase the depreciated investments.

Strategy : There is a lot of volatility in the early stages as investors begin to pull out of the market which presents a good shorting opportunity as the market reaches the bottom it will bounce back with velocity.

Understanding each of the phases in the stock market cycle is essential to making the right decisions when it comes to buying and selling stock. A good way to study these phases is to study the past chart trends of particular stocks. You can identify certain indicators at each phase.

Order Matching

Order matching in most exchanges is done on the basis of price-time priority. When a new order is placed in the exchange, best buy order (highest price) is matched with the best sell order (lowest price). Price level matching will get more priority to execute the trade.

If the prices quoted are the same and both the orders are the same type (buy/sell), then whoever has placed the order earlier will have the higher priority while the orders are filled. Hence order matching is based on price-time priority.

Further, if time and price are same (almost impossible assuming high granularity of time and other measures that are implemented), some exchanges mandate that the larger order gets filled first.

And if all the conditions are same, the orders matched are filled based on pro-rata basis i.e. the shares are split among the orders. Hence, an order may end up in one of three states; Filled, Unfilled, and Partially filled. If an order loses priority, then that order can be re-requested by changing either the quantity, price, or the account from which it is placed.

- **Trading Strategies**

1. **Day Trading**

Day trading is perhaps the most well-known active trading style. It's often considered a pseudonym for active trading itself. Day trading, as its name implies, is the method of buying and selling securities within the same day. Positions are closed out within the same day they are taken, and no position is held overnight. Traditionally, day trading is done by professional traders, such as specialists or market makers. However, electronic trading has opened up this practice to novice traders. Active trading is a popular strategy for those trying to beat the market average.

2. **Position Trading**

Some actually consider position trading to be a buy-and-hold strategy and not active trading. However, position trading, when done by an advanced trader, can be a form of active trading. Position trading uses longer term charts – anywhere from daily to monthly – in combination with other methods to determine the trend of the current market direction. This type of trade may last for several days to several weeks and sometimes longer, depending on the trend.

Trend traders look for successive higher highs or lower highs to determine the trend of a security. Trend traders look to determine the direction of the market, but they do not try to forecast any price levels. Typically, trend traders jump on the trend after it has established itself, and when the trend breaks, they usually exit the position.

3. **Swing Trading**

When a trend breaks, swing traders typically get in the game. At the end of a trend, there is usually some price volatility as the new trend tries to establish itself. Swing traders buy or sell as that price volatility sets in. Swing trades are usually held for more than a day but for a shorter time than trend trades. Swing traders often create a set of trading rules based on technical or fundamental analysis.

These trading rules or algorithms are designed to identify when to buy and sell a security. While a swingtrading algorithm does not have to be exact and predict the peak or valley of a price move, it does need a market that moves in one direction or another. A range-bound or sideways market is a risk for swing traders.

4. **Scalping**

Scalping is one of the quickest strategies employed by active traders. Essentially, it entails identifying and exploiting bid-ask spreads that are a little wider or narrower than normal due to temporary imbalances in supply and demand.

A scalper does not attempt to exploit large moves or transact high volumes. Rather, they seek to capitalize on small moves that occur frequently, with measured transaction volumes. Since the level of profit per trade is small, scalpers look for relatively liquid markets to increase the frequency of their trades. Unlike swing traders, scalpers prefer quiet markets that aren't prone to sudden price movements.

5. **Fading Strategies** : involves shorting stocks after rapid moves upward. This is based on the assumption that

- (1) they are overbought,
- (2) early buyers are ready to begin taking profits, and
- (3) existing buyers may be scared out. Although risky, this strategy can be extremely rewarding. Here, the price target is when buyers begin stepping in again.

6. **Daily Pivots**: This strategy involves profiting from a stock's daily volatility. This is done by attempting to buy at the low of the day and sell at the high of the day. Here, the price target is simply at the next sign of a reversal

7. **Momentum trading** : This strategy usually involves trading on news releases or finding strong trending moves supported by high volume. One type of momentum trader will buy on news releases and ride a trend until it exhibits signs of reversal. The other type will fade the price surge. Here, the price target is when volume begins to decrease

- (i) To help determine the opportune moment to buy a stock (or whatever asset you're trading), many traders utilize:
- (ii) Candlestick patterns, including engulfing candles
- (iii) Technical analysis, including trend lines and triangles
- (iv) Volume—increasing or decreasing

Auction Markets

An auction market is a market where the price is determined by the highest price the buyer is willing to pay (bids), and the lowest price the seller is willing to take (offers). Trades on the exchange will be executed when an offer and bid is matched. While negotiations are made in OTC markets, no negotiations are made in auction markets. An auction market trades directly between a buyer and a seller. A dealer market uses a middleman who buys and sells securities to create liquidity in the market. The market makers are typically referred to as brokers and profit from the bid-ask spread.

Example of Auction Market

Imagine a simplified scenario where three buyers are looking to buy shares in Company ABC, placing bids of Rs100, Rs101, and Rs102, respectively. There are also three sellers with offers of Rs102, Rs103, and Rs104. Here, only the buyer and seller with offers/bids of Rs102 will get their shares traded. The price of the stock at such a point in time will be Rs102.

Now, imagine a scenario where bids are Rs100, Rs101, and Rs102, and asks are Rs103, Rs104, and Rs105. In such a situation, all the trade orders will remain as pending until a bid and ask can be matched. Bid Ask spread

- **Trade Management**

A stock trader's trade management strategy forms the basis for successful trading. Trade management is even more important for a stock trader than technical analysis is. While technical analysis provides a sound rational basis for deciding on whether to enter a proposed trade, it does not guarantee that the stock trader will be trading at a profit. Trade management depends upon the following factors :

Stock market knowledge : At the heart of stock trading is technical analysis including fundamental analysis of companies financials. In addition to technical analysis stock traders benefit immensely from having a good working knowledge of market dynamics. This includes the role of market makers, the Bid-Ask spread, longterm market cycles such as bull and bear markets, short-term bullish and bearish cycles and industry groups.

Excessive Trading : Too much of trades exposes the stock trader to a significant amount of market risk and when the market turns (which is usually sooner than later) these stock traders will endure a large portion of their trades yielding a loss.

The problem this creates for the stock trader is that emotions take over and the stock trader typically becomes obsessed with trying to recoup these losses which leads to what is known as revenge trading. The stock trader now becomes aggressive which leads to a lot of poor trades being entered which only further increases their losses. The end result is that excessive trading generally leads to failure.

Keeping Trade Records : Successful stock traders keep detailed records of all of their trades entered whether they yielded a profit or a loss. The purpose of keeping these records is so that the stock trader can analyze their trades and determine the profitability of their trading strategies.

Should the stock trader's post-trade analysis show that they are only marginally profitable or worse that they are running at a loss, then the stock trader can temporally postpone taking on any new positions while they determine the source of the problem.

Stop-Loss Exits : The general rule is that large gains can withstand large losses and small gains can only withstand small losses. The only way to keep losses small is to exit the trade before they become large losses. While holding onto a losing trade waiting for it to breakeven tends to work in a bull market, it is absolutely disastrous in a bear market and leads to a massive loss.

Risk-Reward Analysis : The Risk-Reward is a ratio that stock traders use to determine whether a proposed trade has sufficient profit to justify the risk taken. To be successful with stock trading, more money needs to be made with the profitable positions than what is lost with the losing trades. By conducting an analysis of the Risk-Reward ratio of a proposed trade, the stock trader can select the more favorable trades to enter and bypass the less profitable trades.

Trading Psychology : When a stock trader is making money their emotional state of mind is positive and they tend to make logical and rational decisions. However when stock traders lose money (especially beginners), they become anxious and determined to recoup their losses which puts pressure on themselves. As a general rule when most people are under pressure their ability to make logical and rational decisions is impaired. This is no different for the stock trader who now starts to make poorer trade decisions which has the undesirable result of yielding poor results thus increasing their already poor trading results.

- **Hedging**

Hedging in finance is a risk management strategy that deals with reducing and eliminating the risk of uncertainties. It helps to restrict losses that may arise due to unknown fluctuations in the price of the investment. Hedging strategies are adopted in commodities, currency, equities, interest rates and weather.

Different Types of Hedges:

Hedging is broadly divided into three types which will help investors to gain profits by trading different commodities, currencies or securities. These are:

Forward Contract: It is a non-standardized agreement to buy or sell underlying assets at a determined price on the date agreed by two independent parties involved. Forward contract covers various contracts like forward exchange contracts for currencies, commodities, etc.

Futures Contract: It is a standardized agreement to buy or sell underlying assets at a determined price on the specific date and standardized quantity agreed by two independent parties involved. A futures contract covers various contracts like commodities, currencies future contracts, etc.

Money Markets: It covers many forms of financial activities of currencies, money market operations for interest, calls on equities where short-term loans, borrowing, selling and lending happen with a maturity of one year or more. Eg interest rate swaps, arbitrage, etc

Advantages of Hedging

1. It can be used for locking profit
2. Enables traders to survive hard market periods
3. It limits losses to a great extent
4. As it facilitates investors to invest in various asset classes, therefore, increases liquidity
5. It also helps in saving time as the long-term trader is not required to monitor/adjust his portfolio with daily market volatility
6. It offers a flexible price mechanism as it requires lower margin outlay
7. It gives the trader protection against commodity price changes, inflation, currency exchange rate changes, interest rate changes, etc. on successful hedging
8. In hedging using option provides traders an opportunity to practice complex options trading strategies to maximize return
9. It helps in increasing liquidity in financial markets.

There are various strategies opted by AMCs to mitigate losses like:

Asset Allocation: It is done by diversifying an investor's portfolio with various asset classes. Like, you can invest 40% in the equities and rest in stable asset classes which helps to balance the investments.

Structure: It is done by investing a certain portion of the portfolio in debt instruments and the rest in derivatives. Investing in debt provides stability while investing in derivatives protects from various risks.

Through Options: It includes options of calls and puts of assets, which facilitate to secure your portfolio directly.

Future Markets

Daily Settlement

Daily settlement is a simple process where a price is determined so that profit and loss for the day can be settled. The reason why settlement price is so hard to determine in futures trading is because the final traded price of the underlying asset can be subjected to unscrupulous manipulation and therefore may not be the best basis for daily settlement. Yes, due to different trading characteristics of different underlying assets in different bourses around the world

Price methodologies generally resorted to :

Final Traded Price, Final Unfilled Price, Weighted Average Price Across Closing Period, Volume & Open Interest, Differential from Previous Settlement Price, Spread Comparison and Discretionary.

Final Traded Price : It simply takes the final traded price of the underlying asset as the settlement price. method is good for highly liquid assets that cannot be easily manipulated.

Final Unfilled Price : It is usually a moderator kind of method where a more conservative unfilled price is used instead of the final traded price.

Weighted Average Price It involves simply averaging the traded prices across a pre-determined period such as (but not limited to) the final 15 minutes of trading or the final 20 trades. Weighted average price is a relatively fair method and makes it harder for settlement price to be manipulated.

Volume & Open Interest studies the relationship between volume and open interest of the traded futures contracts using computer programs and compare it against the price of the underlying asset in order to determine a fair settlement price.

Differential from Previous Settlement Price : Applies a fixed or variable differential on the last settlement price and determine that as the new settlement price. This is useful for underlying assets that cannot be easily priced.

- **Market Margin**

Suppose an investor, purchases 1000 shares of 'XYZ company at Rs.100/- on January 1, 2021. The investor has to give the purchase amount of Rs.1,00,000/- (1000 x 100) to his broker on or before January 2, 2021. Broker, in turn, has to give this money to the stock exchange on January

3, 2021. There is always a small chance that the investor may not be able to bring the required money by the required date.

As an advance for buying the shares, the investor is required to pay a portion of the total amount of Rs.1,00,000/- to the broker at the time of placing the buy order. Stock exchange in turn collects a similar amount from the broker upon execution of the order. This initial token payment is called MARGIN. Remember, for every buyer, there is a seller and if the buyer does not bring the money, the seller may not get his / her money.

Margin refers to the amount set aside for starting to trade. It acts as a buffer for trades in hedging, derivatives, future trading, etc. Margin is a specific amount one needs to have for hedging stocks.

Margins in the cash market segment comprised of the following three types:

1. Value at Risk (VaR) margin:

VaR Margin is at the heart of the margining system for the cash market segment. Let us try and understand briefly what we mean by 'VaR'. The most popular and traditional measure of uncertainty/risk is Volatility, Technically, VaR is a technique used to estimate the probability of loss of value of an asset or group of assets (for example a share or a portfolio of a few shares), based on the statistical analysis of historical price trends and volatilities

VaR is computed using exponentially weighted moving average (EWMA) methodology. Based on statistical analysis, 94% weight is given to volatility on 'T-1' day and 6% weight is given to 'T' day returns. Value at risk (VAR) is a measure of the risk of loss for investments. It estimates how much a set of investments might lose, given normal market conditions, in a set time period such as a day. It is an indication of maximum loss that a stock may incur under adverse conditions.

2. Extreme loss margin

The extreme loss margin aims at covering the losses that could occur outside the coverage of VaR margins

3. Mark to market Margin

MTM is calculated at the end of the day on all open positions by comparing transaction price with the closing price of the share for the day

According to new margin norms, traders taking bets on futures & options markets will have to keep 100% margin in their bank accounts to proceed with the trade. Until now, only 75% of the total margin was required. This 100% margin is based on the value at risk (VaR) margin defined by exchanges for each stock. VaR margin is different for each stock and is higher for penny stocks.

Margin requirements set by regulator is dependent on VAR of a stock. For example: VaR margin is 16.11% for Reliance Industries and is 100% for Reliance Power (margin is higher here because it is considered a penny stock, which witnesses risky bets by traders). Basically, if you want to buy stocks worth ₹1 lakh of Reliance Industries, you must have about ₹16,000 in your account. This is because the value at risk margin for the stock is 16.11%

Now, a broker has to ensure this entire margin amount is provided by the client before trading or else a penalty will be charged. Earlier, only 75% of this margin amount was required.

This rule has come into effect from 1st Sep, 2021. Traders are unhappy as now they have to arrange for higher amount of money before being allowed to trade (25% more than that before). Further, penalties will be charged on traders if the margins are not maintained during the trading session. They have launched Twitter campaign for protesting.

The idea by SEBI is to control the leverage being taken by the traders and thereby reducing risks. This is in regard to investors taking risky bets more than their margins.